

SHRINKING SMART:

Identifying policy and planning alternatives
for addressing urban shrinkage and
population decline through cross-national
comparative research on approaches from
Spain, Germany and the Netherlands

vom Fachbereich Raum- und Umweltplanung der Technischen Universität Kaiserslautern
zur Verleihung des akademischen Grades Doktor rerum politicarum (Dr. rer. pol.)
genehmigte Dissertation

von

Bozhidar Krasimirov Ivanov

Tag der mündlichen Prüfung: 22. Juli 2022

Dekan: Prof. Dr. Sascha Henninger,
Technische Universität Kaiserslautern

Erste Berichterstatterin: Univ.-Prof. Dr.-Ing. habil. Karina M. Pallagst,
Technische Universität Kaiserslautern

Zweiter Berichterstatter: Dr. Marco Bontje,
Universiteit van Amsterdam

Technische Universität Kaiserslautern D 386

This publication has been authored as a result of the research performed for obtaining a doctoral degree (Dr. rer.pol) at the University of Kaiserslautern as part of RE-CITY ITN project between 2019 and 2022: The project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 813803.



ACKNOWLEDGEMENTS

This work would not have been possible without the support I have received from many other people throughout the three tumultuous years of working on my doctorate.

First of all, I would like to express my sincere gratitude to my supervisor Univ.-Prof. Dr.-Ing. habil. Karina M. Pallagst for believing in me and giving me the chance to embark on this extraordinary journey; for guiding me, supporting me and allowing me to pursue all my ideas, as broad and ambitious as they were; for her continuous and valuable feedback; for being understanding, empathic and encouraging. Dankeschön, Karina!

I would also like to thank my second supervisor Dr. Marco Bontje for overseeing my work throughout the whole time and especially during my secondment stays in Amsterdam; for providing constructive feedback, being always available and supportive. Dankjewel, Marco!

I would like to thank the team of University of Amsterdam, particularly Prof. Dr. Rivke Jaffe for making me feel at home and for her support. In addition, I would like to thank Prof. Dr. Ir. Luca Bertolini, Prof. Dr. Tuna Tasan-Kok and Dr. Anne Loeber (VU Amsterdam) for their guidance and advice in the selection of methods and research design of this study.

I would like to thank Dr. Tobias Bürger and Petra Klug from the Bertelsmann Foundation for facilitating an inspiring and exciting virtual secondment stay that contributed significantly to the quality of this work.

Thank you to Dr. Frans Thissen for his inspiration about Zeeland. To Dr. Silke Haarich (Spatial Foresight) for her instrumental support on approaching Bilbao. To Prof. Enrico Gualini (TU Berlin) for his encouragement on the methodology. To Dr. Maja Rocak (NEIMED) for her continuous encouragement. To Magdalena Kircheva for her continuous help with QGIS and for the fantastic work on the graphic design of the print.

I would like to thank my colleagues and friends in Kaiserslautern – René, Jakob, Agnes, Simone, Beate, Nina – for being here and making Kaiserslautern a home. To Berta for her trust and support, her help with the German language and for the continuous food supply.

I would like to thank the rest of the RE-CITY team for making this project a reality and for the inspiring discussions, online and offline events and support.

I would like to thank the rest of the ESRs, and especially my friends Ruiying, Norma, Faeza, Olivia and Flavio, for sharing this journey together and being there for me, especially in the toughest moments.

To my already graduated friends Dr. Vihar Georgiev, Dr. Miglena Gerasimova, Dr. Elitza Stanoeva – thank you for knowing exactly how to encourage me in the most difficult moments.

To my friends from Bulgaria – Anton, Veli, Magi, Georgi, Ici, Vladi and Sashko, Vesko and Maya, Tish, Guy, Maya and Rozi; the Netherlands – George, Vincent; and Switzerland – Vlado and Mariya; thank you for always being there for me, for making me feel at home and for supporting me in the darkest of times.

To my family – thank you for your help and for being there in the most difficult times.

Thank you! Благодаря ви! Danke! ¡Gracias! Dankjewel!

This has been an incredible journey full of inspiration and professional and personal growth, charged with positive emotions, amazing encounters and destinations. It has also been an extremely difficult period of adjusting to new realities, of living and working amid pandemic and war and of the most heartbreaking event I have ever experienced when my mother passed away. I dedicate this work to her memory and thank her for being strong until the end. I thank her for building strength and perseverance in me, without which I would not have been able to achieve this.

I also thank myself for the self-belief and dedication.

В памет на майка ми.



SUMMARY AND CHAPTER OVERVIEW

Urban shrinkage represents a particular challenge for planning scholarship and planning practice. Declining population, contracting industry, vacant land and buildings, ageing and social imbalances are some of the characteristics that define shrinking cities. Urban shrinkage is often part of broader processes of population decline that encompass multiple settlements and even span across regional and state borders. Existing scholarship on the question of shrinkage has introduced the idea of “Shrinking Smart” as a possible new planning concept that can be applied in shrinking cities.

This research approaches the construction of a new planning concept of “Shrinking Smart” through a theoretically grounded and empirically verified approach in order to define possible characteristics of the new planning concept. Firstly, through theoretical examination of existing urban shrinkage scholarship, critical analysis of reference terms carrying the label “smart” and critical analysis of the existing research on the topic of smart decline, the research introduces theoretical hypotheses that encompass the structure, scope and possible normative orientation of the new planning concept of “Shrinking Smart”. As a next step, the research introduces a broader institutional perspective to planning and policy making and in that framework reviews existing works on urban shrinkage and population decline. As a result, the study identifies three distinctive situations of urban shrinkage and population decline that were handled with a variety of planning and policy approaches. The first case are the planning and policy approaches to urban shrinkage in a post-industrial setting in Bilbao (Spain) in the period between 2000 and 2015; the second case are the planning and policy approaches to urban shrinkage in a post-socialist setting in Leipzig (Germany) between 2000 and 2015; the third case are the proactive population decline policies on national level in the Netherlands, applied in the province of Zeeland after 2010. The plans and policies are investigated through the method of interpretive policy analysis, focusing on the processes of conceptualization, framing, meaning creation and objective setting. In order to enable a cross-national comparative perspective to the variety of responses, the research develops a policy benchmarking framework that encompasses the perspectives of justification and causality of urban shrinkage and population decline, planning system assessment, planning process, normative orientation and capacity building of policy and planning instruments.

As a result of the cross-national study, the research formulates the new planning concept of “Shrinking Smart” as an assessment and decision making framework that encompasses demography, economy, quality of life and spatial development considerations that can be applied in practice. The research identifies that planners and policy makers should reach a common understanding of the phenomenon and its effects prior to identifying the approaches to it. “Shrinking Smart” as a planning process driver outlines that the planning process under conditions of population decline should be evidence-based, with extensive participation by citizens and other stakeholders and should rely on integrated planning. Planners and policy makers should commit to manage the consequences of urban shrinkage or population decline and they may or may not accept the prospect of a long-term declining population. This normative orientation underpins the three scenarios of “Shrinking Smart” as a broader policy and planning framework that provide particular recommendations encompassing demographic factors, economic factors and quality of life considerations, focusing on services and infrastructure. Due to the identified pervasiveness of the growth orientation in planning and policy making under shrinkage conditions, the possible

application of the concept should balance between the desired growth or stabilization perspectives in economic and demographic sense and should aim for efficient management of available resources for existing and potential new population of the respective locale. In terms of spatial development, “Shrinking Smart” as a spatial planning concept will attempt to achieve more efficient land use management by aiming for compact development and further densification, better maintenance, renovation and reutilization of vacant land and buildings, more control on market activity and more active role of local planning. The variants of the new planning concept are complementary and methodologically coherent, informed by theoretical and practical considerations as well as future-oriented methods and are designed to be applicable in practice.

Chapters 1 and 2 introduce the focus of the study as well as the theoretical background, informed by planning theory, urban shrinkage and political economic scrutiny on growth orientation in the context of the European Union. **Chapter 3** presents the research design and methodological approach applied across the study, encompassing the scientific foundations of the research, the empirical stage, the analytical stage with the introduction of the interpretive policy analysis method, the construction of the policy benchmarking framework and the methodological approach to the construction of the variants of the proposed planning concept of “Shrinking Smart”. **Chapter 4** outlines the formulation of the five hypotheses that are tested in the deductive study, encompassing the planning process, the policy and planning substance, the conceptualization of shrinkage and the economic and spatial development perspectives. **Chapter 5** outlines the selection of case studies after a review of approaches to urban shrinkage in the European Union and outlines the process of empirical data collection and processing. **Chapter 6** analyzes the collected data and verifies the proposed 5 hypotheses, provides further insight into the spatial and economic development of two of the cases, including with observational data, and concludes with key insights on the comparative perspective and the formulation of the planning concept. **Chapter 7** presents the formulation and construction of the policy benchmarking framework and its application in the comparative analysis of the empirical results of the three cases. The conclusions from the comparative analysis are used for the construction of the variants of the new planning concept of “Shrinking Smart”, presented in **Chapter 8**. The variants of the “Shrinking Smart” planning concept concern preliminary normative stances, the planning process, assessment and decision making mechanism, broader policy and planning framework, spatial planning concept and possible intersections between planning and policy domains. The final **Chapter 9** contextualizes the conclusions of the research to the planning scholarship and to the broader political and economic context of the European Union, outlining recommendations for the applicability of the research and potential future research options.

TABLE OF CONTENTS

01. INTRODUCTION - 11

- 1.1 RESEARCH QUESTIONS - 12
- 1.2 OBJECTIVES AND LIMITATIONS - 15

02. STATE OF THE ART AND RESEARCH POSITIONING - 17

- 2.1 PLANNING THEORY - 17
- 2.2 PLANNING SCOPE, PLANNING SYSTEMS AND PLANNING PRACTICES IN EUROPE - 18
- 2.3 GLOBALISATION, GROWTH-ORIENTED PLANNING AND URBAN SHRINKAGE - 20
- 2.4 PLANNING BEYOND GROWTH: POLITICAL ECONOMIC IMPLICATIONS - 23
- 2.6 IMPLICATIONS ON RESEARCH FOCUS AND RESEARCH DESIGN - 30

03. RESEARCH DESIGN AND METHODOLOGY - 33

- 3.1 ONTOLOGICAL BASIS - 36
- 3.2 EPISTEMOLOGICAL BASIS - 39
- 3.3 METHODOLOGY AND RESEARCH DESIGN - 41
 - 3.3.1 Scientific foundations and planning theory - 41
 - 3.3.2 Research design and workflow. Research stages. - 43
 - 3.3.3 Methods - 48
 - 3.3.3.1 Theoretical stage: construction of hypotheses - 48
 - 3.3.3.2 Empirical stage: Data collection - 50
 - 3.3.3.3 Analytical stage - 52
 - 3.3.3.3.1 Policy and planning units of analysis: Policy and planning units of analysis: Interpretive policy analysis - 52
 - 3.3.3.3.2 Implementation unit of analysis: Economic and spatial assessment - 57
 - 3.3.3.3.3 Comparative framework: Policy benchmarking - 58
 - 3.3.3.4 Applicability stage: Decision making and Scenario building - 61

04. CONCEPTUAL DISCUSSIONS ON SHRINKING SMART. ESTABLISHING CONCEPT STRUCTURE, CONCEPT FEATURES AND PRELIMINARY HYPOTHESES. - 65

- 4.1 THE CONCEPTS OF URBAN SHRINKAGE AND SHRINKING CITIES - 65
- 4.2 THE CONCEPT OF "SMARTNESS" - 72
- 4.3 CONCEPT CREATION AS A KNOWLEDGE CREATION PROCESS IN REFERENCE TO URBAN SHRINKAGE. CRITICAL REVIEW OF EXISTING SMART DECLINE CONCEPTS. - 83
- 4.4 PLANNING FOR GROWTH VS. PLANNING FOR NON-GROWTH: SPATIAL AND ECONOMIC CONSIDERATIONS - 94
- 4.5 OUTLINE OF HYPOTHESES FOR THE PLANNING CONCEPT OF "SHRINKING SMART" - 100

05. EMPIRICAL STAGE: SELECTION OF CASE STUDIES AND DATA COLLECTION - 106

- 5.1 OVERVIEW OF RESPONSES TO URBAN SHRINKAGE IN THE EUROPEAN UNION - EXISTING RESEARCH - 107
- 5.2 EVALUATION OF RESPONSES TO URBAN SHRINKAGE AND SELECTION OF CASE STUDIES - 118
- 5.3 BACKGROUND INFORMATION FOR CASES AND EMPIRICAL SCOPE - 125
 - 5.3.1 Shrinkage oriented policy and planning approaches, resulting in spatial and other interventions (implementation) in Bilbao (Spain) 2000-2015 - 126
 - 5.3.2 Shrinkage oriented policy and planning approaches, resulting in spatial and other interventions (implementation) in Leipzig (Germany) 2000-2015 - 132
 - 5.3.3 National and provincial approach to regional population decline in the Netherlands and its application in the Province of Zeeland after 2010 - 136
- 5.4 EMPIRICAL DATA COLLECTION AND PROCESSING - 140

06. ANALYTICAL STAGE VERIFICATION OF HYPOTHESES - 143

- 6.1 HYPOTHESIS 1:
CONCEPT-DRIVEN PLANNING PROCESS - 144
 - 6.1.1 Interpretive policy analysis of the planning process in Bilbao (Spain) - 145
 - 6.1.2 Interpretive policy analysis of the planning process in Leipzig (Germany) - 150
 - 6.1.3 Conclusions for the verification of Hypothesis 1 and main points of analysis and discussion - 156
- 6.2 HYPOTHESIS 2:
CONCEPT-BASED POLICY SUBSTANCE - 158
 - 6.2.1 Interpretive policy analysis of the policy substance in Bilbao (Spain) - 161
 - 6.2.2 Interpretive policy analysis of the policy substance in Leipzig (Germany) - 168
 - 6.2.3 Interpretive policy analysis of the policy substance in Zeeland (the Netherlands) - 177
 - 6.2.4 Conclusions for the verification of Hypothesis 2 and main points of analysis and discussion - 190
- 6.3 HYPOTHESIS 3:
CONCEPT-BASED PLANNING SUBSTANCE - 192
 - 6.3.1 Interpretive policy analysis of the planning substance in Bilbao (Spain) - 195
 - 6.3.2 Interpretive policy analysis of the planning substance in Leipzig (Germany) - 207
 - 6.3.3 Conclusions for the verification of Hypothesis 3 and main points of analysis and discussion - 219

- 6.4 **HYPOTHESIS 4:
SHRINKAGE CONCEPTUALIZATION - 221**
 - 6.4.1 Interpretive policy analysis of shrinkage conceptualization in Bilbao (Spain) - 222
 - 6.4.2 Interpretive policy analysis of shrinkage conceptualization in Leipzig (Germany) - 223
 - 6.4.3 Interpretive policy analysis of shrinkage conceptualization in Zeeland (the Netherlands) - 225
 - 6.4.4 Conclusions for the verification of Hypothesis 4 and main points of analysis and discussion - 228
- 6.5 **HYPOTHESIS 5:
"NON-GROWTH" ORIENTED ECONOMIC AND SPATIAL DEVELOPMENT
(IMPLEMENTATION SUBSTANCE) - 230**
 - 6.5.1 Economic and spatial development of Bilbao (Spain) - 232
 - 6.5.1.1 Interpretive policy analysis - economic development - 232
 - 6.5.1.2 Descriptive statistics - economic development - 235
 - 6.5.1.3 Interpretive policy analysis - spatial development - 238
 - 6.5.1.4 Descriptive spatial data - quantitative, spatial and observational data - 241
 - 6.5.1.5 Overview of the approach to resizing railway infrastructure - 248
 - 6.5.1.6 Intersection of economic and spatial considerations: Zorrotzaurre and Bilbao La Vieja - 251
 - 6.5.1.7 Conclusions Hypothesis 5 - Bilbao (Spain) - 258
 - 6.5.2 Economic and spatial development of Leipzig (Germany) - 259
 - 6.5.2.1 Interpretive policy analysis - economic development - 259
 - 6.5.2.2 Descriptive statistics - economic development - 262
 - 6.5.2.3 Interpretive policy analysis - spatial development - 264
 - 6.5.2.4 Descriptive spatial data - quantitative, spatial and observational data - 267
 - 6.5.2.5 Overview of the approach to resizing railway infrastructure - 275
 - 6.5.2.6 Intersection of economic and spatial considerations: the area of Leipzig West: Plagwitz/ Lindenau/Kleinzschocher - 281
 - 6.5.2.7 Conclusions Hypothesis 5 Leipzig (Germany) - 287
 - 6.5.3 Conclusions for the verification of Hypothesis 5 and main points of analysis and discussion - 288
 - 6.5.4 Sustainability and circular economy considerations in Zeeland (the Netherlands) - empirical observations - 289
- 6.6 **CONCLUSIONS FROM EMPIRICAL FINDINGS. ASSESSMENT OF CONCEPT FEATURES ACROSS UNITS OF ANALYSIS. - 291**

07. ANALYTICAL STAGE: COMPARATIVE ANALYSIS – BENCHMARKING RESPONSES TO URBAN SHRINKAGE AND POPULATION DECLINE - 297

- 7.1 CONSTRUCTION OF BENCHMARKING FRAMEWORK - 297
- 7.2 ASSESSMENT OF CONCEPT FEATURES AS ELEMENTS OF BENCHMARKING FRAMEWORK - 298
- 7.3 COMPARATIVE ANALYSIS - 304
- 7.4 CONCLUSIONS FROM COMPARATIVE ANALYSIS - 323

08. APPLICABILITY STAGE: “SHRINKING SMART” AS A PLANNING CONCEPT - 326

- 8.1 “SHRINKING SMART” AS A PLANNING PROCESS DRIVER - 326
- 8.2 „SHRINKING SMART” – PRELIMINARY NORMATIVE STANCES - 328
- 8.3 “SHRINKING SMART” AS A PLANNING CONCEPT – ASSESSMENT AND DECISION MAKING MECHANISM - 330
- 8.4 “SHRINKING SMART” AS A PLANNING CONCEPT – IDENTIFICATION OF PLANNING AND POLICY ALTERNATIVES - 332
- 8.5 APPLICABILITY OF THE CONCEPT: NORMATIVE SHIFTS, SEQUENCE OF STEPS, CAPACITY DEVELOPMENT - 343

09. DISCUSSION, IMPLICATIONS OF THE RESULTS OF THE STUDY AND RECOMMENDATIONS FOR FURTHER RESEARCH - 346

- 9.1 SUMMARY OF RESULTS - 346
- 9.2 CONCEPT CREATION BEYOND THE RATIONAL PLANNING TRADITION - 349
- 9.3 DEFINING STRUCTURE SCOPE AND NORMATIVE ORIENTATION OF THE NEW PLANNING CONCEPT - 351

REFERENCES - 358

APPENDICES - 372

- Appendix 1 - 372
- Appendix 2 - 373
- Appendix 3 - 378
- Appendix 4 - 385

CURRICULUM VITAE - 386

1

INTRODUCTION

Urban shrinkage has become a central topic in planning research. Dating back to discussions on urban decline, deterioration and blight, urban shrinkage has evolved from a superficial assessment of the spatial condition of a certain city to a much more complex phenomenon that spans spatial planning, economy, social dynamics and represents a particular challenge for planners and policy makers. Shrinking cities have been conceptualized and researched as being left behind from globalization processes. In other cities shrinkage has occurred as a result of broader processes of population decline, outmigration, demographic processes and ageing.

Urban shrinkage and shrinking cities scholarship has attempted to develop conceptual and research approaches that can be used to trace causes, consequences and possible solutions for urban shrinkage. As a result of these efforts, scientists have reached the conclusion that each case of urban shrinkage is different and specific attention to the particular context is always required. At the same time, researchers have also identified that urban shrinkage often goes beyond the limits of a certain city and concerns wider processes of population decline on regional or even national scale, influenced by different factors. With the development of the shrinking cities field discussions on possible solutions for particular challenges related to shrinkage have also been proposed. One perspective that has gained attention in this regard is the idea of “Shrinking Smart” as a new planning concept.

Based mostly on research in the United States, “Shrinking Smart” has been introduced as a possible label for responding to the consequences of urban shrinkage in particular cities. Given the outlined dynamics of the field, however, this idea has been built on an unstable theoretical terrain given the continuous reinvention of conceptualizations of shrinkage. At the same time, the introduction of the label “smart” is unclearly associated with different ideas and discourses of urban planning and policy making. In addition, discussions on urban shrinkage have attempted to place the idea of “Shrinking Smart” in opposition to growth-oriented planning whose boundaries, however, require further scrutiny at the intersection of economy, space and demographic dynamics. From empirical standpoint, shrinkage in Europe has taken many different forms and is often associated with broader processes of population dynamics which go beyond the boundaries of a certain city and are, respectively, handled not only as a matter of urban planning but also as a wider policy challenge.

Taking into account these challenges, this research explores the theoretical foundations of the creation of a new planning concept of “Shrinking Smart” by reflecting on the scientific process of creation of concepts and applying it to the field of urban shrinkage. The research also explores the added meanings to the label “smart” in the context of creating a new planning concept. In addition, the research investigates the dimensions of the possible non-growth oriented planning in spatial and economic terms. These questions are traced across three distinctive examples of urban shrinkage and population decline that represent three different approaches as well as three different contexts in which challenges related to urban shrinkage and population decline have emerged. By introducing a broader research scope to responses in urban planning and policy, the research investigates how planning and policy responses were designed, what intentions did planners and policy makers have, how do these intentions relate to potential development of a new planning concept and what were their normative stances. As a result, the approaches to urban shrinkage in Bilbao (Spain) and Leipzig (Germany) as well as the proactive population decline policy in the province of Zeeland (the Netherlands) are analyzed. The focus is on key periods of the trajectories of those cases where the approaches were actively developed and implemented. The conclusions across those empirical cases are then reviewed in comparative perspective in order to identify overlaps and common characteristics, paired with critical assessment on the normative scope of those responses. As a result, based on the conclusions, the research formulates a proposal for “Shrinking Smart” as a planning concept in multiple variants.

The above context and outline of the empirical logic of this research provides the background to the main research questions that this study addresses.

1.1 RESEARCH QUESTIONS

Based on the outline of the field and the central focus of the research, this study explores the creation of a potential new planning concept of “Shrinking Smart”. This is formulated in the central research question:

How can the concept of “Shrinking Smart” be formulated, based on existing research on urban shrinkage and based on the way that urban shrinkage has been addressed within the European Union? Secondly, what can the new planning concept of “Shrinking Smart” encompass, what would be its scope and direction?

Previous research has contributed to the debate on managing decline or managing shrinkage, yet, only two works have suggested a coherent proposal for “Shrinking

Smart” as a new planning concept. The proposals by Hollander and Nemeth (2011) and Rhodes and Russo (2013) have outlined ideas on what “Shrinking Smart” could be. The proposal by Hollander and Nemeth focuses on the planning process and its execution. The proposal by Rhodes and Russo examines the example of Youngstown, USA, considered as a pioneer in managing shrinkage, but critically evaluates the influence of the context on the decisions and outline the dependencies, particularly to growth-orientation, which have been omitted in the original plan. The label “Shrinking Smart” has been introduced in previous research as an opportunity and has been highlighted as a possible paradigm shift within the field (Pallagst 2010; Wiechmann and Pallagst 2012). These three key positions within the existing debate on the topic highlight some of the challenges that need to be considered and examined further in the context of this research. Firstly, following Hollander and Nemeth’s stance, what could be the influence of a new planning concept on the planning process within a shrinking city? To what extent improving the process of planning in shrinkage context could contribute to addressing the challenges shrinking cities are facing? This aspect calls for considerations and further investigation on the form and structure of the new planning concept in reference to planning theory. Secondly, following Rhodes and Russo’s argument on the influence of higher governance levels on the planning in a certain shrinking city, further investigation on creating a new planning concept in the broader context of planning systems is required. Lastly, following Pallagst’s proposal, the label of “Shrinking Smart” has already been introduced as a potential label to a paradigm shift away from growth-centered planning. This calls for further inquiry into the normative orientation of a new planning concept as well as for the integration of further political economic considerations in the shrinkage field (Berglund 2020a). These three central stances, formulated in existing research, need to be brought to the European context, which, in reference to the European Union, is also strongly influenced by existing political agenda and its urban dimension, often focusing on growth and competitiveness (Castells 2010, 2000; Buonanno and Nugent 2013). The definition of scope and normative orientation requires further investigation in the different planning and policy instruments utilized in three distinctive contexts of urban shrinkage and population decline through a suitable methodological approach that explores the processes framing of certain issues in practice and the formulation of objectives and normative stances as a result of them. At the same time, these central questions are investigated on a conceptually unstable and dynamic ground of the conceptualization of urban shrinkage which calls for further caution in creating new planning concepts.

Those limitations and necessities of the potential new planning concept are inherently related to the ongoing debate on defining urban shrinkage and shrinking cities. As a result, a key sub-question for this research is:

Given the lack of clear boundaries and conceptual coherence of the “Shrinking Smart” label until now, what should be the structure of the new planning concept and how would it correspond to the variety of planning systems and approaches in the European Union and the variety of shrinkage contexts?

In order to address this question and the aforementioned key points, this research formulates four hypotheses, informed by ten conceptual features as part of a deductive research design (Chapter 3: Research design and methodology). Those conceptual features are derived from epistemological analysis of the process of

concept creation and critical review of the two existing proposals for a concept by Hollander and Nemeth and by Rhodes and Russo. The second part of the conceptual features is derived from a critical review of existing terminology, utilizing the label “smart” (smart growth, smart city and smart specialization) in order to distill possible overlapping meanings of this term. The third element in the construction of hypotheses are the existing proposals for particular approaches in spatial planning under shrinking conditions. Ideas in this direction are demolition as a resizing option, compact development, greening of abandoned lots, vacancy approaches, such as temporary use or reuse, infrastructure resizing. Those proposals concern land use functions and intensity, infrastructure management and normative considerations for increased sustainability and improved quality of life. These approaches are reviewed in reference to the possible shift away from growth-oriented planning and are paired with alternative economic perspectives and existing discussions on normativity in planning concerning efficiency and equity, derived from discussions on heterodox economics in order to scrutinize growth orientation in planning and political economic terms. These three dimensions of the research question result in the formulation of the four hypotheses that pertain to the planning process (Hypothesis 1) and the substance of planning and policy (Hypotheses 2 and 3) as well as to the spatial and economic effects of their implementation (Hypotheses 5).

The methodological and research design implications of this question call for a broader view on planning systems in the identified shrinkage contexts. Thus, the research question and the proposed hypotheses are investigated as a planning and policy making issue of local urban planning, regional planning, state and national level policy, depending on the structure of the planning system in each case.

Introducing a closer lens on the practices of planning and policy making in reference to the discussions on shrinkage conceptualization and the possible normative dimensions of the new planning concept of “Shrinking Smart”, the research also investigates how the phenomenon is conceptualized in practice. This question places an additional emphasis on the perception level of planners and policy makers that needs to be investigated in order to trace how the effects of the phenomenon have been understood and how this understanding has influenced the formulation of approaches in the three case studies. Therefore, a second key sub-question is introduced as part of this research:

How has the perception of urban shrinkage shaped the policy and planning approaches and solutions in specific shrinkage contexts in the European Union and how can this knowledge feed into the new planning concept?

In order to answer this question, the research utilizes the proposed main method of interpretive policy analysis (Chapter 3: Research design and methodology) and, in addition to the outlined points in the previous section, explores how planners and policy makers have conceptualized shrinkage and population decline as an issue of planning and policy making and how this conceptualization has influenced the selection of planning and policy responses. This question is addressed in a separate Hypothesis 4.

The conclusions pertaining to the conceptual coherence, scope, applicability, normative orientation and shrinkage conceptualization in policies and plans from the different case studies provide valuable insight for the creation of the new

planning concept of “Shrinking Smart”. Although those conclusions are derived from empirical data, they do not necessarily result in practically applicable alternatives, nor they can be copied or directly associated to the introduced label of “Shrinking Smart”. Further analysis and critical review is required in order to identify how the approaches to urban shrinkage and population decline in the three cases can inform the creation of a new applicable planning concept of “Shrinking Smart”. In order to facilitate this critical analysis, a comparative benchmarking framework is designed for the purposes of this study. This methodological approach allows for a structured review of the different approaches, enables cross-country comparison in a robust way and enables the identification of critical factors and elements that can form the structure and content of the new planning concept. This approach enables the answer to the final sub-question of the research:

What are the applicable alternatives to implement “Shrinking Smart” in the future in the context of European Union?

The applicable alternatives that are identified as an answer to this question are the different variants of the planning concept of “Shrinking Smart”, contextualized in reference to the broader context of the European Union from contemporary perspective.

By answering the above three sub-questions, the main research question of this study is addressed. The research provides a conceptual and theoretical contribution by reflecting on the structure of the new planning concept in reference to existing urban shrinkage scholarship. The study also provides a methodological contribution by introducing a qualitative methodology, informed by policy-oriented research, as well as by developing a comparative benchmarking framework informed by policy benchmarking. The methodological contribution enables a more contextually sensitive and practice-driven approach. The empirical and practical contribution pays homage to existing research in urban shrinkage as well as on the topic of “Shrinking Smart” by constructing variants of the new planning concept. One variant encompasses the planning process and its characteristics. A second variant explores “Shrinking Smart” as a broader planning and policy approach to urban shrinkage and population decline. A third variant of the concept is an instrument for making decisions in shrinkage-related settings. The last variant of the concept addresses the spatial dimension of urban shrinkage and constitutes a “Shrinking Smart” spatial planning concept. The variants are conceptually coherent and can complement one another in a hypothetical practical setting.

1.2 OBJECTIVES AND LIMITATIONS

The main objective of this research is to formulate a new planning concept of “Shrinking Smart” that can be applied in practice. With the introduction of a broader research design and methodological approach, the proposed planning concept variants encompass different aspects of planning and policy making under preconditions of urban shrinkage and population decline. This way, the research contributes to expanding the field of urban shrinkage by incorporating questions

of scale. In addition, with the methodological approach based on policy-oriented methods – interpretive policy analysis and policy benchmarking – the research brings the field closer to political science and thus introduces an interdisciplinary perspective.

The main limitation of this study is its non-experimental nature. The conclusions and formulation of the new planning concept are theoretical constructs, intended to be applied in practice and designed as such. However, their practical implementation is not subject to investigation due to the scientific nature of this study. Furthermore, the conclusions from the study are derived from qualitative case-study approach in a cross-national comparative setting. Limitations, inherent to such research designs, include simplification and generalization of specific contextual characteristics of the case studies which may be explored in further detail in non-comparative mode. The utilization of cross-national policy benchmarking is also associated with such deficiencies. The methodological approach has attempted to accommodate the variety of contextual characteristics and to draw comparative points across them, but the study is still limited by the introduced scope and does not claim to produce exhaustive and fully generalizable results. Lastly, due to the interdisciplinary nature of this research, drawing from planning theory, spatial planning, political economy and political science, the study may suffer from insufficient embeddedness in either of the disciplines. This limitation, however, is compensated by the robust scientific foundation of the research that enables its added value across disciplines. As a result, the conclusions are practically oriented with the intention to provide recommendations and conclusions that serve to advance further the field of urban shrinkage for scientists and to inform planning and policy making in shrinking cities or in broader contexts of population decline in European and international context.

2

STATE OF THE ART AND RESEARCH POSITIONING

This chapter outlines the main scientific positions and contextual premises that the research is positioned in. The creation of a new planning concept for urban shrinkage requires reflection on the field of planning and its theoretical stances. Since the main output of this research is the formulation of a new planning concept, some reflections on the process of concept creation are also reviewed. In addition, main positions in the field of urban shrinkage are outlined. Some debates in both fields relate to economy, therefore the intersections between planning, economy and urban shrinkage/population decline are also discussed. Furthermore, the research is positioned in European context. Some discussions on the role of planning in the context of the European Union and its economic dimension are also outlined. The chapter concludes with the main points that need to be considered and addressed as part of this research which further support the methodological, empirical and analytical approach of the study.

2.1 PLANNING THEORY

Faludi (1978) introduces one of the key distinctions in planning in his reflections on the field. On the one hand, some theories may discuss and attempt to address the very nature of planning as an activity in the wider context of political systems, administrative structures and policy making. These theories can be viewed as theories of planning – attempting to answer the question of what planning is or ought to be. On the other hand, theories in planning would often turn to the subject matter of planning – urban space. These theories in planning attempt to address specific questions in terms of land use, spatial development and utilization of resources from a certain perspective.

Theories of planning often conceptualize the nature of planning as an activity. Davidoff and Reiner (1978), for example, outline their theory of planning as a ‘choice theory’. Planning is defined as a set of procedures, driven by a set of conscious choices within the planning entity (e.g. the planning agency or any other decision maker). Apart from the detailed outline of planning itself as a sequence of actions, such as defining end goals, outlining potential scenarios and taking actions, the authors clearly demonstrate their paradigmatic stance to the question, by stating that ideally it would be the market forces and the market logic that would control and lead any course of development in a given system. This theory relies on rationalistic view on planning and is contextualized in market-driven neoliberal setting.

Another theory of planning focuses entirely on the mechanics of the planning sequence and explains how planning pertains to policy making and its complex nature. In his theory of ‘muddling through’ Lindblom (1978) outlines the so called successive limited comparisons approach. This approach views policy making as a process of planning by helping to identify alternative measures and potential impact of decisions to areas, different than the key area a policy is designed for. As compared to Davidoff and Reiner, Lindblom does not explicitly state a position, related to ideological stance. However, a comparable trait between both of those theories of planning is that they stem from the assumption of rational choices being made in the context of planning.

Rationalistic theories of planning view planning as a strictly decision making activity. They usually assume that general laws can be established and specific recommendations can be provided, treating planning as if it were a natural phenomenon being studied in a laboratory. Dror (1978), for example, develops a 'facet' concept for planning by differentiating five key dimensions, which are then outlined in categories and even explained with a formula. Friedmann (1978, 347) goes even further by suggesting that a planned sequence of actions in the context of planning can result in "activating the transformation of system structures (political, economic, social)". This sterile approach, borderline social engineering, attributes planning as a tool for a change in a static and controllable environment, presumably subjectable to commanded manipulation. The rationalistic theories of planning have been designed in the positivist tradition of planning thought. Thus, they attempt to take an objective stance towards both the reality and planning as an activity, firmly established in a scientific and objectively measurable way. Respectively, instruments, tools and concepts of planning in the rationalistic tradition would also attempt to provide clearly distinguishable objective steps that would deliver the desired result.

With the evolution of the planning field, scientists began to question the strictly rationalistic inclination of planning. Due to the unpredictable results of certain planning decisions or as a result of the newly found citizen participation perspective, theories of planning began to reflect on the role of the planner in broader context. Jacobs (2009), for instance, criticizes the detached stance from which planners usually take decisions, without considering how this could affect locals in reality, further emphasizing the need for more citizen inclusion in the decision making. Bolan (1978), attempts to apply a more structured conceptual approach to planning by contextualizing it in a specific social phenomenon or activity. Davidoff (2009) suggests the existence of different opinions and stances in the reality of urban planning which the planning process should take into consideration. The author envisions the role of the planner as an "advocate" of the different stakeholders in the urban area subject to planning. Reflecting on the US experience in planning, Teitz (2009) outlines the ever increasing citizen participation in planning and the importance of consensus. In a similar stance, Fainstein (2009) refers to the communicative model of planning which requires bridging the gap or finding a compromise between different groups in the context of planning, thus placing the planner in the 'special role' of mediator in this debate.

The illustrated change in the debate on theories of planning highlights that the rationalistic positivist inclination of the earlier planning theories has shifted in time in order to consider more social and local contextual factors. This requires a broader view on planning as part of a larger system of institutional structures and practices. These practices and structures depend on the administrative system of different countries. This results in different role and scope of planning, depending on the planning system. In the European Union planning practices also differ significantly, however, certain common factors and influences can also be identified.

2.2 PLANNING SCOPE, PLANNING SYSTEMS AND PLANNING PRACTICES IN EUROPE

The scope of planning is determined by multiple factors, many of which external to the process and often locally and institutionally related. Two distinctive factors can be attributed to shaping planning (Reimer 2014): formal institutions, which includes the administrative configuration and institutional setup, including legal regulation; and informal factors, such

as culturally embedded or socially determined beliefs, ideas, perspectives and perceptions by different non-institutional actors, involved in planning. These influences determine planning in different contexts and are an additional factor to the already complex positioning of planning itself as a “cross-cutting coordinator of sectoral policies and decisions with spatial impacts, including those concerned with the environment, infrastructure and regional economic promotion” (Reimer 2014, 1). The scope of those policies or decisions with spatial impacts is not uniform across countries or planning systems. In fact, it can be influenced significantly by different other variables, including responses to external circumstances, such as particularly the economic conditions (Reimer 2014), which could respectively bend the balance in planning to support mostly the facilitation of economic activity. It is precisely on this level that some of the key distinctions of planning between different countries in the EU can be seen. The influence of the European agenda or narratives and financial instruments has impacted significantly the planning processes in Eastern European countries where planning to a large extent supports the reinforcement of market economy and neoliberal principles (Reimer 2014). Some scientists recognize this process as “economization” of spatial planning (Böhme and Waterhout 2008) in the EU context. Further differences can be attributed to the role and value of planning itself, where also significant, presumably culturally determined, differences can be traced. Whereas in Eastern European countries the need to restructure and reestablish planning in a post-socialist context has resulted in planning processes more susceptible to the influences by the European agenda and financial stimulus, in Western European countries, planning systems have more firmly established their role in a wider context, not only in terms of economic development but also as socially relevant (Reimer 2014).

From theoretical perspective, Healey outlines three historical traditions of planning (Healey 2006). One of them is economic planning, which focuses on facilitating the economic development through the respective regulatory and institutional measures. Second, the spatial planning tradition, or physical development, which establishes a link between the social dynamics of urban life and urban form, that is, the physical manifestation and planning of cities. Lastly, the policy making tradition in planning takes a broader perspective to planning and its role, incorporating a more nuanced understanding on the intertwining logic between social processes, policies and implementation. Her proposal for the “collaborative turn” integrates those three perspectives with the appreciation that knowledge and, consequently, planning are socially constructed and this enables a dynamic that actively influences practice. With that said, planning assumes a mediator role between the different actors, interests and groups with a stake. What unifies those three perspectives on planning are their implications on a certain locality. The spatial bound of planning is what constitutes its practical implementation without necessarily limiting it only to physical planning. The recognition of planning as a socially influenced activity, embedded into a wider societal, economic and political setting has implications on the practices that take place under the framework of planning. One element of this practice is the creation of planning concepts.

Planning concepts are usually created in a complex process of adding meanings and interpretations of the envisioned ideas until they acquire a somewhat cohesive form. The process of adding meanings and exchanging positions is a form of discursive process that takes place as a dialogue or negotiation between multiple stakeholders and actors in a specific context (Zonneveld 2005). Concepts can be created with the intention to solve a certain problem, to bring forward a concrete idea, that is – to be normative, and to introduce a specific label that can bring further meaning (van Duinen 2015). Whilst new concepts can bring forward innovation and provoke further debates within certain policy and planning practices, they can still be only relational, established in reference to existing spatially bound

conceptualisations (van Duinen 2015). Planning concepts may also form in a very specific cultural setting and planning culture that bring cognitive limitations to outsiders. This is the case with the German *Leitbild* approach to spatial order (Raumordnung) and spatial planning (Raumplanung). *Leitbild* advances specific principles that can be taken into account in the planning practice, but at the same time it can outline strict code that should be followed in establishing the ordinance of planning in strictly German context (Zimmermann 2007). In Dutch planning practice, concepts often have an active role in political discussions on spatial and economic development of the country and their meaning fluctuates, depending on the different social actors utilizing them. They may be used to persuade and win political (and financial) support, but may also be a scapegoat for problems (van Duinen 2013). Furthermore, the utilization of specific labels and words within planning concepts does not necessarily carry the same meaning for different actors. This can result in political subordination of specific concepts and added meanings as well as unclear normative orientation that only presents itself as alternative but rather reproduces existing status quo (Hatuka et al. 2018). This is particularly relevant for the label “smart” that has already been introduced in the potential new label for the concept of “Shrinking Smart” (Hollands 2008). The incoherence of planning concepts across planning cultures and settings, paired with the conceptual instability of the shrinkage field (see also 4.1. The concepts of urban shrinkage and shrinking cities) and the controversial utilization of labels requires a solid approach towards the theoretical foundations of the creation of a new planning concept in order to ensure that the concept is well structured, relevant and meaningful.

Recognizing the embeddedness of planning into broader institutional and social context requires also the recognition of large-scale contextual shifts that influence the locally relevant country-specific realities by transcending borders and influencing global change. One of those major shifts that has been occurring at rapid speed throughout the 20th century is globalisation.

2.3 GLOBALISATION, GROWTH-ORIENTED PLANNING AND URBAN SHRINKAGE

Globalisation has played a significant role in the development of cities worldwide in the course of the late 20th century. Its role on global level, however, has already evolved and has resulted in significant societal changes which continue to exert influence on cities. Castells illustrates this change as the development of a global network of flows which establishes links between cities, people and sub-networks, broadly categorized as the network society (Castells 2010). As Castells outlines, this network is economically driven and the logic of capitalism itself is embedded within the flows of the network. With that said, economic changes and dynamics have been influencing and continue to influence the development of cities in the world and particularly in Europe. More recently, economic changes, triggered and enabled by technological advancements continue to exert their influence on markets worldwide and, respectively, on cities and urban life. In the European Union, the single market is one of the key pillars of the bloc, together with democracy and rule of law, among others. These key pillars are the foundations of the European Union which, together with ever increasing connectivity, cohesion processes and deepening integration, shape European societies as well as European cities and regions. Both globalisation and the European Union have developed around the notion of ever deepening connectedness and integration of countries, societies and markets.

Introducing globalisation as a main premise of planning brings forward the question of the interrelation between economy and planning. Traditional economic thought focuses on growth as the desired direction of development and this focus has influenced a number of theories in planning, designed to facilitate this normative growth orientation. They stipulate a preferred direction of development of the city and envisage the role of planning as the instrument in achieving this objective. These theories are often oriented to urban growth, in a broader sense, and provide insight as to how to address growth-oriented objectives. Urban shrinkage constitutes a challenge to this orientation of planning.

Growth orientation and its spatial dimensions are mostly visible in US urban research and practice as well as in theories in planning derived from this experience. Suburban residential areas and sprawl continue to shape American cities and are regarded as the most likely long-term development in the USA (Kotkin 2009). Spatial growth and expansion have been associated with economic development and have given rise to new urban structures such as “edge cities” (Teitz 2009). Large scale investment in key projects in the context of growth is often envisioned as a source of easy tax revenue for cities, relying on the promise of expected growth as a result of said investment (Lucy and Phillips 2009). Economic growth and development within city limits has also been associated with place attractiveness and ripple effects of attracting specific population groups, such as the creative class, that would eventually trigger further investment and fuel economic growth and competitiveness (Florida 2014; Rota 2009). Investment, residential space and spatial expansion have been strongly intertwined in American planning tradition, promoting and further reaffirming market-led development of cities and their suburbs (Pallagst 2007). Gradually planning began to be envisioned as complementary to market-driven logic of development and expected to facilitate marketability of urban space, phenomenon starkly visible in international metropolises (Fainstein 2001, 99). The focus on growth – both economic and urban – has penetrated both planning practice and planning scholarship. Respectively, the challenges of this endless growth are nowadays obvious in the ever expanding Asian and African megalopolises and agglomerations with constant undersupply of infrastructure, housing issues and pollution. The perspectives, however, are that growth, in any form, will continue predominantly in urban areas on a global level (UNPF 2009).

In the context of increasing globalisation and interconnectedness, the stronger embeddedness of economies in global or regional (e.g. European) network flows (Castells 2010), the ever deepening closeness of planning and economy on local level and their manifestation in spatial terms, planning may be challenged by an unexpected interruption: shrinkage.

Growth interrupted: Shrinkage

In some classical works associated with the field, shrinkage was viewed mostly from economic perspective as a temporary economic crisis that has its urban dimension. Kondratieff (1935) has associated decline with the cyclical nature of economic activity and its urban manifestations. Similarly, cities have also been viewed as growth machines where the temporary slowdown or decline is part of its role in economy (Molotch 1976). Seminal and longitudinal studies of urban shrinkage, however, have exposed that causes of urban shrinkage may often be associated with economic contractions, but this is not the only possible cause. Depopulation may occur as a result of warfare, natural demographic processes and disasters (Oswalt and Schirmel 2006). Depopulation and shrinkage may often be a phase of a longer trajectory that can also encompass periods of growth (Turok and Mykhnenko 2008).

Following the role of globalisation, outlined in the previous section, it is worth noting that this global phenomenon has been closely associated with the urban shrinkage scholarship and its influence has remained pervasive in time. Globalisation has been attributed as a premise of urban shrinkage along with other possible causes (Hollander 2018; Martinez-Fernandez et al. 2012a). The role of a shrinking city and the positioning of urban shrinkage in this context has often been viewed as subordinate. Following Castells (2010), a key position which some cities take in the global network is the position of a 'node'. The nodes function as circuits in the global flows of goods, decisions and knowledge thus further fortifying their key role in the network. Respectively, the cities which do not take such a role are losing the advantages of the network and are 'left behind' (Hollander 2018; Swyngedouw 2004; Castells 2010).

With the inception of the Shrinking Cities International Research Network in 2004 by the University of California, Berkeley, the field of urban shrinkage began to expand further and to integrate different perspectives that scrutinize causes, effects and solutions to urban shrinkage beyond globalization or economic determination. In parallel to those research questions, many scientists also attempted to define the phenomenon itself by introducing criteria or proposing definitions to capture the complexity of this type of urban change. The debates on how to define urban shrinkage have advanced the field significantly, however, challenges in identifying specific criteria or indicators that can apply universally still remain (Hollander 2018; Hartt 2021). The challenge in this regard comes from the variety of effects that shrinkage and its associated transformations have in different places. Some researchers have focused precisely on this aspect of shrinkage.

As outlined by Bontje and Musterd (2012), shrinkage is never the same in two different places. Population decline is often regarded as the main denominator of shrinkage (Wolff and Wiechmann 2018). In addition to that, the effects of shrinkage, respectively the problems that a certain urban area needs to deal with, are different for each case. Probably the most visible and tangible effects of shrinkage can be seen in the spatial and land-use dimensions. For some cities, these are brownfields, appearing on the sites of closed plants. Sousa and Pinho (2015) characterize a plant closure as a possible point of 'shock' for an urban area which has been strongly dependent on a certain industry. Other spatial effects could include sprawl in the context of shrinkage (Couch et al. 2005) and vacancy (Radzimski 2016). In addition to spatial effects, economic and social challenges are also associated with urban shrinkage (Sánchez-Moral 2017; Sousa and Pinho 2015).

The research interest in the effects of shrinkage has inevitably led to discussions in regards to the solutions to shrinkage-related issues. These usually encompass large-scale strategies for economic and spatial regeneration (Rink et al. 2012) or particular interventions, such as redevelopment of brownfield sites (Rall and Haase 2011). Other suggestions encompass possibilities for possible resizing of existing infrastructure, and changes in the spatial pattern of the city (Panagopoulos and Barreira 2012). At the same time, considerations for the maintenance of existing public infrastructure remain central (Pallagst, Fleschurz, and Said 2017). Inevitably, the discussions on possible solutions also lead to financial considerations and reflections on how shrinking cities can deal with their challenging financial situation as a result of smaller population and decreasing investment (Kozioł 2004; Sousa and Pinho 2015). The discussions on effects and solutions to shrinkage have been focused on practical issues and challenges that shrinking cities face. At the same time, however, another main thematic point of the field concerns the perception of shrinkage by planners and policy makers and the implications that perception has on the selection of strategies and approaches to shrinkage.

The perception of shrinkage has two dimensions. Audirac (2018) introduces the topic of stigmatization into the shrinkage narrative. The connotation of the term 'shrinkage' and its further replication in negative context by media could result in long-lasting effects on the image of a city and further worsening of the effects of shrinkage. The second dimension encompasses the perception within planning and policy actors. This perception often determines significantly the approach to shrinkage and the selection of a certain strategy. The elements that have influence on this perception vary significantly and can encompass local and national political agendas, ideological orientation and other local factors (Bernt et al. 2014). Often, however, urban shrinkage is not a particularly desired condition of a city. It is considered unfavorable to such an extent that some authors talk about a taboo behind shrinkage (Wiechmann 2008). One of the open questions in the debates on perception of shrinkage concerns its acceptance by planners and policy makers. Authors have reflected on the options for policy makers and planners to explore alternative strategies to handling shrinkage by scrutinizing the level of acceptance of shrinkage (Pallagst, Fleschurz, and Said 2017; Hospers 2014; Pallagst et al. 2017). In this sense, the scholarship has advanced the argument that accepting shrinkage as a condition may open the possibility for alternative planning approaches, potentially under the label of "Shrinking Smart" (Wiechmann and Pallagst 2012). This discussion has also implied that through the exploration of planning approaches under shrinkage conditions a possible paradigm shift in planning may occur, a shift that goes beyond growth-oriented planning (Hollander et al. 2009). This argument lies in the fragile consensus within the field that growth-oriented strategies may not necessarily function under shrinking conditions. Existing research on this possibility appears to produce inconclusive evidence on the possibility of overcoming growth-orientation in shrinking conditions as scientists have either regarded growth oriented strategies as non-growth oriented ones (Popper and Popper 2017), shrinkage as reproducing growth (Berglund 2020b) or have encountered the dominance of growth-orientation beyond the boundaries of the city (Schatz 2017).

2.4 PLANNING BEYOND GROWTH: POLITICAL ECONOMIC IMPLICATIONS

Since the debate on alternative planning approaches under shrinkage has focused mostly on particular (spatial) interventions while at the same time it has attempted to advance the hypothetical notion of paradigm shift, it appears that there is a missing link between the two points. As illustrated in the previous sections, planning is often intertwined with economy and, respectively, the dominant economic normative orientation. If the possibility of paradigm shift lies in identifying new possible normative orientation of planning, this new orientation should also consider its interrelation with economy on par with the diversity of planning practices, systems and other contextual factors that may influence shrinking cities. Critique on the field has advanced the position that shrinkage research may have focused too much on practical recommendations and may have obscured political economic considerations (Berglund 2020a). The possible creation of an alternative planning concept for shrinkage conditions in European context requires a deeper consideration of the existing economic context.

In Europe, one of the most effort-demanding transitions on urban level has been economic of nature and has required adaptation of the economy, increasing institutional capacity and addressing large-scale unemployment (McCann 2016). Some of these issues are often recognized as symptoms of shrinkage on local level or premises of shrinkage. Such economic transitions are often consistent with similar changes happening on national

level. As illustrated by multiple studies on urban shrinkage, economic transformation is one of the most common triggers for the process. In the dawn of globalisation this has been the shift of production to other countries. For some countries this period coincided with the period of establishing democratic governance after long periods of dictatorship, such as Spain, and later on upon entering the EU where the competition in the single market became stronger. For post-socialist countries, such as those in Eastern Europe, this change first occurred during the transition periods to democracy and market economy and later, even more severely, upon admission to the EU when an additional complication with direct consequences for cities arises – labour migration, influenced by push and pull factors, particularly employment opportunities (McCann 2016). A specific case in European context is East Germany which, upon the reunification of the country in 1991, faced both the challenges of transition to democracy and market economy and admission to the EU simultaneously, triggering massive migration waves to the western part of the country which resulted in some of the most recognized examples of shrinking cities. From economic perspective, these challenges might occur not only in large cities, but also mid-sized and smaller cities which, upon admission to the EU, face the challenge of adapting to the single market circumstances.

As already mentioned, the context of the EU is the second factor that has influenced and will continue influencing cities in Europe, along with globalization. At this European level, cities and regions are gaining a stronger position as the context of economic competitiveness requires responses which can often be found on local level in order to address local circumstances and challenges (Castells 2000). Castells outlines three prerequisites for European cities to respond to this new reality – to empower local communities to play a role in the development of their locales, to establish connectivity and cooperation between local and regional governments at European level and to establish new visions for cities which could drive their future development, not necessarily in redefining their role in the global network, but also with strong consideration of it (Castells 2000).

The European context, as understood for the purposes of this research, is characterized by key policy directions, agendas, funding mechanisms and programmes which, on the one hand, establish the overall direction of deepening economic and political integration of the bloc. Consequently, these circumstances have implications on the urban, regional and territorial dimensions within the EU. To trace this orientation, a number of key legal, policy and funding frameworks of the EU and their changes over time follows. One of the milestones of this context is the Maastricht Treaty from 1992 which established the commitment of member states to economic convergence as a response to globalisation in order to enable the European Union to compete on global level (Castells 2000) and introduced a growing urban dimension of EU policy. The Maastricht Treaty set the stage for the further economic and political convergence within the European Union until the Lisbon Treaty which came into force in 2009 to establish the current legal and institutional structure of the bloc. The period between those two treaties has introduced a number of strategies, policies, funds and agreements at EU level which have shaped and continue shaping the overall policy agenda of the EU and, more importantly, the territorial development in the member states. The background and overarching goal behind most of the strategies and political agendas on EU level has mostly been the deepening and further integration of the EU internal single market. Whilst recognizing that different member states have some ideological differences about the role of the market and the balance between market and government intervention, the EU places a strong focus on growth-oriented development, facilitated through the internal market (Buonanno and Nugent 2013). A key policy and financial instrument in facilitating the implementation of this direction across member states has been the EU Cohesion policy.

EU Cohesion policy aims to compensate for the disparities in the bloc, mostly triggered by the different levels of economic development. It represents a key tool to foster the deepening integration of the union and its significance has gradually increased over time. Its historical origins demonstrate how it has been a crucial tool in addressing economic disparities even in the 80s when the Mediterranean enlargement of the EU took place with the admission of Greece, Spain and Portugal. The Cohesion policy funds facilitated the 'catching up' of those countries to the more advanced economies in the bloc. Years later, the enlargement waves of the bloc after 2004, with the admission of Eastern European countries, also amplified the demand for funds in order to support the new member states. Although Cohesion policy aims to cover various areas from infrastructure through communications and jobs retraining, its main direction has been tied to consequences of economic restructuring, as demonstrated in the admission of the Mediterranean countries (Buonanno and Nugent 2013). A key turn into the reaffirmation of the Cohesion policy as oriented to growth and competitiveness has been the Lisbon Strategy from the year 2000.

The Lisbon Strategy was intended to address the slowing growth in some member states and the further challenges in terms of economic competitiveness of the bloc as a whole. Key points of the strategy were the pursuit of economic growth and the implementation of relevant social policies which could support such growth, including policies focused on employment. As the strategy from the year 2000 was later on evaluated as not sufficient enough, a second launch of a new version was held in 2005. The second Lisbon Strategy, labelled as "A partnership for growth and employment" placed an even stronger focus on productivity, competitiveness and flexibility. Through the establishment of specific pillars focused on knowledge promotion, innovation, business potential, labour market, energy supply and climate change, the strategy reaffirmed its neo-liberal orientation as strongly driven by economic and growth-oriented goals. (Buonanno and Nugent 2013)

In parallel to this process, the Cohesion policy was linked to the Lisbon Strategies, thus integrating the focus on competitiveness and growth within the key funding mechanism for cities and regions. As a result, key objectives such as promotion of innovations, entrepreneurship and infrastructure improvements were applied to the three pillars of the Cohesion policy: convergence and competitiveness, regional competitiveness and unemployment and European territorial cooperation. The convergence and competitiveness pillar receives the highest amount of funds (Buonanno and Nugent 2013). With that said, the Cohesion policy of the EU is one of the key policy instruments in supporting growth and development on urban and regional level across the bloc. As its inception was strongly tied to the economic restructuring and changes occurring at different stages of the EU's development it still is a key instrument in addressing the gaps between economically leading and lagging regions, in order to support 'catching up'.

The successor of the Lisbon strategies is the Europe 2020 strategy, adopted in 2010. Trying to address some of the weaknesses of the previous strategies, Europe 2020 introduces three broad objectives: smart growth, focusing on innovation, research, development and education; sustainable growth, addressing climate change and energy objectives; and inclusive growth, focusing on employment, social inclusion and reduction of poverty (Buonanno and Nugent 2013; McCann 2016). Those objectives were established as a result of an agreement between member states that the successful path to long-term growth should also incorporate other dimensions. The shift in the agenda was further influenced by the effects of the 2008 economic crisis in the union. The crisis had a significant impact on the EU economy and particularly on certain sectors and countries. One of the most heavily hit sectors was construction, where employment levels fell significantly and property prices

also decreased substantially. Furthermore, population in risk of poverty increased across the bloc and austerity measures, respectively decreased public spending, were introduced to keep the national budgets in line. The crisis further exacerbated the unemployment levels in some countries, such as Spain, particularly for young people (McCann 2016). It could be argued that gradually, the key strategies which influence the urban and territorial development in the EU have expanded in their scope from focusing solely on growth to incorporate additional aspects, concerning social and environmental dimensions. The following table illustrates this expansion:

Year	1992	2000	2005	2008	2010
Agreement, policy, event	Maastricht treaty	Lisbon I	Lisbon II	Economic crisis	Europe 2020
Focus, effects	Commitment to economic convergence	Addressing slowing growth	Economic focus: growth, employment, productivity and competitiveness through knowledge promotion, innovation, business potential. Social aspects: labour market measures. Environmental aspects: measures for energy supply and climate change	Effects on the bloc economies. Introduction of austerity measures and limits on public spending.	Smart growth: innovation, research, development and education. Sustainable growth: climate change, energy supply. Inclusive growth: employment, inclusion, poverty reduction

Table 2.1: Changes in the focus of key European agreements affecting urban and territorial development. Source: Own work.

The demonstrated shift on strategic level in the EU – redefining and expanding the focus of growth to incorporate social and environmental dimensions – has had and will have effects on the long-term policy agenda of the union. It also brings forward the more fundamental question of whether focusing solely on economic growth is viable in the long-term. The above illustration shows that the high-level policy making agenda of the EU has evolved to recognize that social and environmental aspects should also be considered along with growth. This shift gradually led to one of the most recent priorities of the EU – the European Green Deal.

The European Green Deal (European Commission 2019) was one of the first high-level policy initiatives by the Von der Leyen commission, outlining a new strategic orientation of economic growth, based on the overall direction of decoupling economy from resource dependency and addressing the climate crisis concerns, such as decreasing the carbon emissions. It establishes a set of ambitious goals on economic level, promoting circular economy and sustainability in order to address the commitments made to the Paris Agreement from 2016 on limiting global temperature increase and the UN Sustainable Development Goals, which outline a model for growth, based on sustainability principles, encompassing economic, environmental and social dimensions¹. This expansion of the understanding of growth and its redefinition is clearly visible in the European Green Deal proposal, endorsed by the European Parliament in the beginning of 2020, setting the

¹ As of 2022, the European Green Deal has been combined with the Plan for Recovery and Resilience that addresses the consequences of the Covid-19 pandemic.

scene for just and inclusive growth, which considers the consequences for economy, citizens and environment and includes questions such as quality of life together with competitiveness. The European Green Deal is designed as encompassing all policy levels in order to address questions of trade-offs between the three key pillars – economy, society and environment. For the purposes of this research, and to emphasize on the shift in the agenda, it is important to outline that the European Green Deal has a strong regional and local dimension. It recognizes that the expected transitions of industry to more sustainable means of production and value chains, phasing out of coal dependent energy production and further investments in sustainable mobility, infrastructure and energy efficiency, will be implemented to a large extent on urban level, particularly in certain regions and cities which still have to face this transition. Furthermore, the European Green Deal is associated with additional funding mechanisms. The urban dimension of this policy shift is outlined in some of the key priorities of the European Green Deal such as investments in sustainable infrastructure, transforming industrial production, addressing energy poverty of households, investment in energy efficiency of buildings, adapting economy to facilitate sustainable production, establishing new opportunities for employment, investments in smart mobility, decreasing pollution by transport in cities, training and job requalification mechanisms to prepare workers for this shift. Two key parts of the European Green Deal are particularly focusing on cities and regions. The Just Transition fund and mechanism will aim to address the challenges to cities and regions which will most heavily be affected by the phasing out of coal dependent energy production. The Climate Pact will focus on urban and local level and support sustainable urban development policies through the Cohesion policy.

It can be argued that the illustrated shift of the political agenda on EU level is part of a larger wave of rethinking of conventional growth-oriented economic logic. With the Sustainable Development Goals, established by the UN and the Paris Agreement on reducing emissions, global political leadership, with a few exceptions, has recognized that measures outside of the narrow focus on growth are necessary to ensure long-term benefits for people worldwide. The environmental narrative has been one of the strongest drivers for change to growth-driven traditional economic logic. A growing number of alternatives have already been suggested and are being explored particularly in cities across the world, demonstrating heterodox views on growth. Such alternatives introduce additional aspects of consideration to urban life such as quality of life and environmental considerations. Some of them do not deny the need of growth, others opt for a more radical approach, suggesting modifications and changes to capitalism itself².

New economic perspectives and their implications on planning

Probably the most prominent example of a redefined economic paradigm which is already under way worldwide is sustainable development. Sustainable development has already been designated as a global policy priority through the definition of the Sustainable Development Goals by the UN, which outline a clear agenda on the implementation of this paradigm (United Nations 2015). Its urban component, although urban implications can be found in each of the other goals, is defined mostly in the SDG 11 “Make cities and human settlements inclusive, safe, resilient and sustainable”. The sub-goals and indicators tied to this goal outline housing affordability and safety, access to services, provision of (sustainable) public transport, inclusive and sustainable urbanization, participatory planning practices,

² As of 2022, this notion is also reinforced by the economic crisis, triggered by the Covid-19 pandemic.

protection of cultural heritage, resilience (defined as decreasing the economic losses and deaths following catastrophic events), reducing environmental impact of cities, access to green and safe public spaces, supporting links between urban and rural areas in terms of economic, social and environmental aspects through urban and regional development planning. Another sub-goal particularly concerns planning as it refers to the adoption and implementation of integrated policies and plans, encompassing inclusion, resource efficiency, climate change adaptation and resilience. As outlined in this urban goal from the sustainable development agenda, the paradigm of sustainable development does not exclude economic growth, but rather introduces environmental and social considerations on par with economic growth. It offers a balanced perspective on the trade-offs between those aspects without completely denying the need of economic growth, particularly if referred to developing countries worldwide. On European level, the sustainable development perspective has been recognized and continuously introduced on policy and funding levels, such as the Leipzig Charter for Sustainable European Cities and the Cohesion policy (European Commission 2020; Council of the EU 2007; German Presidency of the Council of the EU 2020). Sustainable development and its implications on urban life outline particularly the balance between economic growth and additional social and environmental aspects. As it can be seen in the referenced documents, particularly on EU level, these aspects co-exist in the sustainability agenda of the EU.

Another innovative economic perspective is circular economy which enables addressing certain environmental aspects, particularly decoupling of economy from resource demand, by re-using and recycling materials to support production. As outlined previously, this model has been recognized in the European Green Deal (European Commission 2019). Circular economy offers a number of alternative approaches encompassing multiple areas of urban (and non-urban) activities, spanning from waste reduction and reuse, food production, circular construction and renewable energy. Circular economy investments and interventions on local level also demonstrate potential for jobs creation and addressing long-term strategic goals (Erasmus Happiness Economic Research Organization 2019). The overall focus of circular economy is to break the linear traditional economic model of resource usage and disposal and introduce the possibility of re-use, renewal, refurbishment and recycling into the production or service chain, which would ultimately decrease environmental impact (Sánchez Levoso et al. 2020). It can be argued that, to a certain extent, circular economy approaches contribute to sustainable development as a whole.

A more radical approach to conventional economic logic is presented by the post-growth movement. By recognizing the limits to growth, as presented by the Club of Rome report (Meadows 1972), Tim Jackson presents an extensive proposal for a new economy where prosperity is defined not particularly by growth (Jackson 2017). The post-growth idea advocates for a complete shift of the economic logic, away from GDP measurement and similar parameters, as a sole indicator for prosperity, to a new understanding of the 'prosperity' term as composed of aspects related to well-being, social cohesion, lower consumption and happiness. As outlined by the author, such proposal is realistic for Western societies where material needs are mostly met, thus focus could be shifted to other questions. This point, however, recognizes to a large extent that the proposal of a post-growth economy could be partially implemented only under certain conditions, as outlined by the author – when material needs are met. This argument implies that material conditions still need to be provided where they have not been provided, such as in developing countries or poverty regions, thus the development stage, achieved by the Western societies is actually a prerequisite to implement the post-growth ideas. The post-growth movement recognizes the necessity and importance of material conditions, but argues that they are not the sole

argument for continuing the pursue of growth as an only way to achieve prosperity (because growth is finite). The paradigm of post-growth openly criticizes the previously presented ideas of sustainable development and decoupling of economy from resources mostly through ecological arguments, supported by certain economic indicators on the prospects and possibilities of decoupling and its possible pace not being able to surpass the already deeply embedded dependency on resources. In the post-growth economic model, circular economy is recognized as a possibility, however, not entirely. A special emphasis, with direct relevance on urban planning, is placed on community led social enterprises which already exist in multiple cities, including shrinking ones. These initiatives are recognized as vital for the proposed new economic model, however, it is noted that they cannot be a new 'engine' for growth, as they are small in size and usually work only locally. The author refers to them as "Cinderella economy" (Jackson 2017, 147). Ultimately, the post-growth economic model requires deep changes to perceptions, significant large-scale shifts of investment logic on global level, to a certain extent utopian large-scale remake of capitalism at global level. Although the author argues that the notion of impossibility has always been an obstacle to progress and change, the proposed alternative is somewhat non-inclusive, rejecting even the gradual or partial alternatives, presented by circular economy and sustainable development.

Recognizing the drawbacks of capitalism, such as increasing inequalities, environmental effects and inequality, but reaffirming the positive effects it has delivered, the idea of stakeholder capitalism proposes a redefinition of the notion of added value and societal organization. In stakeholder capitalism, business is seen as a social process which relies on trust and cooperation between individuals who engage with business activity. The business logic is that stakeholders' interests, not only shareholders' ones, are considered when decision on business level should be taken. Stakeholder capitalism posits that added value is generated not only by generating profit for shareholders, but also by generating benefits for all direct and indirect interested parties due to the social nature of the enterprise (Freeman, Martin, and Parmar 2007). The principles of stakeholder capitalism have also been recently supported by the World Economic Forum, which held its annual meeting in 2020 under the agenda of the Davos Manifesto, building on the initial version of the document from 1973, which focuses precisely on the stakeholder idea of business playing an active role in society and contributing not only to the needs of the shareholders in a certain corporation. The 2020 version of the proposal recognizes the stakeholder approach as a possible alternative to addressing key problems in recent years, such as environmental crisis, human rights violations, local communities engagement (World Economic Forum 2020; Schwab 2019; World Economic Forum 2019). In conclusion, stakeholder capitalism does not rule out the role of capitalism, but proposes a rethinking of its function in the broader social context.

The presented economic alternatives and new paradigms which are slowly emerging on global level outline that classical growth-oriented economic development is being contested and expanded with new ideas, some of which radical, others more flexible and complementary to conventional economic logic. By looking at the European policy agenda and the gradual evolution of its understanding on growth, it can be argued that certain changes to the underlying logic of competitiveness and growth-orientation are already happening. The changing idea of growth and the growing consideration of other aspects in this context requires further scrutiny on the role of planning and its normative orientation in relation to economy. This brings forward questions, related to the role of planning in the facilitation or taming of market forces, but, more importantly, it also requires a more critical position towards the meaning of growth from urban perspective.

2.2 IMPLICATIONS ON RESEARCH FOCUS AND RESEARCH DESIGN

The outline of the topics in this chapter presented some of the main considerations that influence the research design, methodological approach, hypotheses construction and overall research focus of this study.

Shrinking cities and the phenomena of urban shrinkage and depopulation occur in the context of globalisation, strongly influenced by its economic flows. Particularly in the EU, another layer of influence is exerted by the economic determination of the overall EU agenda as well as the implications of this agenda on cities. Shrinking cities have often been presented as “left behind” those processes. In many occasions, this subordinate perspective has been established as a key starting point for urban shrinkage research. It introduces a dichotomy between the local and the global. This position often justifies planning as a response to this dynamic, on a way to ‘rescue’ the shrinking city from it. Yet, this perspective does not always prove useful in delivering actual and practical implementable solutions on ground. It outlines an inward direction, moving away from the context in which shrinkage occurred. Without denying the role of globalisation in urban shrinkage and its role as a trigger for the process, this research attempts to recognize and accept this overarching economic context, in which urban shrinkage has occurred, also particularly in Europe. It also admits that globalisation processes, and respectively the economic consequences of them, will continue to occur. Consequently, the initial stance of this research is not the abovementioned subordinate position of the shrinking city to this global reality. On the contrary, this research recognizes that globalisation, and its further European manifestations, have been the background and trigger for previously shrinking cities in Europe. This has prompted cities to develop different adaptation scenarios to those changing conditions but not necessarily as a *response against* or a *response to*, but rather as an *adaptive response* in the context of increasing globalisation, single market and integration in the European Union.

This positioning is important for several reasons. Firstly, following Castells, the global network has played (and continues to play) a role for the future of cities, no matter if they are a node within the network or not, due to the decreasing influence of national governments over the global network (Castells 2010). The role of the national governments is diminishing due to the increasing role of globalisation and the network society, thus strengthening the potential role governments at local level (Castells 2000). If applied to the cases of shrinking cities, this understanding endorses a potentially more active position of the locale, instead of the position of a laggard, left behind and trying to catch up to external circumstances. Of course, this active position will still have to deal with consequences of urban shrinkage, triggered by different factors across Europe, some of which very similar. This research recognizes that the globalisation, network society and the European Union (as strongly linked to the single market) and the related processes to them have been, are and will continue being the predominant circumstances for cities and urban shrinkage in Europe. As Castells outlines: “Globalisation is set and it will accelerate over time” (Castells 2010, 147).

The second main contextual factor are the differences in planning systems that need to be considered in the creation of planning concepts. The research accepts that differences exist and that the development of a new planning concept for shrinkage should take into account this variety. The application of a new planning concept may involve institutional and non-institutional actors, part of different administrative, political and social setup. Respectively, the practices of applying planning concepts or developing such may differ

significantly. A new planning concept should be able to respond to these differences, rather than rely on predetermined assumptions. In the context of shrinkage, the creation of a new planning concept should also take into account the understanding and perception of the phenomenon itself, so as the new concept is relevant for its potential addressees as well as to address the question of shrinkage acceptance. Recognizing the differences in planning cultures and planning practices provides a more sensitive view on the cognitive processes of planning and policy making where perceptions, interpretations and utilizations of various constructs may carry different meanings. This sensitivity is particularly important for the relevance of the new planning concept, especially with the utilization of the already established label of “smart”.

The recognition of the social influence on planning and policy making practices and their embeddedness into a wider context also has theoretical implications. Recognizing the social influence, and thus taking a constructivist starting position, the creation of the new planning concept should avoid the strictly rationalistic and positivist inclinations of planning. This is particularly important when taking into account the conceptual instability of the urban shrinkage field. Existing works also provide recommendations for issues that require further investigation in the field of shrinkage. On theoretical level, Haase et.al. (2014) outline that there is a need for conceptualization on meso-level in order to bridge the gap between high-level theories on shrinkage and practical implications of shrinkage in reality. Sousa and Pinho (2015) also outline the need for further refinement of the conceptual framework of shrinkage, suggesting that its current definition is mostly a collection of symptoms, rather than a concise concept, which further supports the non-rationalistic approach to the creation of the new planning concept. In addition, this requires further reflection and theoretical scrutiny on the structure and meaning of the new planning concept.

The reflections and considerations on the structure and meaning of the new planning concept also bring forward the question of its normative orientation. The existing debate in the urban shrinkage field has advanced the hypothesis that “Shrinking Smart” as a new planning concept may open the possibility of planning not oriented to growth. As outlined in the previous sections, the debate has suffered from insufficient consideration of political economic perspectives, thus the hypothesis of “non-growth” oriented planning remains unclear and requires further investigation. The outline of the economic context of the European Union and the discussion on non-conventional views on growth in economic sense, illustrated above, introduces an additional complexity in the debate on creation of new planning concepts for shrinking cities. The notion of overcoming growth-oriented strategies as well as the possibility of potentially reaching a paradigm shift needs to also answer the existing critique on insufficient consideration of political economy in shrinkage debates, thus to address the economic dimension. The understanding of growth changes throughout the years and already encompasses a wider scope of topics. In addition, from economic perspective certain alternatives are already challenging the traditional economic growth understanding, considering options for rethinking linear production cycles or integrating social and environmental perspectives. Particularly in the EU this change is already in an advanced stage. The existing debate in the field does not necessarily distinguish economic from spatial growth (or growth in general), thus such distinction is necessary should the hypothesis for possible paradigm shift beyond growth be explored. As a result, the creation of the new planning concept should take into consideration those differences and scrutinize what should be the position of planning in this broader understanding of growth and, respectively, the options for the normative orientation of the new planning concept towards them. In addition, further reflection is required on the possible exclusivity of an alternative normative orientation, such as quality of life, towards growth.

Lastly, as outlined by Hollander (2018), research on urban shrinkage should integrate the question of scale and look for empirical conclusions beyond the city level. Research design that takes into account also regional or neighbourhood levels may prove fruitful for the development of a new planning concept. Such design can also establish wider consideration of the levels and structure of the planning system. Hollander also recognizes that qualitative methodology may prove beneficial for the expansion of the field so as to circumvent questions of causality between quantitative data points. This consideration also aligns with the non-rationalistic approach to the creation of a new planning concept.

The following figure summarizes the main theoretical and contextual considerations that have shaped the research design and methodology and the formulation of hypotheses, verified in the empirical work.

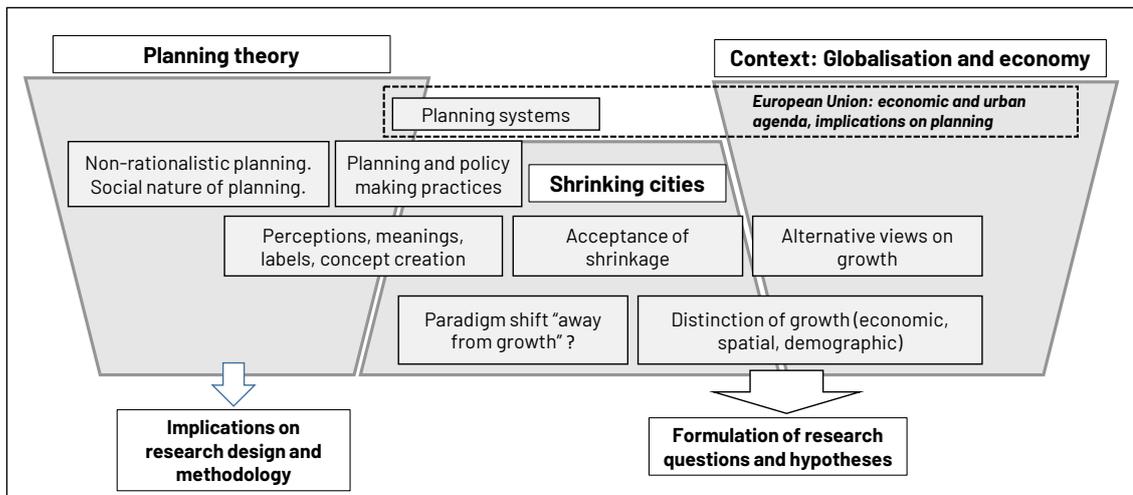


Figure 2.1: Contextual and thematic positioning of the research. Source: Own work.

Left to right - The planning theory perspective outlines the need to consider the social nature of planning, embedded in the planning systems and planning and policy making practices. This also encompasses the focus on perceptions and meanings in the context of concept creation. The shrinking cities perspective encompasses planning and policy making practices in the context of addressing shrinkage, but also needs to consider perceptions and meanings, particularly in the context of shrinkage acceptance and the possible paradigm shift away from growth. Growth as a normative orientation should be viewed in the broader context of globalisation and the European Union, distinguishing between variations of growth and considering alternative views. This perspective also has implications on planning practices in reference to planning

3

RESEARCH DESIGN AND METHODOLOGY

The starting point and objectives of this research suffer from some complications that have impact on the research design and methodology.

Although significant progress on a consensus understanding on urban shrinkage or shrinking cities has been achieved within the field, there are still ongoing discussions on whether such a label can be utilized universally and to what extent the perspective of urban shrinkage enables possible planning alternatives. At the same time, urban shrinkage has already been defined as a strongly contextual phenomenon (Haase et al. 2014) and possibilities for universal solutions have been discredited.

An additional complication arises from the label of “Shrinking Smart” that has already been introduced by previous authors, yet, has only been partially defined in concrete theoretical and practical terms. This theoretical and conceptual instability of the starting point of the research requires clear ontological, epistemological and methodological justifications in order to allow for the conclusions of a comparative cross-national study to be sufficiently integrated and viewed as possible sources for the establishment of a new planning concept under the label of “Shrinking Smart”.

Lastly, the objective of deriving a practically applicable approach for shrinking cities under the framework of “Shrinking Smart” requires this research to choose a properly structured methodological approach that enables the identification of critical factors and possible directions, which can be utilized by planning practitioners in shrinking cities. The proposed comparative framework and its applicability beyond the scope of this study should be contextually sensitive, should enable qualitative comparison and should take into account both the specific planning context (defined by the planning system) and the broader European political and economic context.

CHAPTER GLOSSARY OF TERMS (IN CHRONOLOGICAL ORDER)

- **Scientific orientation, scientific basis:**
 - **Ontological basis:** the scientific understanding of the reality, subject to investigation
 - **Epistemological basis:** the scientific understanding of the way knowledge can be derived from the reality, subject to investigation
- **Planning orientation:**
 - **Ontological basis:** the scientific understanding of the nature of planning as a discipline and practice
- **Narratives:** the cohesive aggregation of language forms, utilized in policy and planning documents, forming and representing the policy and planning justifications, explanations and decisions

- **Object of research:** the variety of meanings, justifications and explanations that have been attributed to the policy making and planning practices, represented in the narratives
- **Methodology:** the systematic aggregation of considerations for the execution of the research, the approaches used for designing the research logic and sequence and the implications that these considerations have on the selection of methods.
- **Practices of policy making and planning:** the broader understanding of administrative, political and policy techniques, procedures, debates, discussions and processes which produce policies and planning in the selected cases
- **Unit of analysis:** a methodological conceptualization of a constellation of policy and planning practices, as well as execution of decisions, grouped in three particular units, depending on the planning system in the selected cases; for each of the units, the planning-related distinction between process and substance is considered throughout the research;
 - **Policy unit of analysis:** policy practices and their respective representation in policy documents, originating on different levels of the planning system, focused on specific policy areas, but have an urban dimension in the selected cases; encompasses only the policy substance and does not concern with the policy process as an object of investigation
 - **Planning unit of analysis:** planning practices and their respective representation in policy and planning documents, originating on different levels of the planning system, but closer to the local/urban/city level of the planning system; planning practice/planning process related documents, including planning instruments; plans, analysis, evaluations that pertain to urban planning, spatial planning and any other type of planning which has particularly spatial urban dimension; encompasses both the planning process and the planning substance as objects of investigation;
 - **Implementation unit of analysis:** traces, outline and representation of the physical and spatial changes that occurred in the respective cases, represented in various documents, pertaining to spatial dimensions, projects, plans for specific spatial interventions, evaluations, maps; encompasses only the nature and substance of the implemented changes and does not concern with the way they were implemented;
- **Planning system level:** a methodological conceptualization of the institutional structure in a certain planning system; planning levels are understood in hierarchical order between local, metropolitan, regional, provincial, national, depending on the planning system;
- **Research design:** the proposed structure and investigative logic of the research, influenced by the scientific, planning and methodological orientation of the research
- **Case study design:** an element of the research design, representing a particular methodological approach to aggregate data and analysis
- **Research workflow:** the logical, structured and chronological sequence of investigative steps, executed as part of this research

- **Research stage:** the aggregate representation of a number of investigative steps, executed as part of this research; ordered chronologically
 - **Theoretical stage:** the research stage, in which theoretical work has been executed
 - **Empirical stage:** the research stage, in which empirical data has been collected and processed
 - **Analytical stage:** the research stage, in which empirical data has been analysed
 - **Applicability stage:** the research stage, in which the conclusions from the analytical stage have been formulated into applicable recommendations and conclusions of the research, as well as analytical conclusions on the possibility of their applicability
- **Concept features:** the main outcome of the theoretical research stage, forming the central part of the hypotheses; theoretical constructs, translated to the field of planning, representing possible characteristics of the proposed planning concept as part of the hypotheses.
- **Methods:** the main investigative and analytical techniques, utilized in the different research stages to generate hypotheses, to collect empirical data, to analyse empirical data and to formulate recommendations and conclusions
 - **Interpretive policy analysis:** a variation of discourse analysis, utilized as a method of analysis
 - **Discursive element:** part of the interpretive policy analysis method, representing a particular interpretation of a language representation, found in narratives
 - **Discursive tools:** discursive analytical techniques, utilized to identify the discursive elements
 - **Causal strand:** an aggregate of discursive elements, identified during the analysis, pertaining to the causal explanations of a certain policy or planning problem, represented in the narrative
 - **Normative strand:** an aggregate of discursive elements, identified during the analysis, pertaining to the normative decision and its justification, related to a certain policy or planning problem, represented in the narrative.
 - **Economic and spatial quantitative data:** statistical, quantitative and spatial data points from existing databases, statistical sources and satellite data that have been utilized to investigate the economic and spatial development of the cities.
 - **Observational data:** qualitative and photographic data collected from field visits.
 - **Benchmarking framework:** a method of comparison of the conclusions for each of the identified cases
 - **Benchmarking category:** an element of the benchmarking framework, corresponding to the distinction between substance and process of planning and their respective units of analysis (policy, planning and implementation)

- **Benchmarking phase:** an element of the benchmarking framework, representing the chronological sequence of comparison
- **Planning concept:** at the final stage, the proposal for a planning concept is formulated based on the conclusions from the research; from methodological standpoint, the planning concept is represented as a sequence of steps for decision making in the context of shrinkage and as an outline of possible ideal type scenarios of the application of the concept.

3.1 ONTOLOGICAL BASIS

In order to ensure the scientific coherence of this research, a justification for the ontological orientation is necessary. From scientific standpoint, this research establishes ontological realism as its main basis. Ontological realism follows the argument by Fischer who stipulates that there is a reality that can be observed albeit any account of reality is socially influenced (Fischer 2003, 121). While this position recognizes the social influence on reality, it does not deny the existence of a “reality” that can be observed. Ontological realism can be fruitful for investigation of the emergence and potential formation of new planning concepts. Planning research has often focused mostly on rationalistic and rather positivist assumptions on the nature of the phenomenon and planning’s approach to it (Batty 2018). As argued by Batty, this orientation relies on the clear distinction between the city as an object of research and planning as an “objective” scientific activity, therefore he argues for a shift away from such strictly positivist approaches. At the same time, however, the shift to a subtler understanding of the “urban” as a socially constructed reality has already made its way into planning research. The social influence on reality and its embeddedness into a broader societal context has been recognized, thus ontological realism provides a fruitful foundation that enables a flexible and nuanced division between the observable nature of certain phenomena and their social construction.

Looking at the urban shrinkage field, existing research has attempted to remain in a rather positivist position to the phenomenon, looking mostly for “solutions” and “diagnosis”. This approach is not necessarily problematic when it comes to applications of particular spatial approaches to shrinking cities, but it does limit the possibility of a more critical view on the socially-influenced process of concept formation and the possibility to conceptualize approaches to shrinkage in a more systematic way. Therefore, the ontological positioning of this research recognizes this two-fold understanding of reality – an observable entity that can be analysed and researched in a systematic way, comprised of (mostly) physical and spatial dimensions which are embedded in and influenced by a broader social, political and economic reality.

Since this research is focused on developing a new concept in *planning*, it is also necessary to outline what are the ontological assumptions from planning perspective. Allmendiger (2002) applies post-positivist classification to planning theories and clarifies specific ontological stances that need to be considered from the perspective of scientific planning research. He highlights that recognizing the limitations of positivist ontological stances does not necessarily mean that planning research should align to the extreme position of relativism (that any attempt in planning science is an attempt to understand an incommensurable account of socially constructed phenomena or language forms). Aligning with planning theorists such as Forester and Healey, Allmendiger clarifies that the post-positivist understanding of planning, from the perspective of social scientific philosophy,

is more applicable to the realm of planning – be it in practice or in scientific research. Post-positivist planning theory does not completely subordinate planning to the social construction of meanings and reality as an ontological stance. By aligning planning to a post-positivist scientific understanding, it is possible to critically examine both the nature of planning and the social influences that have impact on it.

Based on the post-positivist planning theory categorization by Allmendinger, this research recognizes collaborative planning (Healey 2006) as one of the ontological positions that enable the research design and methodology of this study. Healey aligns with the ontological realism from scientific standpoint (Allmendinger 2002; Farthing 2015). She recognizes the nature of planning as a complex process, influenced by the social context and the respective institutional structure it is part of. She outlines the three traditions in planning – spatial or physical planning, economic planning and policy making. Depending on the planning system, planning can take different forms according to this outline and they can have different scope, depending on the context they are embedded in. Yet, no matter how this split is distributed, eventually planning has to respond to a number of conflicting stances towards various questions from different stakeholder groups, which ultimately leads to the need of collaboration, communication and consensus building (Healey 2006). Since this research recognizes Healey’s collaborative planning only as an ontological claim, rather than as theoretical framework or normative orientation, it is assumed that the three-fold planning distinction of physical, economic and policy making constitutes the observable reality of planning which is one of the objects of this research. Bringing this ontological claim to the research design of this study means that it recognizes the various institutional structures that comprise the planning systems in the selected case studies, thus enables a broader view on planning as an object of the research. Put simply in relation the urban shrinkage phenomenon, this means that responding to shrinkage might not concern only spatial planning on urban level, but also planning on regional level, economic planning on different levels and also policy making with urban scope. Therefore, the search of a new planning concept must not only focus on the physical or spatial urban dimension, but also on the other levels of the planning system, which can differ in different countries and which represent the variety of social, political, institutional and economic influences on planning.

This ontological claim on planning, however, shifts the focus of the research only on the planning process (Faludi 1978). Although from this perspective certain observations and analysis can be done also on its substance, focusing only on the collaborative perspective by Healey can limit the research and eventually lead to placing the new planning concept of “Shrinking Smart” only in the scope of the planning process, similar to Hollander and Németh’s proposal (2011). Such direction of the research would be impairing both the theoretical and practical objectives of the research and would also be challenging to translate into practice. Furthermore, the challenges before shrinking cities are usually of practical manner. Although traditions in planning science demand a theoretical reflection and scientific approach to the matter, the reality of shrinking cities is often dire, critical and demands a faster and more practical approach. In order to respond to this need, this research introduces a second ontological claim (from planning perspective) which further supports the research design and methodology and is rooted in pragmatism in planning.

The main emphasis in pragmatism, as outlined by Allmendinger (Allmendinger 2017), is on the direct action towards specific challenges, defined by the circumstances of the current situation. Pragmatism does not take a normative stance as a starting point or as criteria to make decisions, but rather focuses on practical questions on how to address the specific problem at hand. Originating in American context, pragmatism is deeply embedded

in liberal-democratic framework. Pragmatism corresponds well with the overall post-positivist orientation of this research as it recognizes the social formation of ideas and positions of individuals and also places a specific emphasis on the role of language as a mediator to resolve differences of conflicting viewpoints. As long as the exchange of ideas remains in the framework of liberal democracy, then a discussion can lead to an endpoint and, respectively, a solution. In that sense, pragmatism is criticized for being power-blind as the different points of view have different weight, which are mostly defined as a result of power distribution in society. Yet, pragmatism establishes that this power distribution is taken as a given and as long as it is recognized and all other competing voices are given an equal chance to defend their points of view as part of a more inclusive democratic process, then there are no severe consequences. It is particularly in such situations that pragmatism comes into play when applied to the planning process.

The planning process often involves discussions between people with conflicting viewpoints. Pragmatism posits that the role of the planner in such situations is to be a mediator and to lead the discussion to an end, provided that, under democratic circumstances, foundational liberal-democratic values of the societal context are recognized and upheld by all participants. At the same time, the planner's role is also to be very sensitive to the reproduction of established ways of thinking which exert dominance over specific aspects of planning and to proactively challenge them by stepping into the role of the "ironist", suggested by Rorty (Allmendiger 2017, 119). This position opens the room for constructive changes to planning and to the effects of it, thus enables novel approaches to certain questions. Hoch, as summarized by Allmendiger (2017), outlines further the applicability of pragmatism into planning by highlighting its emphasis on experience as a leading information source. In addition, adherence to democratic values and practical orientation to existing circumstances proves pragmatic planning as a useful approach in European context.

These aspects of pragmatic planning provide a suitable base for ontological orientation of this research in the context of urban shrinkage, the development of new planning ideas and the European scope of this project. Urban shrinkage is often perceived as a crisis by planners and policy makers. Lengthy analytical exercises or elaborate planning processes might not always prove helpful to solving immediate issues. Therefore, pragmatic planning, oriented to existing circumstances can be a possible alternative. The sensitivity to the circumstances and the acceptance of the reality allow for a more adaptable planning approach to the different realities of shrinkage. Particularly for Europe, existing research on shrinkage has highlighted the need for tailor-made solutions for specific contexts (Haase et al. 2014). Pragmatic approaches can respond to this need. Furthermore, pragmatism does not exclude the possibility of novel ideas or changing the status quo. By enabling the possible role of planning as an "irony" to existing models of thinking, pragmatism can lead to provocative new ways of thinking which can break old barriers and potentially provide innovative approaches to urban shrinkage. Lastly, pragmatism's democratic origin and strong embeddedness in liberal democracy is particularly suitable in the context of the European Union where democratic values are at the core. Pragmatic planning can help maintain and even strengthen the democratic orientation of planning, especially in the challenging reality of urban shrinkage.

Particularly for the research design of this study, the pragmatic focus on planning practices complements the conceptual emphasis of the development of the new planning concept and it also balances the social constructivism embedded in the understanding of planning as a socially constructed activity. While the other planning ontological stance (collaborative planning) provides a basis for a broader understanding of planning across the variety of

planning systems, pragmatism can provide an anchor back to the “reality” of shrinkage and to the practical spatial and physical orientation of the phenomenon, as it has been studied until now. The two ontological stances from planning perspective align with the scientific ontological stance of ontological realism as they encompass both the observable aspect of reality and the social influence to it.

3.2 EPISTEMOLOGICAL BASIS

The epistemological basis and orientation of this research follows closely the argument by Fischer (2003) on post-empiricist policy inquiry. For the purposes of this research, postempiricism and postpositivism are considered interchangeable, as outlined by the author himself (Fischer 2003, 121). The post-positivist orientation of this research aligns with the ontological basis of ontological realism, presented in the previous section of this chapter. The post-positivist emphasis on the social construction of reality also aligns with the interpretivist view on planning, following the argument by Healey (2006), Batty (2018) and Allmendinger (2002).

From epistemological standpoint, postempiricism places an emphasis on the social construction of the phenomena under investigation and, respectively, recognizes qualitative inquiry as a possible means to acquire such knowledge in research. In a similar vein, postempiricism does not recognize the positivist epistemological approach of a rationally logical inquiry, focusing on one or multiple clearly measurable points, as a means to establish scientific conclusions. Instead, the postpositivist stance derives knowledge through the critical interpretation of the conflicting socially constructed interchanges of information represented by language forms. This epistemological approach, however, does not follow the extreme relativist view that everything is ideas and concepts. Instead, it deemphasizes the focus on the objects of investigation and shifts it to the language forms as representative of the beliefs, values or interpretations of reality of different actors, which operate in a socially constructed world. Ultimately, this means that knowledge creation from postpositivist standpoint is bound to the reality and context of the objects of investigation and is thus historically and temporally sensitive.

From the perspective of planning, this epistemological stance aligns with the arguments by Healey (2006) and Batty (2018) who recognize planning processes as a communicative process of bridging various claims and points of view towards the object of planning (Healey) and the need to be sensitive towards the context and the social nature of the “urban” in general (Batty 2018). From scientific standpoint, the view of developing knowledge through the interpretation of various standpoints aligns with a conversational understanding of the scientific theoretical inquiry (Fischer 2003).

Advancing further the argument by Fischer (2003), this epistemological orientation focuses on the study of narratives as a bridge between the positivist understanding of reality (an ontological stance) and the social constructivist (or interpretivist) understanding. That is, to accept that knowledge can be derived from the narrative of events that occur in the observable reality and that those narratives are not only representations of one’s interpretation of reality, but are also subject to scientific inquiry (Fischer 2003; Fay 1996). In other words, narratives are a language form that explains the existing reality and this language form is also representative of the social influence on its creator. This places narratives in the middle between the observable reality (the established ontological stance of this research) and the social influence of the context in which they are produced (the

post-positivist orientation). Therefore, narratives are the main source of knowledge from the postpositivist epistemological position taken by this research and are thus a subject to scientific inquiry that can result in research conclusions.

From scientific standpoint, the epistemological orientation of research should also address the dichotomy between facts and values. It is widely accepted that such distinction is necessary for a research to be considered vigorous and compliant with scientific standards (Fischer 2003). Although this distinction is rooted in the positivist orientation of science in general, it is still expected that this issue be addressed to ensure scientific coherence. As already outlined, the postempiricist epistemological orientation recognizes that the knowledge and conclusions of this research are derived from the critical analysis of narratives as representative of the language forms, carrying various contextually influenced meanings. It follows that the object of this research is the variety of meanings that have been attributed as part of the processes of planning and policy making for shrinking cities in Europe, selected as case studies of this research. Therefore, the dichotomy between facts and values in this research is addressed through their critical interpretation, vigorous analysis and strong contextual sensitivity to their origins so as to ensure that the findings of this research (that is, the knowledge generated from epistemological point of view), are most objectively presented not as mere reproductions of the values of their authors, but rather as vigorously analysed findings of this study that can potentially feed into the new planning concept. In addition, the study does not introduce a normative or theoretical basis through which the findings are analysed, but takes a flexible and inclusive position to the multitude of realities of the cases investigated, thus further emphasizing the need of strong contextual sensitivity to the examined cases. The postpositivist epistemological positioning recognizes the need to “craft”(Fischer 2003; Majone 1989) conclusions through various methods and establish arguments with critical self-reflection to the institutional factors that influence the output of this research.

A major point of criticism towards postpositivism is its inability to establish causal relationships due to the stronger emphasis on meanings (Fischer 2003). While this view needs to be addressed when postpositivist epistemological approaches are applied in the broader field of social sciences, for the purposes of this study they find a clearer answer. Utilizing postpositivism in a research, focused on planning (understood as a wider constellation of spatial/physical planning, economic planning or policy making), enables a view on planning as a policy-oriented activity and planning research as a policy inquiry (Palermo and Ponzini 2014). Understanding planning as a function of a broader institutional setting of policy making (influenced by a certain context) actually justifies the need for a critical and interpretive approach to research so as to allow the examination of various stances and claims towards the solutions of certain policy or planning problems. Generally speaking, policy and planning solutions are strongly influenced by the context in which they occur. Rationally oriented positivist understanding of knowledge generation would pay less attention to the context and would therefore not produce the necessary results to deliver on the objective of this research which need to be contextually sensitive. For this reason, while the postempiricist approach cannot and does not aim to deliver causal relationships and conclusions, it can, however, generate “quasi-causal” conclusions (Fischer 2003; Fay 1975, 84–85). These quasi-causalities can expose the justification behind certain policy and planning choices in the selected cases. This justification is socially influenced and context dependent, therefore postpositivist approaches to it are suitable. Scientifically, attempting to outline such quasi-causal accounts offers an insight into multiple potential explanans of a certain policy or planning choice and the various (contextual) factors that exert influence on the process in which choices were generated. This aspect of the epistemological

orientation of this study also has implications on the methodological choices and framework, particularly in terms of opportunities for generalization (Fischer 2003), which become problematic whenever a complex issue with broader scope is investigated across different national contexts (Farthing 2015).

In conclusion, the epistemological orientation of this research enables a scientific inquiry with higher sensitivity to the contextual influence on practices, pertaining to policy making and planning. These practices are viewed as a means to exchange information, formulated in language forms and materialized in various information sources (policy and planning documents). The latter are considered a source of knowledge, generated through vigorous analysis, attempting to expose understandings, conceptualizations and interpretations of the observable reality they were designed to address. The knowledge generated through this approach can outline quasi-causal relationships, although the research does not place this aspect as a main objective.

Lastly, the outlined postempiricist epistemological stance aligns with the ontological realism and collaborative planning orientation, outlined in the previous section. However, this set of ontology and epistemology concerns the scientific vigor of the project. The second planning ontological claim stated in the previous section pertains to pragmatism in planning. The postpositivist epistemological approach does not necessarily address the question of knowledge creation from pragmatic perspective. As argued by Morgan (2007), pragmatism does not necessarily demand the traditional subordinate position of epistemology under ontology. A pragmatic approach, as argued by the author, would pay equal attention to the epistemology and the methods, utilized in a certain research (Morgan 2007, 68). Therefore, the need to justify knowledge generation in the context of pragmatism can be viewed as a methodological, rather than as an epistemological question. As argued in the previous section of this chapter, the pragmatic orientation of this research is the anchor to the “reality” of shrinkage. This orientation has implications also on the research design and methods chosen. Therefore, epistemological questions, pertaining to pragmatism in the context of this research, are addressed in the subsequent methodological section of this chapter.

3.3 METHODOLOGY AND RESEARCH DESIGN

3.3.1 SCIENTIFIC FOUNDATIONS AND PLANNING THEORY

The outlined epistemological orientation of the research has further implications on the methodology and research design of the study. As outlined previously, this research focuses on the identification of alternative policy and planning approaches for shrinking cities within the European Union. Attempting to derive these possibilities from existing approaches to urban shrinkage and population decline in European context, the research needs to look at the practices of planning and policy making (in a general sense, rather than as institutionalized procedures) in order to distinguish what those practices attempted to achieve, what was their scope and how they approached the overall question of urban shrinkage or population decline. As outlined in the epistemological justification of the research, knowledge about these questions can be derived from the narratives produced as part of planning and policy making. The narratives, however, are representative of the overall role of planning, the boundary between policy and planning (either spatial or economic) and the general institutional and political structure of the country in which those processes

occur. Ultimately, both planning and policy making deal with the resolution of problems and are expected to contribute to the improvement of the quality of life of the people within the respective realm (Shahab, Clinch, and O'Neill 2019).

As outlined by Fischer (2003), the postpositivist perspective highlights that the strongest relationship between the social nature of problems and language is manifested in the practices of problem definition. These practices are always political in nature and exert influence or are a major part of planning and policy making. Therefore, in order to properly analyse and understand how urban shrinkage and population decline have been addressed in the selected cases in this research, specific attention needs to be paid to the problem definition aspect as part of the policy and planning practices. In order to identify where these practices stand in the institutional framework, the methodological approach to the study needs to also consider the various planning systems that outline the boundaries between planning and policy making. The planning systems are representative of the culture of planning in the certain context and, eventually, of the understanding and role of planning within the particular country it is applied in (Farthing 2015). These considerations have influence on the selection of particular qualitative analytical methods, outlined later in this chapter. These clarifications also illustrate the methodological implications from the perspective of planning and policy making, which influence the research design of this study.

On a second note, it was already mentioned that another objective of this study is to derive a practically applicable new planning concept for shrinking cities in order to aid the possibility of addressing particular challenges that shrinking cities are facing in practice. That is, to surpass the conceptual nature of the planning concept by translating it to practice in a feasible way. Pragmatism, as introduced earlier, derives knowledge from experience and as a scientific approach is concerned mostly with ways to generate knowledge. As outlined by Morgan (2007), the pragmatic approach in research design and methodology emphasizes on the transferability of knowledge, derived from the scientific inquiry with the intention to derive possible alternatives of a certain hypothesis that can later on be "tested" through a deductive approach. This methodological direction is particularly suitable for the objective of this research to derive examples from practice of addressing shrinkage in European cities. In addition to the narratives, mentioned earlier, pragmatism enables a focus on specific applications and solutions, applied as a result of policy and planning in the selected cases. This methodological approach allows also for encompassing suggestions by previous authors, which focus on physical and spatial questions. The pragmatic approach of knowledge creation through points of action supports a reflexive methodological approach (Morgan 2007, 72), which surpasses the exclusionary distinction between context dependency and generalization of research results. Therefore, this pragmatic orientation is also utilized, particularly for the applicability aspect of this research.

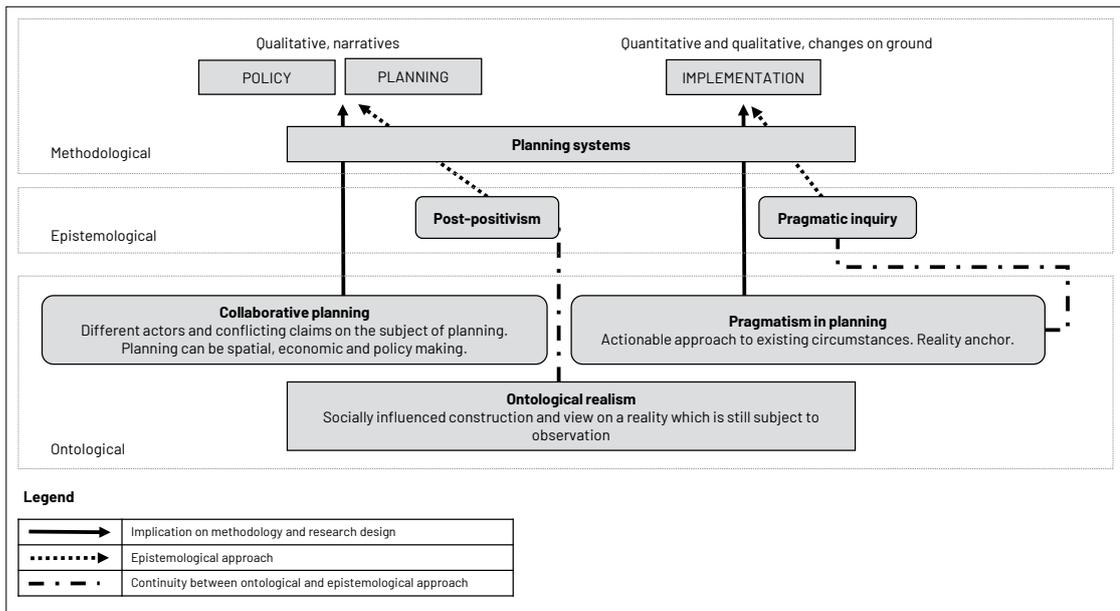


Figure 3.1: Scientific positioning of the research in reference to planning theory. Source: Own work.

Figure 3.1. represents the relationship between the ontological positioning, epistemological orientation and methodological approach that this study utilizes.

The ontological positioning in terms of planning, based on Healey (2006), outlines that planning can be a variation of spatial planning, policy making and economic planning. This distinction is organized differently in the variety of planning systems and, respectively, needs to be taken into account in the research design. Applying this understanding to the planning systems of the selected cases results in the identification of two units of analysis which need to be considered in the research design of the study: policy and planning. Since the focus of this research is on the question of urban shrinkage, planning is considered more closely aligned to spatial planning at urban level. The policy unit encompasses any other policy or economic planning or policy approach that might have originated at different levels of the planning system, but has a specific urban dimension for the selected cases. The postpositivist epistemological orientation recognizes that the narratives, surrounding policy and planning (both as units of analysis and as practices), represent the manifestation of ideas, problem definitions and approaches to the urban shrinkage and population decline phenomena.

On the other hand, the pragmatic ontological orientation, focuses on the conclusions, derived from practice, linked to reality and concerning specific execution of changes in the urban reality of the selected cases which transcend the ideas and narratives, identified in the policy and planning research units of analysis. By applying the already outlined pragmatic inquiry into the specific context of the selected cases, the research outlines the specific circumstances of urban shrinkage and, respectively, the actionable points that were addressed in the specific cases. This forms the third unit of analysis: implementation. It encompasses the execution of practical changes on urban level that occurred in the selected cases.

3.3.2 RESEARCH DESIGN AND WORKFLOW. RESEARCH STAGES.

One of the challenges of this project is the conceptual instability of the starting point, namely the partial consensus on urban shrinkage or shrinking cities as a definition and

the conceptually incoherent, but already introduced, label of “Shrinking Smart” that is supposed to define the future planning concept. This calls for specific theoretical and conceptual attention as part of the research design of this study in order to give rise to a more conceptually coherent outline of the planning concept of “Shrinking Smart”.

In order to address these complications, the research employs a deductive research design. Deductive reasoning provides a stronger foundation for the identification of ideas, existing concepts and normative orientations in the identified narratives analyzed, thus decreases the risk of extreme relativism of the identified information. This risk is two-fold. On the one hand, it is the conceptual instability of the urban shrinkage terms and, on the other hand, is the utilization of the label “Shrinking Smart” which is associated with specific meanings, already presupposed by the adjective “smart”, which are also a subject of continuous academic debate (Hollands 2008).

Postpositivism addresses the utilization of concepts as part of the scientific research and their introduction as part of the empirical inquiry. The introduction of strictly determined theoretical concepts could sometimes impair and even compromise the empirical relevance of the research. This can occur due to the inability of the scientist to establish a relationship between the theoretical construct and its language form and the language forms and understandings of the practitioners or other social actors that the concept pertains to (Fischer 2003, 142; Fay 1996). In order to address this risk, the theoretical stage of the research pays specific attention to the flexibility of the introduced theoretical constructs in order to identify their possible counterparts in the investigated narratives of policy and planning.

Secondly, the nature of the research is comparative across different contexts within the European Union. Further justification on why this is suitable for the purposes of this study is provided in Chapter 5. The argument mainly pertains to the specific and contextual nature of urban shrinkage, particularly in the European Union, and the historical specificities of the occurrences of this phenomenon. Cross-national comparative research, however, has its own specific characteristics, which need to be considered in the research design. As outlined by Farthing, quoting Masser and Bendix (2015), there is generally a consensus among planning scientists that research in planning on cross-national comparative level focuses on planning scope and practice as embedded in the variety of different planning systems. Its main goal is to develop conclusions, on both theoretical and practical level, that can aid the creation and potential transferability of planning approaches across countries. Yet, as outlined by Booth (2011), comparative research in planning is a challenging endeavor that can conclude in a dead end of extreme contextual relativism. However, if conducted properly with clear focus and boundaries of the conclusions, comparative planning research can contribute to the convergence of ideas and planning practices. This is particularly important for the advancement of convergence and policy evolution in the European Union. Furthermore, comparative research can contribute to the expansion of the planning discipline by undertaking non-traditional routes and utilizing data and sources which go beyond the ones usually associated with spatial planning. This study attempts to contribute to those objectives, recognizing the potential pitfalls of such a research design. In order to address them, the research design takes a more exploratory and observational direction without claiming to establish strong causal conclusions (Farthing 2015). As outlined in the epistemological orientation, only quasi-causal points can be identified. Both the theoretical and empirical conclusions of this research contribute to the advancement of theory in planning and particularly in the field of urban shrinkage. The practically-oriented comparative second aspect of the study aids the advancement of exchange and potential

knowledge transfer across different countries while recognizing the overall embeddedness into the wider political and economic context of the European Union.

The following diagram (Figure 3.2.) represents the research design and workflow of the study, outlining the stages that have been followed in its execution.

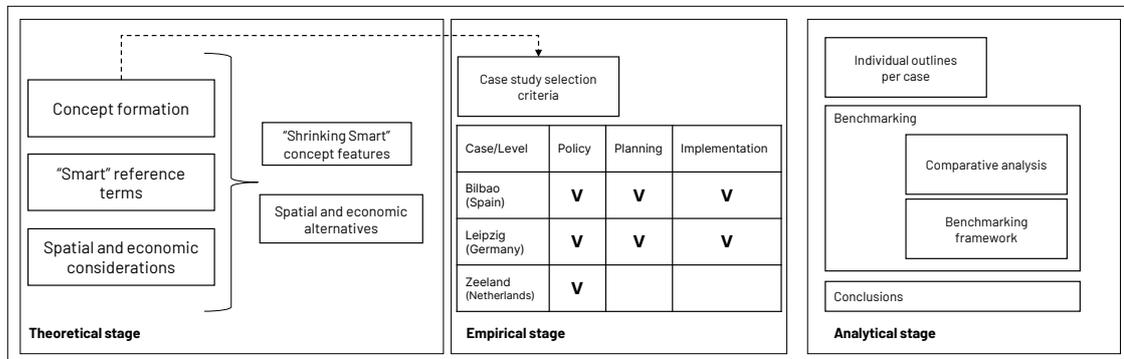


Figure 3.2: Research workflow. Source: Own work.

The research design distinguishes three stages: theoretical stage, empirical stage and analytical stage. The analytical stage also encompasses the applicability stage since the recommendations are based on the analysed data and the conclusions. Due to the deductive nature of the research design, the following outline of the stages begins with explanation on the theoretical stage, then introduces the chosen comparative approach (multiple case study research with embedded units of analysis), proceeds with the analytical stage, including the benchmarking framework and concludes with the applicability stage where conclusions and recommendations are provided as a decision making sequence and as scenarios.

THEORETICAL STAGE

The deductive methodological orientation enables the first stage of the research, which focuses on the theoretical formulation of the planning concept in the form of a set of hypotheses. A theoretical reflection on the process of concept formation results in five concept features, which form the main bases of the argument being researched as part of the deductive model of the study. In addition, the theoretical concept features are also utilized as criteria for the selection of cases, resulting in the identification of three case studies. Two of those case studies encompass all three research units of analysis, while the third one encompasses only the policy unit of analysis.

A second theoretical reflection is executed through a critical analysis of previous research of three reference cases of the label “smart”(smart city, smart growth and smart specialisation). The result of this second theoretical reflection are another five concept features which feed into the deductive model and the hypotheses being tested.

Lastly, a critical review of existing ideas and proposals, pertaining to “Shrinking Smart”, formulates the third set of hypotheses. These hypotheses are formulated under spatial and political economic scrutiny and outline hypothesis, following the “non-growth” oriented planning by attributing the ideas to economic development and efficient and equitable land use, building stock and railway infrastructure.

CASE STUDY DESIGN

This research has chosen a case study design as a comparative approach. The reasons behind the selection of this approach are both scientific and practical. From scientific standpoint, case study research provides a closer view on the specific reality in which the investigated phenomenon occurs (Flyvbjerg 2006). As illustrated in the previous sections, the overall ontological and epistemological orientation of the research align more closely to non-positivist methods, thus case study design is a suitable approach as it transcends the limitations of sample-oriented rationalistic research models. Particularly for the case of urban shrinkage, case study design allows for a deeper understanding of the contextual specifics in which shrinkage has occurred and has been addressed. Recognizing the specificities of a certain context remains crucial to develop a planning or policy approach under the framework of “Shrinking Smart” that can be applied to practice and can provide guidance for currently or future shrinking cities. Additionally, as illustrated earlier, the phenomenon of shrinkage transcends traditional scientific boundaries between disciplines and can generally be embedded in the field of political science. This implication, combined with the need to develop a conceptually coherent planning concept, further justify the selection of case study as a research design. Case studies have been recognized as most suitable for developing more structured scientific concepts as their application to case studies demands a more detailed theoretical foundation prior to their utilization (Flyvbjerg 2006). Case studies expose specific hidden arguments and findings which might be omitted in the case of rationalistic sample approach. In the case of shrinkage, the sensitivity to the context is crucial (Haase et al. 2014) and case studies can aid the identification of particular critical factors, conditions and institutional specifics that have enabled the implementation of various approaches to the phenomenon. In turn, this information can prove valuable for the development of a coherent planning concept.

Following Flyvbjerg’s argument (2006), the selection of “critical cases” is key in case study research design. Information-oriented selection of cases is particularly suitable for this research as existing studies on urban shrinkage illustrate the variety of the phenomenon, yet agree that in European context there are similarities in the conditions and contexts in which shrinkage occurs (Haase et al. 2016). This consideration has been taken into account in the design of this study and has therefore justified the selection of case studies as representative of those different contexts. Lastly, case studies overcome the strict distinction between qualitative and quantitative methods. Research in planning should not be completely detached from the physical dimension (by looking at spatial dimensions such as morphology) but at the same time it should also pay attention to specific social and political dimensions of the practices that generate planning and policy change (Palermo and Ponzini 2014). Integrating these aspects into a case study design later allows for tailoring the selection of methods to encompass both qualitative and quantitative types so as to enable higher quality of conclusions and appropriate responses to the research questions.

Yin (2018) aligns with Flyvbjerg that a more holistic and meaningful description of reality can be derived from case study design. For the purposes of this research, Yin’s multiple case study design with embedded units of analysis has been chosen. The variety of contexts in which planning and policy responses to urban shrinkage have been developed in European countries (further details in Chapter 5) justifies the selection of this approach. This research design enables both deeper view on individual cases and comparison across cases. The theory-driven selection of cases for this study outlines how the identified responses to urban shrinkage have occurred in different European contexts. After identifying a shortlist of six possible cases, three case studies are chosen as representative of distinctive situations

and conditions under which responses to shrinkage have been designed and applied. Following the argument outlined previously and the distinction between policy, planning and implementation units of analysis, the following cases have been selected for this research:

- Shrinkage-relevant policy and planning approaches, resulting in spatial and other interventions (implementation) in Bilbao (Spain) between 2000 and 2015
- Shrinkage-relevant policy and planning approaches, resulting in spatial and other interventions (implementation) in Leipzig (Germany) between 2000 and 2015
- National policy for regional population decline in the province of Zeeland (the Netherlands) since 2010

The following diagram (Figure 3.3.) visually represents the selected cases in the research design by Yin (2018).

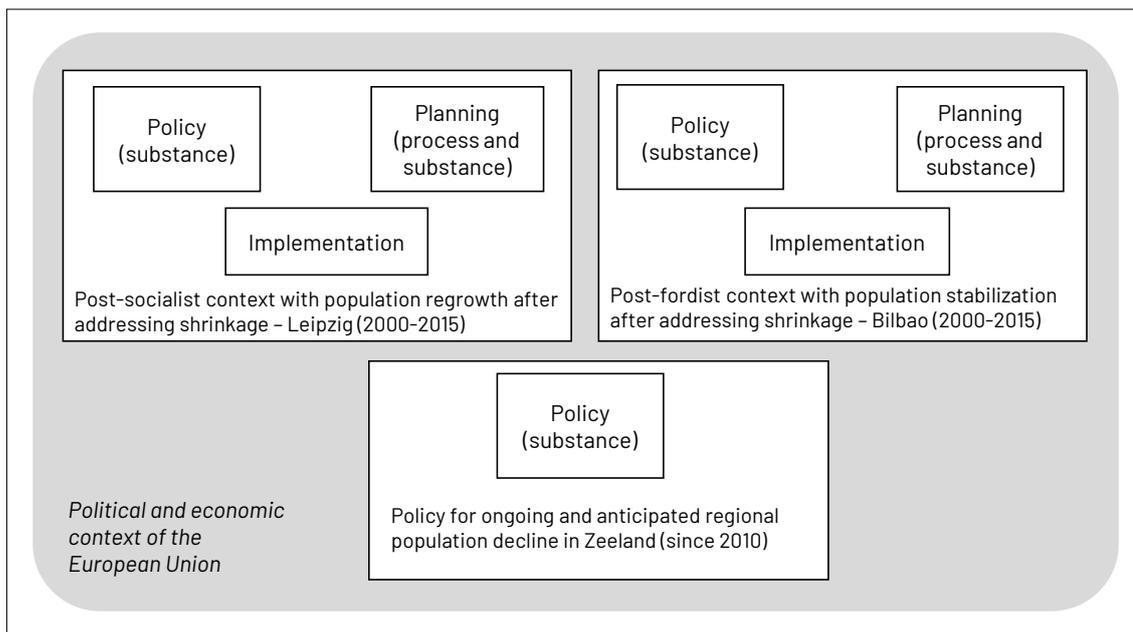


Figure 3.3: Case study research design. Source: Own work.

Additional factors for the selection of those three cases out of the six shortlisted ones are constraints and limitations to this study such as accessibility and language, among other factors that influence comparative cross-national planning research.

The theoretical concept features, defined in the theoretical stage, are the key elements of the hypotheses being tested in the empirical work on policy and planning units of analysis. All concept features and additional hypotheses points are then traced across the different embedded units of analysis: policy, planning and implementation. The concept features formulate three hypotheses, pertaining to the planning process, policy substance and planning substance. An additional hypothesis is introduced for the conceptualization of the shrinkage phenomenon.

The practical aspect of the research, concerning specific approaches that were implemented in the selected cases, is formulated as a separate hypothesis that builds on the conclusions of the critical analysis of “non-growth” oriented planning. As a result of the political economic critique of the debate, economic and spatial hypotheses are formulated under the implementation unit of analysis. Some of the concept features are associated with this distinction. In addition to them, specific measurements from economic and spatial standpoint are also introduced.

The distribution of the different concept features and hypotheses points across the research units of analysis is outlined in chapter 4.5.

ANALYTICAL STAGE

The analytical stage of the research provides an outline of the results identified in the three case studies individually. As a next step, a comparative analysis between the cases is executed. The comparative analysis is embedded into a benchmarking framework, developed for the purposes of this study, based on existing research on policy benchmarking. It sustains the distinction of process and substance of planning, introduced earlier (Faludi 1978).

APPLICABILITY STAGE

The benchmarking framework is utilized as a framework for the comparison and informs the formulation of a practically oriented method that can facilitate planning and policy making in currently or future shrinking cities. The applicability stage outlines the proposed concept in the form of decision making mechanism and scenarios.

3.3.3 METHODS

3.3.3.1 Theoretical stage: construction of hypotheses

The theoretical stage of this research focuses on the development of hypotheses for the deductive research design. As a starting point, the research takes into account the conceptual instability of the shrinking city and urban shrinkage definitions and reflects on the possibilities of developing a new planning concept in this setting. As outlined earlier, the lack of conceptual coherence in the field of urban shrinkage and particularly for the planning concept of “Shrinking Smart”, except for the works by Hollander and Németh (2011) and Rhodes and Russo (2013), establishes a broad field of possibilities for the development of a new planning concept. Due to the varied nature of the shrinkage-related phenomena, it is also difficult to choose a starting point for the development of theoretically oriented and scientifically sound hypotheses. Therefore, at the theoretical stage, this study steps into the realm of philosophy of science and knowledge creation, particularly in the field of contemporary epistemology. This theoretical reflection on the process of concept creation is utilized as a broader framework. The main objective behind this approach is the attempt to strengthen the theoretical stability of the potential new planning concept by reflecting on how concepts can be created in the context of science and particularly in the field of planning for shrinking cities. In order to do that, the particular methods of abduction and retrodution are applied (Hagen 2017).

Hagen reflects on the process of creation of scientific concepts, outlining that the concepts’ role is usually two-fold. On the one hand, scientific concepts are necessary in order to make conclusions based on empirical observations. On the other hand, concepts are sometimes created and developed based on empirical observations. A problem arises when none of these conditions are true – how can concepts be developed when they do not exist in order to facilitate empirical observation or when there is no empirical observation that can formulate a concept? As a response to this gap, Hagen introduces the methods of abduction and retrodution which facilitate the scientific discovery and outline the theoretical and scientific approach to the creation of concepts.

Abduction leads to the creation of an explanation-yielding hypothesis (Hagen 2017). The scientist performing the process observes certain phenomena, usually based on existing

research, and identifies a possible causal relationship between an observed phenomena and a certain consequence of this occurrence. As a result, the scientist hypothesizes that the observed phenomena could be understood and categorized in a certain concept which can later explain the probable causal relationship. The particular step of observation and theoretical hypothesizing with the intent of creating a scientific concept is what abduction is. Respectively, this method lies at the border between the observable “reality” and the theoretical or metaphysical reality of the scientific discovery. This approach is particularly fruitful for the case of “Shrinking Smart” because it corresponds to the starting point of this research in general. Apart from the two proposed concepts for “Shrinking Smart”, previous researchers have hypothesized that there might be a planning concept behind the certain planning efforts in a number of shrinking cities, which could differ from previously utilized planning concepts. The responses to urban shrinkage, presumably led by a concept, become the observable phenomenon which is subject to scientific inquiry and, respectively, the creation of a planning concept. Hagen (2017) outlines abduction as a tool to facilitate epistemological reflection, that is, the creation of knowledge in the context of science, leading to the post-positivist understanding that the scientist’s view defines the theoretical form of the observable phenomenon. This framework of epistemological constructivism is compatible with the post-positivist orientation of this research and therefore further supports the utilization of abduction as a method at the theoretical stage. Due to the lack of possibility to observe directly “planning concepts” in the empirical stage, this approach demands the scientist to step back and reflect on the possible concepts that can explain the phenomenon subject to theorizing.

This study utilizes particularly the above approach. The abduction method is applied by stepping back into the field of scientific knowledge creation, identifying an epistemological framework that can outline the direction of the scientific inquiry, identification of specific epistemological categories that guide the reflection and, ultimately, the formulation of a proposed conceptual form that feeds into the hypotheses defined. Through this process of abduction, the theoretical stage of this research utilizes epistemological pragmatism as a framework and the categories of “epistemic object” and “conceptual and non-conceptual knowledge” (Abel 2012) to determine the outline of the proposed theoretical construct of the new planning concept.

However, since the abduction method outlines only the theoretical reflection on the creation of scientific concepts, Hagen (2017) proposes a second method that complements abduction and facilitates the translation of the proposed scientific concepts “back to reality”, so that they can be tested as part of a deductive empirical research. This second method is retroduction. Retroduction enables the empirical discovery of the non-observable conceptualized phenomenon through the creation of models that feed into the formulation of hypotheses. The non-observable phenomena in this study are the ideas, interpretations and justifications of policy making and planning approaches, that can be found in the narratives, surrounding the practices of policy making and planning. Retroduction, applied to this scenario, takes the scientific reflection on the creation of a concept and translates it into the reality of planning, particularly in the context of urban shrinkage. The key step in retroduction is the creation of a model that reflects the theoretical construction utilized in the abductive part. The theoretical stage of this research executes particularly this step – the constructed theoretical concept is translated into a proposed model in the context of planning for shrinkage and as a result, produces five conceptual features which form the central point of the hypotheses that are later tested in the empirical stage.

Retroduction facilitates the creation of conceptual innovations (Hagen 2017, 139), which lead the deductive construction of hypotheses. Abduction and retroduction operate in a feedback loop through the reflection of the scientist, utilizing them. Due to the research design of this study, this feedback loop is of lower importance as the process of abduction and retroduction is utilized only at the theoretical stage. There is no feedback loop between the empirical and theoretical stage of the research. At the analytical stage, the theoretical constructs are verified against the empirical results. This approach aligns with the observation by Hagen (2017) that abduction and retroduction are processes that tie to the fruitfulness of scientific concepts, rather than their absolute validity. Therefore, following the argument of Hagen, the abduction-retroduction method applied here presumes a possible fruitfulness of the conceptual proposal and is, thus, not a final proposal of the concept of “Shrinking Smart”. Instead, it is used to formulate hypotheses, which are then tested in the empirical stage and critically evaluated at the final analytical stage.

The concept features defined with the abduction and retroduction methods are utilized as case study selection criteria, based on existing research, focusing on shrinkage-oriented planning and policy responses in the European Union. The conceptual features translated to practice through retroduction are applied to the conclusions of previous research in order to select most likely examples of shrinkage-related planning and policy efforts which are then investigated in the empirical stage.

The second method utilized in the theoretical stage of this research is literature review. As outlined earlier, the label “Shrinking Smart” was already introduced by previous researchers in the field. One of the obstacles to this research, however, is related to the adjective “smart” and its meaning in the context of shrinkage-oriented research. Therefore, as an additional theoretical step, this research reviews critically the literature on three reference terms, utilizing the word “smart” – smart city, smart growth and smart specialisation. The terms were chosen due to their relative popularity (smart city), their parallels to the proposed notion of “Shrinking Smart” (smart growth, as outlined by Wiechmann and Pallagst (2012)) and their utilization in European context (smart specialisation). The critical literature review of those terms allows for the formulation of overlapping meanings and interpretations of “smartness” which feed into the hypotheses of this research. As a result of this literature review, another five concept features are defined and then utilized in the construction of the hypotheses for the empirical stage.

A second literature review is conducted as part of the theoretical stage and it concerns existing research focusing on possible approaches to shrinkage and particularly the notion of “non-growth” oriented planning. This review critically analyses the proposals from previous research from political economic standpoint. This results in emphasis on the need of separation between economic and spatial considerations of “growth” and “non-growth”. In addition, the proposals related to spatial development are associated with the criteria of efficient and equitable land use, building stock and infrastructure management. The economic development is viewed separately from the spatial dimension. The formulated assumptions feed into the hypotheses model and are also subject of empirical verification.

3.3.3.2 Empirical stage: Data collection

As outlined in the previous section of this chapter, the case studies for the project were selected as a result of the defined conceptual features applied to an overview of existing

literature on responses to urban shrinkage. Due to the high fluidity and scope of the field, however, the previous research on the topic encompasses different timelines and periods, as well as planning and policy responses with different scope. In order to respond to this complexity, at the empirical stage, the case studies are analysed more critically and more in-depth, with a specific emphasis on the time period and the planning system in the respective countries. As a result of this critical review, the case studies are clarified in terms of scope and relevance for this research. The main sources of information for this preparatory stage are existing articles, reports and other sources, focusing on the selected cases as well as exploratory interviews with researchers and experts who have dealt with the selected cases. The outcomes of this preparatory step are institutional mapping of the relevant authorities in the respective cases, pertaining to the planning systems in Spain, Germany and the Netherlands.

The exploratory interviews and communication exchanges are not considered part of the empirical data and were therefore not structured uniformly and not recorded. This preparatory step allowed for focusing the research and clarifying the scope of the case studies analysed.

On the next step, the websites of the relevant institutions are reviewed and documents, reports, plans, policies and strategies, encompassing the scope of the research were identified. In addition, inquiries with the institutions are performed in order to collect the relevant information. The digitally available documents in German and Dutch are translated into English with the automatic translation tool DeepL Pro.

The second data collection method are semi-structured in-depth interviews with selected experts from the different institutions. The semi-structured interview was chosen as a more suitable tool due to the deductive nature of the research. An interview guide was developed, whose scope included the various aspects of the hypotheses, the concept features, defined at the theoretical stage, as well as the specific points of reference, pertaining to the implementation unit of analysis (the actual changes that occurred in the selected cases). The semi-structured interviews were exploratory in nature. They allowed for the respondents to guide the conversation in order to track the interpretation of the phenomenon and the measures from their perspective. This is a key component, necessary for the analytical stage (See Appendix 2: Interview guides and Appendix 4: Interviews).

Observational data (including photographs) has been collected following field visits to Zeeland (in June 2020), Leipzig (in June 2021) and Bilbao (in July 2021).

Statistical economic data and quantitative spatial data have been collected for the implementation unit of analysis. The data has been collected from an existing database on shrinking cities in Germany – the Wegweiser Komune project by the Bertelsmann Foundation. The data has been complemented with additional points from official statistical sources. The model has been replicated by the researcher for Bilbao with data, collected from official statistical sources.

Spatial data on land use functions in Bilbao and Leipzig has been collected from the Copernicus Urban Atlas Database – a standardized monitoring of land use across the EU with two reference years that fall within the scope of the research – 2006 and 2012.

The data collection took place during the Covid-19 pandemic in 2020 and 2021.

3.3.3.3 Analytical stage

The description of the analytical stage consists of the following outline, pertaining to the research design units of analysis:

- Policy and planning units of analysis – Outline of the interpretive policy analysis method
- Implementation unit of analysis – Outline of descriptive statistics and quantitative methods
- Comparative framework – Outline of the proposed benchmarking framework

3.3.3.3.1 Policy and planning units of analysis: Policy and planning units of analysis: Interpretive policy analysis

The main method for the qualitative analysis of the policy and planning units of analysis is discourse analysis. The method has been chosen due to the overall epistemological and methodological orientation of the study, particularly the postpositivist presuppositions. As outlined earlier in this chapter, the study assumes that the narratives surrounding the practices of planning and policy making can be analysed to expose the ideas, understanding and interpretation of urban shrinkage as a phenomenon and to outline how those interpretations have shaped the various responses, originating at multiple levels within a certain planning system.

As outlined by Jacobs (2006), discourse analysis is particularly helpful for urban research because it recognizes the role of the language as a political form and as representative of the power that shapes the policy agendas. Discourse, in the sense of the language and narrative, surrounding the practices of policy formation and planning, is the mediator through which the reality is perceived. Although power structures are not the focus of this research, exposure of dominant discourses can aid the critical interpretation of the way certain planning concepts or approaches are developed and to outline how the overall planning and policy orientation has shaped the responses to the phenomenon of urban shrinkage. This aspect directly corresponds to the possibility of paradigm shift, suggested by some scientists (Popper and Popper 2002). In order to understand to what extent there exists (a possibility of) a paradigm shift, research on the question should understand what is the paradigm in which certain policy and planning actions have originated in the context of the selected cases of this study. As outlined by Jacobs (2006), discourse analysis is particularly helpful for newly emerging policy and planning issues as it allows for a more nuanced understanding of the way that planning operates in a given context. This method enables a more realistic approach to developing new and disruptive planning ideas as they would hardly originate in a strictly controlled academic environment and detached from the reality of planning. The discourse analysis method aligns with the non-rationalistic nature of this research project because it introduces a higher contextual sensitivity to the study of planning ideas and concepts, thus rejects the positivist orientation of a blank state, which has also been identified by other researchers on the topic of “Shrinking Smart” (Hollander and Németh 2011). The particular variation of discourse analysis that has been chosen is interpretive policy analysis (Glynos et al. 2009).

Interpretive policy analysis is not a strictly defined uniform method. It displays a significant variety, however, generally it aligns with postpositivism. Interpretive policy analysis is an alternative to the rationalistic planning research approaches and it enables conclusions on macro level based on micro analysis of data (Glynos et al. 2009). This method has been

recognized as consistent with a more deliberative and non-technocratic form of policy making in general. The interpretive policy analysis method focuses on the identification and analysis of meanings, practices, policies and discourses (in the sense of dominant narratives), by analyzing linguistic information. The linguistic representation of policies is interpreted as embedded into the social context, in which it has been developed, thus it is critically evaluated, rather than simplified and summarized as an objective source of data. The textual representations are considered object of analysis, rather than observable phenomena. They are sources through which the subjective meanings can be exposed and further scrutinized. The level of analysis is macro, that is, the conclusions made as a result of the analysis are focusing on the general representations expressed in the analysed narratives, rather on the specific linguistic meanings of the words themselves. The proposed particular approach to analysis, outlined below, derives mostly from the works of Frank Fischer (2003), Rein and Schön (1996) and Deborah Stone (2002) who focus on the generation of meanings, their contextualization, establishment of causal relationship between policy issues and the subjective interpretation of the reality by the different policy agents. Certain influence on the selection of these methods comes also from the work of Maarten Hajer (2006) from the perspective of the reconstruction of dominant narratives as parts of the policy agendas. His emphasis on the dynamics of institutions and agents is not taken into account as this information is not central to the focus of this research. Nevertheless, the analysis of the conclusions does make references to the institutional and agent structures, but does not place them at the center of the analysis.

The method consists of a number of discursive elements which are identified in the course of the data processing and then guide the analysis. The first element is the framing. As outlined by Fischer (2003), in policy context, framing represents the process through which information about a certain phenomenon is transformed into a meaningful cognitive construction that provides an explanation for the perceived phenomenon. These explanations and cognitive understandings are, respectively, shaped by the social context in which the process occurs. Frames contribute to the formation of understanding of problems and guide further cognitive steps that determine action. In policy context, framing to a large extent determines the possible paths for a policy response and outlines possibilities for action as a response to the phenomenon which is being observed. Framing is an important process in the policy cycle as it provides input to the political justification of a certain course of action. From analytical standpoint, the identification of frames allows for the analysis to outline the way that a certain problem is understood, which can be the key starting point in the determination of the next steps and remedies for it. In the context of this research, framing focuses on the understanding of the shrinkage phenomenon and the effects of it. The variety of definitions of shrinkage in the scientific field is an indication of the variety of interpretations of the phenomenon in the planning and policy practices, thus identifying how urban shrinkage has been understood by the respective policy makers and planners is of crucial importance for the quality of analysis and the critical interpretation of the following course of action chosen. Framing is a key cognitive process through which the information for "amorphous situations" can be made sense of (Fischer 2003, 146). This point is particularly valid in the context of urban shrinkage as its nature continues to be contested and is not uniform.

Rein and Schön (1996) further outline the application of framing in policy and discourse analysis. They call for frame-reflective discourse which pays particular attention to the context in which the frame is formulated. This contextual sensitivity can be analysed through the identification of nested context - the second discursive element, as part of the utilized

interpretive policy analysis. The nested context refers to the setting in which policy issues are dealt with. Since they are not observable changes, occurring in a sterile environment, policy issues are often embedded in a broader situation, which represents the context. This nested context can be the immediate policy environment, the broader political and economic setting and, even further, the overall historical era in which the policy formulation takes place. The authors distinguish between four levels of context – internal, representative of the organizational level; proximate, which is the broader policy environment of other programmes and policies, political programs and current economic or social issues; global, which is the public context in which the policy discussions occur; and lastly the historical era. Nested context is utilized in two ways in policy making – as a confirmation for a selected course of action, to sustain the already established way of doing things, or as a reason for change, thus leading to reframing of the issue and choosing a new direction. Reframing on its own can actually generate further changes in the established context, thus triggering a feedback loop between them. Rein and Schön outline that on the higher level of abstraction in policy making (a larger scale context) usually there is a consensus in the discussion (for example, democracy), but on the lower levels of context particular conflicts may arise. These contextualizations expose the so-called meta-level consensus on social order, shared between multiple actors. In the context of shrinkage, the nested context understanding is particularly important, especially in the dynamic policy setting of the European Union where both political and economic consensus on bloc level are often an additional factor apart from considerations on country level or lower. For the purposes of this research, the nested context analysis can outline the way that the interpretation of the context is utilized to justify a selected course of action when responding to shrinkage or to try to “break” the established order and trigger context shifts. As illustrated in an earlier chapter (Chapter 2), the political and economic setting of the European Union evolves throughout the years, therefore it is important to understand what are the viable courses of action for shrinking cities in such a setting. In order to identify the nested context and the framing, the “Figured worlds” and “Context” tools, proposed by Gee (2014) are utilized. They focus on language uses that expose the respective underlying presuppositions of the issue (framing) or the context (nested contexts), the simplified theories of the world in general, utilized in the narratives and, respectively, the assumptive positions from which the selected policy and planning approaches are derived. These positions might be affirmative of the established order or potentially suggesting change.

The cognitive understandings that can be exposed through the framing and nested context discursive elements can usually be found in the form of stories within the respective policy narratives. The stories are the next discursive element, analyzed as part of the interpretive policy analysis. Fischer (2003) characterizes stories as the manifestation of the understanding of the respective policy issue and potentially the desired course of action. In that sense, the stories precede the actual justification for action, they set the stage for the proposed policy direction. As outlined by Stone (2002), stories usually attempt to bring control to the stage of policy making, they imply that due to the undesired nature of a certain situation, specific steps need to be taken. Often stories outline a picture of a crisis that needs to be responded to. These stories are particularly helpful in political setting as they often represent the justification of certain political actors for their proposed agendas. In the policy arena, stories outline the need for action and precede the final point in which the direction is chosen. The stories can also reproduce an existing condition by attributing positive interpretation and thus justifying the maintenance of the status quo. In the context of shrinkage, stories are particularly important in order to understand how

the changes occurring in shrinking cities are told from policy and planning perspective - do they attempt to trigger change or they attempt to reproduce the status quo? By critically analysing those stories, together with the framing and nested context, it is possible to understand and critically evaluate the interpretation of the shrinkage phenomenon in different settings and thus provide valuable insight on the desired course of action chosen in specific circumstances. The discursive elements of framing, nested context and story form the causal strand of the interpretive policy analysis.

Having understood the build-up to a decision through the framing, contextualization and story behind a certain policy problem, the final step in the policy making process concerns the selection of desired course of action. This aspect can be captured in the cognitive step from "is" to "ought" (Rein and Schön 1996, 148) or the normative leap. The normative leap is the next discursive element, utilized in the interpretive policy analysis. The normative leap postulates how the interpretation of the reality, represented in the framing of a certain issue, justifies a specific direction of the desired policy action. If the steps prior to the normative leap outline the problem setting, they prepare the stage for the entering of the decision, then the normative leap is at the spotlight of a certain policy decision. It links the causal outline of a certain problem to the proposed solution or action, postulates how things should go from now on, introduces specific viewpoints and assumes and assigns responsibility to actors or institutions. As it is visible from its name, normative leap is political in nature and, respectively, normative. It outlines how things should be from the perspective of the certain policy actor or the proposed programme of action. The normative leap forms the central point of the proposed normative strand of the interpretive policy analysis, employed in this research. In addition to this cognitive step, two other discursive elements complement the normative leap - the causal story and the metaphor (Stone 1989; Stone 2002). The causal story brings the storyline introduced in the causal strand even closer to the normative leap by attributing responsibility or reasoning behind a certain action. It provides an answer to the question "why?" in terms of understanding a certain policy problem. By assigning a causal link between a certain policy situation and an external factor, the causal story further justifies the proposed normative direction, outlined in the normative leap. Lastly, the normative leap can be further strengthened by metaphors. Metaphors utilize similarities between a specific policy problem and another term or reference. They facilitate the description of a certain issue and imply possible remedy to it. In that sense they contribute to the formation of the normative leap. Metaphors are symbolic devices and suggest a course of action. A suitable example in the context of shrinkage is the "spread of urban decay" and "dying industries" which utilize parallels to medical conditions, thus implying that the illustrated phenomena are undesirable and require "treatment". In order to identify the normative leap, the "Politics building tool" by Gee (2014) is utilized as a technique. It focuses on the language forms, expressed in the identified narratives, that illustrate the normative dimension of the desired direction. It directs the attention of the analysis to statements that express implicit or explicit normative and political statements, concerning the distribution of social goods and the viewpoints on the preferred direction of the proposed course of action. The normative leap, causal story and metaphor form the normative strand of the interpretive policy analysis.

Due to the wider scope of the research and the inclusivity of the urban shrinkage term, during the analytical phase the scope of shrinkage-oriented policies and planning approaches is continuously assessed. While the discourse analytical elements, outlined above, are able to outline the causal and normative orientation of the measures identified, their thematic

scope is not uniform. The reason behind is that shrinkage is not universally understood and can be interpreted in a different way in different contexts. Moreover, its effects vary across the different contexts, thus they might result in different planning or policy challenges. Therefore, in order to be able to outline the scope of the responses, in parallel to the identification of frames, nested context, stories, normative leaps, causal stories and metaphors, the analytical part inductively outlines the thematic scope of the measures in the selected cases. This enables the formation of thematic cores around certain policy or planning issues, rather than limiting the analysis only to one policy area. At the same time, it also allows for more precise understanding of the desired direction of action so as to understand the overall approach in the respective planning system to a certain topic (for example, active housing policy and interference into the housing market or laissez-faire market-driven housing policy).

The interpretive policy analysis encompasses framing, nested context, story, normative leap, causal story and metaphor. In parallel to the identification of those discursive elements, an inductive approach is applied to the scope of the policy and planning measures in order to determine the thematic orientation of the shrinkage-oriented policies and planning approaches. This analytical approach attempts to identify to what extent the hypotheses determined in the deductive model can be found in the respective policy and planning approaches. Further explanation on the scope of the hypotheses and the application of the different discursive elements for each of the concept features and hypotheses is provided in Chapter 4.5. The following diagram (Figure 3.4.) outlines the analytical approach for the planning and policy units of analysis through the proposed interpretive policy analysis method:

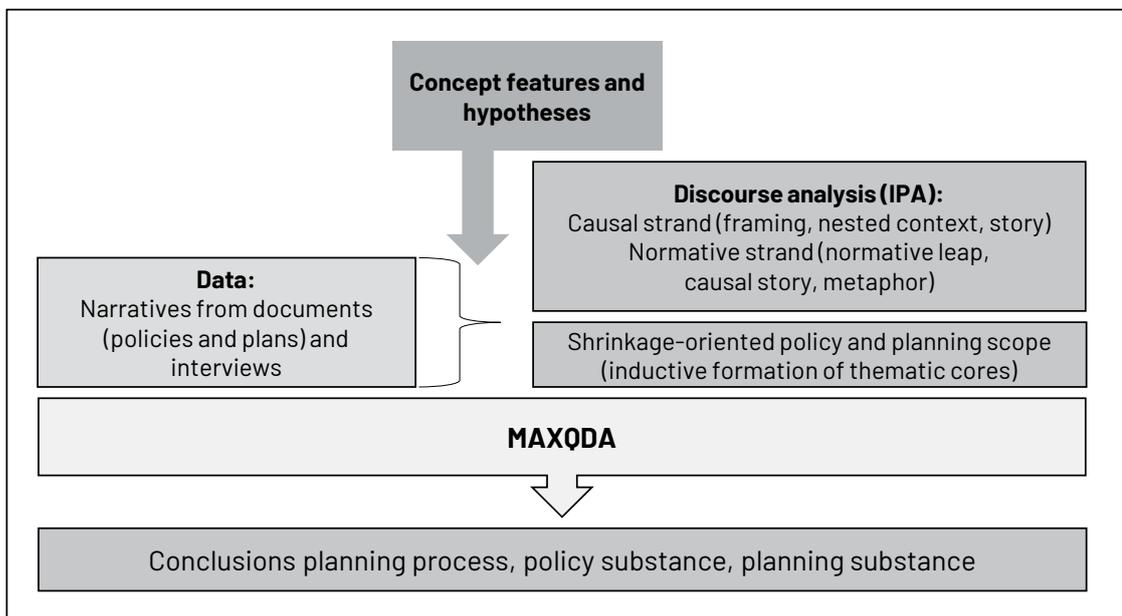


Figure 3.4: Empirical application of interpretive policy analysis method. Source: Own work.

This analytical approach encompasses the planning and policy units of analysis of the research design. The main sources of data are policies and plans in the identified cases, as well as the semi-structured in-depth interviews with representatives of the different responsible institutions. The data is processed in the analytical software MAXQDA. The following diagram (Table 3.1.) represents the scope of the interpretive policy analysis as related to the research design:

Focus/Research design level	Policy	Planning	Implementation
Process	Out of scope	A	Out of scope
Substance	B	C	D
Legend: A-Planning process, B-Policy substance, C-Planning substance: >Interpretive policy analysis D-Implementation substance: >Interpretive policy analysis and quantitative economic and spatial data			

Table 3.1: Interpretive policy analysis in reference to research design. Source: Own work.

Following the key distinction between substance and process in planning (Faludi 1978) and applied to the three research units of analysis, the interpretive policy analysis is the main method utilized for the conclusions in regards to the planning process, policy substance and planning substance. The policy process is outside of the scope of this research as well as the process of implementing the selected measures. The analysis on the planning process, policy substance and planning substance is guided by the proposed concept features and hypotheses and the conclusions of this research are formulated, based on this approach. In parallel to the identification of the concept features and hypotheses, the scope of the shrinkage-oriented policies and plans is continuously analysed in order to determine the policy and planning areas which the responses encompass.

3.3.3.3.2 Implementation unit of analysis: Economic and spatial assessment

The implementation unit of analysis of the research concerns only the cases of Bilbao (Spain) and Leipzig (Germany). It focuses on the actual measures and actions taken in those cities in the specified timeframe of the research scope. Specific concept features are associated with the implementation unit and are analysed from the perspective of economic and spatial changes that were implemented in the two case studies. In addition to the analysis, based on the features, specific data points, related to economic and spatial changes are also added to the analysis in order to verify the proposed hypothesis. The selection of the data being collected and outlined is based on existing research in the field of shrinkage and particularly the reference definition chosen in this study, proposed by Martinez-Fernandez et.al. (2012a) which views urban shrinkage as a multidimensional process with different demographic, economic, geographic, social and physical dimensions. Additionally, previous research points to the possible change in the direction of planning to not focus on growth but on other considerations (“non-growth”) (Wiechmann and Pallagst 2012; Popper and Popper 2017). These suggestions from previous research are critically analysed, resulting in the assumption (and the respective hypothesis) that their implied normative orientation aligns with efficiency and equity in economic and spatial terms (Shahab, Clinch, and O’Neill 2019). In spatial terms, the efficiency and equity considerations are associated with compact development, avoiding sprawl, mixed use development of the available land and efficient management of infrastructure (in the research design, railway infrastructure is chosen as a proxy for this aspect of the hypothesis). The critique from political economic standpoint, stipulates that the possibility of “non-growth” oriented planning needs to distinguish between economic and spatial considerations. Therefore, this distinction is sustained in the empirical verification of this hypothesis.

Based on previous research on the cases of Bilbao and Leipzig, it is identified that measures have been taken across both economic and spatial dimensions. The analysis juxtaposes the

qualitative information collected on the hypothesis of “non-growth” from the interpretive policy analysis with quantitative information on economic and spatial development, encompassing the previously mentioned spatial dimensions. It traces key indicators throughout the years of the timeframe of the research (2000–2015), pertaining to city level and specific areas of spatial interventions. The indicators have been selected based on existing research in creating typologies of shrinking cities – the project Wegweiser Komune by the Bertelsmann Foundation. The indicator dashboard by the project has been designed for the purposes of measuring the impact and trajectories of urban shrinkage in German context. The indicators encompass a variety of topics that go well beyond economy. The methodology has been constructed by integrating available statistical measurements from national and state sources as well as developing and adapting data points to the parameters of the Sustainable Development Goals, defined by UN. The methodology has been chosen due to its applicability in comparative perspective as well as due to the integration of SDG considerations in the measurements.

The economic indicators reviewed for the cases of Bilbao and Leipzig in this research encompass data points that trace potential growth or non-growth trajectory, in-line with the definition of the hypothesis. The data points chosen are population, new arrivals, migration balance, natural balance, creation of new business start-ups and GDP per capita (in comparative perspective to the state, the country, the EU and the Eurozone). The data for Leipzig is collected from the Wegweiser Komune database as well as official statistical sources. The data for Bilbao is generated based on available data from official statistical sources based on the replicated model from the Wegweiser Komune methodology. The indicators chosen act as proxies that illustrate the changes that took place in the city from spatial and economic perspective. In addition, the conclusions from the interpretive policy analysis under the implementation unit of analysis complement the verification of the hypothesis.

The spatial indicators encompass quantitative data points and spatial measurement calculations. The quantitative data points have been generated from the Wegweiser Komune dashboard for Leipzig and have been replicated with official statistical sources for Bilbao. The particular data points are land use, new land use, land use intensity and population density. Those indicators are also based on the SDGs. Further spatial data is collected from the Copernicus Urban Atlas Database. The database has been chosen due to its standardization on EU level. The data collected encompasses land use function in two years during the investigated period – 2006 and 2012. The data is utilized to calculate the size of the different land use functions in both cities and to illustrate change. The predefined categories of land use data have been utilized and the data has been processed in QGIS. The analysis follows a descriptive approach by outlining the various data points and drawing conclusions to verify the hypothesis.

3.3.3.3.3 Comparative framework: Policy benchmarking

The conclusions from the individual case studies across the three units of analysis (policy, planning and implementation) are subject to comparison, following the research design. The comparison is facilitated through a benchmarking framework, designed for the purposes of this research, based on existing works on the utilization of benchmarking methods in public policy. This approach supports the objectives of the research to enable comparative analysis of shrinkage approaches and also contributes to the development of practically applicable method for currently and future shrinking cities. At the analytical stage, the benchmarking

framework embeds the categories of the analysis (planning process, policy and planning substance and implementation substance) and compares the conclusions from the case studies, following the same logic.

At the applicability stage, elements of the benchmarking framework are utilized for the creation of the decision making sequence and the scenarios. Therefore, the following outline concerns only the characteristics of the proposed benchmarking framework for the purposes of the analytical stage.

The comparative benchmarking approach is suitable, particularly for comparisons within the European Union. It is considered part of the EU philosophy of convergence and exchange (Dominique, Malik, and Remoquillo-Jenni 2013). The particular variation of benchmarking, appropriate for the purposes of this study, is policy benchmarking. This type of benchmarking focuses on comparison between different countries in terms of policies in different areas, interventions deriving from them, and a variety of strategies utilized (Dominique, Malik, and Remoquillo-Jenni 2013). In the European Union, the Lisbon process has accelerated the utilization of cross-country comparisons in the form of benchmarks in order to support the desired increase in economic competitiveness and thus further strengthen convergence (Room 2005). This gradually established benchmarking as a key element of the open method of coordination and the tradition of monitoring and evaluation as part of the EU policy making process across member states (Sisson, Arrowsmith, and Marginson 2003). Having said that, benchmarking as a comparative approach is particularly suitable for cross-country comparisons and is therefore applied as a method as part of this research.

Benchmarking originated in the private sector and its transfer to the public realm has been subject to scrutiny. Its technocratic nature of measurement and assessment allows for extensive data collection, categorization and evaluations which can serve different goals when applied in a political context (Papaioannou, Rush, and Bessant 2006). Its two main components are comparison and learning with the ultimate objective of improving performance and utilizing practices or knowledge, evaluated as 'best in class' (Papaioannou, Rush, and Bessant 2006). The technocratic tendency of benchmarking makes it problematic as a method for qualitative oriented study, such as this one. Yet, with proper design and taking into account specific considerations, such a framework can be developed in order to facilitate the comparative stage. Due to limitations of this research and its scientific nature, the learning part of benchmarking, which supports the actual exchange between the benchmarked entities (countries, cities), is not considered part of the proposed framework, therefore it is not addressed. Following the principles of benchmarking, outlined by Papaioannou et.al. (2006), the proposed framework focuses on practice benchmarking, rather than performance. The practice orientation allows for structuring the findings of this research across the investigated cases in a streamlined sequence which outlines the particular specifics of the employed planning and policy approaches in addressing shrinkage, identified in the individual analyses of the case studies. This fulfils the criteria, introduced by the authors, to enable differentiation between the various types of benchmarking (performance benchmarking and practice benchmarking).

Another key principle of benchmarking is the applicability. For the purposes of cross-country comparisons, applicability needs to account for specific contextual factors in order to highlight the different starting points and elements of the practices identified (Papaioannou, Rush, and Bessant 2006). The authors emphasize on the need to particularly specify what is the exact aspect being benchmarked so as to avoid false comparisons. For

the purposes of this study, the aspects being compared are the various policy and planning practices that have urban dimension in the selected case studies for the purposes of addressing urban shrinkage.

Due to the rational nature of the benchmarking approach, focused on data, certain limitations and risks arise when it is utilized in the public sector. Dominique et.al. outline some of those limitations (2013). Due to the usual overreliance on data and quantitative information, benchmarking sometimes overlooks the political nature of the construction of indicators, which are subject to political decision and can be morphed in order to serve specific understanding and interpretation of the phenomena being measured. Secondly, the potential unavailability of the specific data points necessary, sometimes pushes the benchmarking to obtain 'second best' data for the specific measurement, which triggers oversimplifications of the complex questions being measured and can also distort the direction of assessment. The challenges associated with data availability can also trigger false causalities. Lastly, the focus on quantitative data points can overlook the evolution of policies and thus obscure the different starting points in the measured entities (Dominique, Malik, and Remoquillo-Jenni 2013). Other limitations of comparison concern the interpretation of data and the influence of political opinions in the formulation of measurements (Luque-Martínez and Muñoz-Leiva 2005). The focus on "performance measurement" can also lead to false conclusions on the "progress" on certain indicators as they may have not been achieved solely through the specific policy being measured, but rather through other factors, outside of the benchmarking scope (Room 2005). Certain limitations are associated with the inconsistency that may arise when public services are measured with market indicators (van Thiel and Leeuw 2002). This can trigger oversimplification of the public services' role and respectively worsen their quality. Due to its technocratic nature, benchmarking tends to provide "universal" overviews on the measured phenomena as well as to support rationalistic approaches to urban policy and planning, thus can again overlook contextual specifics and more nuanced understanding of specific cases (Kitchin, Lauriault, and McArdle 2015).

All these limitations are taken into account when designing the comparative framework of this research. Due to its focus on practice benchmarking, rather than performance, the benchmarking framework does not overlook the evolution of policies, but rather focuses on it. They are the main element being compared and, respectively, benchmarked. The emphasis on practices also mitigates the risk of measuring the wrong indicators – since such are not attributed to the measured practices, the practices themselves become the focus of comparison and evaluation (Room 2005). The designed framework follows the suggested "scientific" type of benchmarking, which concerns only with outlining the comparative points, rather than dealing with their possible transferability (Dominique, Malik, and Remoquillo-Jenni 2013). Due to the non-universal characteristics of the shrinkage phenomenon, the benchmark emphasizes on the contextual differences across the studied cases and thus mitigates the risk for oversimplification or claims for universalization. It is situated at the crossing point between the planning process and its implementation (Luque-Martínez and Muñoz-Leiva 2005; Boxwell 1994) – it outlines how the investigated cases have designed and achieved the respective responses to urban shrinkage. Through the focus on evaluation and assessment of key elements of the planning and policy processes, the benchmark framework highlights the different approaches to the issues addressed and thus allows for tracing innovative ideas or disruptive approaches, applied in the selected cases (Luque-Martínez and Muñoz-Leiva 2005). As suggested by Room (2005), benchmarking methodology should capture interrelations between different issues, should outline complementary policy practices and link different points of action. Such approach can construct dynamic-

focused indicators which highlight the “points of leverage” (Room 2005, 125) that have been critical in the process of responding to the dynamic nature of shrinkage. The overall qualitative approach of benchmarking, chosen here, mitigates the risk of universalizing and oversimplifying the measured policy and planning practices and establishes a strong contextual sensitivity in the comparison. Since the benchmarking comparative framework does not concern the learning aspect, it does not address the potential application of the identified policy and planning practices in other cases of urban shrinkage.

The comparative benchmarking framework utilized in the analysis consists of four phases. At each of the phases, the distinction between process and substance (of the proposed planning concept), introduced in the earlier analytical stages, is sustained. The phases are outlined below:

Phase 1: Contextual assessment and justification and causal perspective

- Characteristics of the shrinkage phenomenon – demographic, economic, spatial manifestations, depending on the case.
- Conceptualization of shrinkage and causal links to scope and normative orientation
- Key characteristics of the planning system that determine the planning process
- Other social, economic, geographic and historically contextual factors that influence the case

Phase 2: Scope of local planning and planning process

- Outline of the four proposed characteristics of the planning process
- Identification of planning scope and factors for the selection of instruments

Phase 3: Assessment of responses to shrinkage

- **Normative perspective** – identification of normative orientation of the proposed measures
- **Actionable and capacity perspective**
 - Identification of policy and planning instruments and their thematic scope
 - Identification of institutional and non-institutional actors
 - Characteristics of the spatial and economic development in the investigated approaches

The comparative framework is presented visually with the respective analytical conclusions, pertaining to each of the phases and each of the analytical points that have been identified as important.

3.3.3.4 Applicability stage: Decision making and Scenario building

The conclusions from the analytical stage are critically reviewed in the applicability stage of the research in order to produce the proposal for a new planning concept of “Shrinking Smart”. The proposed planning concept of “Shrinking Smart”, formulated in this stage of the research, encompasses preliminary normative orientation stances and a wider scope of policy and planning, based on the results from the research. These conclusions and the formulation of the new planning concept are viewed as a broader framework, applied

to planning and policy making. As a result, the applicability of the proposed planning concept requires the provision of recommendations for decision making processes. These recommendations ought to incorporate the above mentioned normative orientation, take into account specific contextual considerations in a hypothetical shrinkage setting and incorporate key variable factors in this setting. These aspects, applied to a broader set of planning and policy domains require a methodological construction that can support such a complex process. Therefore, in the applicability stage, the definitions of the new planning concept of “Shrinking Smart” are also outlined in a proposed decision making framework, informed by the methods of systems thinking, design thinking and backcasting. The proposed decision making sequence also corresponds logically to the benchmarking phases, defined in the previous stage, thus creating a methodologically coherent proposal.

In this stage, the conclusions from the empirical data indicate that specific preliminary normative stances form the normative orientation of the planning concept. Given the complex nature of the shrinkage phenomenon, however, this normative orientation cannot be applied blindly and it has to be adapted to the specific circumstances. This need triggers the identification of critical factors that need to be taken into account in the application of the concept. Systems thinking methodology provides possible steps for the identification of factors for the definition of policy approaches to similar issues. The qualitative systems mapping method provides an opportunity for the definition of such factors and the relations between them (International Institute for Applied Systems Analysis 2019). The method requires the outline of potential factors that can influence the system (in this case, the broader policy and planning approach to shrinkage). The outlined factors are prioritized, depending on their relative weight in the specific case. In addition, feedback loops between specific factors are also identified in order to envision the impact of certain changes. The qualitative systems mapping method allows the determination of the most important factors in a given policy setting, the anticipation of the impact of some factors over others and to the system as a whole. Since this method is usually applied in a workshop setting with multiple stakeholders, its actual application goes beyond the scope of this research. Insights from the systems thinking approach, however, are utilized in the proposed construction of scenarios for the application of the „Shrinking Smart“ planning concept. This method is also suggested as a possible step in the implementation of the proposed concept, corresponding to the stage of assessment of shrinkage and the outline of the anticipated scope of responses.

Systems thinking can also be used for the construction of possible scenarios for the application of a certain policy or planning approach. In one of the early stages of scenario building, systems analysis enables the definition of scope and the uncovering of undisclosed perceptions of policy makers and planners towards a certain issue (Strelkovskii et al. 2020). Since one of the objectives of this research is to particularly uncover said perceptions, at the applicability stage of this study the conclusions have already been formulated. Following the deductive logic of investigation, the proposed scenarios for the application of the proposed concept of „Shrinking Smart“ are formulated based on those conclusions and they correspond to the methods of Scope definition and Perception analysis in systems-based scenario building (Strelkovskii et al. 2020). In the outline of the potential applicability of the proposed concept, the same methods are recommended as a possible step in real policy and planning setting that can contribute to the definition of scope of the shrinkage and depopulation responses and to the formulation of common understanding of shrinkage between stakeholders prior to identifying the necessary policy and planning instruments in broader policy scope or in spatial planning context. This method can also facilitate the identification of further contextual specifics in a practical setting. In the same vein, the

sensemaking method from design thinking can also support the forging of interrelations between topics and factors in order to facilitate the common understanding to the phenomenon of shrinkage (Mintrom and Luetjens 2016).

In the final stage of the possible application of the new planning concept, future-oriented methods can also be applied for the identification of planning and policy instruments. In the proposal for the planning concept of “Shrinking Smart” the definition of possible instruments is done based on the conclusions of the research. As a step from the application of the proposed concept of “Shrinking Smart” the identification of instruments can also be based on systems thinking, design thinking and backcasting methods. The scenario building method from systems thinking usually allows for the identification of possible options, based on the factors and feedback loops, identified through the qualitative systems mapping method. In addition, the scenario building enables the assignment of likelihood to the different scenarios and certain risks, associated with them (Strelkovskii et al. 2020). In the instruments definition stage of the planning concept, the instruments identified should be coherently subordinated to the proposed planning concept. Another method that can facilitate this in practical setting is mapping from design thinking (Mintrom and Luetjens 2016). Mapping enables the identification of overlaps between different instruments and objectives, thus also supporting the proposed integrated perspective and approach to planning and policy making in shrinking conditions. Lastly, the method of backcasting can also be utilized when applying the proposed concept of “Shrinking Smart”. The identified scenarios can be utilized as a desired long-term goal and then traced back to the current situation to identify what deficiencies and challenges need to be addressed to arrive at the desired future state (van der Kerkhof, Hisschemöller, and Spanjersberg 2002)

The applicability stage of this study has a twofold role. On the one hand, it presents the main conclusions from the research in the shape of recommendations and the definitions of the proposed concept of “Shrinking Smart”. On the other hand, it attempts to provide practical recommendations for the application of the proposed concept. Therefore, the methodological outline and references presented above also play a double role – they inform the actual formulation of the concept and recommendations and at the same time are used as a reference for the possible application of the concept itself. Thus, they perform both epistemological and pragmatic role in the context of the research design. The following visualization (Table 3.2.) presents the proposed steps for the application of the planning concept with the references to the methods, identified as suitable for its implementation.

The recommendation is not exhaustive and further methods can also be utilized (more details on the role of this methods in practice and their contribution to the application of the concept can be found in Chapter 8).

Proposed sequence steps		Possible methods		
Topic	Output			
Demographic assessment	Define context	<i>Scope definition (systems thinking)</i> <i>Perception analysis (systems thinking)</i> <i>Qualitative systems mapping (systems thinking)</i> <i>Sensemaking (design thinking)</i>		
Economic assessment	Define factors			
Quality of life considerations	Define planning system levels involvement			
Spatial assessment	Determine scope of planning			
Common understanding on the consequences of shrinkage or depopulation				
Commitment to manage shrinkage	Manage and accept (Citadel)			
	Manage but not accept (Aspiring phoenix)			
	Only manage (Lifeboat)			
Outline of possible factors		Formulation of scope and objectives	Selection of instruments	<i>Scenario building (systems thinking)</i> <i>Feedback loops between factors (systems thinking)</i> <i>Backcasting</i> <i>Mapping (design thinking)</i>
Demographic factors (ageing, structure, migration tendencies)				
Economic factors (endogenous potential, industry dependency, structural issues)				
Quality of life factors (services, infrastructure)				
Spatial development (market driven vs. controlled)				
New construction (market driven vs controlled)				
Land use (private vs. public)				
Existing building stock (private vs. public)				

Table 3.2: Proposed methods for the application of the variants of the “Shrinking Smart” concept in practice.
Source: Own work.

4

CONCEPTUAL DISCUSSIONS

The attempt to formulate a new planning concept under the label of “Shrinking Smart” requires a reflection on its theoretical coherence. Since the concept is expected to be inherently related to urban shrinkage and shrinking cities, as terms and on phenomenological level, its structure and meaning is derivative of the conceptual coherence of the “urban shrinkage” and “shrinking cities” terms. In order to identify a solid theoretical foundation for the construction of the new planning concept of “Shrinking Smart”, a reflection on the existing concepts of urban shrinkage and shrinking cities is required. As a second step, clarification on the meaning of the label “smart” is required due to its growing popularity. Through a comparative review of three reference terms, possible compound meanings of the label are defined as part of the hypotheses formulation. Thirdly, the process of concept creation is viewed as a process of knowledge creation in the context of shrinkage. As a result, further suggestions for the scope of the new planning concept are formulated in relation to already introduced theories of smart decline and in reference to the concepts of urban shrinkage and shrinking cities. Lastly, a review of other ideas from existing research, oriented to the notion of non-growth oriented planning and managing shrinkage are reviewed from political economic and spatial perspective in order to formulate final points of the hypotheses for the purposes of this research.

4.1 THE CONCEPTS OF URBAN SHRINKAGE AND SHRINKING CITIES

The concepts of urban shrinkage and shrinking cities have been the focus of recent research works by different authors. Some of the works outline that urban shrinkage is not a new phenomenon by illustrating references to previous studies, exploring the dynamics of urban development, its crises and resurgences, the changes to urban environment that have occurred in different contexts (Pallagst et al. 2017). These historical traces of the question of shrinkage often revolve around the dynamics of population, together with additional manifestations of different types of contraction – economic, land use, labour market dynamics. However, the manifestations or the effects of shrinkage are only one of the aspects of shrinkage-related research. Other sub-topics that focus the attention of researchers are related to the causes of shrinkage (Martinez-Fernandez et al. 2012a), where the effects of globalisation or the growth orientation in urban planning, are explored and analysed as triggers or enablers of shrinkage. Apart from the causes and the consequences of shrinkage, some works focus on the possible solutions to shrinkage-related questions and problems which are presented to cities and regions in different parts of the world (Hartt and Warkentin 2017; Pallagst, Fleschurz, and Trapp 2017; Brown and Justin O’Connor 2000).

All these sub-fields of shrinkage-related research follow a consequential logic of investigation. Chronologically, the logic presented is that different causes of shrinkage start influencing the development of a certain city or a region. As a next step, the phenomenon of shrinkage begins to occur in the respective area by manifesting itself through different effects and consequences, which are usually illustrated by specific challenges to local administration

(e.g. housing issues, depopulation, brownfields) and then, consequently, solutions to these issues follow. This chronological sequence is also subject to different theories within the field of shrinkage such as the path dependence theory, tracing back one single cause of shrinkage in time (Bontje and Musterd 2012) or the cumulative causation theory, which outlines how different causes interrelate and result in the current condition of shrinkage (Strykiewicz and Jaroszevska 2016). The sequential logic of causes-consequences-solutions has influenced some of the proposed definitions of urban shrinkage and shrinking cities.

Some definitions of urban shrinkage focus on the phenomenon itself and attempt to introduce a terminologically coherent form. Sometimes these definitions allow for a broader understanding of the phenomenon, not necessarily limited to a city. Other definitions focus on shrinking city as a term, thus providing a spatially bound perspective. One of the first definitions was introduced in 2009 by a group of researchers, part of the Shrinking Cities International Research Network. Their definition of shrinking city is:

The term shrinking city usually describes a densely populated urban area that has on the one hand faced a population loss in large parts and is on the other hand undergoing economic transformation with some symptoms of a structural crisis. (Hollander et al. 2009)

A variation of this concept, known as the consensus definition, is introduced by Blanco et.al. (2009)

[Shrinking city is] a densely populated urban area with a minimum population of 10,000 residents that has faced population losses in large parts for more than two years and is undergoing economic transformations with some symptoms of a structural crisis.

In the same year, another group of researchers, working on another shrinkage-related project (Shrink Smart - Governance of Shrinkage Within European Context), proposes another definition, only this time, they suggest a definition of urban shrinkage, rather than shrinking city:

[Urban shrinkage is] an event resulting from the interplay of different macro-processes at the local scale... Such macroprocesses may be related to the economic, demographic or settlement system development, as well as to environmental issues or changes in the political or administrative system. Urban shrinkage occurs when the specific interplay of the mentioned macro-processes leads to population decline, which we define as the main indicator for urban shrinkage. Population decline is represented by both natural decline (i.e. death surpluses) and losses by out-migration (suburbanisation, intra-regional migration, emigration). (Rink, Haase, and Bernt 2009)

The definitions, illustrated above, highlight the different scientific approaches to urban shrinkage and, respectively, have implications on research design, as well as on possible solutions for shrinking cities.

The definition by SCIRN offers a more descriptive approach to shrinkage. As the authors themselves have outlined the term '*describes a...*'. This descriptive nature of the context is then developed into a concise and specific outline of concrete characteristics of a locale that can be qualified as a shrinking city. These descriptions, however, can also be placed on the sequential axis outlined above (causes-consequences-solutions). As the authors outline, the

shrinking city would be an area that *'has faced a population loss'* – this characteristic implies that as related to the moment of research, looking back in time, a researcher aiming to investigate a certain city, would be able to trace back population data so they can determine that as of the moment the research is carried out the city has lost population. This population loss constitutes a current condition, a current effect of shrinkage, visible, traceable and subject to 'diagnosis' by the researcher. The second key part of the definition, focuses on the economic aspect and reads as follows: *'is (...) undergoing economic transformation with some symptoms of a structural crisis'*. In this part of the definition, it is clearly stated that the authors again refer to a current condition, that is, that the settlement that ought to be categorized as a shrinking city is currently experiencing a certain set of transformations, described as economic and structural crisis. Again, this part of the definition, clearly outlines the diagnostic manner of the concept of shrinkage – descriptive as related to the current condition of a certain city, object to research. Based on this breakdown, it can be concluded that the definition proposed by SCIRN focuses on the consequences of shrinkage part of the causes-consequences-solutions axis, outlined previously.

Moving to the second definition, another approach to defining shrinkage can be observed. Firstly, by choosing to define urban shrinkage instead of shrinking city, the authors already outline that they will not be focusing on a certain urban area or settlement, but rather on a process of change. The authors outline that the event of urban shrinkage, occurs as a result of *'interplay'* between different factors, implicitly stating that this happened in the past. However, the result which they outline is *'population decline'* but without specifically noting when has this population decline occurred (as opposed to the SCIRN definition where population decline is clearly a currently visible, observable variable, which can be traced as compared to the current moment of investigation). In this definition, the authors emphasize that only when this *'specific interplay'* of *'macro-processes'* results in population decline, can we talk about urban shrinkage. Respectively, one can reiterate by saying that had this specific interplay not resulted in population decline, then we will not be talking about shrinkage. The authors clearly state that they consider population decline as the key variable for defining shrinkage. As compared to the SCIRN definition, where economic indicators and characteristics are also included, this definition strictly focuses on demography. The definition by the "Shrink Smart" project emphasizes on population decline as the main consequence of the process. This places the definition on the consequences section of the proposed sequence. The authors clearly outline a more dynamic nature of their concept by focusing on the *'specific interplay of macro-processes'* that has led to this outcome. This part of the definition clearly lies on the causes section of the axis, outlining shrinkage as a process, rather than as a current state of a certain city, object of research. The dichotomy between process-oriented or dynamic definitions as opposed to descriptive and indicator-driven concepts can have influence on recommendations and actions, derivative of this understanding. Respectively, this also has implications on the structure and orientation of "Shrinking Smart" as a new planning concept.

As outlined by Hollander (Hollander 2018) researchers in the field still do not have a consensus on what shrinkage is and how it can be defined. Nevertheless, the debate on defining shrinkage and shrinking cities, originated with the establishment of the SCIRN network, has influenced a number of scholars to further research and redefine shrinkage, thus enriching and expanding the initial definitions, outlined above. As a result, further definitions of shrinkage and shrinking cities have been developed in time. The project CIRES (Cities Regrowing Smaller), focusing on shrinking cities in Europe, introduces another definition of shrinking city in 2011. As cited by Bontje and Musterd (2012), the definition reads:

[Shrinking city is] *'a functional urban area with a minimum population of 5,000 residents in its core city (or a certain district in it) that has faced a remarkable population loss at least for 5 years (in recent years or in some former period) and/or is undergoing a long-term or episodic economic, social or cultural transformation that cause symptoms of a structural crisis'*

This definition provides with precise indicators on what area would constitute a shrinking city through the introduction of a population variable with a minimum threshold. Furthermore, the authors outline a time indicator that traces back the population loss to tie it to the moment of investigation as an observable result. In the second part of the definition, the authors introduce the processes of economic, social and cultural transformation, which, on their own, lead to symptoms of structural crisis. Although this definition clearly suggests certain processes that have taken place, previously or at the moment of observation or research, it still relies mostly on descriptive vocabulary which outlines specific symptoms of shrinkage which would classify a certain urban area as a shrinking city. Additionally, the authors introduce the clarification 'and/or' between the population loss and the transformation description, which implies that a shrinking city could also be a city which has not lost population, but has only experienced, or currently experiences, the mentioned transformations. Lastly, the definition introduces a second consequential narrative, that is, the transformations causing symptoms of structural crisis. What can be observed from this definition is again strongly descriptive, diagnostic understanding of shrinkage as a condition that is observed by an independent researcher, looking from the side.

In 2012, Martinez-Fernandez et.al. (Martinez-Fernandez et al. 2012a) introduce another definition of shrinking city that encompasses both descriptive indicators and a more dynamic understanding. The definition reads:

'A 'shrinking city' can be defined as an urban area – a city, part of a city, an entire metropolitan area or a town – that has experienced population loss, economic downturn, employment decline and social problems as symptoms of a structural crisis. The term 'urban shrinkage' is used to stress the fact that this phenomenon is a multidimensional process with multidimensional effects and having economic, demographic, geographic, social and physical dimensions that not only continue to evolve as a result of new global and local realities, but also influence theories and research proffering diagnosis, prognosis and remedies. The term expands our understanding of 'decline' beyond the simple linear process that is generally understood to follow deindustrialization.

The definition can be split into two sections. The first section follows the descriptive approach as it outlines specific manifestations or occurrences that would be considered as symptoms. However, as opposed to the previous definitions outlined above, this one clearly outlines what those symptoms are – population loss, economic downturn, employment decline and social problems. Although it is not clear what the severity of those issues is and the use of a broader definition for some of them (e.g. what is understood by social problems?), the effects of the phenomenon are still clearly outlined. In the second part of the definition, the authors clearly state that the shrinkage phenomenon is *'a multidimensional process'*. In addition, the authors specifically stress on the dynamic nature of the phenomenon – its effects continue to evolve and result in influence on theories and research. This definition encompasses the descriptive, observable manifestations of shrinkage, but also incorporates the dynamic dimension to the concept. In addition, it goes beyond the mere diagnosis of a certain urban area, as related to observable phenomenon, but also outlines the implications

of this condition to science and policy making –suggesting that the changes occurring as a result of the phenomenon influence scientific debate and policy making. The authors of this definition also add specific physical dimension variables to their concept together with a causal relationship to events, which have influenced the process and the effects manifested in the observable shrinking city. Placing this definition on the axis of causes-consequences-solutions shows that it encompasses both the causes and the consequences section by clearly articulating that the nature of the phenomenon is both observable and processual. However, the notion of the ever evolving nature of shrinkage, combined with the causal interpretation of globalization as a main cause, imply that the ‘solutions’ aspect of the shrinkage sequence is also subject to this definition.

The concept definitions of shrinkage outlined above all focus on English-based research on international level. This has contributed to establishing and increased recognition of the terms urban shrinkage and shrinking city internationally. The German works on the topic align with the above definitions under the German term “Schrumpfende Städte” (Gestring et al. 2005). Fernandez-Agueda and Cunningham-Sabot (2018) try to develop a new term, suitable for Romance languages, particularly Spanish and French, deriving from their observations that the mere translation of the English term is inappropriate and that the existing term in English could not encompass the phenomenon in Spanish and French contexts. In their analysis, the authors outline the understanding of urban shrinkage and shrinking cities as outlined in German and English works and propose a new term in Spanish and in French as a response to the missing consensus among scientists in those countries on what the terms encompass. Their suggestion for the Spanish term *‘ciudades en decrecimiento’* outlines three main characteristics. The process of *‘decrecimiento’*, although translated mostly as ‘decline’ or ‘decrease’, actually derives from the Spanish verb *‘crecer’* and respectively *‘crecimiento’* which refers to growth. *‘Decrecimiento’* is the antonym of ‘growth’ in Spanish, however it does not imply the opposite meaning of ‘contraction’ or ‘degrowth’. It rather implies a meaning of an evolving process working in the opposite direction, a direction of movement or development which would usually move forward. This process would move in an opposite direction, not necessarily backwards in the sense of losing progress and thus losing advantage. This process implies another direction, a direction different than the usual, which is not necessarily a worse one. As the authors argue, the proposed term allows for a more precise understanding of the phenomenon of shrinkage in Spanish and French context, by providing an opportunity to transcend the time dimension, introduced in the English definition of shrinkage as a move backwards, similar to decline, but rather to incorporate the phase of shrinkage into the evolution of cities. Furthermore, the authors argue, this term allows for a more nuanced understanding of the actual circumstances in which shrinkage occurs – not only in former industrial cities, but also in other varieties of shrinkage, which do not necessarily match with the ‘classic’ examples based on which the English and German term have developed (e.g. Detroit, USA or the Ruhr area, Germany). Last but not least, this definition overcomes the limits of the Spanish corresponding term to urban decline *‘declive urbano’* by enabling the possibility that the *‘decrecimiento’* can lead to other future possibilities of cities in this condition. Placing this definition on the causes-consequences-solutions axis, it can be observed that it leans more to the consequences and solutions part of the timeline as it suggests that future changes are possible to the currently experienced consequences of shrinkage. In their elaboration of the term, the authors also introduce globalization as the main cause of these changes, which further expands this definition by encompassing also the causes section. In terms of approach to shrinkage, this

definition is dynamic as the authors focus not on accumulation of descriptive variables, but rather on a transformational narrative, linked to the past (the causes) and oriented towards the future (the solutions).

(2014) attempt to encompass and overcome those differences by proposing a heuristic model of defining and understanding shrinkage (Figure 4.1.).

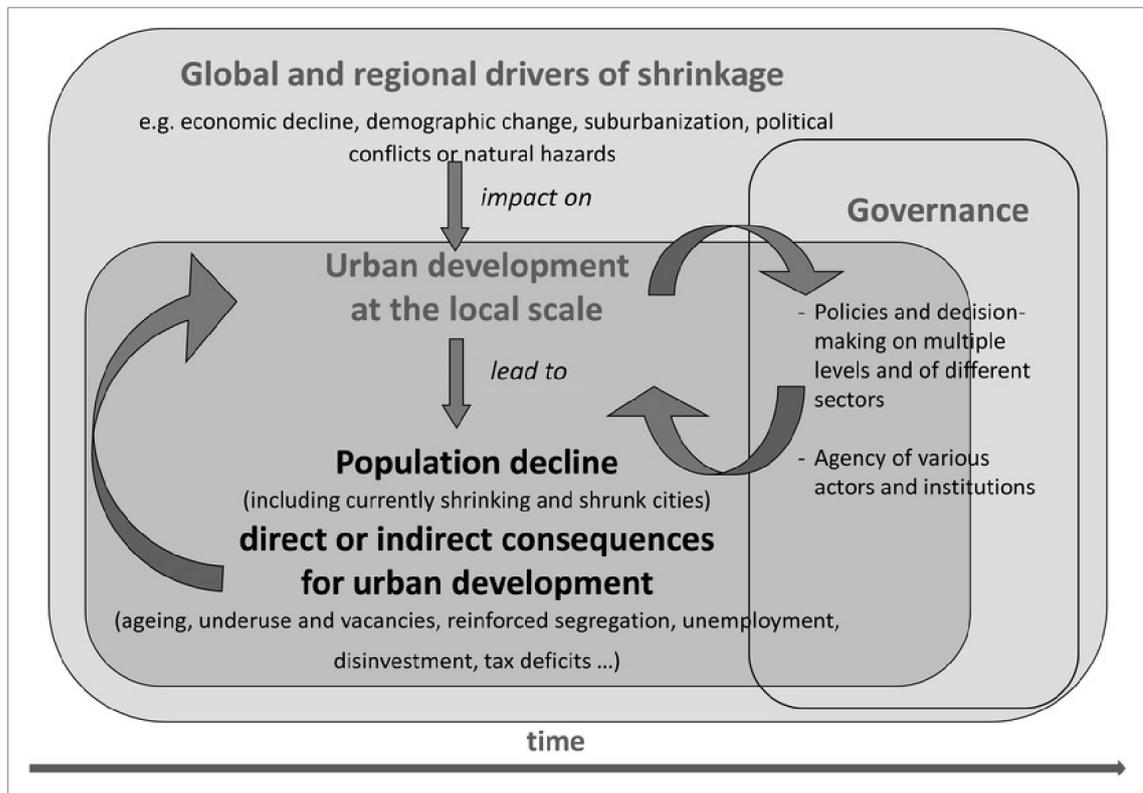


Figure 4.1: Heuristic conceptualization of shrinkage; Source: Haase et.al., 2014: Conceptualising urban shrinkage

The different definitions illustrated above and the need to distinguish between the variety of shrinkage across countries and cities demonstrates the challenge in building a conceptually coherent and universally accepted definition of shrinkage. In the same vein, Haase et.al.

By acknowledging that the key features of shrinkage-related definitions revolve around causes, consequences and solutions, the proposed heuristic model outlines an analytical framework that enables a comparable perspective in different cases of shrinkage. The authors highlight that the different debates on the causes of shrinkage often rely on particular paradigmatic and theoretical foundations, used as a starting point to outline what is the reason for shrinkage to occur. Secondly, the authors also acknowledge that the context in which shrinkage occurs is different in any studied case. With that said, their proposal surpasses the definitions derived from specific case studies by admitting that there are different effects of shrinkage observed in different cases. By zooming out through the lens of heuristics, they leave room for a more thorough and place-sensitive approach to researching shrinkage in a specific case. Lastly, the proposed conceptual heuristics model also includes the responses to shrinkage, outlined as different levels of governance and agency by different actors in a complex framework. By placing this model on the causes-consequences-solutions continuum, it can be concluded that it encompasses all those aspects of shrinkage. Not only that, but it also acknowledges the interrelations between

those presumed 'phases' – by outlining the feedback loops and interrelations between causes, consequences and remedy actions. In the dichotomy of descriptive vs. dynamic definitions, the heuristics model encompasses both of the types as it allows tracing back causes with emphasis on their interrelations and ongoing nature of the change. At the same time, it allows for outlining specific direct and indirect effects of the shrinkage, which can be observed.

Reflections on the concepts of urban shrinkage and shrinking cities

What are the implications of the different definitions of urban shrinkage and shrinking cities on the construction of a new planning concept under the label of "Shrinking Smart? There appears to be an agreement between scientists in the field that the complex nature of shrinkage is still far from a coherent and generally accepted definition. Referring to the same notion, Haase et.al. (Haase et al. 2014) argue that the reason behind this lack of coherence is the inconsistency between the theoretical approaches to explaining shrinkage at a broader level (a macro-level) and conceptualisations derived from empirical observations at a lower, micro level. Whilst a theoretical macro-approach could help comprehend and justify a certain research approach or positioning of a study in the inter-disciplinary field of shrinkage, the practical, empirical observations are sometimes a starting point for developing a concept which results in more reality-based conceptual results. Applying this logic on the axis of causes-consequences-solutions allows to uncover that the more descriptive definitions, focusing on the consequences of shrinkage, rely on measurable, tangible and empirical observations, on particular manifestations of shrinkage which are then used to construct an overall understanding of the phenomenon. These definitions are mostly rationalistic. On the other hand, the dynamic definitions derived from a theoretical positioning, a context in which shrinkage is defined as a phenomenon, shaped by external factors which result in certain changes on urban level. This second type of definitions takes a broader and more constructivist position. The following diagram (Figure 4.2.) positions the abovementioned definitions on the spectrum of causes-consequences-solutions and classifies them as descriptive, dynamic or mixed type:

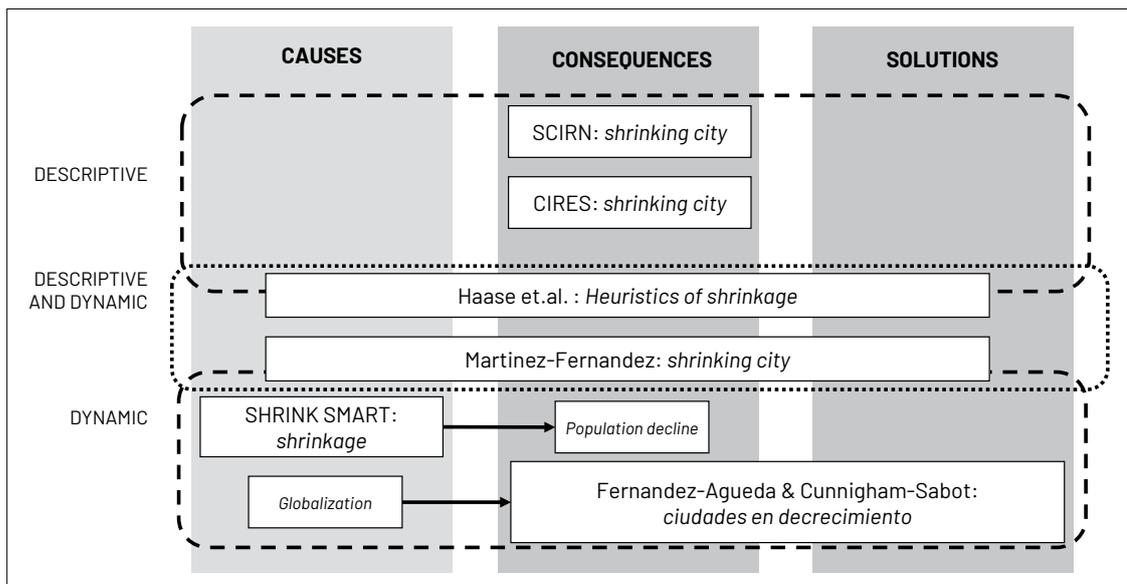


Figure 4.2: Classification of concepts on 'shrinkage' and 'shrinking city'. Source: Own work.

Based on this classification, it can be argued that the definitions that rely more on dynamic descriptions and understanding of the phenomenon tend to cover more than one 'section' of the presumed sequence of shrinkage. It can also be argued that the dynamic definitions also encompass the solutions section of the shrinkage sequence, implying that there is a way forward which is somewhat specific to a shrinking context, a pathway that would 'pave' the future of shrinking cities.

Olsen (2013) suggests a similar critical revision of one of the definitions outlined above by raising the question of why is the concept of shrinkage needed at all? He suggests a distinction between concepts that would help 'prescribe' (measures, solutions, remedies) or to 'understand' (the complexity of the phenomenon of shrinkage). Following this logic, it can be assumed that the concepts that cover the 'causes' section should be useful to provide insight to the understanding of the phenomenon. The concepts that cover the 'consequences' section could help 'diagnosing' the shrinkage with the intention to 'prescribe' afterwards. What is left, however, for the concepts that encompass also the 'solutions' part? They can hardly be classified as prescriptive or explanatory as the very notion of a possible way forward already implies that such a way exists. Not only that, but those concepts are not strictly placed in the 'solutions' section, they also tie the solutions to causes and consequences, thus suggesting that solutions cannot be provided just based on observations on the consequences in a specific empirical study. They rather illustrate a more holistic view on the complexity and multi-dimensionality of shrinkage thus leading to a more coherent understanding of the overall phenomenon not only to explain why it occurred, but also to trace the next phase, the solutions.

The dynamic definitions of urban shrinkage and shrinking cities that view the phenomenon as a comprehensive and holistic process of change, a transformative process, enable a more complex perspective that implies a forward motion in the context of shrinkage. They can enable a point of view towards urban shrinkage and population decline that can allow for a multifaceted approach that goes beyond the mere assessment and the rationalistic approach of diagnoses and remedies. Such approach can be considered as more fruitful, more contextually sensitive and more applicable for the creation of a new planning concept under the label of "Shrinking Smart".

4.2 THE CONCEPT OF "SMARTNESS"

The word 'smart' is becoming more and more popular, especially in recent years with the rise of technological advancements that encompass multiple areas of life, far outside the urban perspective.

The construction of a new planning concept under the label of "Shrinking Smart" requires a reflection on the meaning of the label "smart" as it has already been introduced in existing research in the field. Such reflection can critically analyse the various meanings of the term and clarify what aspects of this meaning may form part of the new planning concept. In order to facilitate this analysis, three terms, which have reference to urban planning and utilize "smart" in their wording, will be reviewed. The first reference term is the term that has gained the most attention – smart city. It is a term, which has already developed its own reputation in academia and beyond, being used in many different contexts and with various meanings. The second reference term is smart growth. Investigating further the meaning of smart growth is justified in reference to existing research on the question of "Shrinking Smart" where some of the works imply that "Shrinking Smart" may mean the opposite of

smart growth. The last reference term reviewed is smart specialisation – a concept and a regional planning perspective, utilized in the EU, where the focus of this research lies.

After the review of the three reference terms, the chapter continues with some reflections on the conclusions derived from the three reference terms and proposes certain perspectives that ought to be taken into account in the further stages of constructing “Shrinking Smart” as a new planning concept.

Critical review of ‘smart’ reference terms: smart city, smart growth and smart specialisation

This review outlines key definitions of the three reference terms, describing their thematic focus and coverage based on existing research and publications. After the descriptive summary, a critical review and a comparative perspective are proposed in attempt to identify specific characteristics that could pertain to the usage of the ‘smart’ label, based on the definitions reviewed.

Smart city

Researchers have already focused their attention on ‘smart city’, reasonably from a critical perspective. The possible reason behind this critical view is the exaggerated popularity of the term in different contexts, without necessarily carrying the same meaning. Hollands (2008) has extensively reviewed different interpretations of the smart city concept, utilized as a label by multiple cities around the globe. As the author argues, it is rather problematic that certain cities are ready to use the label ‘smart’ in order to self-praise or represent themselves in a better perspective, given the implied positive implications of the word and its meaning in the sense of ‘intelligent’. Hollands refers to this process as a ‘self-congratulatory’ tendency (Hollands 2008, 304). What is hidden behind the label, however, varies significantly across cases and cities, thus proving the utilization of the term ‘smart city’ rather problematic. A review of the different definitions of smart city shows a significant variety of topics included under the same label through various definitions, proposals and examples, gained either from practice or from research. It can be observed that the different versions of ‘smart city’ cover the areas of technology; government, governance, planning and image-building of cities; economy and economic development; quality of life and citizen-centered considerations. The following overview deconstructs and groups the key content points of existing definitions into the areas proposed above and at the end highlights some of the smart city concepts in their entirety.

The technological perspective on smart cities is one of the most easily associated interpretations of the concept. By referring to technological solutions for various questions pertaining to urban life, technology is seen as a tool which could aid efficiency and effectiveness of urban management – both from the perspective of solving local small-scale problems and in regards to large-scale management of infrastructure (Carter 2017). Hollands (2008) suggests a key distinction in this regard by differentiating the focus on the provisioning of technological infrastructure and the utilization of technological solutions in solving other problems and challenges in the city, including ones related to maintenance of other types of infrastructure (sanitary, transport).

A second aspect, covered by different concepts on smart city focuses on urban government and governance. The differentiation between government and governance from this perspective is formulated by distinguishing the strictly administrative structure governing the city (government) and the inclusion of multiple actors in the management of the locale

(governance). Smart city approaches suggest developing an instrumental 'solutions toolset' for fixing various urban questions and problems, at times utilizing technology, but not necessarily. Some suggestions in this direction even highlight the development of 'urban operations system', as the idea behind Barcelona's smart city project initially was (Charnock, March, and Ribera-Fumaz 2019). Utilizing the convergence between technology and government, some smart city proposals focus on developing the capacity of e-governance – a set of technological systems, which facilitate the functioning of local administration, aid data collection and analysis, and enable citizen participation (Meijer and Bolívar 2016). Along the lines of government improvements lie other aspects of smart city frameworks such as performance optimization of administrative bodies, improvements in the planning process, easing the navigation in decision making and facilitating knowledge exchange and collaboration with partnering local governments (Meijer and Bolívar 2016; Hatuka et al. 2018; Hollands 2008). Another point refers to utilizing smart city as a possible vision for the future development and branding of the locale that could drive the political agenda on local level and support the image building of the city (Carter 2017).

A third major area covered by various smart city concepts entails economy. Smart city could be seen as a driver of local economic growth, by utilizing different 'smart' approaches to decision making or by focusing on particular industries, namely ICT, which could become a leading actor in generating economic activity in a certain city. It is suggested that this could happen by establishing local growth coalitions around the notion of smart city, fostering urban entrepreneurship and utilizing public-private partnerships for driving growth (Hollands 2008; Caragliu, Del Bo, and Nijkamp 2011). It is argued that a smart city framework, centered on economy can trigger knowledge spillover effects, which could further enable economic growth in the area (Caragliu, Del Bo, and Nijkamp 2011). Innovations, in economic sense, are also seen as a key driver of smart cities, based on their potential to enable further economic growth and development (Kourtit, Nijkamp, and Arribas 2012). Some economic perspectives on the utilization of smart city focus on the attraction and development of human capital, aiming at highly-educated and business-oriented prospective new citizens, which could further support the economic development of the city (Lombardi et al. 2012; Kourtit, Nijkamp, and Arribas 2012). Another desirable group in this sense is the so-called creative class (Caragliu, Del Bo, and Nijkamp 2011). Along the creative argument, a particular emphasis is at times placed on cultural and creative industries which could be an economic driver under the auspices of smart city (Hollands 2008).

Some smart city concepts tend to be over inclusive and encompass or latch onto other urban concepts and perspectives such as quality of life and citizen participation. In this area, some concepts of smart city focus on urban liveability improvement and sustainability, both in economic and environmental sense (Hollands 2008; Carter 2017). Additional perspective in some concepts includes the possibility to enable citizen participation through smart city frameworks (Kourtit, Nijkamp, and Arribas 2012; Lombardi et al. 2012). In this sense, technology is often seen as a driver for this facilitation, however, not necessarily. In fact, some smart city frameworks envision citizens as the key drivers of the 'smart' way of 'reinventing' the city, focusing on bottom-up approaches and enabling creative solutions to local problems originating from the citizens themselves, rather than through external partnership. Consequently, this renders the smart city framework as empowering local communities (Leitheiser and Follmann 2019; Charnock, March, and Ribera-Fumaz 2019).

This thematic overview of the different concepts of smart city demonstrates the variability of topics included in some frameworks and displays a significant heterogeneity of the term. However, applying only thematic grouping does not necessarily show how the different

topics are combined in a cohesive frame by some authors. Thus it is necessary to look into some particular definitions in order to demonstrate how the different topics are combined and integrated together. One definition, proposed by Caragliu et.al (Caragliu, Del Bo, and Nijkamp 2011), defines a city as smart when public investment is directed to human and social capital, together with traditional and modern communication infrastructure in order to support and develop economic growth and improve quality of life. It is argued that such an approach could also incorporate better management of natural resources and facilitate participatory governance of the respective city. What can be observed here is a focus on investments in infrastructure as a driver for achieving the other goals, included in the definition. Thus, the red line which connects the different topics and objectives is the investment in technology, rendering technology as a possible catalyst for achieving the additional goals. The authors build their terminological proposal on a project led by the Vienna University of Technology which identified six similar dimensions of smart city across multiple European cities through a framework consistent with traditional theories of urban growth, competitiveness and governance. Lombardi et.al. (2012) also align their study on similar perspectives. It could be argued that this definition is rather normative. It points to a desired future state of growth and competitiveness and recognizes that technology can integrate different aspects. Then, this integrated agenda is steered in a desired future direction.

Another definition, reviewed by Hollands in his analysis of Komminos (Hollands 2008), points to the meaning of smart as 'intelligent', referring to three particular aspects of 'smartness'. These are the technological perspective, referring to the utilization of technological advancements and digital applications to the city. The second refers to the potential of transformation of life and work in a certain region through the use of technology. The third aspect refers to the integration between ICT and people in order to deliver innovation, learning, knowledge and problem solving. What can be observed here is again a rather technology-centered perspective of 'intelligent-smart', however, in the third aspect it once again integrates technological and people perspectives with the intention to move forward and to bring innovation.

It can be argued that recurring topics and notions under the different definitions of smart city are technology, participatory practices and governance, combined with additional perspectives, but usually integrated together under the auspices of implied motion forward, a certain transition either to a desired future state (of the city) or for the sake of progress itself (defined in different ways, but mostly growth-oriented). The critical arguments against smart city are also focused along some of those main points. Criticism on the technological perspective focuses on the techno-utopian vision of the city, the overemphasis on technology as a panacea or ready-made solution for all urban challenges (Hollands 2008). The technological focus is viewed as an approach to urban life, which postulates that technology is expected to benefit everyone, however, this is not always the case due to limited access to technology by certain population groups or the coverage and functioning of the respective solution. Furthermore, some authors argue that smart city could result in gentrification at local level (Hollands 2008). Some shrinking cities, such as New Orleans after the hurricane Katrina (Oswalt and Schirmel 2006), however, utilized technology and data driven solutions, both citizen-led and administration-driven, to guide the recovery (Andrews 2019).

The critical points on the technological perspective are a premise to the second key direction of criticism. It is argued that smart cities utilize the narrative of smartness to cover up a neo-liberal agenda together with corporate dependency of local authorities, turning cities into experimental fields (Carter 2017). This critique is usually rendered from power perspective

and the juxtaposition between corporate led-interests and local citizens, the latter being disregarded in the eventuality of favouring smart city approaches through business partnerships (Hollands 2008). The case of Barcelona, studied by Charnock et.al. (Charnock, March, and Ribera-Fumaz 2019), illustrates this disparity and how the situation changed as a result of bottom-up citizen-led action against the large-scale implementation of smart city initiatives. Former local governments in Barcelona initiated the transition of the city to a model smart city, aiming to include as much as possible technological fixes to existing problems, to focus investment in technology and to turn the city into a referent showcase of 'smartness' at all levels. The agenda included large-scale partnerships with global companies. This, however, triggered an intensive reaction from the local level, overturning parts of the projects and even leading to a political change in the local governance by electing a new mayor, who shifted the focus of the smart city agenda to solving local problems, including access to affordable housing, and discontinued already established partnerships with corporations. The citizen-led initiatives again employed technological approaches, however, they were rather small-scale and focused on locally relevant questions. Those initiatives were later favoured in public procurement initiatives by the new administration. A similar reaction occurred in Germany where top-down smart city approaches, were overturned by citizen-led initiatives in the areas of energy production and circular economy (Leitheiser and Follmann 2019). Based on those examples it could be argued that the criticism does not focus on the utilization of technology itself, but rather on the originating actor, deploying the technology, and the process through which this happens – participatory or not. By the same token, it has been observed that there is a change in the smart city agendas globally to focus on more citizen-centered perspectives by enabling local communities to contribute or by opening the different projects to increased public participation. This, however, has also been criticized by authors, who have rendered it as a reformulation of the neo-liberal market-centered agenda to a more paternalistic and more appealing wording to address the critique of non-inclusion by rendering citizens not as political subjects but as socio-economic entities alone (Cardullo and Kitchin 2019). Another point in the critical view on smart city agendas is the financial dependency on external capital in order to implement the different action points, designated in the various versions of smart cities. Such a challenge was encountered in Cologne, where the local administration designed the agenda of smart city as a means to address climate change concerns, however, the limited local funding established a dependency on business capital for the implementation (Leitheiser and Follmann 2019).

Smart growth

While smart city terms span across different areas, not necessarily related only to planning, the term smart growth appears to be predominantly planning oriented and often with physical and spatial implications. However, as illustrated by Downs (2001), smart growth is also subject to different interpretations. At certain points, smart growth and smart city overlap, particularly referring to the utilization of ICT, design and innovations to address social, economic and environmental problems (Hollands 2008). A somewhat consensus definition on smart growth, which originated in USA in the late 1990s, outlines smart growth as mostly related to compact spatial development of cities in order to address the negative effects of urban sprawl. Edwards and Haines outline six key features of 'smart growth' which seem to be consistent across different reviews and approaches to the term (Edwards and Haines 2007):

“These include limiting outward expansion of new development, increasing densities, providing more mixed and pedestrian-friendly development that minimizes auto-

dependency, shifting cost of development to those who benefit, emphasizing public transit, and revitalizing older neighborhoods.”(Edwards and Haines 2007, 52)

What can be observed in these criteria is a rather various mix of planning directions, which need to be incorporated into the concept in order to fulfill the ‘smartness’ criteria. The spatial element encompasses the limitations to outward expansion, thus addressing the sprawl questions, by adding density to the compact city. There are also certain implications on transport planning through the minimization of car-dependency. Another perspective includes a financial dimension, together with a revitalization narrative of older neighbourhoods, thus aiming at a better quality of life and pedestrian-friendly development. Downs (2001) who extensively reviews the US debate on smart growth, introduces two other perspectives which have been subject to discussion as part of the smart growth narratives – the redevelopment of brownfields and inner-city areas and the focus on improved quality of life as a driver for smart growth. Other definitions introduce the community perspective in the smart growth planning, arguing for community-centered development, cooperation and solidarity.

Some definitions and approaches to smart growth also encompass housing and design, broadening the quality of life perspective, introduced above. Together with the arguments for facilitating mixed-use development and revitalization of older neighbourhoods, affordable housing is also seen as an important question which could be addressed under the smart growth narrative (Edwards and Haines 2007). Bringing the debate on neighbourhood level introduces other questions such as implications on design and physical planning. It is argued that the ‘new urbanism’ agenda is closely related to some aspects of smart growth, particularly on neighbourhood, physical planning and design levels. The two perspectives seem to be complementing one another with their focus on compact development, transit-friendly, walkable and mixed-use development which either facilitate smart growth or are a pre-condition for economic, social and environmental changes (the ‘new urbanism’ perspective)(Knaap and Talen 2005).

Some smart growth definitions also focus on the economic aspect of planning. In fact, in most of the definitions reviewed here, smart growth still focuses on facilitating the expected growth – the question revolves around where exactly should the new growth be planned to occur, not precisely if it is going to occur. Although this is one of the main points, additional considerations are also taken into account. In another definition reviewed by Edwards and Haines (2007), smart growth facilitates sustainable growth, together with green space preservation as part of a regional smart growth strategy. Some definitions target particular industries or zones where smart growth could be facilitated. One example is introducing the ‘smartness’ argument through supporting startups (Carter 2017). In the EU, some scientists have viewed particularly the cultural and creative industries as a possible driver for smart growth in cities where there are certain economic challenges and a slowing growth (Cooke and Propris 2011). In a similar vein, the definition by the US Environmental Protection Agency, argues for smart growth which serves the economy, community and environment, moves away from the question of growth vs. no-growth and places the focus on where should new development be facilitated (Knaap and Talen 2005).

It can be argued that smart growth is also a rather ‘fuzzy’ term (Markusen 1999; Olsen 2013), given the scope of topics covered by different definitions. Yet, as compared to smart city, smart growth appears to have a stronger spatial dimension, with some of the definitions arguing for particular interventions on ground and addressing physical planning questions. The criticism to smart growth, however, does not focus only on the spatial dimension.

Edwards and Haines (2007) outline several key critical implications of smart growth, addressing some of the questions which seem to be repetitive across definitions. The argument of redistribution of land and the focus on certain areas of the city in order to facilitate the desired compact development might result in favouring certain land-owners and putting others in disadvantaged position, thus triggering opposition. Depending on the circumstances of planning, the planning system and regulations in place, the implementation of smart growth agenda might require institutional changes and shift of responsibilities between different levels of government or implementing certain aspects of the agenda on regional, rather than local level. Furthermore, higher density development is not always favoured and, depending on the context, it could also trigger opposition by different actors. In a similar fashion, compact development might in fact have negative effects by triggering increase in housing prices due to the limitations on new development land, thus leading to a contradiction with some other definitions of the smart growth idea arguing for affordable housing. Last but not least, there could be resistance by different development groups although it could be argued that this is the case for any proposed change to 'standard' planning.

Smart specialisation

The smart specialisation concept seems to be far more precisely defined and does not necessarily suffer from the heterogeneity of the other two reference terms. The OECD (2013) extensively reviews smart specialisation as a concept, outlining its inception in traditional theories of economic growth. Out of the three reference terms, smart specialisation is the one with strongest economic focus, outlining suggested ways of identifying a competitive advantage of a region with the intention to drive further the desired economic growth path. With that said, this concept usually surpasses the strictly urban level and engages more on regional level. The concept utilizes the idea of entrepreneurial discovery as a key driving force in this search for competitiveness, outlining possible approaches for public policy to stimulate such discovery. The stimulus mostly relies on public investment and strong partnerships between institutions and local economic actors. Smart specialisation dictates that public investment should focus on existing industries and economic areas which could identify synergies and cross-cutting solutions into developing a newly formulated added value area to the local economic mix. Local entrepreneurs and businesses play a key role in this idea – smart specialisation framework would aim to support them in identifying ways to collaborate and develop new added value, followed by the respective public policy interventions to further support this.

Smart specialisation has been a prerequisite for funding through the European Regional Development Fund as part of the Cohesion Policy of the EU between 2014 and 2020. McCann (2016) reviews the smart specialisation concept in the European context. In this context, the concept was developed to particularly address economically challenged regions, some of which also overlapping with shrinking cities or depopulating regions. The concept posits that regions should focus their attention on the global level of market competition in order to develop their strengths and foster economic development. Collaboration is a key idea in the smart specialisation concept. It suggests that through collaboration and partnership, local economic players and institutions, could identify new areas of innovation which would consecutively lead to further economic gains. Particularly in the European context, McCann outlines that smart specialisation could also enable cross-border partnerships whereas businesses from different sides of the border, under the precondition of the open market, could partner up in order to develop innovation and grow together, thus delivering benefits to both regions.

Claiming that smart specialisation is suitable for economically lagging regions, however, is rather problematic due to its emphasis on existing business networks. Some regions lack such a strong entrepreneurial community, thus trying to develop partnerships on this level seems unrealistic. Therefore, the critical argument towards growth-oriented strategies favouring already advanced regions and cities could also be valid here. If smart specialisation drives public support to already competitive regions in order to develop their already existent entrepreneurial networks, this would further exacerbate the situation of lagging regions, respectively shrinking cities. Furthermore, given the strong market orientation of this concept, it is rather problematic that it relies so extensively on public support and funding in order to enable cross-industry collaborations without guarantees for future positive implications to the region. The scale of the potential of these collaborations is questionable as they can be also strictly limited to the scope of the respective collaborating businesses. It could be argued that the 'smart' aspect of the smart specialisation concept is rooted in the potential collaboration, cross-cutting ideas and strive for integration between industries which moves away from the traditional distinction of strictly delineated sectoral divisions and also surpasses administrative boundaries – regional or international.

Comparative review of the terms smart city, smart growth and smart specialisation. Formulation of concept features.

The above overview of three reference 'smart' terms shows a rather inconsistent utilization of the label across different definitions, sectors and areas. A content comparison of the three terms shows almost no overlaps between them. The technological and governance orientation of the smart city terms seems to favour 'smartness' in the way a city is being governed or to guide public investment in technology. Smart growth seems to be an outlier, focusing mostly on spatial implications and a more planning-oriented perspective. Smart specialisation leans more on the economic perspective, looking for ways to drive growth and innovation in regions. With that said, it is difficult to identify a consistent meaning and thematic orientation of 'smartness' across the different terms, which further proves the point that utilizing the label "smart" for the construction of a new planning concept without any scrutiny may be problematic.

As argued by some authors, the processes of meaning creation in the context of urban governance can be analysed as part of discourse formulation. From this perspective, it can be argued that if one particular meaning of 'smart' is reinforced into a certain agenda, it could develop into a 'hegemonic' discourse, through which certain manifestations of power are enforced into a specific local agenda, thus rendering the invented meaning as unquestionable (Leitheiser and Follmann 2019). In the same vein, the construction of such a dominant discourse formulation could also claim to be apolitical, objective and non-normative, while in fact, from the perspective of power relations, the very claim of being apolitical, objective and clearly defined reaffirms a strong normative orientation of the hegemonic discourse (Leitheiser and Follmann 2019). As outlined by the authors, there is a risk for the 'smart' narrative to become a smokescreen for a rather established neo-liberal urban agenda, thus dismissing critical views or putting the local reality into a disadvantaged position as opposed to external power positions. Considering this viewpoint, it is important to reflect to what extent a 'smart' label on shrinkage could produce similar results. From power relations perspective, it could trigger a similar 'blind' usage of the term, claiming to carry a certain meaning at face value, while in fact it would facilitate an established way of planning, of moving forward as usual. On the other hand, claiming to produce an alternative meaning of 'smart' as opposed to this dominant understanding would also claim to take the

high ground in the power struggle. By rendering 'smart' as, say, locally grounded or genuine in any other form, any claim for the 'real' meaning of 'smart' would actually constitute a political and normative process of assigning a dominant understanding which would claim to be the only valid one. With that said, for the process of exploring what a new 'smart' planning concept could be, it is important to recognize those risks.

In a similar vein, Hollands's critique on the smart city discourse outlines the favourable usage of the term 'smart' by different cities, relying on its implied positive meaning (Hollands 2008). The desire of striving to utilize the label 'smart' could actually drive a particularly favoured ideological vision or image of a city, a preferable form or orientation of its future development, either in discursive or in physical terms. For the smart city ideas, this could be the ideal techno-utopian version of the city where technology is the main instrument of driving change. For the smart growth agenda, such a preferable form translates into physical terms of compact development and utilization of available land. The desired direction by smart specialisation would emphasize on the presumed innovation-driven economy that would be the driver to a desired growth-oriented development of a certain region. From this perspective, it could be argued that the label 'smart' might have not only discursive implications, but also physical ones. In the process of developing a new planning concept, it is important to address to what extent it would express a particularly desired and clearly formulated future vision. As illustrated in a previous chapter (Chapter 2), planning concepts may express a very specific understanding of a certain reality, influenced by the local context and the planning system (van Duinen 2015). The formulation of new planning concepts may also involve the creation of a new vision or spatially bound idea, but they exist and form at the crossroads of discourse formulation and a dynamic process of negotiation between different actors (van Duinen 2013). In the context of unstable definitions and meanings of the label 'smart' and the strive for spatial bound of a new concept, it is important to reflect to what extent should a new planning concept deliver a specific future vision and whether this vision ought to be in a clear spatial form.

In any case, it could be argued that the debate around popular urban concepts is raising more questions than providing answers. In their review of contemporary urban concepts, Hatuka et.al. (2018) outline the tendency of different concepts and ideas to merge in practice. The authors observe how the lack of clear cut definitions of 'smart', 'sustainable', 'creative' and 'resilient' does not impede their application in practice. In fact, most of the examples of practically applied concepts actually show how different variations of those ideas actually fluctuate and constitute one another in practice. As argued by the authors, theoretical analysis attempts to outline this clear cut and to critically examine why and how those terms could be clearly separated, while in practice, they tend to be adjusted and implemented as required by the different contexts in which they are applied. This gap between theory and practice calls for a more flexible and adaptable response by theory, a more synthetic revision of the multiple and fluctuating meanings of contemporary urban concepts (Hatuka et al. 2018). In an attempt to respond to this need in the context of this research, a more synthetic perspective would be applied to the presented overview of the three reference concepts with the intention to identify what they have in common - not in terms of clearly stated thematic areas, but in terms of underlying conceptual points.

Firstly, it can be argued that all of the reviewed 'smart' concepts demonstrate a certain level of **future-orientation**. For the smart city concepts, the future is often driven by technological solutions or technology itself and its embeddedness into the urban realm is the desired future. For the smart growth ideas, the future orientation is driven by particular planning practices that lead the city to a desired future compact form. For the smart specialisation

concept, the future is clearly defined economic growth, where innovative ideas and synergies between businesses lead the way. A second aspect that can be found across concepts is the participatory element. The smart city narratives usually interpret the need to accommodate participation from different groups through the means of technological solutions or with citizen-driven initiatives, facilitated by technology, but not necessarily. Smart growth puts the focus on community-centered development. While such claim is not necessarily unproblematic in its definition, smart growth argues for development which is driven by focusing on citizen needs and quality of life, placing an emphasis on the need of dialogue and agreement between different groups, facilitated through the planning process. In the case of smart specialisation, it can be argued that participation is limited particularly to business groups and local entrepreneurial communities, however, dialogue and reaching a common agreement are of key importance.

Assuming that a certain element of 'smartness' is formulated from the perspectives of future orientation and participation, it would be important to reflect on what this could mean for a new planning concept. Implying that in order to be smart, shrinkage would need to be aligned with a future perspective could mean that a new planning concept should be focused on responding to shrinkage with the intention to move forward, rather than merely analyzing the potential causes or strictly responding to ongoing issues. With that said, a future orientation of a new planning concept would dictate a necessity of taking action, of proactively or reactively, acting and attempting to manage shrinkage. Respectively, a new planning concept should be able to address the formulation of a future vision through planning and policy making practices, taking into account the planning system, the political agenda and the role of the planners in the specific context.

The formulation of future visions and desired way to move forward is often also a matter of discourse formulation. Hajer and Dassen reflect on this process from urban perspective in their book "Smart about cities" (Hajer and Dassen 2014). Their work focuses on envisioning a transition to sustainability as a desired future state of cities, however, the pathway they propose to achieving this state represents an intriguing perspective on the 'smart' narrative, namely being smart *about* cities. The authors view the transition as a complex process of transformation, rather than as a set of problems which require solutions. To a certain extent, this perspective aligns with the consensus in the shrinkage field that urban shrinkage is a complex process, not a set of issues which need to be addressed, thus arguing for new ways of addressing shrinkage, rather than through rationalistic problem-solution approaches. Hajer and Dassen illustrate their suggestion for a possible change through discourse formation. With certain parallels to Kuhn's formulation of a paradigm, the authors view planning for cities as formed through dominating discourses which could also be a trigger for change. One of the key proposals that they put forward is a possibility of a **discursive shift**, which, they argue, has already started happening. The discursive shift is manifested particularly through the creation of new planning concepts and approaches to planning, which could potentially lead to change. In their argument for a new urban agenda, formulated as smart urbanism, the authors suggest that changes are possible once an **agreement for the strategic direction** of the desired change is achieved between different actors, involved in planning. This agreement could formulate a **vision which has a generative capacity** – ability to trigger a change in the discourse or at least to challenge it. From this perspective, planning can trigger such a challenge by either suggesting new ideas, thus subversively challenging the status quo (Streich 2018), or by facilitating collaboration on ground. Thus, the authors call for a shift to a more open format of planning, formulated as radical incrementalism, which stimulates exchange and collaboration, both on local and on global level. Such collaboration and collective formulation of a possible desired future also

relates to the idea of imaginary future. As outlined by Jasannoff (2015, 4), socio-technical imaginaries can be viewed as collectively held and performed visions of the desired futures. In an urban planning context, it is worth reflecting how and who can create such a vision of a desired future and where can it lead. Respectively, in shrinkage context, this brings forward the consideration of the overall normative orientation of the new planning concept. Another argument brings forward the idea for creative coopetition – engaging citizens to strive to work in the direction of the desired change and opening for exchange and sharing. The intersection between these processes of co-creation or collaborative action towards a desired future bring forward questions of agency on the future as a social construct and the possibilities of multiple options for future development (Andersson 2018). In the context of shrinkage, this argument further advances the point of normative orientation and places a stronger emphasis on the need to critically examine the possibility of formulating future orientation and vision as part of the new planning concept of “Shrinking Smart”.

Second, the **participatory considerations** can also be embedded into the discussion on a new planning concept. Participatory considerations are in-line with the understanding of planning as a collaborative process, driven by dialogue, as outlined by Healey (2006). They are also in-line with the recommendation by Hollands (2008) for future directions of smart cities as being truly citizen-centered. Additionally, some researchers have already suggested deliberative process of planning for shrinking cities, which is even framed under the label of “smart decline” (Hollander and Németh 2011).

Two of the analysed reference terms – smart growth and smart specialisation – outline a specific thematic scope. In the case of smart growth this is the spatial management of a territory. Smart growth outlines that a city should aim for a compact development and explicitly avoid sprawl. A new planning concept under the label of “Shrinking Smart” should also address the spatial dimension of planning. Smart specialisation (and indirectly, some of the definitions of smart city) encompasses economy and stipulates a possible way to activate endogenous economic potential. A new planning concept under the label of “Shrinking Smart” should also address the economic dimension under shrinking conditions.

In addition to the above specific thematic areas, all three concepts provide a scaffolding interpretation of the integration between different topics. The concrete dominant meaning (e.g. technology, compact development, endogenous economic potential) integrates various thematic areas into a cohesive narrative and conceptual form. In the context of urban shrinkage and shrinking cities, this observation relates to the need of conceptual coherence both of the urban shrinkage interpretation (as a complex phenomenon, encompassing multiple areas) and to the required conceptual coherence of a new planning concept of “Shrinking Smart”. This conceptual coherence can be enabled through an **integration perspective** that provides the necessary narrative and interpretation to intertwine the various topics that need to be addressed through the new planning concept.

The smart growth concepts focus on form, location and spatial manifestation of urban planning. What makes them distinctive, however, is the specific way that resources are managed. With its argument for compact city form, specific details on spatial planning and utilization of available land, it can be reasoned that smart growth introduces an **efficiency perspective** to land use planning. This brings an element of intersection between economy and space – by arguing how to position and utilize available urban resources, the smart growth narrative prompts a more efficient use of available land, which is even consistent with some sustainability narratives. Yet, smart growth has also been criticized for facilitating sprawl and unsustainable spatial patterns, rendering the efficiency perspective questionable and

worth scrutinizing further (Pallagst 2007). Assuming that 'smart' in this case aligns with efficiency, this could prove useful for a new planning concept – it can provide a beneficial perspective for shrinking cities as to how their limited resources could be managed. This efficiency perspective can be applied particularly to land use management, infrastructure resizing and, in some cases, excessive housing. These questions are particularly relevant in a shrinking context and a new planning concept of "Shrinking Smart" should be able to respond to how such resources should be managed. The land use and spatial perspectives are of particular relevance in the juxtaposition between the context of growth and the context of shrinkage as the challenges in this regard may vary in different settings.

The pragmatic and economically driven smart specialisation concept places the focus on potential synergetic links between existing industries. By centering on entrepreneurial discovery as a premise for its application, smart specialisation appears to emphasize on the potential of **collaboration**. In its precise definition, this collaboration is expected particularly by businesses (and authorities), however, with the examples of cross-border partnerships, the collaboration idea actually surpasses the local level and suggests that exchange and joint initiatives could result in innovation and opportunities for learning. The idea of collaboration as an additional layer over dialogue and communication between different actors could also prove suitable for the case of shrinking cities. Sometimes shrinking cities struggle with identifying the way forward. An attempt to collaborate, to look beyond the administrative boundary or to partner on local or regional level could open new opportunities.

In conclusion, it could be argued that comparative analysis of the three reference 'smart' terms provides helpful conclusions for the formulation of possible features of the new planning concept of "Shrinking Smart". The **future orientation**, observed in the three 'smart' reference terms, could aid the formulation of a forward-looking planning ideas. This could be supported by the suggested **generative vision and agreement** (Hajer and Dassen 2014). Through **collaboration**, openness and dialogue, certain ideas could be refined and formulated in a more flexible and **integrated** manner, thus proving to be more useful and context-sensitive in potentially identifying alternatives for shrinking cities. Last but not least, through addressing the **participatory perspective**, a new planning concept could complement democratic processes, inherent to collaborative planning. The perspective of **efficiency** can address the management of available resources in an urban context, also particularly land use.

4.3 CONCEPT CREATION AS A KNOWLEDGE CREATION PROCESS IN REFERENCE TO URBAN SHRINKAGE. CRITICAL REVIEW OF EXISTING SMART DECLINE CONCEPTS.

Concept creation as a knowledge creation process

Taking into account the conceptual instability of the shrinkage field (Sub-chapter 4.1.) and the variety of different meanings that can be attributed to the label of "smart" in planning practice, it is worth reflecting on how a new planning concept can be constructed. Applying the method of abduction (Hagen 2017) (Chapter 3), the following reflection views the process of planning concepts creation as a knowledge creation process. Such a process requires a reflective, creative, scientifically sound approach to deriving knowledge, based on observations and analysis which would consequently result in an abstraction that outlines the proposed concept. As Abel outlines, knowledge research is a process of 'reflective, fundamental investigation' (Abel and Conant 2012).

The distinction made by Faludi between theories of planning and theories in planning illustrates one dichotomy that needs to be considered when constructing a new planning concept (Faludi 1978). This distinction of theories focusing on planning as an activity (the theories of planning) and theories in planning which entangle the planning as related to the urban realm outlines a major question on the focus of any activity which aims to construct a new planning concept. As elaborated by Batty, this distinction is the result of the traditional scientific method being applied to the subject matter studied – the division of separate entities of the object of science investigation (Batty 2018). As the author argues, this separation has now shifted to a more inclusive understanding of the object of study and its fusion with the subject matter. In simpler terms, recent research approaches are now moving away from this distinction between planning and urban. The focus shifts to a synthesis between planning as an activity and the city itself and echoes constructivist theoretical stances on the social nature of cities and planning.

This brings forward the question of the possibility of testing certain models or concepts in planning practice. As outlined by Batty (2018), the testing of a certain theory or concept requires the creation of models. The models themselves are ‘a means of transforming a theory into a structure that is testable against observations’ (Batty 2018, 247). However, it is important to highlight that this classic understanding of models which are subject to testing in a controlled environment, such as experiments, are not applicable for the context of urban research. As the urban areas are not merely physical environments, but also social ones, it is not only scientifically inaccurate to assume that experiments and testing can be performed, but also unethical (Batty 2018). Furthermore, it can be argued that models, as theoretical constructs, are an intermediate stage or an abstraction between a theory, used to approach the object of study, and the actual potential practical implementation of this theory into the object (the city). In the context of shrinkage research, this intermediate level is reminiscent of the ‘meso level’ referred to by Haase et.al. – that the theoretical approach necessary for approaching shrinkage should be placed between theory and practice (Haase et al. 2014). For the purpose of creating a planning concept of “Shrinking Smart” this would mean looking at “Shrinking Smart” as a practice happening ‘on ground’, in reality, but tied to a high-level theoretical ‘macro’ perspective of the context in which this practice occurs and, respectively, the different factors which influence its implementation. While this positioning between theory in practice does prove useful for the construction of a new planning concept, it does not necessarily inform the process of creation of the concept itself. In order to facilitate this, a more epistemological view to the question is required. Informed by post-positivist tradition, in-line with the scientific positioning of this research, the following outline utilizes the techniques of abduction and retroduction (Hagen 2017) (Chapter 3) to produce a scientifically derived conceptual construct for the planning concept of “Shrinking Smart” by viewing the process of concept formulation as a matter of knowledge creation from epistemological standpoint.

Abel presents four key methodological approaches in contemporary epistemology (Abel and Conant 2012). Coherentism involves a relativist approach to the creation of knowledge where a certain belief is justified by its referential positioning to other beliefs, which constitute a whole environment. The foundationalist approach relies on perceptions or self-evident beliefs to create new knowledge. The naturalism approach treats knowledge as an object, similar to natural sciences, and turns it into an object of investigation. These three methodological approaches of contemporary epistemology align more with the positivist scientific view on reality. They would constitute an objective and rational approach to the creation of knowledge. Such an approach is incompatible for the proposed scientific orientation of this research. Taking into account the social nature of planning

and its collaborative nature (Healey 2006), the ontological realism standpoint of viewing the reality as socially influenced but still subject to investigation (Allmendinger 2002) and the pragmatist view on planning as an activity (Allmendinger 2017), only one epistemological methodological approach can be utilized for the creation of knowledge through the creation of a new planning concept – pragmatism. The pragmatism approach outlines knowledge as a consequence of a certain series of actions or the capacity to execute action.

In the framework of pragmatism, the creation of knowledge is tied to the execution of actions and the capacity to execute such actions. In this dynamic-based understanding, the actions would lead and justify the creation of knowledge. Based on the outlined distinction between theoretical and practical, it can be considered that by positioning a certain understanding of an environment in which shrinkage occurs (be it geographical, theoretical, economic or a synthesis of all) this environment is attributed with the ability to ‘execute’ action or to affect the creation of knowledge, that is, the creation of the concept. Then, another layer of action-based influence by the environment can be added from the perspective of shrinkage itself – that is, accepting that shrinkage is a result of multiple factors in a wider context. Both of these references would attribute more to the theoretical positioning of this process of knowledge creation. For the practical aspect, following the logic of action-based pragmatism, this would mean constructing a concept of “Shrinking Smart” which is linked to the reality in which it would occur. In other words, the concept itself would refer to a dynamic process, which occurs in a specific reality – that is, in the context of urban shrinkage. Taking a more dynamic understanding of the planning concept as applied in practice would mean that the new planning concept will be embedded into a series of planning and policy making practices or actions. These actions exert force over the concept itself. They can be internal such as the actions of decision makers in a certain planning system. They can also be external – the influence of the overall political and economic environment in which this process occurs.

The more pragmatic view on the potential new planning concept as a knowledge creation process in practice addresses its implementation, but does not provide insight on the theoretical coherence of the new concept. Abel introduces the term ‘epistemic object’ (Abel and Conant 2012) in the context of knowledge creation. He defines the term as an object towards which a scientist or knowledge creator focuses their intellectual curiosity with the intention to create knowledge. Such objects would allow for a coherent approach between theory and practice as the dichotomy between those would be intentionally avoided. This definition complements the creation of a concept in the context of pragmatism as it outlines the intentional interrelation between theory and practice. Furthermore, as the author emphasizes, the creation of knowledge under the pragmatic approach, does not align the newly created knowledge only to a sequence of actions. It actually requires looking at this newly created knowledge as a bridge between theory and practice. Both of those approaches are in-line with the previously referenced need of a research at an intermediate level in the context of shrinkage (Haase et al. 2014).

Finally, another important distinction of knowledge that Abel introduces is the difference between conceptual and non-conceptual knowledge (Abel and Conant 2012). Conceptual knowledge would be something understood as knowing something as a fact, knowing ‘that’ something. Such type of knowledge can be expressed in language. Non-conceptual knowledge would refer to something related to practice, a knowledge that enables activity, of knowing ‘how’. In practice, as Abel argues, those two types of knowledge interfere and blend together. In the context of planning practice, the new planning concept of “Shrinking Smart” would bridge those two types of knowledge. It is conceptual knowledge as it already

has a language form assigned to it. It is also non-conceptual knowledge so far as it enables an activity of 'knowing how' to deal with a certain set of circumstances.

To conclude, as a result of the applied abduction method (Hagen 2017), the theoretical considerations for the construction of a new planning concept of "Shrinking Smart" are as follows:

- In reference to theories of planning and theories in planning, the new planning concept would transcend this distinction as it would be intertwined between planning as an activity and the subject matter of planning (an urban area under shrinking conditions).
- The concept would not be a mere model of testing solutions in practice, but it would encompass both theoretical and practical considerations. It would take an intermediate position between theory and practice and will be sensitive to the specific context in which it is constructed.
- As a knowledge creation construct, the concept would be viewed from the perspective of epistemological pragmatism, that is – knowledge derived from practice and defined by actions. It would be an action-defined epistemic object.
- As a type of knowledge, the concept would incorporate elements of conceptual and non-conceptual knowledge. It is already defined as a language form, thus it needs to have a cohesive meaning (conceptual knowledge), but it would also provide insight on how to act in specific circumstances (non-conceptual knowledge).

How does this proposal compare to existing concepts of smart decline?

Existing concept proposals and theories of smart decline

Some scientists and researchers in the field of shrinkage have introduced the term smart decline in their works and have tried to research it further in different occasions. Popper and Popper are one of the first researchers to have suggested that planning for shrinking cities should shift from the traditional planning approaches to another one, namely "smart decline" (Popper and Popper 2002). In one of their first works on the question, Popper and Popper elaborate on their idea behind smart decline as a way to shift from expectations of growth when executing planning to accepting that growth may no longer be the only prospect for a certain city in the long-term. One of the key positions in their proposal is precisely the mental shift from growth-centered planning to decline-centered planning, which would require accepting that shrinkage is happening and, respectively, working in this direction. Another important aspect they emphasize on is the need to assess the existing assets of a certain shrinking city, including a strong focus on the communities and citizens which remain in the respective locale. The examples proposed are quite scarce, however, they mostly refer to vacant land utilization and repurposing its function, mostly to green areas (such as the case with Buffalo Commons). The authors contrast their idea of smart decline to smart growth. The latter is described as active strategies leading to investments in abandoned brownfield areas, however, this approach is criticized as defined by expected growth.

In another work on the topic, Popper and Popper (2017) outline a more detailed version of the term smart decline by illustrating how such practices have been applied in practice and how this has contributed to the further development of the term. The examples used were more

varied, as the 'smart decline toolkit' policies were outlined as possibility to attract 'promising immigrants', removing or renovating urban infrastructure, introducing 'green' solutions such as urban agriculture. The authors sustained their position that smart decline means to exclude a place from the competition of growth with other cities. One city is named as the 'smart decline leader' in this work - Detroit, USA. The authors argue that after the 2013 bankruptcy of the city, the dilapidated buildings, abandoned areas and constructions have resulted in increased interest in the city from tourists which are willing to photograph the current condition. The abandonment has turned into attraction. Additionally, the authors outline some active policies of the city council, such as the demolition and rehabilitation of abandoned properties and refurbishment of certain open space areas. Both of those changes, however, as outlined by the authors, have come to 'ignite change and investment', improvement in real estate market, a new culture scene has emerged (Popper and Popper 2017, 3). The authors refer to these changes as 'partial reversal'.

The proposed positioning of the 'smart decline' principles and their illustration with the 'reversal' of Detroit illustrate a certain level of controversy in the idea of 'detachment' from growth. The example of Detroit does demonstrate that certain actions were taken in the direction of repurposing, resizing and demolition of parts of the urban areas, however, the positive effects, as illustrated by the authors, are only new economic activity. The new investments in downtown Detroit are not originating from an alternative non-economic source, but they are coming from the real estate market, which operates in the presumed expectation of growth. Respectively, the investors have most probably identified the Detroit as a prospective place for investment in order to ultimately achieve profit from this investment. In a similar vein, the increased tourism interest to the city has not originated from some detached community which is looking for alternative places to visit with the idea not to spend money upon visit. Most probably it was the opposite - no matter the motivation to visit Detroit, the result is that the visitors utilize the tourism industry to, first, understand about the city. Then, they plan a trip to the city, spend a certain period of time there, consuming the services offered (incl. hotels, culture, restaurants) and then they leave. As a result, the tourist visit brings spending and consumption in the city, which benefits local residents in the context of traditional market logic and economy, respectively contributing to a certain level of economic growth. It can be argued that it is paradoxical how 'smart decline' is supposed to work in the direction of disconnecting a certain city from the expectation of growth, whilst at the same time the results of the presumed 'smart decline' principles are praised because they result in increased economic activity (in other words growth, albeit slower).

Perhaps it is necessary to differentiate between growth as an overarching context in which the cities and their economies operate and the implications that this context has on planning activities. The example of the former mining town of Broken Hill in Australia illustrates this distinction (Schatz 2017). In her research on the case Schatz demonstrates how there is a certain level of acceptance of the prospect of shrinkage local authorities, but this does not constitute an ideological shift away from growth. The local city officials are working in the direction of consolidating or repurposing existing infrastructure and areas for the needs of the remaining population. These measures are on the level of land use and services provisioning. With such an approach they demonstrate a certain shift from the growth-oriented narrative for the purposes of meeting the needs of the local citizens. But, at the same time, as outlined by the author, they do not exclude economic growth completely. In fact, they are willing to attract such in order to, again, meet the needs of the remaining citizens. The certain measures taken on the level of infrastructure provisioning and land use regulation do shift away from planning for expected growth, but on economic

level their perception does not. The limits to denying growth, as illustrated in this case, are the dependence on state support, which is based on population numbers, the overall planning framework of the state (based on growth) and the perception that growth leads to benefits. This context, however, is not an exception, but rather the rule – it is the wider context of capitalism that defines the paradigm in which planning occurs. Going back to the thesis of Popper and Popper and their illustration of the ‘reversal’ of Detroit shows a similar outcome – that it is the overarching context of market-driven economic activity that would ultimately define if there are any benefits from policies or strategies which attempt to respond to shrinkage. With that said, suggesting that ‘smart decline’ shifts away from growth in the economic sense means suggesting a change of the predominant economic order, which is currently in place. Perhaps this is why Popper and Popper suggest that the economy of certain shrinking cities could ‘degrow’ (Popper and Popper 2017) to a certain extent. However, it is unclear whether the authors suggest a complete detachment from capitalist economy and embarking on the way to degrowth as an alternative to capitalism or a resizing of a capitalist economy to a lower scale.

Other authors also approach the question of smart decline. Hollander and Németh introduce their foundational theory for planning shrinking cities based on equity and social justice, focusing on the process of planning, rather than its implementation and effects in practice (Hollander and Németh 2011). The authors critically examine certain policy actions which have been classified as smart decline. Through examples, related to proposed demolition of housing, closure of firestations and the creation of the Youngstown Master plan, the authors outline one of three failings of smart decline – the top-down approach, encompassing any action, originating from a city government. The second flaw that the authors identify concerns the interventions on ground. Hollander and Németh argue that solutions, related to land use questions (such as demolition or re-imagining) rely on the assumption of ‘blank state’ (Hollander and Németh 2011, 356), that is, that the place of intervention is in a state of passivity and can be actively treated with the respective solution. Lastly, the third flaw that the authors outline, is related to the public participation in decision making in the context of smart decline. The authors highlight that other proposals for smart decline assume an inactive civil society and lack of community engagement that enable a more top-down administration-driven approach.

In order to address those three weaknesses of the illustrated smart decline policies, Hollander and Németh propose a process of planning for smart decline that rests upon Harvey’s definition of social justice which requires ‘just distribution, justly arrived at’ (Harvey 2009). As a result, the authors propose five key characteristics of a smart decline planning process. The suggested process should include and recognize various voices, thus negating the risk of missing civic participation. The process should be bottom-up, rather than top-down, characterized by the authors as deliberative in nature. The planners facilitating smart decline planning should utilize a variety of communication techniques in order to ensure that information is distributed across citizens, including marginalized groups. Through information distribution and accessibility, the process should also be transparent. Lastly, the authors propose, the planning process in the context of smart decline should be implemented in the respective locale, but its scope should be regional, thus allowing for a wider dialogue between communities living nearby and potentially enabling decisions which would address major questions, related to planning, which could affect more than one city (e.g. infrastructure, environment).

The smart decline theory proposed by Hollander and Németh focuses mostly on the planning process in a shrinkage context. Their originating position, related to social justice

introduces another layer in the smart decline debate, namely, the effects of certain policies on local communities. Although this topic is strictly bound in the functional process of planning through the narratives of participation, transparency and communication, it is worth considering this social dimension in the process of constructing a new planning concept of “Shrinking Smart”. Such is the case with Youngstown, Ohio, analysed by Rhodes and Russo (2013). They define smart decline, based on the Youngstown example, as ‘the combination of acknowledging that the city is shrinking and attempting to manage the process’ (Rhodes and Russo 2013, 321). The Youngstown plan is criticized by the authors due to the selective regeneration strategies in certain neighbourhoods in the city, which have contributed to the better quality of life of their residents, but have left out a number of other areas in the city, thus further exacerbating social issues and challenges, faced by locals, such as unemployment, marginalization and concentration of poverty. Those challenges can be clearly traced on local level, but the reasons behind them are not only on city level. As the authors argue, the question of scale in terms of intervening in a certain shrinking city puts limits to the possibility of action by local authorities. Rhodes and Russo recognize the ongoing need of intervention from higher governance levels – namely state or federal support, in the case of USA. Going back to the overarching context of growth-oriented capitalism, outlined previously, the case of Youngstown also demonstrates how this context is unavoidable and actions which fail to acknowledge the reality that they operate in would not be fruitful in solving the challenges of shrinking cities.

Going back to the proposed theoretical features of the planning concept of “Shrinking Smart” the following outline presents whether the reviewed existing works on the topic of smart decline fulfill the proposed criteria.

- A concept that encompasses planning as a process, but also the practical implications of certain planning decisions
 - Popper and Popper: only practical implications
 - Hollander and Németh: only planning process
 - Rhodes and Russo: not addressed
- A concept which is not a model of solutions/prescription of actions put to practice
 - Popper and Popper: prescription of actions
 - Hollander and Németh: not addressed
 - Rhodes and Russo: not providing model of solutions
- A concept that outlines capacity of action/action nodes
 - Popper and Popper: not addressed
 - Hollander and Németh: outlines the need of capacity of action in terms of planning process
 - Rhodes and Russo: suggest capacity of action (in order to manage shrinkage)
- A concept, which is an action-defined object; push and pull forces on the concept are recognized
 - Popper and Popper: forces of growth-orientation affecting the concept; attempt to reject these forces
 - Hollander and Németh: the need of social justice as a force which forms the proposed theory of smart decline

- Rhodes and Russo: through the Youngstown example – economic shifts affecting the efficiency of smart decline; governance dependence;
- A concept which employs knowledge for ‘knowing how’, knowledge put to practice
 - Popper and Popper: directly outline practices
 - Hollander and Németh: knowledge, implemented in the execution of the planning process
 - Rhodes and Russo: necessary knowledge for managing shrinkage is implied

In order to derive hypothesis points from this theoretical reflection, the above conclusions ought to be overlaid on the existing definitions of urban shrinkage and shrinking cities. This would align the theoretical reflection to the research design in order to define hypotheses that can be traced in empirical data, following the deductive research design (Chapter 3).

Constructing a new planning concept of “Shrinking Smart” in reference to urban shrinkage and shrinking cities terms

The relationship between the new planning concept of “Shrinking Smart” and the phenomenon of urban shrinkage lies in the push and pull forces exerted on the concept by the understanding of shrinkage.

As illustrated in the classification of the definitions of shrinkage, shrinkage concepts usually follow a sequential logic on the axis of causes-consequences-solutions. Whilst some concepts focus on just one of those sections, others cover more than one and imply or directly refer to possible future actions, needs for next steps and necessity of practical solutions. What seems to be a compound interpretation of the reality of shrinkage is a definition that allows for encompassing all three sections of the sequence – causes, consequences and solutions. Two of the identified definitions fall into this category – the heuristics of shrinkage, proposed by Haase et.al. (Haase et al. 2014) and the definition of shrinking city, proposed by Martinez-Fernandez et.al. (Martinez-Fernandez et al. 2012a). While the heuristics approach provides a valuable instrument on comprehending and analyzing the complex reality of shrinkage causes, effects and interventions and policy responses, it does not necessarily inform future action.

On the other hand, the concept for shrinking city proposed by Martinez-Fernandez et.al. (Martinez-Fernandez et al. 2012a) leaves an open end to the future perspectives. It recognizes the evolving nature of the manifold manifestations of shrinkage, but also outlines that the concept itself could have influence on an ongoing search of new knowledge and remedies. Recognizing shrinkage as a process of change helps to negate the deficiencies of trying to create a planning concept, following the rational planning approach. The rational planning approach would perform a static assessment of a current condition and prescribe measures. However, this is impractical because by the time the assessment is completed and measures are prescribed, the condition could have already changed, thus making the policy responses irrelevant. Additionally, this would render shrinkage only as a condition, as a collection of symptoms, rather than a complex reality. Furthermore, rational choices can hardly be made in the ever evolving complexity of urban life (Hartt 2018). Rational choice theories often suffer by lack of sensitivity of certain policy measures to other potentially affected policy areas, thus resulting in failed and often costly policy attempts (Altshuler and Luberoff 2009).

In order to see how the definition of shrinking city, proposed by Martinez-Fernandez et.al., can aid the creation of the new planning concept of “Shrinking Smart”, the definition will be analyzed through the five key points for the creation of the new planning concept, outlined previously. Towards each of the points, the potential corresponding trait of the “Shrinking Smart” planning concept will be outlined:

- A concept that encompasses planning as a process, but also the practical implications of certain planning decisions
 - The new planning concept ought to correspond to the suggested dynamic nature of shrinkage which continues to influence theories and research with the purposes of diagnosing, establishing prognosis and developing remedies. As the latter three steps are key elements in the process of planning, ‘shrinking smart’ could incorporate them in the scope of the process of planning.
 - Martinez-Fernandez et.al. outline economic, social, demographic, geographic and physical dimensions of shrinkage. In order to correspond to those, the new planning concept ought to provide a lens through which the interrelation and multidimensionality of those processes could be understood and acted upon.
- A concept which is not a model of solutions/prescription of actions
 - Martinez-Fernandez et al. do not outline shrinkage as a mere collection of symptoms which are to be addressed, but as a process of dynamic nature. The new planning concept should be able to correspond to this dynamic nature, should be able to comprehend it and provide opportunities to respond, to adapt to it.
- A concept that outlines capacity of action/action nodes
 - The definition outlines certain characteristics of a shrinking city, such as economic downturn, population loss, employment. These can be complemented with other effects of shrinkage. Respectively, for the new planning concept these points can pinpoint the corresponding action nodes, depending on the specific case and the challenges experienced by a certain city.
- A concept, which is an action-defined object; push and pull forces on the concept are recognized
 - Martinez-Fernandez et.al. outline that the process of shrinkage continues to evolve under the pressure of new global and local realities. For the new planning concept, this would require recognizing the influence of those realities onto the concept. Thus, the concept itself ought to be positioned in those very same realities.
- A concept which employs knowledge for ‘knowing how’, knowledge put to practice
 - In the definition, shrinkage continues to produce efforts of diagnosis, prognosis and remedies. The new planning concept, respectively, should be able to support the formulation of such, thus to enable further creation of ‘know-how’ through the process of planning.

Based on the above reflection between the definition of shrinking city by Martinez-Fernandez and the proposed conceptual approach to the creation of a new planning concept, it can be concluded that there is a sufficient level of correspondence between the selected approach to defining a new concept and the reference term for shrinkage, which is logically related to

the new concept. Applying retroduction (Hagen 2017)(Chapter 3), the theoretical proposal is translated to shrinkage context, following the selected definition of shrinking city by Martinez-Fernandez et.al. The result of the retroduction is the formulation of the following five concept features that can be embedded into the hypotheses (Table 4.1.):

Shrinking Smart concept feature	Considerations from planning perspective and shrinkage perspective	Epistemological category	Urban shrinkage definition feature
<i>Planning centrality</i> The planning concept encompasses both planning process and planning substance	Distinction between theory of planning and theory in planning	Epistemic object	[Urban shrinkage is a]‘multidimensional process with multidimensional effects’ [...]‘influence theories and research, proffering diagnosis, prognosis and remedies’
<i>Inquiry</i> No ready-made solutions, but outlining capacity for pragmatic action <i>Integrated</i> The different areas are recognized as interrelated	Overcome the rationalistic search for ready-made solutions	Epistemic object Epistemological pragmatism	[Urban shrinkage is a] ‘multidimensional process with multidimensional effects and having economic, demographic, geographic, social and physical dimensions’
<i>Contextuality</i> Action-based understanding on the concept - the context in which shrinkage occurs influences the possible directions	No universal solutions to shrinkage, need to be sensitive to the context	Epistemological pragmatism	[Multidimensional effects that]continue to evolve as a result of new global and local realities’
<i>Know-how</i> Knowledge applied to practice (non-conceptual knowledge). Label of shrinking smart already exists, thus there is also a conceptual knowledge aspect.	Type of knowledge	Conceptual vs. non-conceptual knowledge	‘multidimensional process with multidimensional effects’ [that]‘influence theories and research proffering diagnosis, prognosis and remedies’

Table 4.1: Theoretical proposal for concept features of the “Shrinking Smart” concept. Source (Ivanov 2021; Forthcoming): *Shrinking Smart from Theory to Practice: An epistemological approach to constructing a new planning concept*

“Shrinking Smart” would be a concerted effort in planning, happening in the context of urban shrinkage. This planning activity may involve a variety of approaches between bottom-up (originating from citizens or participation) and top-down (originating from governance levels). This planning effort attempts to respond to a variety of observable and perceivable effects of shrinkage in different areas (economy, land-use, demography and others); however, those areas are not treated separately, but rather as a phenomenon of complex nature. Comprehending those areas as a phenomenon of complex nature corresponds to the perception of shrinkage as a multidimensional dynamic process and respectively leads to a variety of actions and responses, spanning from specific interventions in certain areas to complex policy responses, addressing more than one area. Specific action nodes (corresponding to the areas above) have been defined in the context of this planning effort and they have resulted in identifying respective responsible entities, which are to act

upon these nodes. Those entities may vary between one and many players. This planning effort is contextualized in the reality in which shrinkage occurs and this contextualization is recognized within the process of planning and in terms of the interventions and policy responses identified. This planning effort is a 'know-how' by itself and at the same time attempts to produce 'know-how' through a process of assessing, monitoring and providing responses in the context of shrinkage.

It can be argued that to a certain extent, the above definition is quite flexible. Olsen also outlines a similar flaw between overconceptualization and reality by analyzing the limits to narrowly constructed and inclusive terms on shrinkage (Olsen 2013) and calls for more differentiated view on the incorporation of cities and their shrinkage into a wider context. To respond to this potential weakness, the proposed concept can be viewed as a system of spectrums of each of the layers, outlined above. These spectrum-layers can be the planning effort execution – varying from bottom-up to top-down; severity and manifestation of shrinkage – varying from influencing severely multiple areas to specific effects in limited areas; a scale of responses to shrinkage, varying from particular interventions to complex policy responses; a variety of responsible players involved – varying from one to many; a spectrum of influence of the context in which shrinkage occurs – a disconnected, isolated city to a city that is strongly connected to a regional, national or a global network; a spectrum of actions of 'know-how'.

To simplify further the proposed concept features, they will be broken down to potential observable traits and characteristics. This breakdown will allow for tracing of such aspects in existing literature for the purposes of selecting suitable case studies for this research (Chapter 5). The planning layer outline could be translated as a certain planning effort in the context of shrinkage, that is, looking for cities that have been experiencing or are currently experiencing shrinkage which are actively responding to it, ideally through a planning effort. In this planning effort, those cities might employ a variety of involvement strategies. This planning effort should be attempting to deal with a complex variety of shrinkage-related effects, perceiving them as a complex phenomenon and trying to provide responses to it. That means, looking for certain actions which were implemented as a result of a planning process. The context in which those responses would have occurred would be similar but its influence on the specific city could be different. On European level, this would correspond to the different extent of connectivity of the cities on multiple levels – nationally, regionally, cross-border, cross-national (EU), international (outside of EU). Lastly, the know-how aspect logically corresponds to the existence of a planning effort, that is, looking for cities, which are or have been actively engaging in planning and execution activities to respond to shrinkage in a specific way.

Yet, the flexible concept proposal, outlined above, can encompass a number of strategies of responding to shrinkage as what is missing in the proposed definition is a variable factor that would distinguish "Shrinking Smart" from any other planning effort, attempting to respond to shrinkage. To a certain extent, it can be argued that this proposal currently is at risk of being too inclusive (Olsen 2013). The concept features proposal above suggests a more differentiated and adaptable view on shrinkage and "Shrinking Smart" to the context in which they occur. The key to differentiating the various approaches could be the objective behind this specific planning effort, what was the reason behind employing those specific strategies and planning, what is the ultimate purpose of those. This normative orientation would be influenced by the context in which shrinkage occurs and it could be shaped by multiple forces, such as political agenda, administration capacity, but also the perception towards the complex reality in which shrinkage occurs. Consequently, this would require

understanding how the actors behind formulating this certain planning effort and its execution envisioned their city as part of the global and European economic and political order in which they operate. Going back to Popper and Popper (2017), who suggest moving away from growth and 'degrowing' – this move is subject to scrutiny. As demonstrated by Schatz (2017), the influence of the growth-oriented paradigm on shrinking-related strategies is significant. Economically, the influence over shrinking cities will continue to be the same, if not even stronger. In Europe it can be coming from two levels – at the level of intra-EU and EEA competition and economic dynamics; and at the level of internationally bound economy, in the context of globalization (Chapter 2). With that said, whilst shrinkage can definitely be observable at local level, the responses to it may vary from local to national and even cross-national levels (Olsen 2013) and they will be influenced not only by the local decision makers, but by many more actors. The same would apply for "Shrinking Smart" – failing to recognize the influence of the economic and political context in which shrinkage occurs would ultimately result in inadequate policies or interventions. With that said, it is important to understand what was the motivation and objective setting behind a certain effort, identified as a possible case study. This effort could as well be defined by the objective to take advantage of the situation that a certain city is in with the purpose of finding a new way in this new context. Economically, this could mean working in alternative directions such as sustainability, circular economy or post-growth; but any of those would still operate in the context of capitalist-driven order. Critically examining this perspective may also lead to revealing that shrinkage may be a transitional state between decline and a variety of possible futures, including economic regrowth, further population loss or alternatives to economic growth. In any case, the new planning concept of "Shrinking Smart" would be influenced by the existing economic and political order in which this planning or policy making effort occurs. For cities in the European Union, this would be a double-layer order – one of globalization on international level and another at EU-economic and policy level (Chapter 2). The presented critique on some of the proposals of smart decline also requires further scrutiny on the interrelation between economy and space in the urban shrinkage field that can also contribute to the formulation of hypotheses.

4.4 PLANNING FOR GROWTH VS. PLANNING FOR NON-GROWTH: SPATIAL AND ECONOMIC CONSIDERATIONS

Apart from the contributions by Hollander and Németh (2011) and Rhodes and Russo (2013) that outline coherent proposals for concepts that relate to "Shrinking Smart" as a planning approach, other existing works on the question of defining this idea propose mostly specific interventions or suggest a normative look on "Shrinking Smart" in opposition to growth-oriented planning. These proposals, although lacking a coherent conceptual form, still refer to various approaches which could prove helpful for shrinking cities and the challenges they are presented with and may aid the creation of hypotheses for the purposes of this research.

"Moving away from growth" – political economic considerations

While Popper and Popper's (2002, 2017) suggestion on shifting the focus away from growth provides the normative basis for the idea of "Shrinking Smart", other scientists contribute by proposing or recognizing particular approaches, mostly concerning spatial planning. Pallagst and Wiechmann (2012) highlight the case of Youngstown in the United States as an example of a planning approach which moves away from the explicit focus on growth by introducing the dimension of sustainability and quality of life. This shift, the authors argue, represents

a shift away from the “Growth machine” perspective, introduced by Molotch (Molotch 1976). The “Growth machine” narrative, however, outlines clearly the links and interdependencies between economic growth and its implications on (spatial) planning. As outlined by Berglund (2020b), however, the approach of Detroit, for example, referred to by Popper and Popper as a successful illustration of shrinkage oriented strategy, not only does not move away from the “Growth machine” but actually reproduces the existing discourses on growth. It repackages them with a parallel spatial planning strategy of triage and planned investment which, under the auspices of managing the decline, introduces the dimensions of sustainability and wellbeing. The latter two, however, do not constitute an explicit shift away from economic growth, but rather are introduced as additional criteria and normative orientation of the proposed planning approaches. Growth is pursued simultaneously to sustainability and wellbeing (Berglund 2020b). As the author highlights, the political economy of growth is still the reality for shrinking cities. Therefore, what seems to be missing in the “Shrinking Smart” and managed decline discussions is considerations from political economy standpoint, that would allow for a more critical and grounded view on the interrelations between planning, be it spatial planning, economic planning or policy making (2006), and the reality of the growth-oriented economy in which shrinking cities continue to exist, both in USA and in Europe. Such a critical view could provide a more nuanced understanding on the hypothesis of non-growth oriented planning.

In fact, the political economic considerations have been insufficiently outlined in the shrinking cities debate and could potentially impair the idea of managed decline, hidden only behind spatial interventions (Berglund 2020a; Florentin 2011). As Berglund (2020a) argues, the existing debates on planned and managed shrinkage, which are the background of “Shrinking Smart”, do not necessarily recognize the adaptability of capitalism to different conditions. In other words, although shrinking cities are often in an unfavourable position when it comes to the benefits of capitalism, this does not necessarily mean that they are detached from its influence or that capitalism and market cannot operate or adapt to the conditions of urban shrinkage. At the same time, however, the causal links between urban issues in shrinking cities and the lack of growth are not necessarily justified, as many of those issues, such as inadequate housing conditions, high unemployment, poverty, can also be found in growing cities (Hirt and Beauregard 2019). As the authors suggest, these issues are pervasive across regional and national scales, thus attributing them only to the specific reality of shrinking cities could be short-sighted and could limit the possibility of identifying viable solutions to urban challenges which go beyond suggesting that more growth would make the situation better. In the context of the European Union, where this research is positioned, these political economic considerations point to the need of recognizing the effects that the predominant economic order in the European Union has on shrinking cities. The territorial cohesion agenda of the EU and its practices has been reviewed as a hegemonic concept that is being reproduced through practices and institutions (Servillo 2010). This calls for a more sensitive approach to the research on “Shrinking Smart” as a potential new planning concept that also considers economy and the broader political agenda of the EU.

Spatial solutions to urban shrinkage

The spatial manifestations of shrinkage often include vast spaces of abandoned or non-utilized land, for example former industrial areas. Such spatial patterns can also occur following demolition of derelict buildings. Some scientists have suggested greening as a potential approach to utilize this available land (Pallagst, Fleschurz, and Trapp 2017). Such approach is outlined as contributing to sustainability and environmental improvements,

which ultimately contribute to better quality of life. An example from European perspective is an interim use strategy intervention in Leipzig where vast empty lands following the demolition of former industrial areas were placed under building moratorium for a long period of time with the intention to improve adjacent neighbourhoods with more green space (Rall and Haase 2011).

Vacancy is another distinctive problem of urban shrinkage and it has enabled researchers to recognize the possible spatial planning approaches to it. One example is again Leipzig where the increased vacancy of old residential buildings in the city centre was addressed through enabling a bottom-up temporary use policy by students and artists in order to ensure the maintenance of those buildings while at the same time to support the positioning of the city as a creative hotspot (Matoga 2019; Dubeaux 2017). Temporary use is one of the alternatives to demolition of abandoned property (demolition being a separate possible approach on its own). Some researchers have also recommended repurposing vacant lands either through community ownership or via land banks – both of the approaches enabling potential future opportunities for either revitalizing a certain area or attracting future investment (Berglund 2020a).

Another direction in which researchers have investigated possible approaches to shrinkage is infrastructure and, more specifically, its resizing as a way to respond to increasing costs and as an adaptation strategy to smaller population. Existing research on sanitation infrastructure in Eastern Germany following the reunification shows that decrease of usage as a result of depopulation and urban shrinkage causes significant problems to existing infrastructure networks and utilities companies (Moss 2008). The prospect of resizing large-scale technical infrastructure, such as water and sewage, could prove challenging from financial standpoint as it brings a higher cost, as illustrated by the author.

Repurposing existing land and buildings, building demolition, temporary use, greening and infrastructure resizing efforts are some of the planning approaches recognized in the managed shrinkage debate. They have been associated with active planning for decline or maintenance strategy, as part of an overall approach of shrinkage acceptance and as an alternative to regrowing attempts (Pallagst, Fleschurz, and Said 2017). A similar categorization of different responses to shrinkage has been suggested also by Hospers (Hospers 2014) where greening and quality of life improvements are either highlighted with examples from Europe or are framed as recommendations. The author classifies those approaches as policies aimed at sustaining the current population and improving the conditions for them. This classification is in line with the categorization by Pallagst, Fleschurz and Said of maintenance and “for decline” strategies. Policies in the ‘Accepting shrinkage’ category are referred to as policies aiming at sustaining the current population. The purpose of these types of policies is outlined as oriented internally – how to ensure that the current residents do not leave. The measures originating from these policies focus on housing and infrastructure improvement, some level of demolition. It is important to outline that it is precisely the ‘Accepting shrinkage’ category which is presented as ‘smart shrinking’, ‘planning for decline’, ‘healthy shrinking’. In his evaluation of those policies Hospers refers to this approach as ‘the most suitable’ (Hospers 2014, 1513) albeit those responses are classified as highly cost-intensive and resource-demanding in terms of coordination and citizen involvement.

On the one hand, treating shrinkage as purely a question of physical planning can be impractical. The reason behind is that the shrinkage phenomenon itself, although manifested quite often in physical effects on the urban tissue, could not be responded only with such

measures. For example, if a certain industrial area becomes an abandoned brownfield which is later turned to a green space as a result of an (urban) planning decision, would this constitute a 'solution' to the question? If the initial trigger of the turning of the former functional industrial area to an abandoned field was economic, for example a withdrawal of a business or an industry, 'greening' the land afterwards would not be able to respond to the consequences of this economic change. If the closure of the factory has shaken the entire economic system of the city and has resulted in significant social issues, outmigration, poverty and decreased tax income for the municipality, the physical solution to the question of this particular patch of land would merely 'mask' the past. It would not be able to address the other questions, although it might have some positive effects on the area and, probably, to the remaining citizens. The question, as related to "Shrinking Smart", is – should the planning concept address only the physical dimension? Yet, the proposed approaches, recognized as part of those active strategies for managing decline remain focused on the spatial planning aspect and have not been sufficiently analysed from financial and economic standpoint. As illustrated above, some of those approaches might be particularly costly or might be triggered by an economic change.

The focus on the spatial dimension of shrinkage in the context of active strategies for managing decline brings forward specific considerations in regards to land use intensity, compact development as opposed to sprawl and considerations of density and mix of functions in specific places. These considerations move the debate close to existing planning concepts which, although designed predominantly for the context of growth, illustrate potential points of reference and normative orientation that align with the proposals under managed decline and "Shrinking Smart" narratives. Parallels between smart growth and "Shrinking Smart" as a possible alternative have already been drawn by authors (Wiechmann and Pallagst 2012). Smart growth, as outlined in a previous section (Section 4.2.), is a spatial planning concept, focusing on compact development and higher density so as to preserve existing natural space and discourage sprawl. As an American concept, it is considered as consistent with the European model of sustainable cities. The latter, though, explicitly emphasizes on the balance between environmental, social and economic considerations, while smart growth focuses mostly on the spatial element of compact development under the preconditions of economic growth. Similarly, other existing planning concepts include spatial considerations, by particularly encompassing aspects of density, mobility, space utilization, resource use conservation and creation of synergies (based on multiple functions and stakeholders). As outlined by Vreeker, Groot and Verhoef (2004), the concepts of new urbanism, smart growth, compact city and multifunctional land use all suggest space saving as a key element of the approach. It can be argued that this aligns with the suggestions in the shrinkage debates on utilizing available resources, when particularly referring to land use. Effectively, this suggests that sprawl and land acquisition outside of city limits is discouraged both by the four reviewed concepts and by the fragile consensus on managed shrinkage. On a lower scale, those concepts align on enabling a multitude of functions within a certain revitalized area, multifunctional land use explicitly stipulating the creation of synergies as a prerequisite. If "Shrinking Smart" is viewed as a potential companion to those planning concepts in the context of shrinkage, it is worth investigating how cities in Europe have dealt with the spatial and physical transformation of certain areas so as to align to the perspectives of land use intensity, density and functionality.

Table 1. Similarities and differences between various mixed and compact land use concepts.

	<i>New Urbanism</i>	<i>Smart Growth</i>	<i>Compact City</i>	<i>Multifunctional Land Use</i>
Characterization	American planning concept aimed at the mixing of activities at neighbourhood level	American planning concept aimed at the protection of open space and farmland	European planning concept to improve the environmental and economic performance of cities	Planning concept aimed at the sustainable use of land. Especially focused on the creation of synergy between land use functions
Focus on urban revitalization	Yes	Yes	Yes	Yes
Attention to high density development	No explicit attention	No explicit attention	Explicit attention	Explicit attention
Spatial level	Neighbourhood	Neighbourhood and city	Neighbourhood and urban regions	Building, neighbourhood, city
Intended mobility effects	Reduced (car) mobility	Reduced (car) mobility	Reduced (car) mobility	Reduced (car) mobility
Transport mode favoured	Pedestrian friendly	Pedestrian friendly	Pedestrian, bicycle, public transport	Public transport
Space saving	Yes	Yes	Yes	Yes
Attention to resource use conservation	Explicit attention	No explicit attention	No explicit attention	No explicit attention
Creation of synergy	No explicit attention	No explicit attention	Limited attention	Explicit attention

Figure 4.3: The concepts of New Urbanism, Smart Growth, Compact City and Multifunctional Land use in comparative perspective. Table source (Vreker, Groot, and Verhoef 2004): *Urban Multifunctional Land Use: Theoretical and Empirical Insights on Economies of Scale, Scope and Diversity*

Growth: Economic vs. spatial considerations

Considerations on sustainability have found their way into spatial planning concepts, as illustrated above. Sustainable development, however, as outlined in a previous chapter (Chapter 2), is a framework which enables economic growth, balanced with social and environmental considerations. Sustainability, in fact, does not challenge growth, but stipulates that it is possible to still have growth, while also paying specific attention to the social and environmental consequences and to actively consider them in policies and planning. This brings back the economic dimension and its influence on planning, spatial or otherwise. While the argument of non-growth oriented planning suggests that certain planning approaches can be implemented in opposition of or as an alternative to growth, it not only does not fully take into account the political economic dimension of the question, but also equates growth, strictly in economic sense, to a static term with narrow boundaries. More recently, however, the conventional understanding of growth, in the sense of linear, resource intensive economic development, has been challenged and has also been reformulated in different frameworks which expand into other considerations. Sustainable development is one of those frameworks and since its inception it has integrated economic growth considerations in a more balanced, politically negotiated framework that incorporates also environmental and social considerations (Hajer 1995). Circular economy,

another example, provides a non-conventional view on resource utilization which breaks the traditional understanding of linear growth and contributes to lower environmental impact and innovative use of resources (Sánchez Levoso et al. 2020). The circular economy debate also follows a similar path as sustainability as it is becoming an overused term without clear boundaries, yet the two paradigms similarly frame growth in a broader context, outside of the strict economic focus (Geissdoerfer et al. 2017). Other frameworks such as the doughnut economy develop further the sustainability narrative and outline limitations and alternative utilization of resources for a sustainable and just economic development (Raworth 2012).

The intersections between circularity and land use have not been studied sufficiently, yet some scientists have suggested that multifunctional land use and circular urban metabolism, a framework inspired by circular economy and focusing on utilization of local resources, can be integrated and could prove useful as complementary approaches (van Broekhoven and Vernay 2018). In fact, it can be argued that the argument for shrinking cities to utilize available land and other resources aligns with circularity as an approach. A recent report by ESPON suggests that building reuse is especially suitable for former industrial areas and is aligned with the principles of circular economy (ESPON 2020). Those examples come to illustrate that when looking for alternatives for shrinking cities, under the potential framework of “Shrinking Smart”, perhaps the traditional understanding of growth should be challenged as well. If growth is sustainable or circular, is a shift away from it particularly necessary? Is there a need to shift away from it if it can accommodate quality of life or sustainability considerations while at the same time building or sustaining a viable economic base?

The perspectives revolving around land use intensity and utilization, infrastructure resizing, integration of functions and reuse and repurposing of existing resources deal with practical matters, particularly in the spatial dimension of planning. The effect of certain decisions on land use utilization or a neighbourhood revitalization with the repurposing of existing buildings or with the construction of new areas can also be viewed from the perspectives of efficiency and equity. Efficiency and equity are also main arguments in terms of planning and policy evaluations (Shahab, Clinch, and O’Neill 2019) and usually encompass a longer time span, thus contributing also to debates on sustainability. Efficiency suggests achieving the most with the least amount of resources. From the perspective of cost, this view suggests efficient financial management of cities. Questions such as infrastructure resizing inevitably bring financial and cost considerations to the decision making table and they can hardly be ignored. A study of Spanish municipalities illustrates the correlations between effective management of the cost of public services and the level of compactness of the cities studied, illustrating that the spatial models with less sprawl are more cost efficient (Benito, Bastida, and Guillamón 2010). From the perspective of land use, efficiency aligns very closely with compact urban development and, respectively, with the concepts that encourage less sprawl and more compact urban forms, such as smart growth. The land use efficiency perspective can also feed into the hypothesis for the formulation of “Shrinking Smart” as a new planning concept.

The perspective of equity often accompanies efficiency as a normative criterion that needs to be considered when a certain policy approach is designed. Originating in welfare economics, equity stipulates a fair distribution of available resources. This is where the definition becomes problematic as ‘fair’ is a subjective category, interpreted in different ways by different social groups (Shahab, Clinch, and O’Neill 2019). It can be argued that in the discussions for spatial allocation of land and resources, equity can be useful perspective to interpret how the limited resource of land and its function has been attributed to different social groups and, respectively, stakeholders within the city. This aligns with the spatial

concepts dealing with function, such as multiple land use, as well as with the discussion on what priorities should shrinking cities set for their future development. If economic growth is the only focus, would this result in equitable distribution of the available resources in the city, following a certain intervention? If, however, growth efforts are combined with other considerations, such as measures focusing on vulnerable social groups, perhaps the outcome would be more equitable. When looking at the particular interventions that have been implemented in shrinking cities, analysis from the perspective of equity and efficiency can further support the understanding and motivation behind the respective approaches to shrinkage and the consequences of them.

Examining specific interventions within shrinking cities from the perspectives of efficiency and equity can shed light on their viability as possible planning approaches and also bring a more salient argument to their applicability as opposed to presenting them as a spatial fix. Efficiency and equity can be used as categories through which the proposed practical approaches to shrinkage can be evaluated consistently. The possible directions of resizing infrastructure or repurposing a building instead of demolition concern efficient use of resources. A key element for those approaches is also the financial viability. The efficiency perspective also aligns with one of the proposed concept features with the same name (Section 4.2.). The changes to land use function and the considerations moving beyond economic growth can be analyzed from the perspective of equity – to what extent the allocation of land when dealing with shrinkage enables multiple functions for multiple stakeholders within the city? How a certain approach to revitalizing a neighbourhood has contributed to the wellbeing of the existing citizens in it? To what extent the economic changes taking place following shrinkage enable a long-term trajectory of economic benefits for a larger part of the population?

In conclusion, when attempting to define what “Shrinking Smart” can encompass as a planning concept the potential positioning of the concept as an opposition to “growth” should be critically examined from the intersection between economy and space. A clear differentiation between economic focus on growth and spatially bound planning and policy approaches should be established, while at the same time the interrelations between the broader economic context and the embeddedness of planning should be recognized. A more nuanced understanding of growth, in line with non-traditional economic perspectives such as sustainability and circularity, can highlight possible intersections between planning for shrinkage, in spatial or other terms, and economic benefits. In order to identify the spatial dimension of the new planning concept, it is required to research how existing approaches to shrinkage have dealt with the questions of land use, land function and infrastructure provisioning. Efficiency and equity as normative criteria to evaluate the implemented approaches can prove helpful not only for evaluating the financial viability of the interventions, but also the long-term considerations for social and environmental benefits for the larger population.

4.5 OUTLINE OF HYPOTHESES FOR THE PLANNING CONCEPT OF “SHRINKING SMART”

The theoretical conclusions, concept feature proposals and the critical review on existing research in sub-chapters 4.1., 4.2., 4.3. and 4.4. are the main foundation utilized for the formulation of the hypotheses being tested in the empirical stage of this research. The reflections on the definitions of urban shrinkage and shrinking cities raise the question of

understanding the phenomenon in practice. Given the conclusions that there is no uniform understanding of shrinkage, this research takes a critical view on this point and introduces a hypothesis that traces the the shrinkage conceptualization in practice, based on the empirical data from the case studies (Hypothesis 4).

Second, the reflection on the three ‘smart’ reference terms resulted in the formulation of five proposed concept features. These are Visionary/Future orientation, Generative, Participatory, Efficiency and Collaboration. The theoretical reflection on the process of concept creation and the critical analysis of the proposed approach in reference to the shrinking city definition produced the other five proposed concept features – Planning centrality, Inquiry, Integration, Applicability/Contextuality, Know-how¹. These theoretical constructs have been refined in order to formulate specific points that can be traced in empirical work. The formulated concept features are then overlaid on the research design, taking into account the distinction between planning process and policy and planning substance. As a result, three hypotheses are formulated (Hypotheses 1, 2 and 3)

Lastly, the critical analysis of other existing works on the smart decline idea and further debates on managed shrinkage and non-growth oriented development reveal the need to examine further the spatial and economic considerations in the creation of the new planning concept of “Shrinking Smart”. The analysis of these existing works produced specific points that refer to spatial and economic dimensions that are also embedded into a separate hypothesis (Hypothesis 5). These points encompass the hypothesis and debate surrounding non-growth oriented development. This perspective is applied to the spatial development of two of the case studies by tracing how the cities have addressed sprawl, compact development, reutilization of land, mixed use development, reuse of buildings and management of infrastructure. The same perspective is applied to the economic development whereas indicators of economic growth and efficient and equitable economic development are traced, along with non-traditional economic ideas such as sustainable development, circular economy and the role of private capital in shrinking context.

The distinction between planning process and substance (Faludi 1978) is sustained in the empirical work and analysis and its application to the embedded units of analysis (policy, planning and implementation) results in specific combinations of unit and focus that guide the formulation of hypotheses (Table 4.2.):

Units and concept distinction (process/substance)			
Focus/Unit of analysis	Policy	Planning	Implementation
Process	Out of scope	A	Out of scope
Substance	B	C	D

Table 4.2: Distinction between planning process and planning and policy substance in relation to the units of analysis. Source: Own work.

The policy process (how a certain policy was developed) and implementation process (how a certain intervention was implemented) are out of the scope of this research. For the rest of the pairs, the following breakdown outlines the case studies, relevant for each of them as well as the methods associated with the respective hypotheses (Table 4.3.):

¹ These five concept features were formulated at an earlier stage of the research. A draft variation of them was utilized for the selection of case studies (Chapter 5).

Focus/Unit	Corresponding hypothesis	Case studies	Methods
A	Hypothesis 1: Planning process	Bilbao, Leipzig	IPA
B	Hypothesis 2: Policy substance	Bilbao, Leipzig, Zeeland	IPA
C	Hypothesis 3: Planning substance	Bilbao, Leipzig	IPA
B & C	Hypothesis 4: Shrinkage conceptualization	Bilbao, Leipzig, Zeeland	IPA
D	Hypothesis 5: Implementation substance	Bilbao, Leipzig	IPA, descriptive statistics, descriptive spatial data

Table 4.3: Hypotheses in reference to units of analysis, case studies and methods. Source: Own work.

The main components that form the respective hypotheses and empirical stage questions stem from the conclusions made in the previous chapters. A central point of these conclusions are the proposed planning concept features (Table 4.4.):

<i>Concept</i>		<i>Planning relevance</i>	
Concept feature	Description	Process	Substance
Planning centrality	Concerted effort in planning, originating at different levels.	Y	
Participatory	Inclusive to a wider scope of stakeholders, democratic and deliberative in nature	Y	
Inquiry	Through data, adaptable to the changing conditions, not necessarily providing ready-made solutions	Y	Y
Applicability/contextuality	Is contextualized in the reality in which shrinkage occurs and this contextualization is recognized within the process of planning and in terms of the interventions and policy responses identified	Y	Y
Integration	Attempting to respond to a phenomenon of complex nature. Integrates different aspect into a cohesive story.	Y	Y
Visionary/future orientation	Creates an idea for a desired direction		Y
Generative/Inventive	Specific action nodes (corresponding to the areas above) have been defined and have resulted in identifying respective responsible entities, which are to act upon these nodes.		Y
Know-how	This planning effort is a 'know-how' by itself and at the same time attempts to produce 'know-how' through a process of assessing, monitoring and providing responses in the context of shrinkage.		Y
Efficiency	Addresses the optimal utilization of available resources		Y
Collaboration	Follow up actions involve multiple actors		Y

Table 4.4: Concept features in reference to the process and substance distinction. Source: Own work.

The proposed concept features are classified according to their relevance for the planning process and the policy or planning substance, thus encompassing the possibilities of the characteristics of the “Shrinking Smart” concept across this key distinction by Faludi (1978). These conclusions, respectively, verify the hypotheses concerning the planning process, the policy substance and the planning substance.

In parallel to the identification of the hypotheses and their different components, the scope of the shrinkage policy and planning is mapped inductively. Due to its varied nature in different contexts, the research design of the study does not limit the scope of shrinkage only to one area of possible planning or policy actions, but rather leaves the question open so as to identify which policy and planning areas were addressed in the different cases. The interpretation of the shrinkage phenomenon is reviewed under a separate hypothesis and the scope of the interpretation of the phenomenon is also outlined through topic mapping. This approach allows the formation of thematic cores that can be used for further structuring of planning and policy recommendations under the planning concept of “Shrinking Smart”.

The hypothesis pertaining to the implementation unit of analysis, generated from the non-growth oriented planning debate, builds on the assumption that economic and spatial considerations of “non-growth” have to be considered separately and have to be assessed in a critical way. The second assumption as a result of this analysis is that “non-growth planning” suggests efficient and equitable spatial approaches to land use, building stock and infrastructure. From spatial perspective this implies compact development (efficiency), mixed use interventions (equitable land use), optimization and efficient management of existing building stock, optimization and efficient management of existing infrastructure. The preliminary review of the selected cases of Bilbao (Spain) and Leipzig (Germany) exposed efforts in resizing railway infrastructure, therefore this type of infrastructure has been chosen as a variable under Hypothesis 5.

Formulation of the hypotheses

HYPOTHESIS 1: PLANNING PROCESS

The planning process in the selected cases is highlighted as key to delivering the changes in the city and for responding to shrinkage (*Planning centrality*). The planning process is designed as participatory and is inclusive to a wider scope of stakeholders, it is democratic and deliberative in nature and design (*Participatory*). The planning process is supported by investigative steps, such as data collection, additional studies, assessments, evaluations prior to taking decisions – the process does not directly provide ready-made solutions without scientific or data-driven justification (*Inquiry*). The planning process design is justified through contextual characteristics, specificities of the planning system, political, cultural, civil factors that determine its scope and role (*Applicability/Contextuality*). The planning process attempts to encompass multiple areas, corresponding to perceiving shrinkage as a phenomenon of complex nature (*Integration*).

HYPOTHESIS 2: POLICY SUBSTANCE

The shrinkage-related policies outline conclusions and recommendations, based on previously gathered data, assessments, studies and evaluations. The policies do not prescribe direct actions without scientifically-backed justification (*Inquiry*). The policy direction and decisions outlined are justified and interpreted as applicable for the specific context by referencing contextual characteristics, specificities of the planning system,

political, cultural, civil factors that influence the respective policy approach and its relevance for the specific context (*Applicability/Contextuality*). The policy direction and decisions are interpreted as interrelated, the measures specified attempt to respond to a more complex understanding of the shrinkage phenomenon or its effects (*Integration*). The policy outlines a direction to a desired future state, a vision or an outline of the preferred change that the policy is supposed to deliver, implicitly or explicitly stated future condition (*Visionary/Future orientation*). The policy stipulates which actors or institutions are supposed to deliver the proposed policy measure or introduces elements or outlines of the implied implementation of the proposed measures. The policy measures outlined do not remain as ideas and wishes, but are “brought” to reality (*Generative/Inventive*). The policy stipulates proposed course of action for the implementation of the proposed measures, particular steps that are supposed to be delivered (*Know-how*). The policy addresses the optimal utilization of available resources in any policy area. The policy stipulates how resources should be distributed (*Efficiency*). The policy stipulates that the effects of the desired change serve different social actors and groups. The policy outlines that different social actors and groups have a role to play in the delivery of the policy (*Collaboration*).

HYPOTHESIS 3: PLANNING SUBSTANCE

The shrinkage-related plans outline conclusions and recommendations, based on previously gathered data, assessments, studies and evaluations. The plans do not prescribe direct actions without scientifically-backed justification (*Inquiry*). The planning direction and decisions outlined are justified and interpreted as applicable for the specific context by referencing contextual characteristics, specificities of the planning system, political, cultural, civil factors that influence the respective planning approach and its relevance for the specific context (*Applicability/Contextuality*). The planning direction and decisions are interpreted as interrelated, the measures specified attempt to respond to a more complex understanding of the shrinkage phenomenon or its effects (*integration*). The plan outlines a direction to a desired future state, a vision or an outline of the preferred change that the policy is supposed to deliver, implicitly or explicitly stated future condition (*Visionary/Future orientation*). The plan stipulates which actors or institutions are supposed to deliver the proposed planning actions or introduces elements or outlines of the implied implementation of the proposed measures. The planning measures outlined do not remain as ideas and wishes, but are “brought” to reality (*Generative/Inventive*). The plan stipulates proposed course of action for the implementation of the measures, particular steps that are supposed to be delivered (*Know-how*). The plan addresses the optimal utilization of available resources in any policy area. The plan stipulates how resources should be distributed (*Efficiency*). The plan stipulates that the effects of the desired change serve different social actors and groups. The plan outlines that different social actors and groups have a role to play in the delivery of the policy (*Collaboration*).

HYPOTHESIS 4: SHRINKAGE CONCEPTUALIZATION

The shrinkage phenomenon is interpreted in a different way in the different cases investigated. It encompasses different areas, problems, effects. The way that the phenomenon is conceptualized and interpreted influences the desired decision and course of action, outlined in policies and plans.

HYPOTHESIS 5: IMPLEMENTATION SUBSTANCE

The implemented policy and planning interventions in the selected cases have not been focused on growth or have pursued objectives not related to growth in economic terms. The implemented policy and planning interventions in the selected cases have attempted to achieve efficient and equitable economic development. The implemented policy and planning interventions in the selected cases have not been focused on growth in spatial terms. The implemented policy and planning interventions have attempted to achieve efficient and equitable spatial development in terms of: land use (avoid sprawl, promote compact development, utilize available land, promote mixed use development), building stock (efficient management through demolition or renovation efforts), infrastructure (efficient management and optimization of railway infrastructure).

5

EMPIRICAL STAGE: SELECTION OF CASE STUDIES AND DATA COLLECTION

This chapter outlines the empirical stage of the research. In the first part of the chapter a literature review on existing research is performed with the intention to identify suitable case studies for the purposes of this research. The second part of the chapter outlines the selection of case studies.

In the course of the research execution, theoretical reflections on the possible structure of the new planning concept were defined. These reflections resulted in the identification of concept features which were later on formulated as part of the overall hypotheses for the study. During the formulation of the hypotheses, five of the concept features were defined at the preliminary stage. These are outlined in Chapter 4.3. They pertain to specific characteristics of a hypothetical conceptually led planning and policy response to shrinkage. These characteristics were utilized as criteria for the selection of the three case studies that are being investigated in the empirical stage of this research. The criteria are as follows:

- Concerted effort in planning, happening in the context of shrinkage. A planning effort that encompasses multiple areas of shrinkage, likely in an integrated way, appreciative of the complex nature of the phenomenon.
- Responses and actions in different areas, varying from interventions to complex policy responses.
- Action nodes and responsible actors identified, corresponding to the identified areas.
- The context in which shrinkage occurs is recognized and policies and interventions are taking it into account.
- The planning effort is a 'know-how' and attempts to produce 'know-how' (is actionable)

After applying the above preliminary criteria, defined in the theoretical stage of the research, a shortlist of cases is outlined, based on the performed literature review. After applying further research design and methodological criteria, the following case studies are selected:

- Shrinkage-relevant policy and planning approaches, resulting in spatial and other interventions (implementation) in Bilbao (Spain) between 2000 and 2015
- Shrinkage-relevant policy and planning approaches, resulting in spatial and other interventions (implementation) in Leipzig (Germany) between 2000 and 2015
- National policy for regional population decline in the province of Zeeland (the Netherlands) since 2010

After the selection, preliminary information for the case studies is outlined. Based on this information, the steps for executing the empirical research are outlined. At the end of the chapter the scope and execution of the empirical work is outlined, together with references on the application of methodology in the processing of the data and a summary of the completed empirical work.

5.1 OVERVIEW OF RESPONSES TO URBAN SHRINKAGE IN THE EUROPEAN UNION – EXISTING RESEARCH

The following overview of policies and responses to shrinkage has been compiled from a literature search in existing scientific databases for works, published in English, previous projects and publications, looking at responses to shrinkage in EU countries. The search criteria applied is the country (EU has 28 member states, including the UK as of 4.12.2019) and focuses on empirical evidence, rather than on authors' recommendations on possible policies and plans in the context of shrinkage. The search has been performed in December 2019. This literature review is done for the purposes of identifying case studies for the empirical stage of this research, therefore the outline of the various planning and policy responses is not exhaustive or analytical. Additionally, the literature review is not extensive and does not claim to represent all responses to shrinkage due to the limitations of the research, however, it has attempted to encompass a large sample with significant variety of policy and planning responses in order to identify suitable case studies for the purposes of this study. The findings are grouped either per country or based on similarities identified in the scope or direction of responses. Some countries have been researched more than others, respectively more findings were identified for them.

UNITED KINGDOM

The United Kingdom is one of the countries where shrinkage has been a topic among practitioners and scientists for a long time, therefore a number of examples of addressing shrinkage can be found there. The shrinkage context in the UK has been largely defined by post-industrial transformations as a result of the first wave of globalization back in the 1970s and has been continuing to evolve until now. It has resulted in closure of industrial facilities, unemployment, suburban sprawl and vacant housing and industrial buildings in multiple cities. The overall country-level policy agenda in dealing with shrinkage and its effects has been influenced by two key points, focusing on urban renaissance and competitiveness and neighbourhood renewal (Couch, Sykes, and Börstinghaus 2011). A notable example of a country-level policy that had influence in multiple locations is the Housing Market Renewal programme, focusing on English North and Midlands. On urban level, some examples of cities which were affected by shrinkage and have engaged in some type of active policy in addressing it include Liverpool, Sheffield, Manchester, Glasgow, Birmingham and Belfast.

In **Liverpool**, measures on countering shrinkage and dealing with the city's industrial heritage, both economically and in terms of land use, were firstly planned through predominantly economic measures. With the attempt to address shrinkage only through attracting new investment to the city, shrinkage was only viewed as a problem of economic restructuring. A number of different initiatives revolving around economic regeneration were undertaken in Liverpool since the 1970s when it became clear that shrinkage will remain in the city in

the long term (Bernt et al. 2014). More recently, during the 1990s, Liverpool has been subject to policies in multiple areas combining economic regeneration and shift to service-based industries, together with urban regeneration, revitalization and housing measures, the latter mostly facilitated through the Housing Market Renewal programme. All measures received funding from different levels – local, national and from the EU. Overall, the more recent approach towards addressing shrinkage in Liverpool has illustrated a combined, albeit not necessarily integrated, way of dealing with multiple aspects of shrinkage simultaneously, so that nowadays, the city has managed to contain peripheralization and to sustain its population.

Other cities in the UK have turned predominantly to interventions and policies, revolving around a certain substitute industry to compensate for the shift from traditional industrial production. In **Sheffield**, for example, together with policies on addressing the skills mismatch on the labour market (Ploeger 2012), the cultural industry, and particularly the music production industry, was identified as a promising economic area and was targeted for support from local government as a sector with promising prospects of growth. Through some local initiatives, resident music artists managed to utilize the existing built infrastructure for their purposes in the future Cultural Industries Quarter. A similar approach was employed in nearby **Manchester** with the development of the Northern Quarter as a cultural hotspot (Brown and Justin O'Connor 2000). In Manchester, however, the transformation and the shrinkage measures encompassed more aspects. Apart from the actions addressing the economic shift from traditional industries to service-based ones, Manchester has also been a subject of a number of interventions in terms of regeneration and overall reinvention and rebranding of the city. To achieve the latter two goals, flagship development projects were carried out (Ortiz-Moya 2015). Initially, all those measures, including zoning of the city according to future desired functional areas and activities (e.g. sport, culture, commerce), were focusing entirely on the economic growth-driven expected future development. Some of those initiatives have successfully resulted in reconversion of former industrial buildings and assets into office buildings and housing, preserving the industrial heritage of the city. The waterfront area has also been regenerated. All those initiatives were undertaken as part of the overall restructuring and rebranding of the city in the context of post-industrial economic setting. Overall, all those initiatives were implemented under the auspices of attracting new economically active residents and rebranding the city. Those measures were complemented by regional masterplans, focusing on increasing competitiveness. The outlined development interventions have been criticized for not addressing the social problems that were generated by the shrinkage processes (Ortiz-Moya 2015).

Glasgow employed a number of different initiatives for its transition away from shrinkage. Cunningham-Sabot characterizes the shift of Glasgow from production city to a city, focused on consumerism (Cunningham-Sabot and Roth 2014). Culture was one of the major drivers for the regeneration of the city. During the 1980s and the 1990s Glasgow engaged in a number of culture-related initiatives such as festivals, design initiatives and events. It was chosen as the European Capital of Culture in 1990 and later on increased its recognition as a cultural hotspot. The culture-led regeneration strategies were also complemented by interventions such as demolition of existing social housing in the centre of the city and its replacement by a public space project to further contribute to the newly built image of the city as an attractive place to live. Significant investments were put into riverside regeneration projects in order to further improve the central area of the city. Overall, the city's approach to dealing with shrinkage, in the context of its post-industrial future, was to implement economic restructuring and shift to alternative forms of activity, rather than to rely on the old industrial profile. These measures have been successful as new economic

activity has been established in the city. These economic measures were complemented with regeneration and improvement of certain areas. Cunningham-Sabot classifies the transition of Glasgow as successful but not for everyone, outlining that the newly opened businesses have not managed to provide employment for locals and also that some communities have suffered from the interventions in their areas, most notably the social housing deconstruction (Cunningham-Sabot and Roth 2014). As the author argues, this transition has resulted in increased disparity between poorer and richer citizens. Overall, however, Glasgow has managed to resurface from shrinkage and to address it via systemic, strategic and gradual efforts in multiple areas, with particular topical focus (Camarda, Rotondo, and Selicato 2015). Similar policy initiatives, targeting multiple areas were also implemented in Birmingham and Belfast, together with focus on events, contributing further to the repositioning of the cities.

FRANCE

Shrinkage in France has also been largely defined by post-industrial economic transformations. It has resulted, with different severity, in similar effects as in the UK – factory closures, unemployment, suburbanization and internal migration, housing challenges in some cities. The national level policy direction has revolved around addressing housing, developing decentralization strategies for regions, focusing on competitiveness, regional development and economic reconversion programmes (Couch, Sykes, and Börstinghaus 2011; Cunningham-Sabot and Roth 2014). The national housing policy, which also included a significant amount of public funding, has helped the financially challenged city of **Roubaix** to implement certain restructuring measures at local level.

Probably the most notable example of shrinkage-related policies in France is the city of **Saint Etienne**. As outlined by Cunningham-Sabot and Roth, Saint Etienne has employed similar approaches to the ones implemented in Glasgow. The overarching framework, under which different measures were applied, has been mostly defined by the objective of turning the city into a desirable place to live, to attract new citizens in order to counteract the suburbanisation and to rebrand the city as an innovative locale in international context. The city has also taken advantage from the national housing policy programme in order to regenerate some residential areas. In addition to that, systemic efforts have been placed in order to utilize the cultural industry as a new driver in the economic development in the city. Furthermore, regeneration of public spaces, development of flagship projects and regular events support have contributed to the complex measures taken to address shrinkage (Cunningham-Sabot and Roth 2014; Ploeger 2012).

GERMANY

Germany has been recognized as one of the most influential examples of research on urban shrinkage. The phenomenon there was mostly influenced by the mass migration of population from the territories of the former GDR to Western Germany, following the reunification of the country in 1990. This change has largely defined the shrinkage topic in the country and has contributed to a significant number of academic studies, policy initiatives and debates, dealing with the consequences of both the migration and the economic transformations (Nelle et al. 2017). In addition, Eastern Germany after 1990 also had to undergo a post-socialist transition in its transition to democracy and market economy by adopting the governance system of the already established federal republic. Cities in Eastern Germany were also affected by decreasing birth rates, which is also a common cause of shrinkage in post-socialist countries (Rychtarikova 1999). All those changes influenced the framework

of policy initiatives in the country. In the beginning of the 1990s, the initiatives were mostly focusing on economic measures, aiming to attract new investments. On national level, one of the most researched examples of shrinkage-related programmes is the Stadtumbau programme. Its first edition was focused on the most pressing shrinkage-related question for cities in Eastern Germany – the housing vacancy. Stadtumbau Ost was a main source of policy interventions, public finance and integrated planning which has benefited many German cities (Nelle et al. 2017). The follow up programme Stadtumbau West was designed to include the rest of the country. Both editions of the programme required cities to develop integrated plans for urban regeneration in order to benefit from the funds (Wiechmann 2009).

Leipzig is a well-researched example of shrinkage-oriented policies and their effects on the city. Similar to other cities in Eastern Germany, Leipzig had to deal with mass outmigration, following the reunification, suffering economy, due to factory closures, massive housing vacancy and overall decline of the city. In time, under the framework of integrated planning, through establishment of new business zones and through subsidies, Leipzig managed to attract new investment to the city from the automobile production industry, create new venues for large-scale trade events and attract media industries. In addition, the city became a host of a biotechnology cluster which, together with the university, also plays an important role in the economy (Bontje 2004). All economic-related policies were encompassed by an investor-friendly strategy (Ploeger 2012). The housing and the regeneration challenges in Leipzig were mostly addressed under the Stadtumbau Ost framework and included mass demolition of housing estates and the following revitalization of some areas with different measures, such as greening (Bernt et al. 2014). The measures under Stadtumbau Ost were also complemented by actions under the integrated plans. The city has also managed to take advantage of EU funding to address housing and social issues in certain areas (Rink et al. 2014). Actions and interventions in all of those areas were financed from different levels, including state support, federal level funding, EU funds and local budget.

Dresden is another example of a city which has taken measures in different areas in a coordinated way in order to deal with the effects of shrinkage, following the German Reunification. Wiechmann has traced in detail the policies and interventions, implemented in Dresden since, outlining the transformation of the city from severe population decline to stabilized population (Wiechmann 2009). The economic measures implemented in Dresden were focused on establishing high-tech industry through state support. This formed a cluster of small enterprises which, together with Dresden's Technical University, contributed to the economic regeneration of the city. Although the policies in the beginning of the 1990s were mostly focused on expected growth and included building new offices and new residential areas, the city shifted away from this goal and instead focused on overall restructuring to a smaller scale. The new strategies recognized that the expected population growth is lower than the forecasts from previous years. The city focused on revitalizing certain historical districts, together with the city center. The shift to a more compact urban size and form was also supported by the participation in Stadtumbau Ost, which complemented the already ongoing demolition of excessive housing. In the most recent years, Dresden has been increasing its population, albeit the economic growth which has been also observed has not completely compensated the insufficient number of jobs available in the city. As a result of the above strategic efforts, as Wiechmann outlines, areas of shrinkage and growth exist together in a patch pattern across the city (Wiechmann 2009).

Another example of integrated planning effort in addressing shrinkage is the city of **Dessau-Rosslau**. The increased housing and industrial vacancy, together with the decreasing

population has prompted the city to also take part in the Stadtumbau Ost programme and engage primarily in demolition of excessive housing. This was accompanied by revitalization efforts of key urban core areas. All efforts were encompassed by an integrated strategy which was developed with increased stakeholder participation. The strategy dictates that the city would stabilise its urban cores and develop new landscape zones to connect key urban areas and the hinterland (Martinez-Fernandez et al. 2012b).

An example of an innovative approach to shrinkage from Western Germany is the International Building Exhibition (IBA 1999) for the **Emscher area** (part of the Ruhr area), tackling issues of post-industrial nature following the decline in coal production in multiple cities of the region. As Shaw (2002) outlines, the effects of this transition were of economic, social and environmental nature. The area was historically dependent on coal production and heavy industry and as a result of its decline, derelict industrial lands, inaccessible green space, insufficient social infrastructure and poor conditions could be found in many of the cities in the area. In this context, the IBA initiative was set up in order to present examples as to how to approach in an integrated way the above issues and shrinkage-related challenges. The IBA focused on developing pilot projects in certain areas of the Emscher, engaging the local community and various public and private stakeholders to a different extent. The different projects included creation of regional green corridors, decontamination measures of the river, redevelopment of industrial areas for new business activity and the cultural sphere, housing renovation investment in certain areas, social and training initiatives for local citizens. The IBA project followed an integrated regional development approach and attempted to address a complex setting of shrinkage-related issues (Shaw 2002).

A number of other cities in Germany have engaged in different initiatives for addressing shrinkage-related issues, focusing on community and citizen involvement. The city of **Mettman** focused on citizen engagement to deal with shrinkage and has implemented training sessions on active citizenship to encourage its citizens to participate (Hospers 2013). In **Hattingen**, a similar approach resulted in cross-generational initiatives for developing intervention plans. A number of smaller cities in the state of Saxony have implemented activities, aiming at promoting local business initiatives to compensate the shrinking labour market (Leetmaa et al. 2015). The city of **Bremen** has engaged in supporting declining neighbourhoods through improvements in physical infrastructure, events, educational activities. Bremen has also implemented data collection and monitoring system to regularly track the condition of certain areas in order to measure the effects of the different interventions.

PORTUGAL

Shrinkage in Portugal is a phenomenon that encompasses a number of municipalities and areas in the continental part of the country. As Panagopoulos and Barreira (2012) outline, 57% of the municipalities in Portugal had been losing population between 1999 and 2008 and this percentage includes the two biggest cities of the country – Lisbon and Porto. The authors attribute shrinkage to three main causes – lack of urban rehabilitation and subsequent rent increase, causing difficulties for renting housing; abrupt discontinuation of economic activities and decrease in primary and secondary sectors, mostly experienced by rural municipalities. More recently, Portugal has been identified as one of the countries with the highest number of citizens living outside of the country (Elliott 2019). A key reason behind this mass outmigration has been the financial crisis of 2008. This demographic change has resulted in recent recruitment shortage challenges for some sectors of the economy and has given rise to a recent initiative at country level, aimed at encouraging emigrants to return

back to the country. The national programme Regressar offers financial incentives, such as relocation package and tax deductions, for people coming back to Portugal. Panagopolous and Barreira outline that there are no integrated policies on national level focusing on urban rehabilitation or urban vacancy, although the governance of the country is strongly centralized (Panagopoulos and Barreira 2012).

On local level, some municipalities have engaged with different strategies mostly focusing at repopulating their respective settlements through attraction of new citizens or through efforts on retaining the existing population. Some policies were aiming at attracting young married families by providing housing. Other municipalities have engaged in actions aiming at retaining and attracting students. Other examples include maintaining the quality of healthcare services in order to prevent further outmigration. Lastly, some municipalities have engaged in policies promoting employment (Panagopoulos and Barreira 2012). All those examples of policies were observed in different municipalities across Portugal with various extent.

One example of a more integrated approach to dealing with shrinkage has been observed in **Porto** (Martinez-Fernandez et al. 2012b). An extensive number of integrated and highly participatory practices were employed in Porto with the intention to address shrinkage-related issues such as depopulation of the urban historic core, accompanied by urban sprawl, high vacancy and under maintained buildings, increased unemployment levels. These long-term changes have been accompanied by economic processes of deindustrialization, tertiarisation since the beginning of the 1990s, shortly after Portugal joined the EU in 1986. The strategies identified by the authors revolve around two main initiatives – the SRU Master Plan and the Historic Centre Management Plan. The Master Plan was associated with the established urban rehabilitation society (SRU) in Porto (similar were established in other Portuguese cities) which is governed through a public partnership between the central government and the municipality. The measures implemented under the two plans encompass building rehabilitation, improvements in public spaces and social and economic measures, targeting the shrinkage effects on labour market and social exclusion. The work of the SRU puts the inhabitants of the area as a central point of the plan goals, together with economic goals, related to business empowerment, commerce and tourism promotion. The actions in the implementation of the plans were mostly focused on building rehabilitation, some of which have been executed in cooperation with private owners. Other interventions into public areas in priority zones in the city were also carried out. Both of the plans were accompanied by a number of supplementary programmes focusing on rehabilitation of rented housing, provisioning of better housing condition for residents, employment measures for vulnerable groups, measures at countering social exclusion, sustainability oriented programmes. All measures were designed and implemented with the involvement of different public, private and civic stakeholders and partnerships on different levels, accompanied by structured and detailed communication of the different aspects of the plan (Martinez-Fernandez et al. 2012b).

SPAIN

Urban shrinkage in Spain has not been a topic for policy makers and academics for too long. As outlined by Fernandez Agueda and Cunningham Sabot (2018), the topic has been gaining momentum since the economic crisis in 2008-2009 which severely affected Spain. Nevertheless, processes of shrinkage have been occurring in Spain and have been attributed to multiple factors, some of which similar to other countries in Western Europe. The deindustrialization processes in the continent since 1970s have affected the economic

development of the country in a similar vein, leading to industrial downturn and the consequential urban decline of key industrial cities such as Barcelona and Bilbao. The global economic changes in the 1970s coincided with significant political transformations in Spain and the transition to the new political setup of the country, following years of dictatorship (Sánchez-Moral, Méndez, and Prada-Trigo 2015). More recently, the country has been strongly affected by the economic crisis of 2008 which has contributed to specific manifestations of shrinkage – increased housing vacancy in newly built residential buildings and vacant, but urbanized urban areas (Fernández Agueda and Cunningham-Sabot 2018). Lastly, some demographic changes have affected Spain on country level – namely decreasing birth rates and number of households. Some scientist attribute these changes to the process of second demographic transition (Buzar et al. 2007).

Sanchez-Moral (2015) examines the transition of **Avliés**, an industrial city in the autonomous community of Asturias in Northern Spain. Avliés had to address the deindustrialization process which triggered a number of shrinkage-related challenges such as contraction of the labour market, depopulation and social problems. In the late 1990s and beginning of 2000s, the city engaged in a number of planned initiatives with increased stakeholder engagement in order to address the economic restructuring required for shifting away from complete dependency on industrial production and the subsequent challenges that this change has triggered. The overarching framework for those initiatives was the new Master plan of the city which aimed at addressing the economic dimension through diversification, together with efforts in urban rehabilitation, incorporating revitalization of the centre, the estuary area and some neighbourhoods. The new Master plan enabled a dialogue between different representatives of the public institutions, private actors and citizens. From financial standpoint, the city managed to take advantage of EU funding, focusing mostly on the economic and infrastructural aspects of the plan such as investment in business innovation and rehabilitation of the port and other public urban areas. The central Spanish government was also involved with financing improvements in transport infrastructure, while the autonomous community government of Asturias engaged in initiatives contributing to the cultural sector, similar to nearby Bilbao, including the construction of a flagship project – the Niemeyer Cultural Center and the Island of Innovation. The different projects in time were not coordinated by a central body or institution, but even with the succession of different local governments, the effort to facilitate an inclusive process of different stakeholders was sustained. In terms of the rehabilitation of the industrial areas, the city also had to address the environmental dimension by decontaminating certain industrial zones. While some initiatives were targeting private corporate investment and the development of the tertiary sector, such as the construction of new business parks, others have contributed to the introduction of tourism as an aspect of the local economy – the cultural initiatives have resulted in increased tourist inflow and, respectively, expansion of the sector. In parallel, the municipality has engaged in improvements in residential areas and infrastructure provisioning in order to improve quality of life for its citizens. Still, the Master plan in effect until 2007 was criticized for focusing more on the economic dimension and not completely addressing quality of life challenges for citizens.

Another internationally recognized example of a Spanish city that has undergone significant transformations as a result of shrinkage is **Bilbao**. The shrinkage in Bilbao has manifested mainly through the economic restructuring of the city due to deindustrialization, accompanied by subsequent depopulation, increased unemployment, social challenges in some areas of the city and derelict industrial zones as a result of the economic contraction, which started during the 1980s and had continuously influenced the city's economic profile of a steel production hotspot and key harbour location. In order to address those

challenges, the city established an agency which would lead the efforts in the regeneration of Bilbao – Bilbao Ría 2000. In a form of public-public partnership, the agency was governed by institutional actors on multiple levels, reflecting the distinctive administrative levels in Spain – the national government and its constituencies in the port management, transport, land use and the government of the Basque Country through participation from the regional, provincial and city levels. The agency was funded through the national budget and EU funds (Ploeger 2012). Other agencies and entities were also involved in partnerships or separately in the implementation of the new strategic plan for the city, namely Bilbao Metropoli-30 (Campbell 2012). The resulting decisions were focused on key large-scale projects as the drivers for the reinvention of Bilbao in the new context it had to operate in. Construction of a new metro system, modernization of the airport, regeneration of the riverfront (including addressing environmental concerns) and the construction of the flagship Guggenheim museum followed. González distinguishes two phases of regeneration activities in Bilbao – during the 1990s and between the late 1990s and the early 2000s (Gonzalez 2006). The author highlights that during the second phase of regeneration of the city, the strategies grew more market-driven and financially dependent on the results of the high-profile key projects. Overall, all interventions in Bilbao were under the overarching framework of repositioning the city into the new global economy and recreating it as a new international hotspot, surpassing the boundaries of the local and emphasizing on the cultural aspect of the transformation. Respectively, in economic terms, the city emphasized on the economic restructuring by shifting to knowledge-intensive industries, culture and tourism as key drivers of the economic development of the area. To support that, the city has also engaged in skills adaptation programmes for citizens in order to support the access to the expected changes to the labour market (Ploeger 2012). Certain interventions into revitalization of residential areas as well, complemented by monitoring system to inform decision making (Ploeger 2012; Gonzalez 2006). Some of the measures under the different strategic directions of Bilbao also incorporated the neighbouring city of Barakaldo which had shared Bilbao’s industrial past and had, respectively, been similarly affected. EU funded initiatives in Barakaldo included creation of green and public spaces, social housing, business zones, transport improvement, waste collection optimizations and rehabilitation of industrial buildings (Azcárate and Schüller 2009).

THE NETHERLANDS

In the Netherlands, urban shrinkage and population decline are rather an exception from the general trend of population growth in the country as a whole, only certain regions are faced with shrinkage-related problems as of 2020. Such is the case for the region of **Parkstad Limburg** in the south of the country. As outlined by Elzerman and Bontje (2015), this former mining region has faced population decline since the 1990s and has prompted an action from different levels of government in the Netherlands. The authors illustrate a shift in the focus of the policies in Parkstad Limburg from traditional growth-oriented planning to acceptance of shrinkage. It is also highlighted that here shrinkage is experienced more as a regional problem, rather than fixed within a certain city. In terms of specific measures, the national government has engaged in financing the revitalization of housing, while in parallel local initiatives for the labour market were focusing on addressing the ‘brain drain’ question, that is, preventing people from further fleeing the region by targeting employment-related policies. In addition to the policies outlined above, the strategy has also identified the need to restructure the regional economy by shifting to enabling local entrepreneurships and business.

Urban shrinkage and regional population decline also triggered the creation of a national

level policy to address questions of population decline in the country. The national policy outlined the need to approach regional population decline with considerations of the specific characteristics of the areas. Specific instruments for knowledge exchange and financial programmes were developed in order to support those areas. The regions within the country were evaluated and classified as currently shrinking or expected to shrink (anticipating) and different policy initiatives were developed, depending on the case. In some of the regions, integrated plans to address the consequences or expected effects of population decline and urban shrinkage were defined.

Some other examples of separate policies, implemented in the Netherlands include the city of **Dordrecht**, where a planned demolition of buildings was cancelled and instead renovation of the residential area was chosen as a possible path. In Kerkrade, in an approved demolition process, some local citizens were trained to work as part of the demolition process as a form of alternative employment.

ITALY, GREECE, ROMANIA, ESTONIA: PASSIVE STRATEGIES

In other countries in Europe, attempts to address shrinkage were somewhat passive or never implemented. Although shrinkage has become an issue in different contexts in those countries, the identified strategies and approaches were limited or not fully applied to practice.

In **Italy** shrinkage was mostly caused by economic restructuring and deindustrialization, similar to other countries in Western Europe. In **Genoa**, a city that faced shrinkage-related challenges from economic, housing, social and environmental perspectives, a number of strategies were developed throughout the years by different levels of government. These, however, were not fully implemented and to a certain extent the challenges, presented by the shrinkage processes, were not addressed (Bernt et al. 2014). The situation in **Taranto** was similar – a number of policies were developed throughout the years, including environmental, housing and economic ones, however, they were implemented in an uncoordinated way and failed to address the challenges caused by shrinkage (Camarda, Rotondo, and Selicato 2015; Martinez-Fernandez et al. 2012b). In some smaller cities in Italy some unusual approaches to deal with vacant housing were suggested. An example is the city of **Gangji** where old houses were offered to the market for the symbolic price of 1 euro in order to attract people who would be willing to invest in their renovation and potentially contribute to the economic development of the city at a later stage (Bruneckienė and Sinkienė 2015).

In **Greece**, a recent trigger for shrinkage has been the response to the country's dire financial situation following the crisis of 2009 where, as a result of the interventions of international financial institutions, the country was prompted to implement a number of austerity measures in order to stabilize its financial system. As a result, unemployment rose in many areas of the country and businesses relocated to neighbouring countries in order to avoid the new tax requirements. These economic shifts resulted in some shrinkage-related problems, but no specific policies to address them were identified (Gospodini 2012).

In **Romania**, shrinkage has been defined by the post-socialist context since the political changes in 1989 and the transition to market economy. After joining the European Union in 2007, demographic shrinkage in some cities was further aggravated by mass outmigration to other EU countries. In addition to that, the country's demographic trends to decreasing population as a result of lower birth rates also contribute to the problem. This complex reality of shrinkage appears to have not been noticed by decision makers in **Timisoara**, where policies were focusing mostly on economic growth and restructuring, including a

new master plan for the city elaborating new economic zones. The plan was also reactive to market dynamics which had prompted increased sprawl of the city due to construction of new housing with the idea to attract the lost residents. The plan attempted to design a metropolitan area, with the incorporation of neighbouring municipalities. The plan itself was developed without citizen participation and in the context of increased dependency of central government, mainly due to financial reasons. The center of all those policy attempts was the attraction of foreign direct investment to the area, which was somewhat achieved (Rink et al. 2014).

In **Estonia**, where shrinkage is strongly defined by similar factors such as in Romania, two examples of addressing shrinkage were analysed by Leetmaa et.al (2015) . The town of **Viljandi** managed to restructure its local economy with the privatization of former state-owned enterprises and to enable its local cultural activities. With the involvement of local actors, the cultural field has contributed to attracting tourism to the city, however the industrial enterprises remain the main economic driver. In the town of **Otepää**, private actors have been the main driver behind local interventions. There, the local administration has not been successful in establishing a dialogue between locals and investors, therefore the newly found economic niche for the town – the ski industry, has been largely driven by private initiative. The lack of dialogue and common goal setting has resulted in private entrepreneurs investing in renovation of infrastructure, such as road renovation, in order to address their business needs.

POLAND AND SLOVAKIA: MIXED APPROACHES

Both Poland and Slovakia experience shrinkage in a post-socialist context, influenced by the political and economic changes after 1989.

Both countries experienced decrease in population on country level, significant deindustrialization in post-socialist context, depopulation due to increasing migration to other European countries and lowering birth rates. As outlined by Bucek and Bleha (2013), the strategic and policy approaches to shrinkage in **Slovakia** were mostly defined by the expectation that shrinkage would be temporary and demographic and economic growth will be reversed in time. Respectively, different cities in the country had to deal with challenges such as abandoned industrial land, decreased economic activity, housing vacancy and maintenance of social services and technical infrastructure. The authors identify the industrial land use as a main shrinkage-related challenge in Slovakian cities. Respectively, policies were focusing on identifying new uses of brownfields by attracting investment to them. Some policies were targeting housing, including financial support from central government in this aspect. Some cities in Slovakia identified the need to restructure the educational services to respond to the lower number of pupils in their municipal schools. Some initiatives of repurposing existing buildings to serve new functions were implemented in some cities, such as Trenčín, Martin, Košice.

In **Poland**, shrinkage has also been largely defined by similar factors such as in other post-socialist countries – transition to democracy and market economy, changing demographic patterns and increased outmigration. In **Bytom**, for example, policies, focusing on economic restructuring of the city's industrial heritage were implemented (Rink et al. 2014). The main intention behind them was to identify new investment into brownfield zones under the framework of a new strategic plan for economic competitiveness. These efforts were accompanied by investment in public space and rehabilitation with the use of EU funding. Issues, related to housing vacancy were not addressed (Bernt et al. 2014) and the city

continuously faced challenges in its budget by being strongly dependent on the central government. In **Walbrzych**, a more structured approach, aimed at addressing different areas with various approaches, was implemented. The city attempted to reclaim former industrial land and combined those economic measures with revitalization of certain areas in the city centre. Additionally, measures to stimulate the creative and cultural sectors were implemented. The economic restructuring of the city was under the framework of coordinated policy measures, focusing on developing a new competitive advantage for the region – special economic zone was developed for the area which succeeded in attracting investments and providing employment. In the course of the implementation of those policies, the city has taken advantage of EU funding (Martinez-Fernandez et al. 2012b).

RESPONSES IN SEPARATE AREAS: DENMARK, SWEDEN, SLOVENIA, LITHUANIA, FINLAND, IRELAND

In some countries, policies to address shrinkage focused only on particular sectors, as opposed to the examples outlined in the previous sections. The two exceptions which can be outlined here are the city of Koper in Slovenia and the city of Lieksa in Finland, both of which implemented integrated and coordinated strategies to address the shrinkage-related challenges.

In **Slovenia**, shrinkage-related challenges are mostly manifested through increased suburbanization and depopulation of urban cores, triggered by multiple factors. As a result, the policies in **Koper**, focused on the incorporation of surrounding settlements into the structure of the city by developing an integrated strategy for the whole area. The integration between the central city and the hinterland is supported by development of new transport infrastructure, economic measures to develop further competitiveness of the city and measures in revitalization and improvements of public spaces (Martinez-Fernandez et al. 2012b).

In **Lieksa, Finland**, the city had to address the economic change from the decreasing role of the timber industry and the subsequent shrinkage-related challenges, such as unemployment and decreasing population. Respectively, the integrated planning aimed at attracting new investment in order to provide substitute employment through tertiary economic activity, such as call centers industry. The measures in the timber sector included introduction of new technologies in order to source and deliver the smaller production more sustainably. The housing policies of the city focused on attracting new residents. (Martinez-Fernandez et al. 2012b).

In other countries, policies on addressing shrinkage revolved around specific areas of intervention. In **Denmark**, for example, a national level strategy for housing vacancy was developed. It aimed at providing finance and encouraging cities to demolish, renovate or improve housing. In its implementation in the cities of Morso and Guldborgsund, the local community was engaged with the projects in order to assist the local government in identifying properties which could be included in the programme (Jensen 2017).

In **Sweden**, municipalities had to employ resource pooling in order to address the financial challenges as a result of shrinkage in certain areas. Some measures on school network optimization were implemented. (Syssner 2016)

In **Ireland**, shrinkage was identified as mostly affecting rural areas (Daly and Kitchin 2013). As a result, different policies on national level were implemented with the intention to promote investment and growth, but also to limit the construction of new housing due to decreasing population.

In the city of **Druskinikai, Lithuania**, shrinkage was addressed through economic restructuring of the city, focusing on renovation of the main competitive advantage of the city – its balneological resources. By utilizing EU funding, the city managed to redevelop its resort features and to reestablish itself as a tourism location.

5.2 EVALUATION OF RESPONSES TO URBAN SHRINKAGE AND SELECTION OF CASE STUDIES

As outlined in the beginning of this chapter, the overview of responses to shrinkage in different European countries was completed with the intention to identify traces of policies or actions that might bear some of the proposed preliminary concept features from the construction of the hypotheses. These concept features are the following:

- **A:** Concerted effort in planning, happening in the context of shrinkage. A planning effort that encompasses multiple areas of shrinkage, likely in an integrated way, appreciative of the complex nature of the phenomenon.
- **B:** Responses and actions in different areas, varying from interventions to complex policy responses.
- **C:** Action nodes and responsible actors identified, corresponding to the identified areas.
- **D:** The context in which shrinkage occurs is recognized and policies and interventions are taking it into account.
- **E:** The planning effort is a 'know-how' and attempts to produce 'know-how'.

The first two characteristics (**A and B**) of the proposed concept are most closely linked to the definition of shrinking city, proposed by Martinez-Fernandez (Martinez-Fernandez et al. 2012a), encompassing shrinkage as a complex phenomenon of dynamic nature. In practical terms, this would mean that the two characteristics would result in a coordinated effort in planning that attempts to treat the change that a certain city or area is experiencing from a dynamic perspective and would attempt to encompass more than one manifestation of shrinkage in order to respond to it. With that said, a number of the outlined examples fulfill the second criteria – responses in different areas. But not all of them demonstrate treating those responses in an integrated way. For example, the measures taken in Liverpool (UK) address more than one area – they encompass the economic restructuring, they include revitalization, some improvements in housing. However, those measures were not necessarily identified as integrated into a cohesive planning effort, which would constitute fulfilling the first criteria of the proposed concept characteristics. In Manchester (UK), the approach was similar but from the reverse logic. The process was coordinated and was treating the shrinkage-related problems as a whole by addressing economic, land use and revitalization questions, however, the emphasis of the measures was on the rebranding of the city thus omitting the social aspects of the changes (Ortiz-Moya 2015). Similarly, the plan of Koper (Slovenia) was also integrating multiple aspects, but was mostly focusing on expanding the metropolitan area and developing the city in this new context. Respectively, it was also criticized for not sufficiently addressing the social aspects of shrinkage.

On the other hand, in the cities of Glasgow and Saint Etienne an integrated approach to the responses to shrinkage under the framework of culture-led regeneration can be observed. The city of Glasgow elaborates this more clearly by expanding this framework with further

rebranding of the city as a cultural hotspot. This framework enables a more integrated view on the measures, surpassing the economic restructuring. Moreover, the integrity of this approach could also be observed in the continuity of the actions of succeeding governments as the transformation of Glasgow has taken a long time. The strategies and approaches chosen by Avilés (Spain) and Porto (Portugal) also demonstrate a consistent and structured approach, encompassing multiple areas. For the former, this was complemented by a flagship project of the transformation of the city, whilst in Porto the overarching framework was the institutional agenda. The city of Bilbao also developed an overarching framework for the efforts to adapt to shrinkage and change under the reinvention of Bilbao as a global city, complemented by the famous flagship projects there. However, the integrated effort did not focus only on those, but incorporated different areas of the city and various policy responses, supported by different levels of governance. The IBA initiative in the Ruhr area encompassed various pilot initiatives over a long period of time and across a large region. The long-term coordination and the lack of a top-down planning-led approach (Shaw 2002), however, do not completely fulfil the criteria for a concerted effort in planning. The IBA can be viewed rather as a particular instrument that can be utilized in the context of long-term planning.

In Germany, an overlap between the approaches on national and local levels can be observed. The key to this overlap is the requirement by the Stadtumbau programmes for the cities to develop integrated plans in order to take advantage of the programme for urban rehabilitation. Respectively, although the programme itself focused mostly on housing and revitalization, the integrated plans of the different cities, such as Dresden, Leipzig and Dessau/Rosslau, complemented this effort and thus resulted in an integrated approach to solving shrinkage-related issues, including economic restructuring, as observed in the cases of Dresden and Leipzig. A similar situation can be observed in the Netherlands where the tailor-made approach to one of the shrinking areas of the country was developed under an integrated regional programme (facilitated by the national government), attempting to address different areas of shrinkage.

The third aspect of the proposed concept **(C)** concerns the action nodes and respective entities that are expected to act upon those in order to address shrinkage. Those can be observed in different examples, such as the ones from Slovakia and Poland where in the economic area, for example, a common node was the repurposing of the legacy industrial zones. Therefore, the respective local, regional and national players who were addressing this task identified as an action node the potential reactivation of those zones through investment stimulus. The national housing policy in Denmark, aiming to address the question of housing vacancy, also identified this policy area as important and decided to act on the node of renovation, rehabilitation or demolition by delegating this task to local governments. Whilst in those cases clearly outlined action nodes and responsible entities in different areas can be observed, no traces of an integrated planning effort, trying to encompass the whole complexity of the question of shrinkage can be found.

In the German examples, the measures for housing market resizing through demolition can be viewed as an actionable node of demolition, rehabilitation and revitalization of areas with national (federal), state and local actors involved in the execution of those actions. The economic restructuring of Leipzig and Dresden was identified as a policy area and was acted upon by the local governments also through the actionable node of attraction of external investment. In the case of the Netherlands, the regional policy outlines multiple action nodes for the respective policies and engages all three levels of governance in the country. In Bilbao, the different action nodes to address the economic, land use and social problems

associated with the shrinkage were consolidated under the newly created agencies and in strategic and planning efforts. This facilitated the inclusion of further stakeholders in the process, thus leading to a coordinated effort by different actors on the planning and policy areas of shrinkage. In Glasgow, local players have been most active on the different nodes – the investment agency to address through investment attraction and the local council to drive regeneration.

The fourth aspect of the proposed concept **(D)** concerns the recognition of the shrinkage context in which the planning effort is happening. The context should not only be recognized, but it should be actively considered in the design of policies and responses to shrinkage. That is, how were certain actions on addressing shrinkage justified and were they driven by a certain goal or interpretation of the context in which the city will operate in the future. In the case of Porto, some of the plans for addressing shrinkage were tied to the idea of transitioning to sustainable development. In the case of Manchester, the shift was directed to repositioning of the city as a service-based economic performer in the global economy. In the cases of Dresden and the Dutch regional policies, economic restructuring is seen as the main contextual factor in parallel to the demographic development. In Walbrzych, the planning was also oriented to addressing the economic legacy of the city, complemented by recognizing the border proximity and taking into account the freedom of movement in the EU as an opportunity to implement certain strategies in a cross-border fashion with the financial aid of the EU (Martinez-Fernandez et al. 2012b). The outliers in this category are the cases of Bilbao and Glasgow where the transformations were formulated under a new story for the cities as a regional and global centre that would guide its future development away from shrinkage. In the case of Bilbao, this was even explicitly outlined in the plans and framework of all strategies implemented – that the city would employ its connectedness within the region but also on a global scale in order to reinvent itself (Gonzalez 2006). An opposite example could be found in Otepää where the contextualization and active position of the local government in the policy making measures to address shrinkage were vastly missing. Implementation of certain actions was subsequently left in the hands of private investors who did find their own story – reinventing the town as a ski-resort, thus leading to a somewhat parallel development of some areas, detached from the reality where the town itself exists, paving the way to social tensions and uneven development.

The last criterion **(E)** relates to the execution of the planning effort with particular steps that may be recognized as a possible “know-how”. Only a few of the illustrated examples fulfill this aspect. In the cases of Dresden, Leipzig and Dessau/Rosslau in Germany there is an overlap between the initiatives under the programme Stadtumbau and the integrated plans in those cities, which were outlined as a requirement to participate in the programme. The result of this overlap is the ongoing effort of addressing shrinkage, producing a unique set of measures which have been implemented in a systemic way. The Stadtumbau programme and the IBA initiative can be considered as a rather unique type of a systemic efforts and instruments on addressing shrinkage. The practical implementation of the Stadtumbau Ost programme on ground, complemented by the integrated planning efforts in some of the cities, has subsequently proven that this overlap does result in actions and initiatives that actively address shrinkage in practice. Similarly, the regional strategies of addressing shrinkage in the Netherlands appear to be another type of approach to dealing with shrinkage in a specific, tailor-made way. Respectively, it can be argued that the shrinkage programmes in the Netherlands are also a specific know-how and since they are not merely visionary or strategic documents, but plans being implemented in practice, they also show a significant level of practical applicability. The case of Glasgow can be classified as existing know-how in cultural regeneration as its long-term efforts have been recognized by other

cities, such as Saint Etienne, as an approach to the reinvention of a city, experiencing shrinkage (Cunningham-Sabot and Roth 2014). Respectively, since the measures undertaken by Glasgow were not left only on conceptual or strategic level, but resulted in actual implementation, Glasgow does demonstrate an applicable way of dealing with shrinkage. Lastly, Bilbao's case has been thoroughly researched as a transferrable know-how by Gonzalez (2011) in her study on policy transfer visits to the city. As argued by the author, on European level the lessons from Bilbao are associated with urban design, innovation policy and economic restructuring in a comprehensive way. Campbell suggests that Bilbao is a significant example of transferrable knowledge in the context of collective learning from all aspects and participative practices that the city has implemented (Campbell 2012). Another unique characteristic of Bilbao are the coordinating bodies, namely the local agencies, which have consistently played the role of central driver of the proposed changes.

For the purposes of shortlisting case studies that ought to trace the proposed concept features on European level, it can be concluded that a handful of examples fulfill all of the proposed criteria. These are the German examples of Dresden, Leipzig and Dessau/Rosslau, complemented by the Stadtumbau programme; Glasgow in the UK; Bilbao in Spain; the regional policies for shrinkage in the Netherlands. The following table illustrates this assessment (Table 5.1.):

Concept feature/ examples	German cities - Dresden, Leipzig, Dessau/Rosslau; Stadtumbau programme	Regional/national shrinkage policy in the Netherlands	Glasgow	Bilbao
A: Concerted effort in planning, happening in the context of shrinkage. A planning effort that encompasses multiple areas of shrinkage, appreciative of the complex phenomenon.	National programme and integrated plans overlapping. Addressing multiple areas in concise way, taking shrinkage into account.	Regional shrinkage triggers the policy attempt, respectively shrinkage is recognized. Programme designed for multiple areas on local level and regional cooperation.	Economic restructuring and shrinkage triggers the transformative policy making process.	Economic restructuring and shrinkage triggers the transformative policy making process.
B: Responses and actions in different areas, varying from interventions to complex policy responses.	Complex policy interventions and responses in different areas	Complex policy interventions and responses in different areas	Complex policy interventions and responses in different areas	Complex policy interventions and responses in different areas
C: Action nodes and responsible actors identified, corresponding to the identified areas.	Multiple actors involved - governmental levels and locals. Successive planning in Dresden, increased citizen involvement in Dessau/Rosslau.	National and regional levels involved together with local decision makers.	Mostly local players involved, participatory practices, central government involvement in some areas.	National, regional and local levels involved. Transparency and participation considerations.

D: The context in which shrinkage occurs is recognized and policies and interventions are taking it into account.	Shrinkage recognized in Dresden and Leipzig, resulting in shift in policy making. Shrinkage recognized on federal level in the design of the Stadtumbau programme. Implementation focuses on adaptation.	Shrinkage recognized on national and regional level. Implementation focuses on proactive adaptation.	Shrinkage recognized. Implementation focuses on adaptation to the future under a new 'story' for the city.	Shrinkage recognized. Implementation focuses on adaptation to the future under a new 'story' for the city.
E: The planning effort is a 'know-how' and attempts to produce 'know-how'.	The overlap of the integrated plans and the federal programme produces unique implementable know-how.	Practical plans for implementation, unique know-how.	Practical plans. Know-how recognized by other cities.	Practical plans. Know-how recognized by other cities. Unique knowledge-holder player - the local agencies.

Table 5.1: Assessment of shortlisted cases against the proposed criteria. Source: Own work.

SECONDARY ASSESSMENT OF SHORTLISTED CASES

One of the criteria applied for the secondary assessment of the shortlisted cases is the origin and context of shrinkage. The outlined cases represent different historical trajectories of shrinkage and are regarded as examples of either a post-socialist context (the German examples) or as an example of post-industrial context (Glasgow and Bilbao). The case of the regional population decline in the Netherlands is an outlier in this perspective as it represents responses in the context of anticipated loss of population happening in parallel to responses to already occurring regional population decline. From research design perspective (Chapter 3), the epistemological orientation of the research, based on pragmatism and post-positivism, exerts a stronger consideration of the different contexts and conditions in which the policy and planning responses were developed and applied. Consequently, having identified examples of three distinctive contexts and settings, the empirical logic dictates that the selected cases be representative of each of those three contexts - post-socialist context of shrinkage, post-industrial context of shrinkage and anticipated regional depopulation.

In order to apply a principle of comparability between the selected cases, population measures can be used as an indicator. Population size also has implications on the scale of responses in the different contexts. This is further complemented by the administrative divisions in the respective country and context, which, as illustrated in the assessment of the shortlisted cases, results in the involvement of different levels of governance. An illustration of the population dynamics of the shortlisted cities is presented below (Figure 5.1.), followed by an overview of the provincial population of the Netherlands.

The dynamic of the population in the shortlisted cities is somewhat similar, illustrating a decrease of population between 1991 and 2001. Dresden decreases with 6,6%, Leipzig with 11,5%, Dessau-Rosslau with 12,4%, Bilbao decreases with 5,6% and Glasgow with 1,42%. Then for the majority of the cities, with the exception of Dessau-Rosslau, the period between 2001 and 2011 corresponds to either an increase in the population (in Dresden

+9,47%, Leipzig +6,02% and Glasgow +2,48%) or to a stabilization of the population (in Bilbao) with the same respective trend continuing in the next period. Slight variations could be observed for Bilbao and Glasgow. Bilbao has a slight population decrease in 2018 as compared to 2011 with 1,54%, but in absolute numbers this is around 6000 people and could also be attributed to natural change or perhaps to some effects of the economic crisis from 2008 which heavily affected Spain. For Glasgow, the population drop between 1991 and 2001 is also very small (-1,42%). For the purposes of selection of case studies and comparability, it can be concluded that the city of Dessau-Rosslau is too small as compared to the rest of the shortlist, thus it could be impractical to include it as a case study object. The remaining four cities are with comparable population size, with the exception of Glasgow in 2018 which already surpasses the 600 000 inhabitants' threshold.

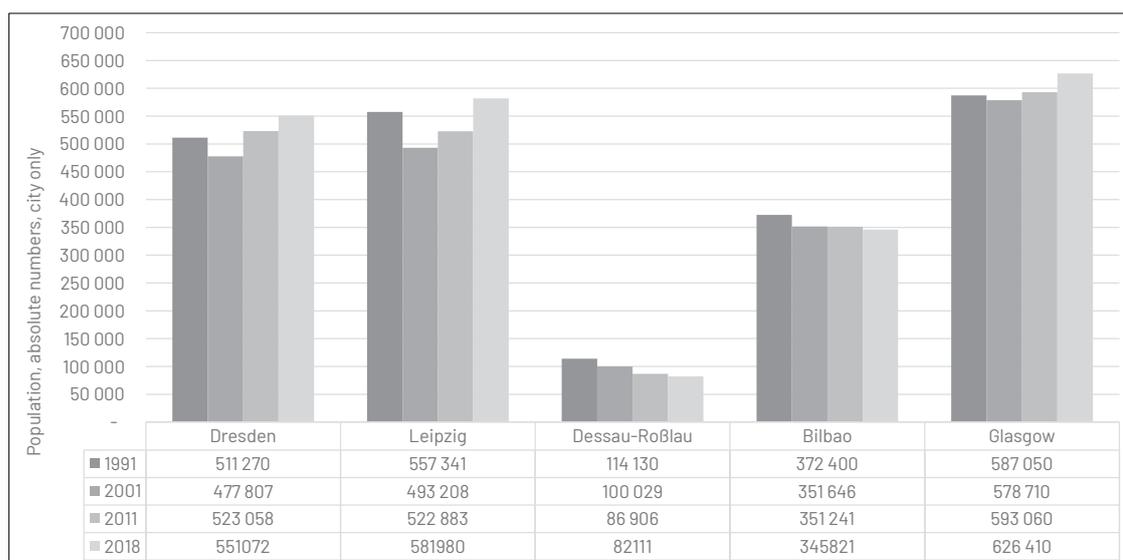


Figure 5.1: Historical population of Dresden, Leipzig, Dessau-Rosslau, Bilbao and Glasgow

Source: Eurostat: <https://ec.europa.eu/eurostat/web/nuts/local-administrative-units>; National records of Scotland: <https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/glasgow-city-council-profile.html#tables>; (visited on 13.12.2019)

The Netherlands' classification for shrinkage distinguishes between already shrinking and anticipating shrinkage regions. Regions form parts of a certain province which is the main administrative level that coordinates the implementation of policies for addressing shrinkage, illustrated in the previous sections. In terms of population comparability, the empirical logic dictates to look for a province whose size is comparable to the other shortlisted cases so that the comparative perspective encompasses regional policy for a similar population size as compared to the urban policies and plans in the cities. The following table represents the classification of regions, their provincial location and the population of the respective province (Table 5.2.).

Province	Province population 2019	Region	Shrinkage status 2019
South Holland	3673891	Hoeksche Waard	Anticipating
		Krimpenerwaard	Anticipating
North Holland	2853359	Kop van Noord-Holland	Anticipating
Gelderland	2071972	Achterhoek	Shrinking

Limburg	1116137	Parkstad Limburg	Shrinking
		Maastricht-Mergelland	Shrinking
		Westelijke Mijnstreek	Shrinking
		Noord-Limburg	Anticipating
		Midden-Limburg	Anticipating
Friesland	647672	Noordoost Friesland	Shrinking
		Noordwest Friesland	Anticipating
		Friese Waddeneilanden	Anticipating
		Zuidoost Friesland	Anticipating
Groningen	583919	Eemsdelta	Shrinking
		Oost-Groningen	Shrinking
		Het Hogeland	Shrinking
Drenthe	492167	Oost Drenthe	Anticipating
Zeeland	383032	Zeeuws-Vlaanderen	Shrinking
		Schouwen-Duiveland	Anticipating
		Walcheren	Anticipating

Table 5.2: Anticipating and already shrinking regions in the Netherlands with population size of the province.
Data source: CBS and Dutch government (<https://www.rijksoverheid.nl/onderwerpen/bevolkingsdaling/krimpgebieden-en-anticipeergebieden>**)**

As outlined in the figure, the provinces that do not surpass the 600 000 population threshold are Groningen, Drenthe and Zeeland. Out of those three provinces, only Zeeland has regions of both the anticipating and already shrinking type. Therefore, the province of Zeeland can be viewed as a most suitable case study of the regional population decline policy in the Netherlands as this would allow to capture both the ongoing responses and the approaches to the anticipated effects of population decline.

With all of the above in mind, the cases of Dresden, Leipzig, Bilbao and Glasgow, together with the regional population decline policy of the Netherlands in the case of Zeeland, remain in the shortlisted cases. Following Yin (2018), type 4 case study analysis provides a methodological approach to the selection of cases. It allows for incorporating more than one case study in multiple contexts and tracing similar embedded units of analysis in those. This facilitates a comparative approach between the different ways of addressing shrinkage in different European contexts, as illustrated above, and, consequently comparing the planning, policy making and implementation in those with the intention to verify the hypothesis for “Shrinking Smart” planning concept. The following table illustrates this split (Table 5.3.):

Shortlisted case	Context	Embedded units of analysis
Dresden	Post-socialist political and economic transformation	National (federal) policy, regional (state) policy, local (city) policy and implementation
Leipzig	Post-socialist political and economic transformation	National (federal) policy, regional (state) policy, local (city) policy and implementation
Regional shrinkage policy in Zeeland	Currently shrinking and anticipated shrinkage policy	National and regional policy implementation
Bilbao	Post-industrial economic transformation	National policy, regional policy and local policy implementation.
Glasgow	Post-industrial economic transformation	Local policy implementation.

Table 5.3: Shortlisted cases analyzed in the framework of Type 4 case study design by Yin (2018). Source: Own work

Additional factors taken into account in the selection of case studies were existing research, language barrier, accessibility and project constraints.

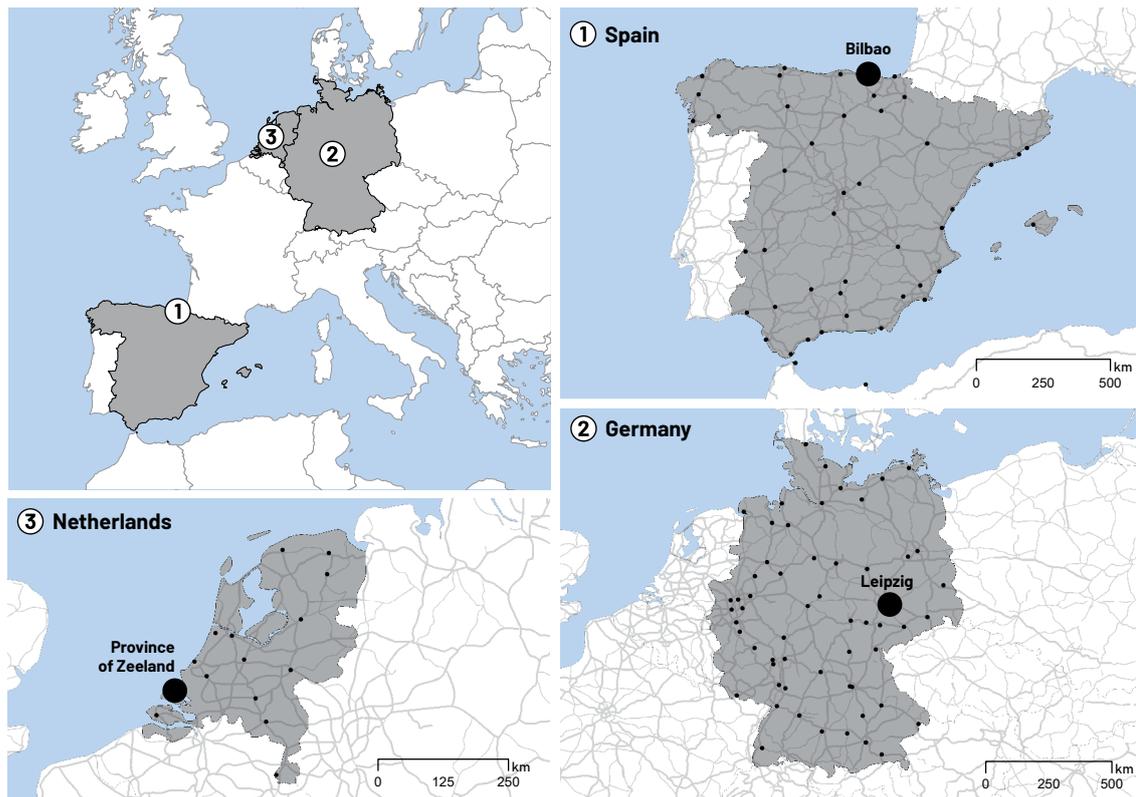
Following the methodological and empirical considerations, outlined above, the following case studies have been selected:

- Shrinkage-relevant policy and planning approaches, resulting in spatial and other interventions (implementation) in Bilbao (Spain) between 2000 and 2015
- Shrinkage-relevant policy and planning approaches, resulting in spatial and other interventions (implementation) in Leipzig (Germany) between 2000 and 2015
- National policy for regional population decline in the province of Zeeland (the Netherlands) since 2010

5.3 BACKGROUND INFORMATION FOR CASES AND EMPIRICAL SCOPE

After the presented literature review on existing research on shrinkage and population decline in Europe, the selected examples of Bilbao (Spain), Leipzig (Germany) and Zeeland (the Netherlands) (Map 5.1.) were critically reviewed in relation to the research design and methodology chosen (Chapter 3). As a result, the case studies defined focus on the policy and planning approaches in all three cases, together with the implemented actions in two of the cases (Bilbao and Leipzig).

This section presents further background information for the cases to justify the selected period of investigation as well as to provide better focus of the empirical work. In addition, key characteristics of the planning systems of all three cases are presented. Based on this outline, the institutions and actors subject to empirical investigation are outlined. In the final section, the outline of the completed empirical work is presented, together with the way that the work has been processed.



Map 5.1: Locations of the selected cases. 1–Bilbao, 2–Leipzig, 3–Province of Zeeland. Source: Own work based on Open Street Map

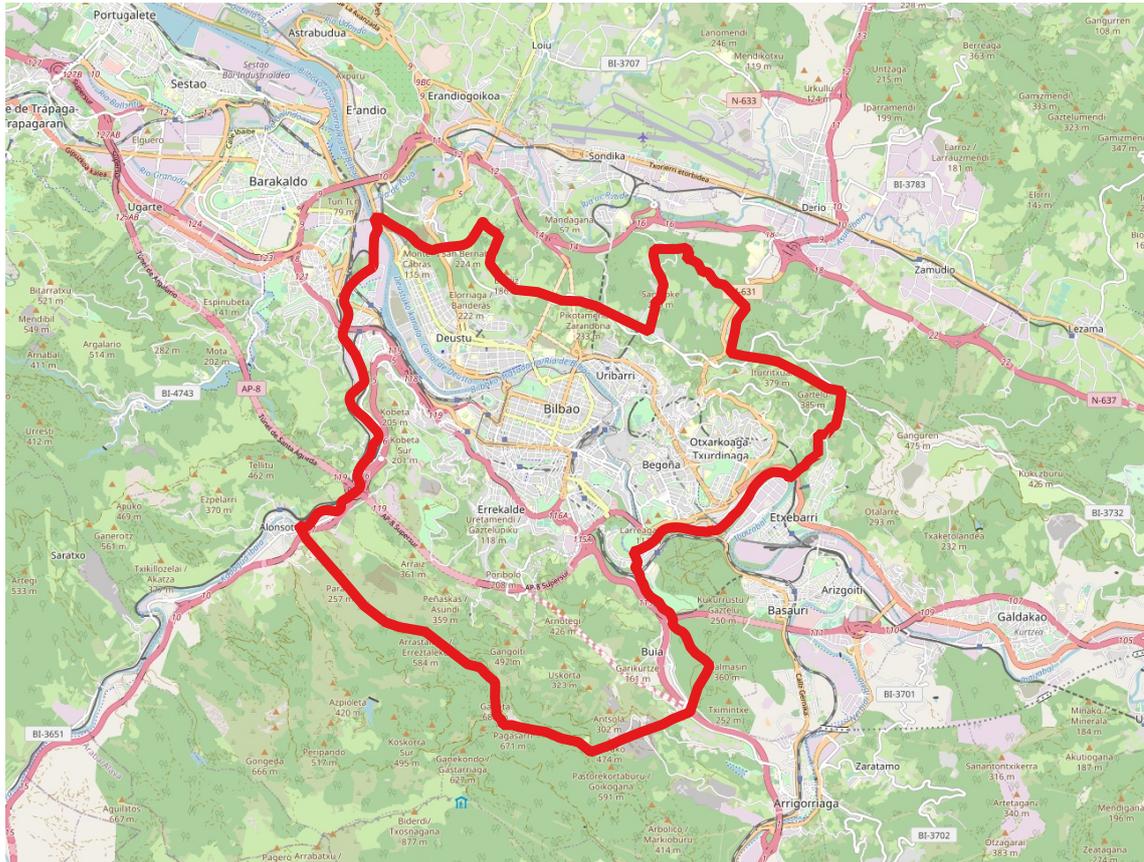
5.3.1 SHRINKAGE ORIENTED POLICY AND PLANNING APPROACHES, RESULTING IN SPATIAL AND OTHER INTERVENTIONS (IMPLEMENTATION) IN BILBAO (SPAIN) 2000-2015

BILBAO'S DEVELOPMENT BETWEEN 1990 AND 2000 – ECONOMY FIRST

Urban shrinkage in Bilbao (Map 5.2) has its premises even earlier than 1990. Due to the post-industrial nature of the phenomenon there (Ploeger 2012), the processes of deindustrialization that affected cities elsewhere in Europe, also affected Bilbao. The decline of heavy industry started occurring back in the 1970s and continued for years further. For Bilbao, this coincided with the re-establishment of democracy in Spain with the end of the dictatorship and the transition to a decentralized democratic state. During the transition, the different autonomous communities of Spain were established and the Basque Country (País Vasco) received a higher level of autonomy as compared to other communities. Respectively, the 1980s were also a period of political adjustment and establishing new institutions and processes. Perhaps for this reason, it took a long time for authorities in Bilbao to recognize the consequences of deindustrialization and economic shifts and their effects on the urban fabric of the city and to begin acting on them (Rodriguez and Martinez 2001). Another key element of the context in which Bilbao began to respond to the effects of urban shrinkage in the beginning of the 1990s was the increasing utilization and popularization of urban regeneration strategies as key drivers of development which began in the previous decade across Spain (Rodriguez and Martinez 2001).

Against this background, the city endured decreasing population in the beginning of the

1990s as a continuous process which started even earlier than that, aligning with the gradual closure of the industrial facilities in the region. From economic perspective, the main feature of Bilbao's development was the decline of industrial production. In 1986, Spain joins the European Economic Community (predecessor of the European Union), which additionally complicates the economic position of Bilbao and of the Basque Country as a whole due to the increased need to be competitive on the single market on European level. Bilbao's economic development has been strongly dependent on heavy industry, such as steel production, water and railway transportation and ship construction.



Map 5.2: Map of Bilbao and the city limits. Source: Own work based on Open Street Map

As a result of these changes, during the 1990s vast spaces of the city remained with obsolete industrial facilities and physical decay, therefore they became the main 'opportunity areas' in terms of planning and regeneration efforts. While the remaining port-related industry was gradually moved to the outer port at the mouth of the estuary, vast areas in the city, including Abandoibarra and Zorrotzaurre remained increasingly vacant with many industrial facilities being abandoned. In some zones, large-scale railway infrastructure also remained unused. Therefore, during the 1990s, the efforts were focused mostly on these areas and some of the well-known flagship projects, whose aim was explicitly to drive the economic regeneration of the city (Rodriguez and Martinez 2001), were located there. The key interventions in those areas consisted of the construction of the emblematic Guggenheim Museum and the event Palace Euskalduna. In parallel to the enactment of those new symbols of the city, the expansion of the airport began also during the 1990s. Towards the year 2000, those projects had been completed and the transition of industry to the outer expanded port had completed its first phase.

The former economic profile of the city had significant effects on the geographical and environmental conditions of Bilbao. The river Nervion had been continuously utilized for industrial waste water disposal. In addition, mining facilities had been functioning for decades in the area of Miribilla. The industrial activities also had a contaminating effect on the soil in some of the areas in the city. Therefore, during the 1990s, decontamination of those areas also began, most notably with the long process of the river purification, which consisted of the construction of the respective facilities along its course. The decontamination of the river began at the end of the 1980s and finished a few years after 2000 (Rodriguez and Martinez 2001). The area of Miribilla, where mining took place, was gradually transformed into residential area.

From housing perspective, the most significant effects in Bilbao during the 1990s consisted of gradual suburbanization to the neighbouring smaller cities along the river and deteriorating condition of certain residential areas in the city, namely Bilbao La Vieja, one of the older and more central districts of the city. Some residential units were also available in the Zorrotzaurre area, along with the deteriorating industrial facilities. During the 1990s, certain renovation and regeneration efforts were undertaken in the area of Bilbao La Vieja, but they remained rather partial.

The spatial effects of all these changes were the opening of vast patches of former industrial and transport infrastructure land, deteriorating condition of industrial and residential facilities and oversized and obsolete railway infrastructure.

From planning perspective, the interventions and actions taken in the period between 1990 and 2000 draw a peculiar picture of attempts of a more structured planning process on multiple levels and a number of derivative plans that originate as a result of this it. Since the beginning of the 1990s was the first attempt to establish a planning process for the city and for the Basque Country under the newly established democratic conditions, the efforts managed to deliver some of the key interventions in the city and at the same time to serve as a learning ground for establishing planning processes and a sense of cooperation and common direction for the multitude of institutional actors that had a role in this process. Rodriguez and Martinez (2001) thoroughly outline the chronology of planning events and the involvement of different actors. The planning processes begin in the background of increased autonomous governance of the Basque Country, therefore the majority of initiatives and plans are confined within the autonomous community. The Spanish national level, took part only as a partner due to its ownership of large parts of railway infrastructure or industrial land. In addition, during the 1990s, the national government also emphasized on its strategic efforts to replicate the successful examples of urban regeneration of Barcelona and Seville to other cities in Spain. Therefore, the efforts in Bilbao were supported politically also on national level. All planning efforts within the autonomous community begin with the General Urban Plan for Bilbao, which was issued in 1989. This plan, however, only set the stage for the involvement of multiple institutions and enabled a process of collaboration between them. The Basque government's strategic focus was on the economic regeneration of the city and therefore supported the revitalization efforts that could contribute to the economic recovery. On a lower level, the provincial authorities, a regional structure within the Basque country, also got involved by introducing a number of plans which focused on the metropolitan level planning for Bilbao. This metropolitan level of planning became central in time.

Additionally, the administration of the city of Bilbao also participated. One of the most important actors in the regeneration of Bilbao were the newly set up public agencies

Bilbao Ría 2000 and Bilbao Metr poli-30 which were formed as a consortium between institutional actors on all those levels and were charged with the task to facilitate the large redevelopment projects of the designated areas, such as Abandoibarra. Those agencies are publicly owned, but operate as private, which facilitates the efficiency of the regeneration projects that they were charged with. Bilbao R a 2000 is financed through valorisation of the land, designated for regeneration. The institutional bodies that owned the land were compensated in the beginning by transferring the ownership to the agency. Then the agency develops the concepts for the specific area and manages the implementation. This creates a unique approach of implementation of urban regeneration projects, based on market oriented logic, but still in control of the public institutions that own it, as the profit made by the agency is streamlined into projects of public interest.

In parallel, the Bilbao Metr poli agency was charged with the task of promotion of Bilbao as a symbol of culture-led regeneration while also delivering research and analysis for the further development of the city (Ploeger 2007). As outlined by Rodr guez and Mart nez (2001), all the efforts of planning gradually contributed to establishing planning processes but the less streamlined operations prevented the standard logic of developing a plan and implementing it afterwards. Effectively, the implementation of the different projects, most notably the large scale regeneration of the former industrial areas, was happening in parallel to the development and reworking of the different plans. The most notorious example for this is that the negotiations for the Guggenheim Museum were happening in secret (Rodr guez and Mart nez 2001).

Towards the year 2000, many of the key projects in Bilbao were completed, whilst others were underway. From shrinkage perspective, based on the definition by Mart nez-Fernandez (2012b), towards the year 2000, Bilbao can be described as a city with continuous population loss which gradually stabilizes; an ongoing process of economic restructuring with declining unemployment levels; small amount of housing in poor condition in specific areas of the city; partial and ongoing reconversion of former mining and industrial land with vast vacant areas within the urban boundaries; ongoing process of decontamination of severe environmental pollution; geographical changes, manifested in partially completed and ongoing land conversion. Following the "shrinking city" definition, the development of Bilbao towards this point of time becomes an object of further research that critically analyzes the proposed approaches and further contributes to the debate on handling urban shrinkage in post-industrial setting.

From planning and policy making perspective, the year 2000 marks an important point as the dynamic processes of establishing and clarifying the different actors and roles had already proven working and more streamlined. After the year 2000, the simultaneous strategic planning on metropolitan level and integrated planning on city level continues to produce specific planning initiatives for certain areas of the city. Those examples are the Zorrotzaurre area redevelopment, for which a specific commission is set up, following the steps of the Abandoibarra approach. In parallel, the efforts which began in the Miribilla area and its adjacent neighbourhoods (e.g. Bilbao La Vieja, San Francisco) also evolve into specific plans for this part of the city with gradual expansion of the scope of the programmes to include further civic participation, social measures and revitalization approaches (Rodr guez Su rez 2014). In parallel, the overall plans and strategies for the city evolve in terms of scope and attempt to encompass aspects that surpass the economic revitalization, such as sustainability and social equity. At the same time, the results of the interventions that took place in the previous decade are completed, such as the beginning

of operation of the expanded airport, the inaugurated flagship projects as the Palace and the Guggenheim Museum.

While the focus between 1990 and 2000 is entirely on the economic transition of the city, through urban regeneration, after the year 2000 the effects of those efforts come into play while in parallel planning efforts begin to encompass other policy and planning areas. The approach remains similar to the period of the previous decade with encompassing plans on metropolitan and city levels and specific plans and interventions for certain areas of the city. Those plans and interventions originate from multiple institutional levels within the ever changing planning system and intertwine during the implementation. Examples for this are the process of regeneration of the Zorrotzaurre area, the continuous efforts for the revitalization of the Bilbao La Vieja area and its adjacent neighbourhoods via social, employment and renewal efforts and the multiple planning efforts in other parts of the city.

THE BASQUE PLANNING SYSTEM IN THE CONTEXT OF THE SPANISH PLANNING SYSTEM

The structure and function of the planning system in Spain and, respectively, in the Basque Country is strongly related to the establishment of autonomous government of the different communities within the Spanish state. With the reestablishment of the democratic republic with the constitution of 1978, the 17 autonomous communities received different levels of autonomy, outlined in tailor-made Statutes of Autonomy (Estatuto de Autonomía). Newman and Thornley (1996) outline in detail the structure of the planning system in those circumstances. In terms of urban planning, no national policy or planning process has been established. The national level, however, retains responsibility for areas of national importance, such as major infrastructure, national parks and overall legislative framework. Although all autonomous communities have legislative power, their legislation is still subject to compliance with the national one. Yet, the differences in the statutes of autonomy give rise to various issues being subject to coordination with the national level.

Within the autonomous community of the Basque Country, the planning system is strongly tied to the increased level of autonomy of the community which, as opposed to the majority of the rest of the constituents of the Spanish state, has also the authority to collect and administer the majority of taxes and, respectively, to redistribute them for public spending afterwards (Gómez Uranga and Etxebarria 2000). A part of the collected taxes is transferred to the Spanish national government, the so called “cupo”, which is then redistributed through national public spending. Respectively, this devolution of responsibilities enables the Basque Country to organize in a specific way its administration and public spending, which also has effects on the planning system within the autonomous community. Of particular importance for the Basque case is that the community also has the autonomy to develop its own economic and competitiveness strategy.

Within the autonomous community of the Basque Country, further administrative units are established. The community consists of three provinces – Álava, Biscay and Gipuzkoa. As illustrated above, in the case of Bilbao, the Province of Biscay has also engaged in planning efforts, encompassing the economic regeneration of the province itself. On local level, the cities within the province are required to develop a General urban plan that stipulates types of usage of land – reserved urban land (programmed and non-programmed for short and long-term needs), already developed, available for development and excluded from development (Newman and Thornley 1996). Under the framework of this plan, specific planning instruments on lower scale can be developed, such as detailed plans for specific

areas or programmes for urban action which allow the development of certain land before the General plan has been approved. Any plan or planning proposal should be supported by data and justification for the specific development proposed.

A specific detail for the case of Bilbao is the introduction of the metropolitan level. This level was introduced during the 1990s by the Province of Biscay (Rodriguez and Martinez 2001) and the plans and strategies developed as part of it have been running in parallel to the local and specific plans for Bilbao.

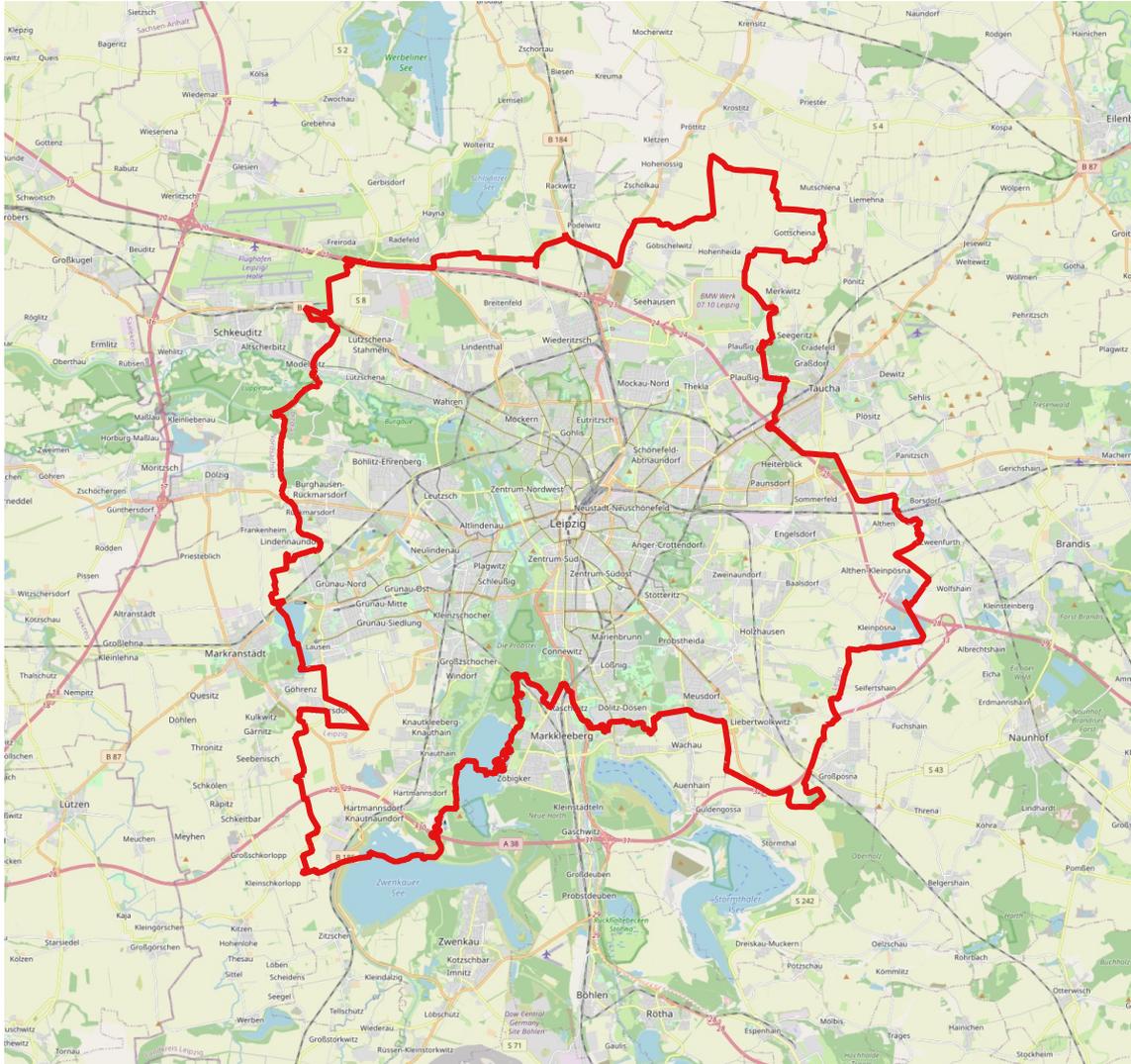
SCOPE OF EMPIRICAL WORK

The empirical work on Bilbao takes into account this complex institutional framework to identify sources for the document analysis as part of this study. The research levels of policy and planning encompass policies and plans, developed after the year 2000. The implementation level of the research design highlights the specific changes that took place in the city after the same year that have been planned earlier but were realized after this point of time. An example for this is the completion of the redevelopment of Abandoibarra area – whilst the museum and palace were inaugurated before the year 2000, the completion of the works on the whole area finished in 2000. In addition to the document analysis, complementary semi-structured interviews with representatives of the different institutions are also conducted.

Based on this distinction, the following outline illustrates the differentiation between the different levels and the respective institutions whose sources will be researched:

- **National level and Autonomous Community level**
 - Spanish Ministry of Ecological Transition and Demographic Challenges (Ministerio para la Transición Ecológica y el Reto Demográfico)
 - Spanish Ministry of Transport, Mobility and Urban Agenda (Ministerio de Transportes, Movilidad y Agenda Urbana)
 - Ministry of Territorial Policy and Public Administration (Ministerio de Política Territorial y Función Pública)
 - Government of the Basque country (Gobierno Vasco / Eusko Jaurlaritza)
 - *Department of territorial planning, housing and transport (Departamento de Planificación Territorial, Vivienda y Transportes)*
- **Provincial level (Provincial Council Biscay)**
- **Metropolitan level (Metropolitan Bilbao)**
 - Agency Bilbao Metròpoli-30
- **City level (Bilbao)**
 - Bilbao City Council
 - *Area of repair, urban planning and strategic projects (Area de Obras, Planificación Urbana y Proyectos Estratégicos)*
 - *Area of urban regeneration (Area de Regeneración Urbana)*
 - Agency Bilbao Ría 2000
 - Further local organizations that could have been involved in the implementation

5.3.2 SHRINKAGE ORIENTED POLICY AND PLANNING APPROACHES, RESULTING IN SPATIAL AND OTHER INTERVENTIONS (IMPLEMENTATION) IN LEIPZIG (GERMANY) 2000-2015



Map 5.3: Map of Leipzig and the city limits. Source: Own work based on Open Street Map

LEIPZIG'S DEVELOPMENT BETWEEN 1990 AND 2000 – THE PREMISES OF ADDRESSING URBAN SHRINKAGE

The period between 1990 and 2000 played a pivotal role for Leipzig (Map 5.3) from the perspective of urban shrinkage. Following the Reunification of Germany and the dissolution of the GDR, the eastern part of the country became part of the Federal republic. This change brought significant effects on Germany as a whole and for the cities in the East in particular. The post-socialist transition is associated with major societal, economic, political and urban challenges, experienced by former socialist countries (Strykiewicz and Jaroszewska 2016). To a certain extent, however, the transition of Eastern Germany was in 'safe hands', as the reunification into the federal political system, already established in the Western part of the country, allowed for a more gradual and meaningful transition, acting as a safety net, as opposed to the need to rebuild public institutions and market in an entire country, as the process which took place in other post-socialist countries in Europe.

Against this backdrop, Leipzig's development during this period was strongly influenced by policies and planning efforts on different levels. In addition to those, certain social changes began to occur as a direct consequence of the change of the political system and the dissolution of the former socialist state. Such a direct consequence was the depopulation of the city due to the new opportunities for migration to the western part of the country. As a result of the rapid outmigration and further demographic processes, within less than 10 years after the reunification, the city lost approximately 20% of its population.

From economic perspective, Leipzig had to transition to market economy, a challenging process which has marked post-socialist transitions elsewhere as well. This transition is usually marked by two main interventions – reintroduction of private property through privatization and 'shock therapy' to enable private capital investment and economic revival with expected exponential growth and stronger competitiveness. In Leipzig, these efforts translated in three directions, as outlined by Bontje (2004). Firstly, the mining facilities south of the city represented a significant ecological risk, thus a long process of decontamination began upon their closure. In parallel, many industrial facilities, such as the area of Plagwitz, among others, closed down while new commercial and trade facilities were enacted, for instance the new fair complex (Neu Messe), a number of retail complexes at the edges of the city and the reconstruction of the emblematic railway station into a commercial center. In addition to this development, the expansion of the Leipzig-Halle airport began. The efforts in the economic transition of Leipzig were facilitated by public investment and subsidies by the federal government (Haase et al. 2021). All of those efforts, however, had limited effect on the economic base of the city before the year 2000. At the dawn of the new century, the city's economic profile had not reached the expected growth and competitiveness which also had an effect on the unemployment of the remaining population.

From housing perspective, the changes that took place in Leipzig manifested in two main directions. On the one hand, the housing vacancy rose significantly across multiple areas of the city. In the central part, this vacancy was mostly visible in the older buildings which were renovated but remained unoccupied (Bontje 2004). In the large prefabricated housing estates, such as Grünau and Paunsdorf, the vacancy rates were significant and this was additionally aggravated by the poor condition of the residential blocks, built during the GDR era.

In addition to the increasing vacancy in the already available housing, federal subsidies for owner-occupied suburban housing enabled a strong process of suburbanization, which further worsened the depopulation of the city within its limits (Haase et al. 2021).

The spatial effects of all those processes were urban sprawl (Couch et al. 2005), patchy and perforated urban fabric (Florentin 2011), many and vast brownfields in the former industrial areas (Rall and Haase 2011), oversized technical infrastructure (Bontje 2004) accompanied by partial renovation of existing buildings, such as the emblematic architecture in the city centre.

From planning perspective, the above changes were facilitated by multiple planning and policy efforts on different levels. The policies and efforts on national level were one of the main facilitators of the economic transition, particularly in regards to the efforts to attract new investment in the city and to build the necessary infrastructure to enable market economy (Haase et al. 2021). Another effect of the national policy was the expansion of suburban housing. Subsidies were provided for suburban housing and this was one of the main contributors to the overall depopulation of the city. Indicative of post-socialist transitions in general, the regulation gap between the dissolution of the former socialist

planning system and the establishment of new building and land use regulations enabled further investment into the fringes of the city without much control (Bontje 2004). A key administrative decision by the State of Saxony at the end of the 1990s marked a turning point for Leipzig – the acquisition of surrounding municipalities into the structure of the city to artificially increase its population and as a sort of reclamation of the process of suburbanization that occurred in the previous years (Bontje 2004; Florentin 2011).

The year 2000 is the beginning of the overlapping efforts to respond in a coordinated way to the urban shrinkage in Leipzig. The “snapshot” of shrinkage towards this moment of time, based on the definition of “shrinking city” by Martinez-Fernandez (2012b), can be outlined as continuous population loss, economic downturn and symptoms of structural crisis, manifested in low economic base and high unemployment; social problems, mostly related to increased housing vacancy and the consequences by it; geographic and spatial changes, manifested in land use change (vacant land and decontamination) and increased sprawl, poor physical condition of a high number of buildings and available infrastructure. The other aspect of the “shrinking city” definition refers to the ongoing efforts in research and remedies that result from the shrinkage process. For Leipzig, this manifests in the emergence of the overall urban shrinkage field in Germany and the research that follows as a result of it. In addition, the policies and plans that originate after the year 2000 contributed to this process as they focus on developing possible approaches for the various issues that Leipzig was faced with.

The issue that played a particular role in placing urban shrinkage on the agenda for Leipzig was the housing vacancy, which, however, became a problem only because of the efforts from large housing corporations, whose revenues were affected by the depopulation and respective vacancy in the eastern part of the country (Bernt et al. 2014). From planning and policy making perspective, the year 2000 marks a turning point because of the introduction of the new local plans for the city, such as the STEP plan (Stattdenwicklungsplan 2000), and the development of the national Stadtumbau Ost programme in Germany which also provided significant funds (Florentin 2011). Within this context, certain planning instruments, such as the preservation of reclaimed industrial areas and the “Wächterhäuser” (Guardian houses) temporary use programme were also utilized (LSE Centre for Analysis and Social Exclusion 2016; Rall and Haase 2011). In addition to those planning and policy efforts, other programmes also started after the year 2000. An example for this is the Soziale Stadt programme, funded by the federal government, which aimed at addressing social and employment issues in key areas (LSE Centre for Analysis and Social Exclusion 2016). In addition, projects and interventions supported by EU structural funds also began to be utilized after the year 2000.

In parallel, however, the efforts for the economic revival of Leipzig did not come to a halt, but rather continued running “in the background”. Certain decisions which were taken since 1990 took many years to realize, only to come into play after the year 2000, thus a delayed effect of them was manifested in parallel to the newly established policy and planning approaches.

THE GERMAN PLANNING SYSTEM

As illustrated in the overview above, institutional actors on different levels have played a role in the development of different policies and planning initiatives that concern Leipzig’s development in the outlined period. In order to outline the focus of the empirical part of this research, an overview of the German planning system is presented together with an emphasis on the specific institutions that relate to the highlighted policy and planning efforts.

Newman and Thornley outline the German planning system as decentralized but embedded within a strong legal framework (Newman and Thornley 1996). The highest level of regulation concerning spatial planning is the Federal Comprehensive Regional Planning Law (Bundesraumordnungsgesetz-BROG). As an addition to this law, a specific set of regulations is set up, whose role is to guide the development of the plans on the lower levels. This set of regulations is outlined in the Baugesetzbuch.

The Federal States (Bundesländer) are expected to develop state-wide comprehensive plans (Landesentwicklungsplan). On state level, each state (Land) is allowed to introduce different spatial dimensions and scope to support the further development of plans on lower level. Such differentiation can be introduced on the level of regions within the federal states (Planungsregionen). For them, regional plans can be developed (Regionalentwicklungsplan).

Finally, on city level, the local authorities prepare the detailed land use plan (Flachennutzungsplan), which stipulates the desired utilization of land and further outlines the particular characteristics of areas within the city. Under the framework of the city-wide land use plan, further plans can be developed for certain areas, such as the Layout plan (Bebauungsplan), referring to specific areas of the city. Further instruments on local level include the Project development plan (Vorhaben-und-Enschließungsplan), which was originally developed for the new federal states after the reunification in order to facilitate private involvement in service provisioning for a certain area (Newman and Thornley 1996). These last two plans can be considered mostly as local planning instruments. All plans developed on any level are subject to mutual control from upper levels and between levels of the planning system through the so called "Gegenstromprinzip" that enables the planning on different level to be scrutinized for compliance with any other plan being drafted in the planning system.

SCOPE OF EMPIRICAL WORK

The outline of the planning system above illustrates mostly the spatial planning dimension within Germany. The spatial perspective of planning in Germany also incorporates various policy instruments in a spatially bound broader planning effort. The Stadtumbau Ost programme, was developed in order to address increasing housing vacancy in the eastern states and to support revitalization measures. The Soziale Stadt programme, devised by the Ministry of Internal Affairs, Construction and Community (Bundesministerium des Innern für Bau und Heimat), was also utilized in Leipzig. As outlined in previous research, efforts on federal level to support economic investment and suburban housing in the newly established states also played a role in the city (Haase et al. 2021). In addition, European funds were utilized for certain projects within the city. These different policies and instruments have been used in parallel to the "standard" planning process, therefore, for the purposes of this research, it is necessary to review and analyze them in order to address the outlined research questions.

The empirical work on Leipzig encompasses document analysis of relevant policies and plans at the levels, outlined above and of the explicitly stated policies and programmes that have been utilized in the city after the year 2000. The differentiation between the three levels of empirical research design – policy, planning and implementation – facilitates the distinction between the different policy and planning initiatives. The implementation level, however, focusing on specific changes that took place in the city within the researched period is more flexible so as to track if there were certain decisions which were taken prior to the year 2000, but came into effect after this year. An example for such a change is the

beginning of operation of the expanded Leipzig-Halle airport – the expansion started before the year 2000 but it started operation after it. In addition, complementary semi-structured interviews with representatives of the different institutions are also conducted.

Based on this distinction, the following outline illustrates the differentiation between the different levels and the respective institutions whose sources will be researched:

- **National level**
 - Federal Ministry of Interior, Construction and Community (Bundesministerium des Innern für Bau und Heimat),
 - Federal Ministry for Economic Affairs and Energy (Bundesministerium für Wirtschaft und Energie)
 - *Consultative and advisory role to the government* – Federal Institute on Building, Urban Affairs and Spatial Development (Bundesinstitut für Bau-, Stadt- und Raumforschung)
- **State level (Saxony)**
 - State Ministry of Regional Development (Sächsisches Staatsministerium für Regionalentwicklung)
 - State Ministry of Interior (Sächsisches Ministerium des Innern)
 - State Ministry of Economy, Labour and Transport (Staatsministerium für Wirtschaft, Arbeit und Verkehr)
- **Regional level (Leipzig-West Saxony)**
 - Regional planning association Leipzig-West Saxony (Regionaler Planungsverband Leipzig-West Sachsen)
- **City level (Leipzig)**
 - Office of Housing Construction and Urban Renewal (Amt für Wohnungsbau und Stadtentwicklung)
 - Urban Planning Office (Stadtplanungsamt)
 - *Further local organizations that could have been involved in the implementation*

5.3.3 NATIONAL AND PROVINCIAL APPROACH TO REGIONAL POPULATION DECLINE IN THE NETHERLANDS AND ITS APPLICATION IN THE PROVINCE OF ZEELAND AFTER 2010

POPULATION DECLINE IN THE NETHERLANDS

As compared to other countries in Europe, especially in the eastern part of the continent, the Netherlands has not been experiencing population decline for extended periods of time. In fact, the population of the country gradually increases in the recent years. Still, in the long-term, similar to the overall trend in Europe, the population of the Netherlands will begin to decline (Haartsen and Venhorst 2010). As outlined by Haartsen and Venhorst, certain indications that this process had already begun were identified between 2006 and 2010 when two consecutive reports on the population forecasts outlined the long-term projections for the country. As a result, the discussion on population decline began on political and scientific level while gradually specific parts of the country where the phenomenon was already happening were identified. One of the main characteristics of the

shrinkage process in the Netherlands is that it happens mostly on regional level. As outlined by previous research, regions in the periphery of the country are expected to experience either stagnating or declining population with similar rates as compared to other strongly depopulating regions within the European Union (Haartsen and Venhorst 2010). Gradually, those regions became object of research by multiple scientists, while, in parallel, certain policies and planning decisions began to take place. Some of the more researched examples are the regions of East Groningen, South Limburg, and De Achterhoek (Beunen, Meijer, and Vries 2019). Although the majority of policies and planning approaches initially focused on reversing the expected depopulation, thus enabling growth by investment in new housing and efforts in economic revitalization, certain studies indicate that a shift in understanding occurred, enabling a change in the direction of policy and planning to facilitating the expected lower population and, respectively, adapting the policy and planning to focus on the needs of the remaining residents (Haartsen and Venhorst 2010). In time, the regional population decline became part of the political agenda and triggered discussions on local municipal level and also on the national level, which resulted in a national policy for depopulation in order to support the regions, experiencing this phenomenon (Verwest 2011). Later on, the national government developed capacity to deal with the issue and established the necessary infrastructure to support the regions in adapting their policies and planning to the declining population. In addition, a coalition of the six provinces with shrinking regions was established, which increased the pressure for specific regional support mechanisms for their affected areas (K6 2020). A classification was introduced for the currently shrinking regions and the ones that are expected to shrink in the long term. As of 2019, nine regions were classified as currently shrinking and eleven others were expected to shrink. Figure 5.2. illustrates the classification of regions from this perspective.

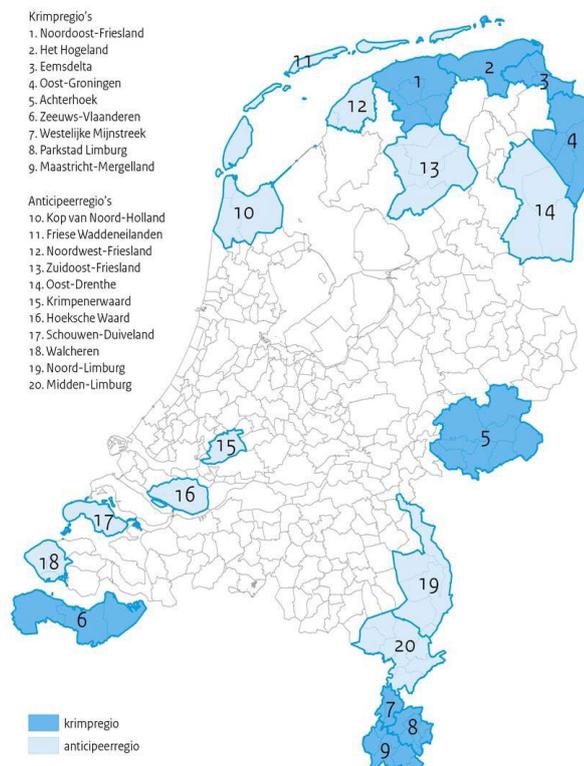


Figure 5.2: Shrinking regions and regions expected to shrink in the Netherlands; Source: Government of the Netherlands, <https://www.rijksoverheid.nl/onderwerpen/bevolkingsdaling/krimpgebieden-en-anticipergebieden>, visited on 4.12.2020

Due to the specific character of the approaches to shrinkage in the Netherlands, outlined above, the designated national and provincial/regional approaches to the question were identified as a unique case of encompassing and proactive planning and policy making for decline, thus they were chosen as a case study for this research. As illustrated in the selection of case studies section (Section 5.2.) the population decline policies in the province of Zeeland were chosen as a case study due to the comparable population size and the unique combination of both anticipated and already ongoing population decline.

POPULATION DECLINE IN ZEELAND

Zeeland (Map 5.4) is the province of the Netherlands with the smallest population size and rather low population density. It is located in the south-western part of the country, bordering Belgium further south-west and the North Sea to the north. Formerly consisting of multiple islands, it is one of the provinces that was severely affected by the devastating North Sea flood in 1953. As a result of the continuing efforts in flood protection since then, Zeeland's landscape has been significantly transformed with vast areas reclaimed from the sea and significant investment in infrastructure and flood defenses that has transformed the province into its current shape. Population-wise the province is expected to continue growing in the next few years and then begin to shrink in the long-term.



Map 5.4: Map of Zeeland (approximate borders). Source: Own work based on Open Street Map

From shrinkage perspective, the region that currently is experiencing population decline is Zeelandic Flanders (Zeeuws Vlaanderen), which is the outermost region within the southern Netherlands on the border with Belgium. The region is physically detached from the rest of the country by the Western Scheldt river, under which the 6.6 km Western Scheldt tunnel

provides a road link to the rest of the country. On the other side of the river is the region of Walcheren, a former island and one of the two anticipated shrinkage regions in Zeeland. Lastly, further north, across the Eastern Scheldt storm surge barrier, is the Schouwen-Duiveland island which is the other anticipated shrinkage region within Zeeland.

From economic perspective, Zeeland forms a small part of the Dutch economy, however, the province has a rather stable economic profile mainly formed by companies in the area of chemical industry, agricultural production, logistics and energy. In addition to that, however, a significant provider of employment is also the public sector. Chemical industry is one of the key players in the area – companies such as Yara and Dow have chemical plants, located in Zeeland. Dow Benelux is located in the shrinking region of Zeeuws Vlaanderen, near the town of Terneuzen. In addition, the province hosts the only functioning nuclear power plant of the Netherlands in Borssele. Wind energy is generated by offshore wind farms. Industrial sea ports are also functioning in Flushing (Vlissingen) and Terneuzen.

The effects of population decline on provincial level are mostly related to housing vacancy and challenges for the labour market. In addition, due to its vast natural areas and sea access, the province is a popular tourism destination for the Dutch population, resulting in high number of secondary vacation homes.

Particularly for the currently shrinking region of Zeeuws Vlaanderen, depopulation affects the housing market, with increasing number of vacancies, the public transport provisioning and the social infrastructure (health and education) on regional level. The sparsely populated region presents challenges in maintaining the required level of infrastructure for all towns and villages spread across the area.

DUTCH PLANNING SYSTEM

Newman and Thornley outline the planning system of the Netherlands as a plan-led one, providing certainty to citizens and other actors (Newman and Thornley 1996). The country itself is considered strongly planned but with high level of participation on all levels, representing a consensual approach to politics and negotiation in the Netherlands.

Administratively the system is split on three levels – national, provincial and municipal. This distribution is distorted by the financial allocation to municipalities from the central government, based on the number of inhabitants (Haartsen and Venhorst 2010). Although the country is considered a decentralized unitary state with the provinces being the regional administrative unit, subject to democratic elections, they become more a coordinator and mediator between the national and local level due to the allocation of funds directly to municipalities (Newman and Thornley 1996; Haartsen and Venhorst 2010).

From shrinkage perspective this also represents an interesting structure because the population decline is experienced on regional level, which is not a separate administrative level. This means that the provinces have to facilitate coordination between the municipalities, which are part of a certain region in order to respond to shrinkage and to manage it adequately on regional level. From planning perspective, national legislation is in place (National Physical Planning Act and supporting explanatory documents such as Policy and Key Decisions). Through the provincial governments, the national requirements are imposed on the municipal level, thus the provincial level supervises the local planning on municipal level, but also facilitates the regional economic planning, environmental policy and administrative coordination.

SCOPE OF EMPIRICAL WORK

From research design perspective, only the policy level unit of analysis is applied for the case of Zeeland (the Netherlands). From national perspective, the policy encompasses the development of action plan for population decline, partnership between provinces, dealing with the phenomenon, and allocation of funds by the national government to the regions. In parallel, the national level also works with the municipalities to develop capacity and to support decision making. The provincial governments maintain both an overview on the situation in the respective regions and in parallel work actively to address questions of regional concern. The research encompasses document analysis and complementary semi-structured interviews.

The institutions, identified as sources of information for the study are:

- **National level**
 - Ministry of the Interior and Kingdom Relations (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties)
 - Ministry of Agriculture, Nature and Food Quality (Ministerie van Landbouw, Natuur en Voedselkwaliteit)
 - Interprovincial Association (IPO - Interprovinciaal Overleg)
 - PBL - Environmental Assessment Agency (PBL - Planbureau voor de Leefomgeving)
 - Knowledge for Shrinkage (Kennis voor Krimp & Platform 31) – *a dedicated platform and website for developing capacity on addressing shrinkage, supported by the government*
- **Provincial level (Zeeland)**
 - Provincial government Zeeland
 - Provincial states (elective assembly on provincial level)
 - Planning agency Zeeland (Planbureau en bibliotheek van Zeeland)

5.4 EMPIRICAL DATA COLLECTION AND PROCESSING

The main research questions of the study have influenced the formulation of hypotheses, presented in Chapter 4. The outline of the selected case studies above and the focus on the policy and planning efforts in the specified periods, in accordance with the research design (Chapter 3). The empirical data collection has been organized according to those two points.

The central question of the research is *how can a new planning concept of “Shrinking Smart” be formulated, based on existing research on urban shrinkage and based on the way that urban shrinkage has been addressed within the European Union? Secondly, what can the new planning concept of “Shrinking Smart” encompass, what would be its scope and direction?*

In order to respond to this question, the proposed theoretical constructs from Chapter 4 were developed and morphed into hypotheses. These points have informed the data collection and empirical data processing. The main empirical data collected across the three cases are narratives from policy and planning documents. In order to trace the points, outlined in the central question, the hypothesis points were incorporated into a coding system in the

MAXQDA software where the documents have been reviewed. The 10 conceptual features, outlining the possible structure of the planning concept, were listed as separate codes

Appendix 1 illustrates the structure of the coding system. Throughout the review of the empirical data, segments of the document narratives were coded first in terms of the distinction between process and substance. By encompassing the process aspect, the collected data is utilized for the verification of Hypothesis 1, pertaining to the planning process. The segments coded under the “substance” code are utilized for the two substance-oriented hypotheses - 2(Policy substance)and 3(Planning substance). Any segment that was coded with process or substance code is also associated with a specific concept feature code. Thus in the analytical stage (Chapter 6), each of the hypotheses can be reviewed, following the proposed concept features in order to verify its conceptual coherence.

In parallel, following the interpretive policy analysis method, separate codes were created for the purposes of identifying causal and normative orientation of the policy and planning narratives that further support the verification of the conceptual coherence and contribute to the conclusions of the study. Each segment that was coded with either causal strand codes or normative strand codes was also associated with a specific topic in an inductive way (codes were created based on the data found and the contents of the documents). Thus a broader empirical scope allows also to identify the thematic scope of the identified policies and plans(further details on the application of the IPA method and the identification of discourse elements can be found in Chapter 3).

The shrinkage conceptualization hypothesis was verified through segments particularly associated with interpretations of the phenomenon (coded under “shrinkage conceptualization”)as well as causal strand coded segments.

The qualitative aspect of the verification of Hypothesis 5 was done through coded segments, associated with the thematic scope of the hypothesis, encompassing economy and space.

The empirical approach, outlined above, was also applied in the creation of interview guides. Specific interview sections were drafted where the conceptual points proposed for the planning process, shrinkage conceptualization, scope of measures (planning and policy substance), objectives of the measures and economic and spatial considerations were traced. Interview data was not coded in MAXQDA, but separately, following the empirical approach. Appendix 2 illustrates the interview guides.

In terms of the first sub-question of the research, which reads:

Given the lack of clear boundaries and conceptual coherence of the “Shrinking Smart” label until now, what should be the structure of the new planning concept and how would it correspond to the variety of planning systems and approaches in the European Union and the variety of shrinkage contexts?

further empirical limitations were applied. The documents and respondents identified, following the above outline of the planning system, were classified according to the research design units of analysis (policy and planning). This approach provided a clearer separation of the scope of the specific efforts in the different case studies, thus allowing for sensitivity and conclusions in the analytical part that take into account the variety of planning systems and shrinkage contexts, as outlined in the research question.

The second sub-question of the research is:

How has the perception of urban shrinkage shaped the policy and planning approaches and solutions in specific shrinkage contexts in the European Union and how can this knowledge feed into the new planning concept?

This question is mainly addressed through the intersection of the data collected under the shrinkage conceptualization codes and interview responses and the identified normative links from this interpretation to the selected measures.

The last sub-question of the research is:

What are the applicable alternatives to implement “Shrinking Smart” in the future in the context of European Union?

Possible alternatives have been embedded into the hypotheses structures, most notably in Hypothesis 5. The same points were also embedded into the interview guides. In addition, the analysed empirical data also allowed for tracing conclusions on action points and administrative capacity, embedded into the hypotheses. The spatial and quantitative data under hypothesis 5 also allows for further analysis on this question.

EMPIRICAL DATA OUTLINE

Appendix 3 illustrates the association of each document source with the respective institutional level and the hypotheses that were verified with it in chapter 6. Appendix 4 illustrates the completed interviews, the institutional level of respondents and the association of the interview with the verification of hypotheses.

The empirical stage of the research occurred during the Covid-19 pandemic in 2020 and 2021, respectively online sources and communication were utilized more than expected. The data collection in the Netherlands took place between May and June 2020. The data collection in Germany and in Spain took place between February 2021 and July 2021. Spatial and quantitative data collection and processing for Germany and Spain took place in August 2021 from available statistical sources and from the Copernicus Urban Atlas portal.

6

ANALYTICAL STAGE VERIFICATION OF HYPOTHESES

This chapter of the study represents the main empirical data collected and analyzed as part of the study. The chapter is structured, following the already presented hypotheses in the previous chapters and the empirical outline (Chapters 4 and 5). The empirical data for each hypothesis is presented for each of the case studies of the research. A brief outline of the analytical approach for each of the hypotheses is presented prior to the outline of the empirical conclusions. Hypotheses 1 through 4 follow the main method of interpretive policy analysis, while Hypothesis 5 has both qualitative (interpretive policy analysis) and quantitative, spatial and observational data.

As part of the interpretive policy analysis, each of the hypotheses is verified with the empirical data from each of the cases, relevant for the hypothesis. Hypothesis 1, pertaining to a concept-driven planning process, is verified with the empirical data from Bilbao (Spain) and Leipzig (Germany). Hypothesis 2, pertaining to a concept-based policy substance, is verified with the empirical data for Bilbao, Leipzig and Zeeland. Hypothesis 3, pertaining to concept-based planning substance, is verified with the empirical data for Bilbao and Leipzig. Hypothesis 4, pertaining to shrinkage conceptualization, is verified with the empirical data for all three cases. Hypothesis 5, pertaining to non-growth oriented economic and spatial development, is verified with the empirical data from Bilbao and Leipzig. For each of the hypotheses under each of the case studies, the information from the document analysis, processed in the software MAXQDA, is reviewed following the main points of the hypotheses. The interview data has been coded separately (not in MAXQDA), but follows the same methodological approach (See Appendix 1 Coding system, Appendix 2 Interview guides and Appendix 4 Interviews). As outlined previously, Hypotheses 1 through 3 contain references and statements related to the proposed concept features of the new planning concept. The empirical data review is structured according to the proposed concept features and conclusions are drawn for each of them. The conclusions for each of the concept features are structured either chronologically or following the hierarchy of the planning system, depending on the case. For example, the empirical data from Leipzig is much more extensive with various publications from across the timespan of this research, originating at different levels of the planning system. The hypotheses that do not include elements of the proposed concept features are reviewed following the logic of the respective research questions.

At the end of each sub-chapter on the hypotheses in the respective case (Bilbao, Leipzig and Zeeland), conclusions are outlined on whether the hypothesis is proven or disproven and to what extent. Based on the conclusions for each of the cases, a final sub-chapter for each of the hypotheses summarizes the conclusions from the cases and draws a final conclusion on the validity of the hypothesis with an emphasis on the concept features found to be most fruitful for the formation of the new planning concept. Responses to the research questions are also drawn based on these conclusions under Hypotheses 4 and 5 that do not refer to concept features. In the last part of the chapter, an assessment of the concept features is executed that lays the foundation for the comparative

analysis framework (Chapter 7). Conclusions are drawn also for the remaining hypotheses. An additional section outlines some conclusions about alternative economic perspectives from Zeeland. This last section is outside of the hypotheses verification sections as Hypothesis 5 does not apply to the case of Zeeland.

6.1 HYPOTHESIS 1: CONCEPT-DRIVEN PLANNING PROCESS

Definition of the hypothesis:

The planning process in the selected cases is highlighted as key to delivering the changes in the city and for responding to shrinkage (*Planning centrality*). The planning process is designed as participatory and is inclusive to a wider scope of stakeholders, it is democratic and deliberative in nature and design (*Participatory*). The planning process is supported by investigative steps, such as data collection, additional studies, assessments, evaluations prior to taking decisions – the process does not directly provide ready-made solutions without scientific or data-driven justification (*Inquiry*). The planning process design is justified through contextual characteristics, specificities of the planning system, political, cultural, civil factors that determine its scope and role (*Applicability/Contextuality*). The planning process attempts to encompass multiple areas, corresponding to perceiving shrinkage as a phenomenon of complex nature (*Integration*).

Hypothesis 1 is verified with the empirical data of Bilbao (Spain) and Leipzig (Germany)

Hypothesis verification approach:

- ***Planning centrality***
 - Review and analysis of coded segments of data, pertaining to the centrality of the planning process.
 - Main questions:
 - Is there a suggestion or outline that planning should deliver the desired change?
- ***Participatory***
 - Review and analysis of coded segments of data, pertaining to participatory features of the planning process.
 - Main questions:
 - Is there a suggestion or outline that citizens and other stakeholders should be part of the process?
- ***Inquiry***
 - Review and analysis of coded segments of data, indicating that scientific assessments, evaluations, research and other studies were utilized as part of the planning process.
 - Main questions:
 - Is there a suggestion or outline that studies and data are necessary to take decisions as part of the planning process?

- **Applicability/Contextuality**

- Review and analysis of coded segments of data, pertaining to contextual references, political, cultural and economic specifics or planning system specifics that may have influenced the planning process.
- Review and analysis of Nested context discursive elements.
- Thematic mapping of the above two points.
- Main questions:
 - Are there references to a broader political and economic context or setting, period of time? Is there an implied or explicit proposal for a change in the context, or the direction of policy? How is the understanding of reality shaped? Is there a cultural context recognized? Is change contested or desired?

- **Integration**

- Review and analysis of coded segments of data, pertaining to references that outline interrelations between aspects of the planning process or dependencies between specific topics that are subject to planning as part of the process.
- Identification of statements that suggest interrelations between elements of the planning process or scope.
- Thematic mapping of the above two points.
- Main questions:
 - Are there logical links and statements, exposing an integrated or interrelated understanding of the object of the planning process (more than one problematic or planning area)? Are there statements pointing to a planning process that encompasses multiple aspects, recognized as interrelated?

6.1.1 INTERPRETIVE POLICY ANALYSIS OF THE PLANNING PROCESS IN BILBAO (SPAIN)

The period after 1990 in Bilbao, when the transformation of the city occurred, and the period after the year 2000 when those changes continued, coincided with the establishment of the Basque planning system. As a background information particularly for the verification of the planning process hypothesis, it is important to consider that the period before the year 2000 was also the period where the specific legislation for the planning of the Basque Country was adopted. This gradually led to the establishment of the Basque planning system as a whole and its further development in time that also encompasses the investigated period.

The distinction between the policy and planning units of analysis is based on the scope of the documents and their influence on the local planning. The documents on the level of the Basque Country, such as the Directives for Territorial Ordinance, have a strategic and semi-legislative statute for the whole community and they represent the overall agenda of territorial planning that has a strong influence on the planning and policy approaches in the Basque Country as well as on Bilbao. The territorial planning is the overall framework on which the planning system within the autonomous community has been built. With that said, the strategic and policy approach is defined on territorial level (for the whole Basque Country), while the local planning focuses strictly on the city of Bilbao. The metropolitan strategies reviewed in the policy unit of analysis are broad and do not have a legislative or actionable effect. However, they played a role in the formation of the overall strategic and policy orientation of the development of the city. Since they encompass not only Bilbao

proper, but the whole metropolitan area, they are assigned to the policy unit of analysis. The Partial Territorial Plan of Metropolitan Bilbao is assigned to the planning unit of analysis because it has stronger implications on local planning and logically supports the strategic orientation of the city, but acts as a bridge between the practical physical planning of the city and the strategic orientation. It is more specific in terms of content and has direct references to spatial points of action as opposed to the metropolitan strategies.

The abovementioned description outlines the analytical approach – the policy level sustains mostly the territorial planning agenda of the Basque Country as well as the strategic planning of the city while the planning level sustains the plans that pertain to the physical and urban planning of Bilbao proper.

Overall, there were not enough document sources that could be subject to analysis for the planning unit of analysis in Bilbao, therefore large sections of the analysis are complemented by the empirical data from interviews.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

Planning centrality

The main source of information for the verification of this concept feature are the Directives for Territorial Ordinance of the Basque Country (*Directrices para ordenacion del territorio 1997*). This document, approved in 1997, acts as the main pillar to the establishment of the whole system of territorial planning and its manifestations on metropolitan and local level (in the case of Bilbao).

The need to properly manage the whole territory of the autonomous community is outlined as a reason to surpass the narrow view of municipal planning and to establish a broader perspective towards the territorial planning of the autonomous community. The territorial planning approach is outlined as anticipating, proactive and forward-looking. The creation of a common “image” at the cross-cutting urban level in the territory is seen as key to establishing a coordination between the various municipal planning levels.

This view is also supported by the need to develop administrative capacity for the planning processes at local level, as well as exchange of experience and coordination between the various municipal planning initiatives. They are illustrated as connected within the territory. This overall effort of establishing streamlined planning processes is a representation of the formation of the actual planning system that incorporates territorial planning, sectoral planning and urban planning.

Planning is seen as necessary to enable the overall competitiveness of the Basque country in international context. At the same time the planning process is seen as the main instrument to improve the quality of life of citizens in the urban cores of the autonomous community with a special emphasis on the rehabilitation of the areas in decline so as to support both the expected economic and urban transformation processes:

“The Directives are inspired by a new Urban and Territorial Culture. It is important to acquire an integrated understanding of the city and the territory simultaneously with an emphasis on the urban rehabilitation and the rediscovery of the territory and its added value for the daily life of citizens. We need to take into account the complexity of the rehabilitation of the areas in decline as well as to be sensitive to the necessary flexibility to achieve the unavoidable economic and urban

transformation processes successfully that are to occur in the Basque society.”
(*Directrices para ordenacion del territorio 1997*)

The sectoral plan for economic and commercial spaces (*Plan Territorial Sectorial de Creación Pública de Suelo para Actividades Económicas y Equipamientos Comerciales 2005*) focuses on the specified sectoral approaches for economic and commercial activities in support of the establishment of detailed and streamlined planning processes across municipalities. It was expected to provide an instrument for this particular aspect of territorial/spatial planning.

The overall orientation of the territorial planning of the Basque country outlined above as well as the importance of a streamlined municipal planning process transposes also to the municipal strategies where the justification of the planning at metropolitan level is seen as key to achieving the desired development and attractive city image.

“It envisages the need for comprehensive and intelligent metropolitan planning that will minimise displacements, strengthen and revitalize the urban centre and favour the harmonious development of the municipalities that make up the metropolis, in order to achieve a city that is attractive to external and internal agents.”(*Bilbao as a Global City - Strategy 2001*)

The Partial Territorial Plan for Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*) further supports the need to establish a dynamic and efficient planning system to coordinate and manage the urban space. The PTP itself is an instrument that transposes the directives from the upper levels to the urban local level. The PTP stipulates that the public investments into urban development will be dependent on the regulations and established understanding of the plans, thus further strengthening the role of planning as a key process for leading the urban transformation.

The interviews with local planning experts also provide insight into the evolution of the planning process in Bilbao. The team responsible for the creation of the General Plan of the city highlights that different planning regulations were introduced gradually throughout the years, which contributed to the additional complication of the process (*Interview 011_ ExLoc_P1*). There was a large timespan between the different phases of the plans. The General Plan of the city that entered into force in 1995 was initially drafted in 1989. After 1995 a number of other regulations were also introduced, such as the Directives for Territorial Ordinance (*Directrices para ordenacion del territorio 1997*) and the Partial Territorial Plan for Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*). In the same year, the Law for Land and Urbanism was also approved. The planning experts outline that after the year 2000 the procedures for drafting plans and the normative requirements for planning grew more complicated and extensive with an ever evolving procedure of harmonization between the different levels of the planning system. This had an effect on the introduction of more stringent requirements for approval of buildings, projects and regeneration. Gradually, the process evolved to include also environmental and social considerations. It can be concluded that the planning process gradually solidified after the year 2000. Another local expert highlights that progressively the strategic planning of the city also became more interdisciplinary, including various experts and going beyond the purely physical aspect of spatial planning. Another local expert highlights that the planning in the city changed with the formation of a new expertise, introduced by “urbanization specialists” (author’s translation of “*gente urbanizador*” in Spanish, *Interview 009_ ExLoc*), whose approach was contrasted to the more technical plan-making of the previous teams. In the planning of one of the key projects of the city from current perspective, the island of Zorrotzaurre, the

coordinating commission highlights that the preparation of the plan went more smoothly due to the already experienced local administration and the growing confidence of citizens that the project will be delivered with the desired quality. Another aspect of the gradually maturing planning process is the fragmentation of various departments in the municipal administration and the other agencies, responsible for the execution of planning. Throughout the years, separate teams were formed for the development of the plans, the everyday execution of the plans, the development of specific regeneration projects (such as Zorrotzaurre – managed by a separate public entity) as well as other renovation activities (such as SURBISA – the local agency, responsible for building rehabilitation and coordination of public subsidies). This fragmented landscape gradually evolved into a complex institutional framework with robust normative regulation in order to exercise more control on the physical space of Bilbao, characterized by a high level of fragmented private property, as per the words of the local experts interviewed. It can be concluded that with the evolution of the planning process, the coordination between the various administrative levels improved, thus creating a streamlined planning practice within the city, embedded into the planning system of the autonomous community.

In conclusion, the understanding and necessity to establish a system and a process of territorial planning that encompasses multiple levels is clearly outlined in the analyzed documents in Bilbao. The role of the gradually evolving planning process and regulation, especially after the year 2000, is indicative of the critical role that the process played in the development of the city. Hence, the *Planning centrality* feature can be considered as valid for the case of Bilbao.

Participatory

There is limited indication of high civic participation in the planning process in the analyzed documents. The metropolitan strategies highlight the need to include citizens on par with the local business leaders in the definition of the strategic vision and objectives of the city. The Partial Territorial Plan for Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*) also highlights this importance.

The interviews with local experts provide a more nuanced picture to this question. In almost all interviews, the local specialists outline that the participatory practices gradually became more important in the planning processes of the city. Going back to the planning and decision processes for the Guggenheim museum (in the beginning of 1990s), the local experts highlight the complete lack of participation in the decision making and the planning process back then. After that, however, the participation of citizens gradually increased due to realization of the importance of the democratization of the processes. With the introduction of the various regulations to the plan-making practice of the city, the participation and inclusion of citizens became a legal requirement, which resulted in the establishment of a participatory practice on city level and on district level for each step of the preparation of the General Plan, as well as of other supporting plans. In addition, local district councils were set up and they are being included in all preparatory processes of interventions in the respective areas. Citizen participation influenced the planning process of the Zorrotzaurre area and resulted in the reconfiguration and update of the initial plan of Zaha Hadid Architects so as to integrate the preferences of local communities to remain on the island. In the district of Bilbao La Vieja, participation was required so as to activate the local communities to contribute to the improvement of their district. One respondent provides an interesting insight into the participatory practices:

"I am a little ashamed to say that the level of participation in our country is not very high and there is no much tradition of participation. Often the only ones participating in the process are the ones that are against the project" (Interview 012_ExLoc)

This quote indicates that participatory planning practices have not been so well-established in Bilbao due to cultural or contextual specifics.

In conclusion, there is not enough indication to confirm that the planning process of Bilbao can be considered as fully participatory. The highlighted examples do not provide conclusive information that this element of the planning process was central to the planning efforts in the city. The gradual evolution of these practices, however, shows that the process was evolving to a more participatory one. Thus, *Participatory* concept feature can only partially be confirmed for the case of Bilbao.

Inquiry

In the analyzed planning documents there is partial indication of utilized studies and investigations for the plans. A particular highlight is the Partial Territorial Plan for Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*) that has been drafted after extensive evaluation and investigation of the characteristics of its scope. Investigations and research have supported the planning for specific zones in the city, such as Bilbao La Vieja and Zorrotzaurre. In the expert interviews, it is highlighted that with the gradual evolution of the planning process and the increasing administrative complexity of the approval procedures, more reports, assessments and evaluations became required in order to obtain approval of the plans. These requirements were not present prior to the introduction of the legislative requirements. This can also be observed in the emphasis, placed on the need of assessments and evaluations as part of the planning process, outlined in the Directives for Territorial Ordinance of the Basque country (*Directrices para ordenacion del territorio 1997*).

Based on the analyzed data, there is not enough indications that the planning process has been strictly inquiry-oriented. However, similar to the *Participatory* concept feature, there is indication of gradually increasing importance of planning intelligence with the evolution of the planning process. Hence, the *Inquiry* concept feature can only partially be confirmed for the case of Bilbao.

Applicability/Contextuality

The emphasis of the contextual sensitivity of the planning process is highlighted again in the Directives for Territorial Ordinance (*Directrices para ordenacion del territorio 1997*) of the Basque Country as a main document stipulating the establishment of the planning process in the autonomous community. It is outlined that the design of the planning processes has to consider the specificities of the territorial structure of the Basque Country. Particularly in the case of Bilbao, this means the role of the city as a center of a large metropolitan area. Thus, the planning process has to consider these concrete contextual characteristics and to ensure that the plans between the various municipalities are coordinated. In some strategic documents there are limited references to the need of planning in a way similar to other global cities that Bilbao should see as an example. This global embeddedness, however, is much more pronounced in the justification of particular measures (See also chapters 6.2.1. and 6.3.1.).

In the area plan for Zorrotzaurre, it is stipulated that the original plan has been adapted to the specific planning practice of Spain and the Basque Country, which resulted in multiple modifications of the initial project. This has been shared also in an expert interview. In other interviews, the need for flexibility of the plans is also highlighted with a particular connection to a so-called “negotiation mentality” of the local people – the need to bargain and to convince the various actors of the specific planning direction (*Interview 009_ExLoc*). Indication of this was also shared in relation to participatory practices.

In conclusion, there is enough indication that the planning process of Bilbao has been designed and adapted in a way to consider specific contextual and local characteristics. The *Applicability/Contextuality* concept feature can be considered as valid.

Integration

The document analysis shows that the importance of integrated planning was introduced as part of the evolution of the planning regulations of the autonomous community. The Directives for Territorial Ordinance stipulate that the urban planning and the territorial planning should be harmonized in a way to consider the interconnections between the various planning levels. This integrated view is also stipulated as important for the delivery of the plans. It is outlined that the local plans should be explicitly delivered through integrated planning in terms of the specific characteristics of their territorial scope.

The expert interviews also highlight the gradual introduction of integrated way of planning on overall city level as well as in the planning process for specific area interventions.

Although there is not enough data from the document analysis and interviews that confirms the importance of the integrated planning, the source of the conclusions (the Directives of Territorial Ordinance) point to the normative nature of integrated planning as part of the overall territorial planning agenda. Since the introduction of this practice occurred as part of the formalization and regulation of the planning process of the city, it can be concluded that the *Integration* concept feature is valid for the case of Bilbao.

6.1.2 INTERPRETIVE POLICY ANALYSIS OF THE PLANNING PROCESS IN LEIPZIG (GERMANY)

The planning system in Germany is very clearly differentiated and this applies for the case of Leipzig as well. The main policies on either federal or state level that had influence on the city and are of interest for this study were the Stadtumbau Ost and the Soziale Stadt programme. They have been assigned to the policy unit of analysis because they originated outside of the city as a broader policy approach and were also overseen by institutions on state or federal level. Additionally, the Saxony state level planning, as well as the regional level planning of West Saxony were also assigned to the policy unit of analysis because their scope is beyond the city but they have implications on local planning.

The planning unit of analysis encompasses two major phases of planning in Leipzig during the investigated period – the urban development plans (STEP-Stadtentwicklungsplan) from the year 2000 (the complete timespan is between 1999 and 2005) and the urban development concept plan (SEKO-Stadtentwicklungskonzept) from the year 2010. The smaller-scale plans are either part of the larger planning effort or are created in-between these two phases. The analysis often follows a chronological sequence by differentiating the two phases of planning.

Due to specifics of the planning culture, multiple documents were produced for each of the phases of planning, therefore the analysis focuses mostly on document data.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

Planning centrality

On state level (Saxony) the planning-centered process of urban redevelopment is recognized as a leading factor in the spatial development of the state. It is defined as a process of “shrinking and rebuilding of municipal structures due to demographic and economic changes” (*Landesentwicklungsplan Sachsen 2003*). It is explicitly outlined that the regional planning on state level (Saxony) should be in-line with the urban planning in the different settlements, so as the overarching planning-centered approach be maintained across the different planning levels. The same understanding is shared in an interview with a regional planning expert from the regional planning authority of West Saxony – in their view, there should be a feedback loop between the urban planning, the regional planning and the state level planning (*Interview 007_ExReg*). This feedback loop enables the exchange of information and coordination between the plans. This information exchange facilitates the resolution of conflicting planning goals.

An emphasis is placed on the need of municipalities to develop integrated development concepts as part of an effort for an integrative approach towards the urban redevelopment process. In this context, the plan-led coordination between neighbouring municipalities is also viewed as a prerequisite. The need to have a plan-led urban development with long-term “political design” (*Sachsen 2020 Wegweiser für unseren Freistaat Strategisches Grundsatzpapier 2009*) is also expressed in the economic agenda of the state of Saxony in 2009.

The integrated urban development concepts have been a prerequisite for the participation in the “Stadtumbau Ost” programme for the cities that apply. The evaluation of the programme on federal level from 2012 outlines the process of creating the concepts as normatively participatory and planning-centered, so that priority areas be defined, following a structured and coordinated process of drafting the concepts (*10 Jahre Stadtumbau Ost - Berichte aus der Praxis 2012*). The same report also concludes that under circumstances of conflicting and unclear goals, the process of integrated planning is to deliver the necessary agreement between the various interest groups. The process of developing these planning-led initiatives is seen as the leading way of managing the spatial dimension of the city and the various interests claimed in this regard (incl. private actors or banks).

On city level, the local plans of Leipzig in the year 2000 (*various sources under: Stadtentwicklungsplan W+S 2000*) are defined as part of “integrated urban development planning”, an approach claimed to have been established in Leipzig since the middle of the 1990s. The plans are separated per area of action (e.g. economic areas, housing, housing estates, centres, transport). They place the planning process as an overarching framework that has to enable the economic transition of the city with a clear spatial dimension – both geographically (as a leading economic location) and spatially within the boundaries of the city. The plans outline a shift away from “traditional urban land use planning” (*various sources under: Stadtentwicklungsplan W+S 2000*), placed at a subordinate role, while newly developed instruments for “spatial management” (*various sources under: Stadtentwicklungsplan W+S 2000*) are outlined as important for the redevelopment of specific focal points and regeneration areas. In reference to an expert process of brainstorming of ideas for the

future of the city in 2001, a radical project proposal suggesting a complete withdrawal of planning in a certain area is presented critically in one of the planning documents (*Beiträge zur Stadtentwicklung 38-Konzeptioneller Stadtteilplan Leipziger Osten 2003*) which demonstrates that a strong emphasis was placed on planning-led highly controlled process of urban redevelopment.

The planning approach towards the year 2010 under the newly developed SEKO plans (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKO) 2009*) is described as oriented towards specific target areas for urban redevelopment where the city-level planning is supposed to be complemented by locally derived plans and ideas (at district level). The definition of the approach and the understanding of the integrated planning appears to expand in scope and is formulated in a more ambitious way so as to integrate the overarching objectives of the city (derived from the Leipzig Charta and the economic orientation) as well as to guide the external funds that drive the redevelopment process. The evaluation of the previously implemented planning instruments (prior to the year 2010) is outlined as successful as it has managed to achieve concentration of population in the inner city.

The planning process is outlined as a driver and critical factor for the achievement of the desired goals of Leipzig. The ability and capacity to create and execute plans is outlined as a driver for the development of expert and operational capacity within the administration, as well as involvement of citizens and other interest groups in the planning process. The plans from 2010 talk about “self-confidence” of citizens’ involvement in the planning processes and an established “urban development culture” as enabling factors for the success of the previously executed plans, justifying the continuation of the planning-centered approach in the new phase of planning (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKO) 2009*). A similar view is shared by a local planning expert in the city. They highlight that the planning process has matured during the years. Initially, there was a clear distinction between physical-urbanistic planning objectives and human-centered objectives. In their view, those objectives gradually came closer. This process was also linked to the need to develop proper planning capacity in order to make use of European funding (*Interview 006_ ExLoc*).

This planning-centered urban development culture is illustrated with a municipality-enabled initiative “Leipzig Self-user programme”. As part of the efforts to concentrate the previously sprawling single-family units in the inner city, the planning-centered process was seen as a moderator between future owners of houses, the urban planning department and construction companies, so as to enable coordination, plan-led approach and joint work prior to the beginning of the construction projects. In a similar vein, a local planning expert outlines that planning-led approaches were necessary due to the complexity of the urbanistic situation in Leipzig West and the overlapping effects of the poor housing condition, the vacant industrial space and the low quality of public space (*Interview 006_ ExLoc*).

The planning-centered approach is also illustrated as a prerequisite to the redevelopment of certain areas. In the local planning evaluation report from 2012 it is pointed out that in the South-East region of Leipzig, which had been added to the target areas of the plans, “planning foundations and participation structures” need to be created prior to moving on with the actual redevelopment (*SEKO Umsetzungsbericht 2012*).

In conclusion, the understanding that the approach to the changes in Leipzig (and in other cities in Saxony) should be plan-led is consistently shared across various institutional levels – from the evaluation of the federal Stadtbau Ost programme, through the Saxon policy

and planning documents, to the city and neighbourhood level plans. This understanding develops and solidifies in time, perhaps supported by the initial success at the onset of the 21st century and is further expanded and reaffirmed in the later years. The understanding that the responses to urban shrinkage and depopulation consequences should be plan-led, or planning-centered, is shared across institutional levels and across the timespan of the empirical data, thus the *Planning centrality* feature can be confirmed in the case of Leipzig.

Participatory

The importance of participatory actions as part of the planning process is outlined on multiple occasions across various policy and planning documents. The Saxony State Development Plan from 2003 highlights the importance of participation of “all population groups” in public life and, respectively, in the regional and urban planning processes, as part of the strengthening of democratic decision-making structures (*Landesentwicklungsplan Sachsen 2003*). In other policy documents on state level, the democratic deficiencies of the East German states are highlighted as a challenge in comparison to West German states. The citizen involvement in planning processes is viewed as a means to strengthen this aspect and increase personal responsibility and social cooperation (*Wirtschaftspolitische Leitlinien für den Freistaat Sachsen 2004*).

As early as 2001, the “activation” of local actors is highlighted as part of the planning process involved in the implementation of the Soziale Stadt programme, highlighting the importance of participation of locals in the preparation of the plans for their respective neighbourhoods. Elements of the participatory process, such as different events and discussion formats on various topics with different target groups and actors on local level, are highlighted.

The opportunities for participation are outlined as necessary for the ongoing efforts of maintaining the area of Leipzig East (object of the Soziale Stadt programme) through the creation of the necessary infrastructure for participation (such as clubs and discussion venues). It is also highlighted on state level that a certain amount of the budget of the Soziale Stadt programme can be utilized for activation and participation measures in the target areas. In this context, an example of the application of the programme in Leipzig East is the establishment of the district management association in the area as well as the “Leipziger Osten Forum”. The participatory process is viewed as a means to strengthen the local identity of the citizens and their personal responsibility to the future of the neighbourhood. It is seen as empowering their self-confidence and building a community spirit (*Beiträge zur Stadtentwicklung 38-Konzeptioneller Stadtteilplan Leipziger Osten 2003*).

The evaluation of the Stadtumbau Ost programme also highlights the importance of participation as a prerequisite of the success of the planning process under its framework. The participatory elements are formulated as a requirement, as a normative leap, necessary for the implementation of the programme:

“All necessary actors in the city are to be involved in the decision on the necessary restructuring measures as early as possible” (Stadtumbau Ost - Stand und Perspektiven 2006).

The participatory process is viewed as a means to involve all interested parties in the process of urban redevelopment, but also the citizens on a level playing field with housing corporations and other actors involved, as well as an instrument to solve arising conflicts. Particularly from shrinkage perspective, it is outlined that the participatory planning process

can contribute to better understanding, acceptance and satisfaction of the measures taken under the conditions of shrinkage.

The SEKO plans from 2010 (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009*) highlight the planning process behind as a “genuine community project”, also with emphasis on different social and cultural groups and their interests. Instruments for citizen involvement such as discussions, expert forums on district level, workshops for the future, public consultation activities, exhibitions, technical discussions, mass media were utilized. The following outline from the planning documents illustrates the steps taken to involve citizens (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009*).

Participation is highlighted as important also from the perspective of transport planning in order to facilitate the interests and preferences of the various citizen groups.

The coordination of the participatory processes is viewed as a means to develop administrative capacity to facilitate the process itself or to empower citizens to manage the process themselves. As per the view of a local planning expert, the involvement of citizens as early as the year 2000 has enabled the success of the interventions in the area of Leipzig West (*Interview 006_ExLoc*). This effort has also been illustrated in the 2010 SEKO plans with an outline of the administrative structures, developed for the purposes of the participatory planning process. The involvement of citizens is also viewed as a prerequisite for the utilization of EU funds.

In conclusion, the planning process in Leipzig after the year 2000 has been consistently oriented towards extensive involvement of citizens and other interest groups, providing different opportunities for participation. The importance of the participatory planning process has been recognized on various institutional levels as a means to engage society at large, to empower citizens as well as to contribute to reaffirmation of fundamental democratic principles. Therefore, the *Participatory* concept feature can be considered as valid for the planning process in Leipzig.

Inquiry

The importance of data-driven decision-making and planning has been stipulated in various policy and planning documents. The State Development Plan of Saxony outlines the need for analysis and evaluation of the spatial condition of the whole state and its dimensions on individual settlement level so as to maintain an in-depth understanding of the ongoing changes available both to policy makers, planners and wider public (*Landesentwicklungsplan Sachsen 2003*). Regular studies and investigations are part of the preparation of the regional plans of West Saxony, in the words of a regional planning expert (*Interview 007_ExReg*). The information availability is seen as a prerequisite for pragmatic and realistic planning processes as well as for improved transparency. It is further stipulated that the various administrative bodies should work together in order to maintain the available information databases and to exchange information in the process of preparation of plans. From urban development perspective, an emphasis is placed on the need to assess on case-by-case basis industrial wastelands and former military areas in order to evaluate their suitability for urban development.

The need for monitoring and evaluation has been strongly embedded in the design of the Stadtumbau Ost programme and its respective planning processes. In the assessment of the programme itself, it is concluded that the programme has given the chance to collect extensive amount of qualitative information for good practices and respectively to enable

exchange between participating cities. The integrated planning processes in those cities are expected to include long-term monitoring and evaluation systems as well as to prepare extensive analyses and assessments prior to the implementation of the measures. The monitoring systems are seen not as a one-time mechanical effort of collecting statistical data, but as well-designed systems that can contribute to the better design of planning solutions and approaches in the long-term. A particular emphasis is placed on housing market development as well as on forecasting population and economic development. The ongoing monitoring and evaluation is seen as the centerpiece of the planning process and its following implementation as well as an important contribution to better transparency. The Leipzig Monitoring System is highlighted as a good example in this regard, providing information on demographic, social, economic and ecological developments, together with small-scale monitoring of the planning processes. Furthermore, monitoring of the efficiency and effectiveness of the measures is highlighted as important for the financial management of the programme on local level. Cost-benefit analyses have been highlighted as particularly important under shrinking conditions, due to the limited financial capacity in such circumstances.

On local level in Leipzig, the investigations and evaluations of the initial situation are part of the majority of the planning documents for the different areas since the year 2000. They are outlined extensively with both qualitative and quantitative data. The data is complemented by insights from additional studies, carried out at local and neighbourhood level, spanning from land-use assessments to local scenario-building analysis. The monitoring of various elements of the housing market is consistently included in the plans, incorporating different perspectives, both from market and from tenant perspective. Local and place-based assessments support the decisions and conclusions in the plans.

In conclusion, confirmation for research-oriented (or inquiry-oriented) planning process can be found consistently across the various elements of the planning process within Leipzig. The data-driven decision making appears to be firmly embedded into the planning process. Thus, the *Inquiry* concept feature can be considered as valid for the case of Leipzig's planning process.

Applicability/Contextuality

The planning process in Leipzig appears to be strongly contextualized and embedded within the planning system of the country. Traces of this embeddedness and its utilization as a justification for the planning process can be found across institutional levels and throughout the investigated period.

The mission statement of the West-Saxon planning association from 1998, for example, refers to the Law for Urban Ordinance (Raumordnungsgesetz) where the role of the planning process is exclusively stipulated as the main driver for the spatial management of the whole country. Similarly, the Soziale Stadt programme is justified in reference to the German constitution and the promotion of urban redevelopment measures outlined there.

The planning process is seen in the context of specific circumstances, namely demographic transition. This justification can be traced in the policy documents on state level in Saxony (*Landesentwicklungsplan Sachsen 2003*) as well as in the local city plans in 2010 (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009*) – the demographic development of both the state and the city are seen as important factors shaping the planning process.

Lastly, in a symbolic manner, Leipzig's planning process has been contextualized on European level with the establishment of the Leipzig Charter for Sustainable European Cities.

It can be concluded that the planning process in Leipzig has been strongly contextualized and sensitive to the specific circumstances, particularly after the year 2010. Hence, the *Applicability/Contextuality* feature can be considered as valid for the case of Leipzig's planning process.

Integration

The planning process in Leipzig is consistently outlined as integrated, both as terminology and as an outline of its procedures. The STEP plans from the year 2000 (*various sources under: Stadtentwicklungsplan W+S 2000*) outline that the integrated urban development planning had existed in Leipzig since the middle of the 1990s. Later on, the plans from 2010, perhaps due to the increase ambitions and the already developed capacity, evaluate that integrated working is now a norm in Leipzig:

"Integrated working is becoming more and more a matter of course in the city of Leipzig. The culture of an interdisciplinary discussion and coordination of strategic concepts has been further developed, in particular by the working group "Integrated Urban Development", in which all urban development agencies are represented" (SEKO Umsetzungsbericht 2012)

The urban development concept from 2010 is described as a coordinating instrument between various sectoral plans, a tool to ensure synergies between areas and optimal functions of the planning processes for different topics (e.g. housing, economy, transport). The understanding and expectation for integrated urban planning are also expressed in the State Development Plan of Saxony from 2003 and has been further supported by the Stadtumbau Ost programme where integrated planning was a prerequisite for the participation.

Local experts also share that integrated planning has gradually become the way to design plans for the city. In the area of Leipzig West, for instance, the successful design and planning of the interventions, supported by European funds, has been led by an integrated concept that has fused economy, urban quality and society. As illustrated earlier in the elaboration of the *Planning centrality* feature, the initial separation between the urbanistic and human-centered goals has gradually come closer (*Interview 006_ExLoc*).

It can be concluded that Leipzig's planning process has been consistently designed and developed in an integrated way. Thus, the *Integration* concept feature can be considered as valid for the planning process in Leipzig.

6.1.3 CONCLUSIONS FOR THE VERIFICATION OF HYPOTHESIS 1 AND MAIN POINTS OF ANALYSIS AND DISCUSSION

Hypothesis definition:

The planning process in the selected cases is highlighted as key to delivering the changes in the city and for responding to shrinkage (*Planning centrality*). The planning process is designed as participatory and is inclusive to a wider scope of stakeholders, it is democratic and deliberative in nature and design (*Participatory*). The planning process is supported by

investigative steps, such as data collection, additional studies, assessments, evaluations prior to taking decisions – the process does not directly provide ready-made solutions without scientific or data-driven justification (*Inquiry*). The planning process design is justified through contextual characteristics, specificities of the planning system, political, cultural, civil factors that determine its scope and role (*Applicability/Contextuality*). The planning process attempts to encompass multiple areas, corresponding to perceiving shrinkage as a phenomenon of complex nature (*Integration*).

Conclusion

The empirical data from the cases of Bilbao and Leipzig, pertaining to Hypotheses 1, partially confirms its validity for the case of Bilbao and fully confirms its validity for the case of Leipzig. In the case of Bilbao, the concept features of *Planning centrality*, *Applicability/Contextuality* and *Integration* are confirmed, while the features *Participatory* and *Inquiry* are only partially confirmed. In the case of Leipzig, all of the concept features – *Planning centrality*, *Participatory*, *Inquiry*, *Applicability/Contextuality* and *Integration* are confirmed.

The conclusions from the empirical work under Hypothesis 1 illustrate that the planning process in both cases has played an important role in the overall way of addressing the consequences of urban shrinkage. The verification per concept feature illustrates specific elements and characteristics of the planning process that have played a role in the delivery of the measures. The *Planning centrality* feature stipulates that the planning process in the selected cases is highlighted as key to delivering the changes in the city and for responding to shrinkage. In both of the cases there are indications that the planning process and overall capacity of the planning system have played a crucial role. The *Participatory* concept feature traces to what extent the importance of participatory mechanisms has been considered in the respective planning process. In the case of Leipzig, this can be observed more strongly. In Bilbao there are indications of growing importance of participatory measures that occur in parallel to developing the institutional capacity. The *Inquiry* feature stipulates the data and research informed planning process. In the case of Leipzig, this characteristic is more visible, while in Bilbao there is again indication of the growing importance of this approach. The *Applicability/Contextuality* concept feature traces the sensitivity of the planning process to the local context. In both of the cases there are indications that the planning processes have been developed with considerations to the respective local realm. Lastly, the *Integration* concept features traces to what extent the planning process has attempted to respond to multiple planning areas. In both cases there are indications that the have changes on urban level have been approached in an integrated manner as part of the planning process.

The conclusions from the verification of Hypothesis 1 indicate that the centrality and importance of planning process has been crucial for the selected cases. Viewing and assessing the planning process with the characteristics, introduced with the concept features, is a fruitful approach. All of the proposed concept features have been encountered to a certain extent in both of the cases. Hence, the proposed features as characteristics of the planning process may serve as a point of comparison. Their fruitfulness also indicates that they can be adapted to a practical and applicable approach for the planning process in other shrinking cities.

The conclusions from the verification of Hypothesis 1 indicate key points of discussion in a comparative perspective. They can focus on the differences in the maturity and capacity of the planning system and the gradual evolution of local planning practices. In the same vein,

the level of embeddedness of local planning processes in a broader institutional planning framework can also contribute to more locally-sensitive recommendations. In terms of participation, the comparative analysis can trace the nuances in participatory practices and their differences in terms of citizen involvement. From the perspective of inquiry-oriented planning process, comparison between the different practices and administrative capacity of developing knowledge and data to support planning can be beneficial. The influence of the local context on the planning process (traced under the *Applicability/Contextuality* feature) can be traced in a comparative perspective in order to expose how characteristics of the specific case influence the planning process – these can be characteristics of the shrinkage phenomenon, but also geographical or other considerations of the particular urban, political and cultural context. Lastly, the *Integration* concept feature is directly related to integrated planning as a practice, so the comparative perspective can trace to what extent integrated planning is part of the respective planning culture.

6.2 HYPOTHESIS 2: CONCEPT-BASED POLICY SUBSTANCE

Definition of the hypothesis:

The shrinkage-related policies outline conclusions and recommendations, based on previously gathered data, assessments, studies and evaluations. The policies do not prescribe direct actions without scientifically-backed justification (*Inquiry*). The policy direction and decisions outlined are justified and interpreted as applicable for the specific context by referencing contextual characteristics, specificities of the planning system, political, cultural, civil factors that influence the respective policy approach and its relevance for the specific context (*Applicability/Contextuality*). The policy direction and decisions are interpreted as interrelated, the measures specified attempt to respond to a more complex understanding of the shrinkage phenomenon or its effects (*Integration*). The policy outlines a direction to a desired future state, a vision or an outline of the preferred change that the policy is supposed to deliver, implicitly or explicitly stated future condition (*Visionary/Future orientation*). The policy stipulates which actors or institutions are supposed to deliver the proposed policy measure or introduces elements or outlines of the implied implementation of the proposed measures. The policy measures outlined do not remain as ideas and wishes, but are “brought” to reality (*Generative/Inventive*). The policy stipulates proposed course of action for the implementation of the proposed measures, particular steps that are supposed to be delivered (*Know-How*). The policy addresses the optimal utilization of available resources in any policy area. The policy stipulates how resources should be distributed (*Efficiency*). The policy stipulates that the effects of the desired change serve different social actors and groups. The policy outlines that different social actors and groups have a role to play in the delivery of the policy (*Collaboration*).

Hypothesis 2 is verified with empirical data from Bilbao (Spain), Leipzig (Germany) and Zeeland (the Netherlands)

Hypothesis verification approach:

- ***Inquiry***
 - Review and analysis of coded segments of data, pertaining to scientific and data driven justifications of policy recommendations. Identification of causal links between such conclusions and policy recommendations.

- Main questions:
 - Are the conclusions and recommendations in the policy documents, justified with references from previously gathered data, assessments, studies and evaluations?
- **Applicability/Contextuality**
 - Review and analysis of coded segments of data, pertaining to contextual references, political, cultural and economic specifics or planning system specifics that provide justification to the specific policy approach.
 - Review and analysis of Nested context discursive elements.
 - Thematic mapping of the above two points.
 - Main questions:
 - Are the conclusions and recommendations in the policy documents justified as applicable for the specific context by referencing contextual characteristics, specificities of the planning system, political, cultural, civil factors that might influence the outcome of the respective policy?
- **Integration**
 - Review and analysis of coded segments of data, pertaining to references that outline interrelations between policy sectors and areas, issues and solutions, particularly one solution to multiple issues identified.
 - Identification of statements that suggest interrelations between a more complex understanding of the shrinkage phenomenon and policy solutions to it.
 - Thematic mapping of the above two points.
 - Main questions:
 - Are the conclusions and recommendations in the policy documents interpreted as interrelated, as addressing more than one problem? Do they correspond to a more complex understanding of the shrinkage phenomenon or its effects?
- **Visionary/Future orientation**
 - Review and analysis of coded segments of data, pertaining to outlines of the desired effects of the respective policies or a desired future condition of the respective policy scope or sector. Review and analysis of visionary statements. Review and analysis of statements that pertain a desired distribution of resources or social goods. Review and analysis of statements that outline a preferred way of approaching a specific issue.
 - Identification of Normative leap discursive element. Identification of Story discursive element. Identification of Causal story discursive element. Identification of Metaphor discursive element. Identification of statements, pertaining to distribution of social goods (politics building).
 - Thematic mapping of the above two points.
 - Main questions:
 - Do the policy recommendations outline a desired future state or condition? Do they formulate a vision? Do they formulate or outline a preferred change of the current situation? Do they attempt to change the status-quo or to reproduce it? Do they attempt to establish control of the situation, to empower actors by assigning responsibility? Do they

formulate a solution, pertaining to the desired future state? Do they imply a preferred distribution of social goods and available resources?

- **Generative/Inventive**

- Review and analysis of coded segments of data, pertaining to assignment of responsibility to institutional actors or outlining a desired way of implementing a specific policy recommendation. Identification of actionable statements and suggestions for implementation of a specific policy measure.
- Identification of Normative leap discursive element. Identification of Story discursive element. Identification of Causal story discursive element. Identification of Metaphor discursive element. Identification of statements, pertaining to distribution of social goods (politics building).
- Thematic mapping of the above two points.
- Main questions:
 - Do the policy recommendations outline which actors or institutions are supposed to deliver the proposed measures? Do they introduce a desired way of delivering the desired change through specific action points or nodes that translate the chosen direction into executable steps?

- **Know-How**

- Review and analysis of coded segments of data, pertaining to a unique or specific outline of implementing a policy recommendation.
- Thematic mapping of the above point.
- Main questions:
 - Do the policy recommendations outline a preferred course of action for the implementation of the proposed measures? Are specific steps for delivering the desired change outlined?

- **Efficiency**

- Review and analysis of coded segments of data, pertaining to redistribution of resources (of any kind), oriented to optimization and their utilization in the most efficient way (either due to their scarcity or with the intention to achieve a broader effect with less resources).
- Identification of Normative leap discursive element. Identification of Story discursive element. Identification of Causal story discursive element. Identification of Metaphor discursive element. Identification of statements, pertaining to distribution of social goods (politics building).
- Thematic mapping of the above two points.
- Main questions:
 - Do the policy recommendations address or outline optimal utilization of available resources? Do they imply how the available resources should be distributed?

- **Collaboration**

- Review and analysis of coded segments of data, pertaining to the implementation of specific policy actions by multiple social actors, including public and private. Identification of statements and suggestions of the desired effects of a specific policy point to multiple social actors.

- Thematic mapping of the above point.
- Main questions:
 - Do the policy recommendations outline the effects of the desired course of action on different social actors and groups and the potential benefits for them?
 - Does the policy outline that different social actors and groups are to deliver the desired outcome of the policy?

6.2.1 INTERPRETIVE POLICY ANALYSIS OF THE POLICY SUBSTANCE IN BILBAO (SPAIN)

The main focus of the analysis of policy substance in Bilbao pertains to the territorial planning agenda of the Basque Country and the strategic planning of the city. The documents on the level of the Basque Country, such as the Directives for Territorial Ordinance, have a strategic and semi-legislative scope for the whole community and they represent the overall agenda of territorial planning that has a strong influence on the planning and policy approaches in the Basque Country as well as on Bilbao. The territorial planning is the overall framework on which the planning system within the autonomous community has been built. With that said, the strategic and policy approach is defined on territorial level (for the whole Basque Country), while the local planning focuses strictly on the city of Bilbao. The metropolitan strategies reviewed in the policy unit of analysis are broad and do not have a legislative or actionable effect. However, they played a role in the formation of the overall strategic and policy orientation of the development of the city. Since they encompass not only Bilbao proper, but the whole metropolitan area, they are assigned to the policy unit of analysis.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

Inquiry

There are general statements that the recommendations in the Directives for Territorial Ordinance have been outlined based on previously done assessments, but this information may be indicative of the process, rather than of the decisions on the direction of the policy. Similarly, in the Sectoral Territorial Plan for Areas for Economic Activities (*Plan Territorial Sectorial de Creación Pública de Suelo para Actividades Económicas y Equipamientos Comerciales 2005*), there is a statement that an inventory of those areas has been done prior to outlining their desired use. Interviews with local planners indicate that the administrative procedures for approval of local plans have become more complex in time due to increased need of studies and justifications to be submitted, however, this information is insufficient to conclude to what extent measures in specific areas have been outlined as a result of previously performed studies.

In conclusion, the *Inquiry* concept feature cannot be confirmed for the policy substance hypothesis for the case of Bilbao.

Applicability/Contextuality

The reviewed documents outline very strong contextualization of the desired direction of development in terms of economy. In the context of territorial planning of the Basque Country, references are made to a complex understanding of globalization with historical overview of the changes that have occurred in the global economy. The desired role of the

territorial development of the Basque Country, and respectively Bilbao as a main city in it, refer to embedding Bilbao as a node within the global network of flows. The territorial perspective of the Basque Country views Metropolitan Bilbao as this key node, not only the city. Local economic activity is seen as a key potential to enable competitive advantages. One of those advantages is the revitalization process of the city as a whole, not only the Guggenheim Museum. In addition to the revitalization, the development of local human capital and the attraction of external human capital are seen as important. In reference to the connectivity to the global network, the expansion and development of Bilbao's airport is also seen as a key project.

In addition to the global perspective, the European economic perspective is also a key contextual reference. Similar to the globalization, the long-term effects of the integration of Spain in the European Union are outlined and, respectively, the role and position of the whole autonomous community in the context of the EU. The territorial planning as a separate process (See also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)) is in fact one of the policy actions that are supposed to enable the embedding of the Basque Country in European context, mostly from economic perspective:

"The adjustment of the Basque Polynuclear System of Capitals should be a process that compensate for the loss of centrality of Metropolitan Bilbao in the European context." (Directrices para ordenación del territorio 1997)

The territorial planning and its implications on Bilbao are also contextualized in immediate Spanish context, emphasizing on the role of Metropolitan Bilbao as a center along other cities in northern Spain, such as Santander, Logroño and Pamplona. In this contextualization Bilbao's functional role as a regional centre is emphasised and interrelations with neighbouring Basque regions are also highlighted. The local and international contexts overlap from the perspective of the strategic planning activities in the city – the execution of strategic planning as a measure itself is seen as a way to bring closer the local context to the international context with the intention to amplify the competitive advantages of the city.

Based on the analysed empirical data, it can be concluded that the *Applicability/Contextuality* concept feature is valid for Bilbao. A specific consideration in this regard is the overlap between the planning processes and the establishment of the planning system (See also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)) with the contextualization of objectives. The verification of this concept feature exposes an interrelation between the process and the substance perspective. Additionally, it is important to mention that the contextualization is done mostly in reference to economic considerations.

Integration

The analyzed documents expose connection between the territorial planning agenda of the Basque Country and the integration of various topics. The territorial planning is seen in as a way to integrate the usually separate sectoral policies for the whole autonomous community and to translate them to the structure of settlements. This objective is viewed as a way to also support the functional role of the urban centres within the Basque Country, including Bilbao. In that sense, the territorial planning approach is seen as a lever to integrate policies oriented to wellbeing of citizens and economic functions (along with other sectoral policies, such as transport) in order to enable spatial changes that serve economic and social

objectives. This perspective also translates to the strategic documents for Metropolitan Bilbao, where the revitalization approaches are seen as serving a similar objective:

"It envisages the need for comprehensive and intelligent metropolitan planning that will minimise displacements, strengthen and revitalise the urban centre and favours the harmonious development of the municipalities that make up the metropolis, in order to achieve a city that is attractive to external and internal agents." (Bilbao as a Global City - Strategy 2001)

From strategic point of view, the spatial transformation is seen as a way to also make the city more attractive as well as to serve social and economic objectives.

Based on the empirical data it can be concluded that the territorial and strategic agendas have attempted to establish integrated links between various sectors and the overall direction of policy making is oriented to such an approach. From the policy perspective, the revitalization processes in Bilbao are seen as a way to serve multiple goals such as contribute to citizen wellbeing and increase attractiveness. In conclusion, the *Integration* feature is partially valid for the case of policy substance in Bilbao.

Visionary/Future orientation

The analyzed documents reveal a well-formulated normative future orientation in the case of Bilbao. It is mostly observable in the metropolitan strategies. The main objective expressed in the strategies is to develop the image of Bilbao as a competitive and attractive city that is supposed to be well-placed on the global economic map, but also as a pleasant place to live for its remaining citizens. The latter part, however, is not so well-pronounced in the strategic documents. The emphasis is on the economic perspective, where the regeneration projects after the year 2000 are seen as key for further strengthening the image of Bilbao (which by that time is already 'on the map' as a result of the Guggenheim Museum). Investments in physical space regeneration are viewed on a level playing field with objectives, related to developing human capital (for instance, through creation of university networks), both of which should ultimately contribute to improved competitiveness of the city and attractive international image.

"Revitalisation projects that go beyond the construction itself and are the materialisation of ideas that aim to provide the city with new and more ideas and more sophisticated functionalities, both for its citizens and visitors." (Bilbao as a Global City - Strategy 2001)

The narrative about values and their incorporation in projects, interventions and initiatives is strongly pronounced in the metropolitan strategies. To a certain extent, the justifications for the overall future orientation are formulated in an abstract way that does not clarify how exactly can they translate to practice. This is further supported by a consistent story about a desired future, based on the formulated values:

"It was necessary to build together a city in which ideas, whatever they might be, would be possible. A Bilbao capable of identifying, comparing and materialising good ideas for the benefit of the whole community.

A Bilbao in which ideas flow, flourish and sprout. In short, a Metropolitan Bilbao that would welcome dreams and that would become the ideal city for people who love new ideas and who identify with them." (Es tiempo de profesionales - Strategic Reflection 2010)

These ideas are formulated as a leitmotif for the purposes of strategic orientation in reference to key local agents that are supposed to deliver them. In the strategy making processes these agents are local business leaders who were involved in the process itself, thus the strategy appears to emphasise on their continuing role, rather than on the role of the public administration on delivering those objectives. This is indicative of the function of the metropolitan strategic process in Bilbao. Interviews with experts involved in the process reveal that after the year 2000 the focus shifted from purely delivering infrastructural changes in the city to discussions around values and desired direction (*Interview 010_ExLoc*). However, this shift to values appears to remain more abstract and oriented to stakeholder engagement, rather than translating to specific measures and initiatives on local level.

The territorial planning perspective focuses mostly on the economic dimension, outlining the need to enable the whole autonomous community and Bilbao to access the global network and the changing economic conditions. The objectives in this direction are again oriented to enabling economic competitiveness through the creation of new economic, technological and industrial zones. Another economic dimension emphasized as important is the cultural sphere, where potential is also expected to be developed (*Bilbao The city where dreams come true - Strategic Reflection 1999*). In addition to the economic zones, the territorial planning outlines the need to plan the Basque Country in a way to enable equal distribution of services for all citizens and businesses, including telecommunication networks. In the same vein, a normative leap on the development of robust transport network that encompasses Bilbao is seen as a necessary step. In the same context, measures to enable access to the labour market are envisioned as part of the territorial planning agenda. The access to the labour market is complemented by a strategic objective to overcome inequalities and social exclusion (*Bilbao as a Global City - Strategy 2001*).

In the area of housing, the territorial planning outlines the need for proactive housing policy that is supposed to provide accessible housing to citizens. Interviews with local experts reveal that this policy is coordinated by the autonomous government through a diversified set of instruments for price limits on different types of housing, quotas for accessible housing units and funds for housing renovation in designated areas (*Interviews 011_ExLoc, 009_ExLoc*). The housing policy is expected to balance the different needs pertaining to different market segments, such as low density housing and housing in the centre of the city as well as measures to avoid speculative behavior on the housing market. As per interviews with local experts, the high percentage private property of housing in Spain represents a particular challenge for proactive housing policy, thus various instruments for market intervention have to be used (*Interview 011_ExLoc*):

"With regard to residential land use, land policy should address both the social demands for low-density housing construction, as well as the existing demands of part of the population that wishes to live in the city centres, where new urban planning is needed, which involves rehabilitation and actions to the provision of facilities and recreational spaces." (Directrices para ordenacion del territorio 1997)

"Selection of public housing development actions within an anti-speculative strategy to alleviate bottlenecks in the supply of residential land and to stabilise the market, bearing in mind the market, taking into account the territory's reception capacity." (Directrices para ordenacion del territorio 1997)

The housing perspective is also complemented with objectives to decrease homelessness, formulated in metropolitan strategies (*Bilbao The city where dreams come true - Strategic Reflection 1999*).

In conclusion, based on the reviewed empirical data, it can be concluded that the *Visionary/Future* orientation concept feature is valid for the case of policy substance in Bilbao. The territorial and strategic planning emphasise most notably on the economic dimension where normative orientation and objectives are translated to specific interventions that encompass the economic planning, spatial structure and policy sectors such as housing, transport and infrastructure. Some of the objectives pertain to overcoming social challenges, such as access to labour market and segregation, but they are not formulated as detailed as the economic ones. The strategic planning outlines a clear orientation to value-based visioning efforts, but the indications as to how those value-driven goals should translate to practice are unclear.

Generative/Inventive

The empirical data from the reviewed documents indicates that the assignment of responsibility for the execution of the desired objectives is more focused on the processual characteristics, rather than paired with the measures themselves. Since during the investigated period the planning system in the Basque Country was being established in parallel to the interventions (See also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)), the policy documents also mostly refer to the same process of gradual establishment of responsible structures and institutions as a whole, rather than as related to particular measures. In any case, the desired interventions through the territorial planning agenda are expected to be delivered through the three levels of the system – the Basque Government, the provincial council (Bizkaia) and the local administrations (Bilbao) (*Directrices para ordenacion del territorio 1997*). The document also outlines that clear responsibility is expected to be assigned to each administrative structure. The metropolitan strategies outline that the process of involvement of stakeholders is also expected to identify the entities that are to deliver the projects that serve the strategic objectives and values.

Interviews with local experts also reveal that the evolution of the planning system has had implications on the scope of institutional and other actors that are involved in the implementation of policies. For instance, the area of Bilbao La Vieja, a historic area with workers' housing, was subject to rehabilitation as part of the housing policy of the Basque Government. The housing policy is targeted at provisioning of funds to support housing owners to renovate the buildings or to equip them (for instance, with elevators). The government identifies areas of "integrated rehabilitation" and designates funds that are managed by specific local entities, whose responsibility is particularly the management of such projects within the scope of a specific municipality. In the case of Bilbao (and respectively Bilbao La Vieja), this organization is called SURBISA and its role is to manage the above mentioned housing renovation programme. Similar interventions were done also in the area of Zorrotzaurre when the remaining housing was integrated into the urban regeneration project (for both areas see also 6.5.1.6. Intersection of economic and spatial considerations – Zorrotzaurre and Bilbao La Vieja). The private owners were supported with funds from the government, coordinated by SURBISA. The organization sees its role not only as an executive agency of the government but as a creator of spirit of responsibility within citizens:

[So] after the year 2000 we could say that we keep working [...] to continue the rehabilitation process because it's a continuous process, it's not like we can say "we rehabilitated and we're leaving". No, we rehabilitated and now we have to keep maintaining what we rehabilitated." (Interview 009_ExLoc)

A specific emphasis expressed by respondents is the complexity of the process of rehabilitation due to the high percentage of private property of buildings and housing units, which creates challenges for the effectiveness of the measures:

"The living and neighbourhood reality that we have is different. Of course it's much easier to renovate buildings that are 90% publicly or semi-publicly owned, totally opposite to our situation. Of course, for someone who has much more buildings and much more tenants it's easy to say "ok I'll do that, than it will get amortised and I'll keep using it for years". It's easier for someone to manage it if everything comes from their pocket, but for us it's much more complicated with those investments that we do and the support we provide." (Interview 009_ExLoc)

In addition to the designated executive agencies for specific government policies, other large projects have also been designated a specific controlling entity. This is the case of the Zorrotzaurre Executive Commission that manages the regeneration project there and consists of representatives of various public agencies that have ownership in the area, as well as from private ones. This type of management was established prior to the investigated period with the first regeneration projects, managed by the agency Bilbao Ria 2000 that also consisted of representatives of different public institutions. Due to the fragmented landscape of ownership, the public-public and public-private partnerships have played a key role in the delivery of the measures and they have usually been managed through dedicated administrative structures (See also 6.3.1. Interpretive policy analysis of the planning substance in Bilbao (Spain)).

In conclusion, based on the reviewed data it can be concluded that the *Generative/Inventive* feature is valid for the case of policy substance in Bilbao. The non-planning related measures have been coordinated and assigned to specific responsible entities. This administrative competence has developed in time with the evolution of the planning system of the Basque Country.

Know-how

The empirical data indicates that the territorial planning perspective intends to emphasize on the administrative flexibility in the implementation of the various measures. The Directives for Territorial Ordinance (*Directrices para ordenación del territorio 1997*) indicate specific instruments as "key components" for the urban development programmes, overseen from territorial level. The same document outlines the need for flexibility of the local plans, due to negative experience with rigid and fixed planning laws.

With that said, the empirical data from the document analysis for this concept feature refers more to the planning approaches, utilized in the context of Bilbao, rather than measures that originate on policy level. The empirical data from the interviews indicates the differentiated approaches to the areas for integrated rehabilitation, such as Bilbao La Vieja, as a specific policy instrument that has implications on local level. This instrument and its application, however, was reviewed as part of the *Generative/Inventive* concept feature as its coordination is dedicated to an organization, responsible for the practical implementation and the financial management of the dedicated funds.

In conclusion, the *Know-How* concept feature cannot be verified for the case of policy substance for Bilbao. The empirical data is insufficient to conclude to what extent the concept formulation can be identified in this case. There is an overlap between the definition of this concept feature and the scope of the *Generative/Inventive* one, that focuses on some of the policy-driven approaches, originating on higher institutional levels but applicable on local level. There is also an overlap with the strictly planning-driven measures (See also 6.3.1. Interpretive policy analysis of the planning substance in Bilbao (Spain))

Efficiency

The empirical data signposts that efficient utilization of available resources is indicated mostly for the housing market. The overall territorial approach (on the level of the Basque Country) to coordinating the housing market attempts to restrict uncontrolled development so as to avoid price speculation (*Directrices para ordenacion del territorio 1997*). These considerations translate to planning regulations, limitations and specific instruments to control the housing market (See also 6.3.1. Interpretive policy analysis of the planning substance in Bilbao (Spain)). Additionally, efficient use of available land is indicated as a necessary precondition for the overall approach on territorial level. Similar to the housing market, the territorial planning imposes limitations to the municipalities on total available development land that should not be surpassed, thus the available space within the municipal boundaries has to be utilized in the most efficient way possible.

The strategic documents indicate considerations for resource efficiency in light of the challenging economic conditions during economic crisis. They stipulate that effort should be put to ensure that available resources are used in the best possible way.

In conclusion, the empirical data indicates that there have been efficiency considerations as part of the policy substance in Bilbao. They mostly pertain to the housing market and the available land management (see also 6.3.1. Interpretive policy analysis of the planning substance in Bilbao (Spain) and 6.5.3. Spatial development of Bilbao (Spain)). The *Efficiency* concept feature can be considered as valid for the case of policy substance in Bilbao.

Collaboration

The reviewed documents outline a significant level of sensitivity to collaboration between different agents. The territorial planning agenda emphasizes on the need to recognize the territorial planning interventions as an effort that has to be carried out by multiple administrative entities in coordination, not through isolated actions by single institutions. The territorial planning approach is viewed as a project of creating a common language to facilitate this coordination. Secondly, an emphasis is placed on the public-private partnerships and coordination as a key factor in delivering the desired objectives.

The strategic documents also emphasise on the public-private partnerships as an important element. This is further developed with arguments about common goals and values that are to be shared across the various agents involved in the key projects for the city. The involvement between public and private actors is seen as important for the creation of a climate of confidence and trust – values shared widely as part of the strategic orientation of the city. Lastly, from strategic perspective, the efforts in urban revitalization are also seen as a way to overcome marginalization of large groups of people and to enable their contribution to society at large.

In conclusion, the empirical data indicates that the *Collaboration* concept feature can be considered as valid for the case of policy substance in Bilbao.

6.2.2 INTERPRETIVE POLICY ANALYSIS OF THE POLICY SUBSTANCE IN LEIPZIG (GERMANY)

The planning system in Germany is very clearly differentiated and this applies for the case of Leipzig as well. The main policies on either federal or state level that had influence on the city and are of interest for this study were the Stadtumbau Ost and the Soziale Stadt programme. They have been assigned to the policy unit of analysis because they originated outside of the city as a broader policy approach and were also overseen by institutions on state or federal level. Additionally, the state level planning (of Saxony) as well as the regional level planning (of West Saxony) were also assigned to the policy unit of analysis because their scope is beyond the city but they have implications on local planning.

Interviews with regional and state experts contribute to the policy perspective in this analysis as well as an interview with local planner, but to a lesser extent.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

Inquiry

The importance of scientifically-backed decisions for responding to the challenges, associated with shrinkage can be observed in the conclusions of one of the main policies, applied in Leipzig after the year 2000 – the Stadtumbau Ost programme (*Stadtumbau Ost – Stand und Perspektiven 2006*). The prerequisite for participation in the programme were the integrated urban development concepts which are framed as an opportunity to assess the situation in which the cities were and to drive the decisions for projects and interventions, based on data and information. The conclusions from the concepts are seen as a way to define objectives and measures, as guiding principles for the various approaches to the development of the cities. It is highlighted that the concepts should assess particularly population dynamics, housing market dynamics, economic and labour market development, including via forecasts, so as to contribute to the design of the interventions, financed under the programme. Data collection and monitoring efforts are also embedded in regional planning (*Interview 007_ExReg*). Specific projects, such as the Leipzig Self-User programme, are highlighted as good examples, that need to be further assessed for potential transferability to other cities. The participation in the programme itself is also outlined as a learning opportunity in this context.

Based on the reviewed empirical data, it can be concluded that the *Inquiry* concept feature is valid for the case of Leipzig's policies. Although the data is not of a considerable size, the central role of the integrated urban development concepts as a data collection instrument that were introduced through the Stadtumbau Ost programme has contributed to the centrality of data-driven application of the policy in the city.

Applicability/Contextuality

Specific measures, outlined in policy documents and approaches, are mostly justified with contextual references in the area of economic development and housing vacancy. The economic point of view is very visible in various formulations of nested context references

in policy documents from Saxony, outlining the desired economic growth orientation of the state. The economic contextualization is visible in policy documents throughout the assessed period, including the 1998 West Saxony Regional Plan (*Regionalplan Westsachsen 1998/2001*), the 2003 State Development Plan (*Landesentwicklungsplan Sachsen 2003*) as well as a policy paper on the economic development of the state (*Wirtschaftspolitische Leitlinien für den Freistaat Sachsen 2004*). These policy documents highlight the importance of utilizing the specific geographical location of Saxony (and West Saxony) in German and international context, particularly in the context of the enlargement of the European Union. The location is seen as an advantage that can contribute to the desired economic growth and increased competitiveness of Saxony, respectively also of Leipzig. This has been illustrated by the desired improvement of functional links with neighbouring countries, such as Poland and Czechia. The planning concept of the "Saxony Triangle" had a strong influence on the economic perspective in the state – the cities of Leipzig, Dresden and Zwickau were expected to coordinate and work together towards the desired goal of becoming a strongly competitive region:

"Z 1.4 The city of Leipzig should, in transnational cooperation with Halle and integrated into the development of the "Saxony Triangle" city region into an European metropolitan region as an international trading metropolis, as a centre of science, culture and the media, as a traditional place of German jurisdiction, as a service, industrial and banking location and thus be strengthened as the "growth engine of the region". (Regionalplan Westsachsen 1998/2001)

The importance of international positioning and contextualization can also be observed in policy statements, pertaining to transport infrastructure where the expansion of railway infrastructure and the expansion and maintenance of the Leipzig-Halle airport are seen as indispensable for the future economic development of the city and the region as a whole. This has been outlined as especially important in the context of globalization and the transition of Saxony (and respectively Leipzig) from planned to market economy. The emphasis on this desired competitive advantage is outlined clearly in the following statement:

"The need for innovative processes and products results from accelerating technical progress and globalisation. Saxony's economic base consists largely of (exporting) industry and industry-related services. This is illustrated by the fact that the share of exports is significantly higher than in the other eastern German states. Therefore, Saxony's economy must be technologically competitive in international comparison, especially in view of stronger global economic integration." (Sachsen 2020 Wegweiser für unseren Freistaat Strategisches Grundsatzpapier 2009)

Lastly, in the context of the then expected EU enlargement (post 2004), the EU context is seen as a threat to securing future funding for Leipzig and the region, due to the admission of Eastern European countries with lower economic indicators, which would disqualify Saxony and its cities from access to European funds.

The other main policy area whose measures have been justified with references to the contextual specifics is housing, mainly under the framework of Stadtumbau Ost programme. The relevance of the programme is justified with contextual references, related to the eastern part of the country (the former GDR). The programme's scale and coverage of the eastern German states highlights its social relevance and importance. Particularly the measures of demolishing vacant housing units have been highlighted as very specific to

the case of Saxony (the state with the highest demolition share) and Leipzig (the biggest share within the Saxon demolitions) (*Statdumbau Ost - Stand und Perspektiven 2006*). It is not clearly stated, however, why demolition of vacant housing is a particularly suitable measure for the context of Leipzig or Saxony for that matter. It seems that across the policy documents, there is a shared, albeit not clearly formulated, understanding that the housing market needs to be proactively managed by the federal government, the state or any other public actor.

In conclusion, the validity of the *Applicability/Contextuality* concept feature from policy substance perspective can only be partially confirmed for Leipzig. There is a strong contextualization in terms of expected economic gains and future development of Leipzig in its role as an economic leader of the region. This orientation has been backed up with strong economic contextualization references. At the same time, however, the Statdumbau Ost programme does not provide clear contextual references as to why the demolitions of vacant housing were the most appropriate approach at that point of time.

Integration

The policies implemented in Leipzig, such as the Statdumbau Ost programme and the Soziale Stadt programme, refer to measures that address more than one issue at hand. The Statdumbau Ost programme was seen as an instrument to address the challenges of the housing industry and the then continuing issues of urban sprawl in parallel to efforts to improve the overall quality of life in the city (through urban redevelopment). This objective is viewed from an integrated point of view – the measures, combining both demolition and upgrade of various housing stock in different locations in the city, were expected to form a major part of the urban redevelopment efforts. The integrated perspective on the measures is outlined as particularly important in the context of declining population numbers and housing vacancies:

“The Urban Redevelopment East programme aims to secure the quality of life in cities affected by shrinkage and vacancies by linking urban planning and housing industry objectives. The programme thus provides an introduction to a new urban development policy and opens up opportunities to actively deal with declining population figures”(Statdumbau Ost - Stand und Perspektiven 2006)

A critical point of view is also outlined in the evaluation of the programme – that its effects are only an element of a wider policy goal to achieve sustainable regeneration of German cities. In that sense, the programme is seen as complementary to other measures in the areas of economy, education and social services, particularly challenged by the declining population numbers. From policy perspective, it is outlined that the urban redevelopment efforts, supported by the Statdumbau Ost programme, are to be linked with other policy areas and, respectively, other instruments. The evaluation of the programme in Leipzig (*10 Jahre Statdumbau Ost - Berichte aus der Praxis 2012*) highlights the importance to achieve climate-related targets at neighbourhood level, through the renovation efforts, as well as to secure housing access for low income households. These examples demonstrate the integrated understanding of the policy effort behind the programme. This evaluation is also shared on state level in the State Development Plan of Saxony:

“Urban redevelopment should not be understood as a short-term process to clean up the housing market, but should aim to improve the functional, social and economic diversity and quality of urban living spaces in the long term, taking population development into account.”(Landesentwicklungsplan Sachsen 2003)

Similarly, the Soziale Stadt programme outlines the necessity to avoid tunnel vision in policy efforts in specific sectors, but to look for integrated solutions to the challenges at urban level that contribute to improvement of the living environment:

“Demolition, redevelopment, modernisation and improvement of the living environment can be combined with training and employment measures, which can benefit both disadvantaged population groups (unemployed, welfare recipients and especially young people) and local craft and construction firms.” (Soziale Stadt Programmbegleitung vor Ort im Modellgebiet Leipziger Osten 2002)

The integrative point of view, both as an approach on district level and as a way of overall policy making, is highlighted as key to achieving the desired improvements, especially in problematic areas such as Leipziger Osten that combine social, spatial and economic challenges in the context of declining population.

The locally pronounced challenges such as social marginalization, labour market issues and unemployment in specific areas of the city and well-functioning local economy are seen as interrelated and requiring an integrated approach. This has also been confirmed in interviews with representatives of state ministries, responsible for the coordination of the Soziale Stadt programme. The approach of the programme was designed in a way to address specific parts of cities that are characterized by a complex interrelated set of challenges. Respectively, the measures from policy perspective are seen as integrated and supported also by the necessary financial contribution:

“But it has to be said that urban development funding is investment funding and social problems cannot be solved with building measures alone.” (Interview 008_ ExPro)

The empirical data from the reviewed policy documents illustrates that the *Integration* concept feature can be considered as valid for the policy substance in the case of Leipzig. The observations confirm that to a large extent, from policy point of view, there has been a complex and integrated understanding of the design and content of the policy approaches in Leipzig. This corresponds to the more complex understanding of shrinkage in the case of Leipzig (See also 6.4.2. *Interpretive policy analysis of shrinkage conceptualization in Leipzig (Germany)*).

Visionary/Future orientation

The policy documents on various institutional levels outline that the specific measures and approaches are oriented towards goals and objectives, related to the future development of the city – locally and as part of the region or State of Saxony. The Stadtumbau Ost programme emphasises that the interventions of the programme on local level are only an instrument, a step towards long-term future-oriented improvement of the quality of life of citizens. This is clearly illustrated in the case of the deconstruction measures:

“Only if deconstruction is embedded in an overall urban vision of the qualification of urban structures can comprehensible and positive perspectives arise for the inhabitants of the cities.” (Stadtumbau Ost - Stand und Perspektiven 2006)

The programme prescribes a forward-looking way of assessing the results of the interventions and regular updates of the stipulated urban development concepts so as to respond to long-term expected changes in the various processes affecting the cities. An

accent is also placed on the demographic processes in eastern German cities in general, outlining that further population decrease will be expected together with lower demand on housing. Further objectives, outlined in the Stadtumbau Ost programme that concern Leipzig, are related to increasing attractiveness of the city by maintaining and renovating old buildings. In places where demolition is necessary, the interim land use, the infrastructure resizing and upgrading of the areas is seen as a way to increase the urban quality in shrinkage context:

"In a broader sense, the concept of upgrading also includes all strategies and measures that contribute to the qualification of cities as places to live and work and thus strive for a "new urban quality in shrinkage" (Expert Commission 2000: 2) in a holistic sense." (Stadtumbau Ost - Stand und Perspektiven 2006)

Similar objective translates to the effects of the programme on neighbourhood level where the various interventions are expected to contribute to stabilization of vulnerable districts by overcoming decay and social erosion.

Apart from the desired improvements in urban quality, the Stadtumbau Ost's goals correspond to the objectives, stipulated in state level plans in regards to the overall restructuring of the housing market through those various interventions:

"Urban redevelopment should not be understood as a short-term process to clean up the housing market, but should aim to improve the functional, social and economic diversity and quality of urban living spaces in the long term, taking population development into account." (Landesentwicklungsplan Sachsen 2003)

The objectives and future orientation on state and regional level correspond consistently to the ones formulated in the Stadtumbau Ost programme. It is stipulated that the regeneration of vacated brownfield sites and railway areas is to be aligned with demand-oriented planning objectives and reuse. The ultimate objective in this regard is to avoid sprawl and to support compact development of cities within Saxony. Creation of green corridors is suggested as a way to limit sprawl. (See also 6.5.2. Economic and spatial development of Leipzig (Germany)).

The regional level policy documents also outline long-term thinking, mostly from the perspective of desired economic development (oriented towards growth and competitiveness) as well as the anticipated population decrease and structural changes in the region and in Saxony:

"The objectives and principles of the Regional Plan must be preceded by a regional model based on the guiding vision of sustainable spatial development. This model has no normative effect, but as a regional policy and programme objective it is intended to contribute to region-wide identification and consensus-building. This model should also include regional adaptation strategies for dealing with demographically induced restructuring processes in a forward-looking manner." (Landesentwicklungsplan Sachsen 2003)

In this context, the economic development is seen as important in reference to the overall desired direction of the future of Saxony and Leipzig's role in it. As a central location within the state Leipzig is expected to provide optimal conditions for economic development in line with demand-oriented spatial offer for business and industry. In addition, the development of tourism through greening, cultural activities and transport planning is seen as an additional objective.

"The regional planning authorities are to ensure long-term location provision for large-scale, supra-regionally significant industry and commerce. Based on the need to be able to answer investors' questions about the suitability and necessity of sites quickly and with the aim of keeping potential site areas free, planning instruments should be used to determine and keep sites free." (Landesentwicklungsplan Sachsen 2003)

The regional plans for West Saxony also share the economic objectives, stipulated in the State Development plan. The emphasis on the economic potential of the area is strong and Leipzig's role in it is seen as vital:

"The development of a spatially and sectorally balanced, socially and environmentally compatible economic structure as well as the improvement of framework conditions in all sub-regions can be achieved in particular by

- the expansion of the business-related infrastructure and the profiling of the Leipziger Messe as a European centre for the production and exchange of goods and services.

- securing favourable location conditions for industrial and commercial development, in particular for companies in the manufacturing sector and handicraft enterprises,

- a forward-looking development oriented towards the requirements of the labour market the qualification potential of the population" (Regionalplan Westsachsen 1998/2001)

These objectives are supported by others that emphasize on the need to counteract further outmigration and depopulation processes in the area as a whole:

"G 2.1.1 In the regional centre of Leipzig, the spatial preconditions are to be created [so] that the negative natural population development is largely offset by positive net migration and thus stabilise the population thus stabilising the number of inhabitants." (Regionalplan Westsachsen 1998/2001)

The economic preconditions and service provisioning role as a regional centre, as well as the desired positive migration are to be supported by increased quality of life in the city and surrounding area:

"G 2.2.2 The influx of qualified personnel must be encouraged by improving the quality of life in the region." (Regionalplan Westsachsen 1998/2001)

The regional planning perspective corresponds to the state planning one in terms of limiting spatial expansion (of Leipzig and in the region as a whole) and functionally utilizing available service, industrial and business areas.

The questions of urban restructuring, renovation and economy also appear on local level discussions where the implementation of the Soziale Stadt programme takes place. An emphasis is placed on the need to continually reassess the district-based visions as well as to enable the long-term economic growth and structural change in the areas of action, such as Leipziger Osten. The various spatial or planning interventions are viewed as instruments to achieve objectives such as increasing local identity and higher responsibility to the

district. Another objective is the improvement of social infrastructure provisioning. Overall, the Soziale Stadt programme is seen as a way to improve quality of life in vulnerable districts:

“The ‘Socially Integrative City’ programme aims to stabilise endangered urban districts through integrated approaches and with the participation of all social groups, and to restore, maintain and improve the quality of life of people living in these districts. We also see the programme as a model project for a new policy approach.” (Stadtteile mit besonderem Entwicklungsbedarf-Die Soziale Stadt 2005)

Interviews with state level experts involved in the programme also highlight its flexibility and holistic approach to targeted areas. The efforts in the above topics are complemented by economic objectives targeting local businesses and economic activity (*Interview 008_ ExPro*).

Based on the reviewed empirical data it can be concluded that the *Visionary/Future* orientation concept feature is valid for the policy substance in the case of Leipzig. Across various policy documents there are consistent normative leaps that outline specific objectives oriented to overall improvement of quality of life in Leipzig, as part of a broader regional effort as well as on local neighbourhood level. Additionally, there is an overlap between the objectives, oriented to growth and competitiveness and spatial development. In those aspects, the overall orientation is compact spatial development and economic growth (See also 6.5.2. Economic and spatial development of Leipzig (Germany)). The programmes on federal level, such as Stadtumbau Ost and Soziale Stadt, are key policy instruments for local interventions on district level in the context of the overall efforts to improve quality of life and to address persisting social issues. The objectives and normative leaps identified in policy documents attempt to respond to the changing conditions due to the demographic changes, but also attempt to actively control the outcome of these long-term processes by achieving overall improvement of the quality of life in Leipzig in parallel to improved competitiveness and economic growth.

Generative/Inventive

The assignment of responsibility for the execution of the defined objectives and goals is closely related to their formulation. The state and regional level plans outline clearly the distribution of responsibility between the different levels of the planning system and, respectively, introduce the harmonization and control between those levels.

“The involvement of all those involved creates the basis for rapid implementation of the measures depending on the degree of urgency. It remains the task of the municipalities, as holders of municipal planning sovereignty, to coordinate and control this process.” (Landesentwicklungsplan Sachsen 2003)

This clear separation of responsibility was also outlined in an interview with the regional planning authority of West Saxony where the respondent outlined that the regional plans and the local planning departments are in constant communication in regards to the scope and execution of measures, particularly for the management of land use:

“Coordinated cannot be said exactly because there is only this obligation to adapt. But regional planning is not as concrete as urban planning. The land use plan always has the possibility or there is the leeway to shape the regional planning layout a bit.” (Interview 007_ ExReg)

In the reviewed policy documents there is emphasis on the sovereignty of the local planning authorities in regards to the execution of particular policies or the implementation of shared goals with the regional or state plans. State experts also outline that the implementation of the Soziale Stadt programme was also a responsibility of the local authorities, albeit overseen by state level in terms of financial and content control (*Interview 008_ExPro*).

In conclusion, there are indications that the reviewed policy documents refer to specific assignment of responsibility for the execution of actions to achieve the desired goals. The indications correspond to the specified objectives in the *Visionary/Future* orientation (see above, this chapter) concept feature. Still, there is not enough data to completely support the verification of this concept feature only on policy level as the implementation of those policies and programmes was dependent on the planning structures in Leipzig. Due to these specifics in the approach in Leipzig, the *Generative/Inventive* feature from policy level has to be reviewed in parallel to the verification on planning level (See also 6.3.2. Interpretive policy analysis of the planning substance in Leipzig (Germany)).

Know-how

One of the consistent elements across the reviewed policy documents is the urban development concept that Leipzig had to prepare in order to acquire funding and support from the Stadtumbau Ost programme. As illustrated in the previous section, the urban development concepts required by the Stadtumbau Ost programme fulfill a key role in the overall handling of urban shrinkage in Leipzig. The concept was expected to integrate various objectives and to holistically approach the resizing of the housing market together with measures for overall improvement of urban quality. An indication of the importance and specifics of the urban development concepts is their inclusion in the building law:

“The inclusion of urban redevelopment in the BauGB emphasises that urban redevelopment is not only a funding programme, but an important task for society as a whole. A new approach is also taken with regard to implementation under building law, as the regulations focus on a conceptual and consensual approach by the municipalities together with citizens, owners and investors. Bureaucratic action and over-regulation with sovereign instruments are deliberately avoided in order to provide the municipalities with a legal framework that gives them the necessary flexibility.” (Stadtumbau Ost - Stand und Perspektiven 2006)

Although there is no extensive empirical data pertaining to this approach, it can be argued that it can be considered as a specific know-how in German context and particularly for Leipzig as it has been consistently referenced as a leading factor in the establishment of policy and planning efforts for the redevelopment of the city. Therefore, the *Know-How* concept feature can be considered as valid for the case of policy substance in Leipzig.

Efficiency

Efficiency considerations can be found in reference to the resizing of the housing market as a result of the Stadtumbau Ost programme. One of the main justification points is to ensure that the demand for housing matches the supply, thus the intervention is deemed necessary. Additionally, in the state development plans and the regional plans, considerations for efficient settlement structure, efficient transport planning and efficient provisioning of the necessary services can be found across policy documents. These references, however, do not provide insight into the redistribution of resources, as outlined in the hypothesis sub point, but are rather general considerations for the overall approach.

Thus, the *Efficiency* concept feature cannot be confirmed for the case of policy substance in Leipzig.

Collaboration

Policy documents consistently address the question of implementation of the identified measures as part of the urban redevelopment. One of the key aspects is the neighbourhood management and involvement of citizens on local level. The activation of local groups and the establishment of the necessary infrastructure for the purposes of implementing the local measures has been an indispensable part of the *Soziale Stadt* and *Stadtumbau* programmes and their implementation on local level:

“The residents in the neighbourhoods are called upon to become active partners. The investment in communication and dialogue, in neighbourhood management and citizens’ forums are indispensable components of the funding.” (10 Jahre Stadtumbau Ost - Berichte aus der Praxis 2012)

Involvement of private owners, investors and citizens is also seen as an important part of the measures, related to housing restructuring and resizing as part of the *Stadtumbau Ost* programme.

References on coordination of the implementation are also made on regional level. From state development and regional planning perspective, municipalities in Saxony are to coordinate their efforts in order to achieve the desired objectives for the whole state. The continuous exchange between municipalities is also seen as a way to build capacity and exchange good practices:

“The initiatives designated by the term “inter-municipal cooperation” are characterised by voluntary, equal and innovative cooperation between towns, municipalities and districts (cooperation communities). Inter-municipal cooperation is not to be equated with the formal cooperation of communities in administrative communities, administrative associations, special-purpose associations within the meaning of the Saxon law on municipal cooperation (SächsKomZG). Rather, it is left to the regional actors to decide which informal and formal forms of organisation they will base their cooperation on” (Landesentwicklungsplan Sachsen 2003)

The understanding that the implementation of the identified policy measures and approaches is not dependent only on administrative capacity, but also on the involvement of other actors is clearly formulated in the reviewed policy documents. It can also be observed that the collaborative perspective translates to the scope of planning instead of remaining as a separate activity. Thus the policy design with implications on collaboration has implications on planning and its implementation (see also 6.3.2. Interpretive policy analysis of the planning substance in Leipzig (Germany)).

It can be concluded that the *Collaboration* concept feature is valid for the case of policy substance in Leipzig as the design of the reviewed initiatives and policy documents consistently outlines the important role of various social actors in the implementation of the policies.

6.2.3 INTERPRETIVE POLICY ANALYSIS OF THE POLICY SUBSTANCE IN ZEELAND (THE NETHERLANDS)

The policy approach to population decline in the Netherlands and, respectively, Zeeland has been a continuous process since a few years before 2010. After 2010, however, more and more policy documents begin to appear and the question also enters the national policy. After that, until 2020, there is a consistent national policy towards depopulating regions that addresses ongoing issues as well as anticipates the effects of population decline (for the regions that are expected to lose population). The efforts in Zeeland begin earlier than 2010 since the one region within the province (Zeelandic Flanders) had already begun depopulating. The topic has been on the agenda of the province for a longer period of time, but only after the question reaches national level does it begin to produce more substantial results.

The Dutch planning system is very clearly structured, therefore the policy effort on national and provincial level can be very clearly distinguished. Due to the shorter period of time of analysis for this case study, as well as the specifics of the overall approach (national and regional policy efforts), the analysis sustains the distinction between national and provincial policies but does not necessarily provide chronological overview.

The empirical data from documents and interviews is largely consistent and balanced, therefore the conclusions for both perspectives are based on documents and interviews analysed.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

Inquiry

Documents on national level indicate that the processes of drafting policy recommendations and approaches for depopulating regions in the Netherlands have been based on conclusions from research and have been data-driven. There are indications that specific institutional capacity has been developed on national level to serve this objective and the generated knowledge has been consistently shared with interested parties. This conclusion is also shared in an interview with an expert on national level who outlines that the ongoing work of the government with anticipating or shrinking regions consistently evaluates the implemented measures and facilitates knowledge exchange and policy learning across institutions and between regional actors (*Interview 005_ExNat*). Depopulating regions are encouraged and supported in developing local capacity to assess suitability of measures and approaches. Additionally, inquiry-oriented capacity has been developed on national level through dedicated resource webpages for shrinkage policies on the national government website (<https://kennisopenbaarbestuur.nl/thema/bevolkingsdaling/>) as well as a dedicated knowledge bank for shrinkage, maintained by a government-contracted organization (<https://www.kennisvoorkrimp.nl/>).

On provincial level, documents reveal limited information on inquiry-oriented policy approaches. There is one example of additional studies carried out prior to the implementation of a housing demolition programme (*The path ahead - Zeeland*). Similar studies have been carried out to assess the feasibility of government-supported housing renovation programmes (*Interview 003_ExPro*). Interviews from Zeeland expose some additional details on this aspect. The provincial administration has a dedicated department focusing on demographic forecasting that continuously assesses the population projections

for the province and consults executive bodies on the implementation of population decline policies. Additionally, there is another structure within the province that regularly performs research and provides policy recommendations in all areas, including the ones affected by the population decline processes (Planbureau Zeeland). The consolidated data in terms of population forecasting, policy evaluation and recommendations is consistently shared with political figures in support of decision making. One respondent shares that provincial political leaders have struggled with accepting forecasts that indicate population decline and prefer to rely on expected population growth. This has led to conflicts within the administration in terms of decision making on the appropriate policy responses. Provincial experts highlight depopulation as politically unappealing for political figures (*Interview 001_ExPro*).

Based on the empirical data collected, it can be concluded that the *Inquiry* feature, pertaining to policy substance, is valid for the case of Zeeland and the Netherlands. There are indications of streamlined and well-coordinated capacity and processes that encompass various policy areas, consistent with the understanding of shrinkage in the Netherlands (see also 6.4.3. Interpretive policy analysis of shrinkage conceptualization in Zeeland (the Netherlands)). Particularly in the area of housing, where specific government-supported programmes have been designed, there are indications of a streamlined approach of assessing the needs and evaluating the scope of the measure prior to its implementation. The data reveals that although information is consistently provided to political figures, population decline is still unappealing.

Applicability/Contextuality

The analyzed documents on national level do not expose direct references between specific measures and contextual characteristics, but they outline a robust understanding of the need of customization and contextually-sensitive approach to shrinking regions. This understanding is well-founded in reference to policy areas that are important on national level. In reference to national and occasionally global contextual specifics, the national documents outline that the policy approach in shrinking regions should take into account national objectives such as climate change, energy transition and circular economy and agriculture (*Tweede voortgangsrapportage bevolkingsdaling 2018*). Housing crisis as a task for the whole country is also referenced as a policy area that needs specific attention in depopulating regions (*Derde voortgangsrapportage Actieplan Bevolkingsdaling 2019*). The importance of providing equal levels of prosperity across the country is recognized as a national task.

In reference to overall policy making approach, national documents consistently outline the need of tailor-made and customizable policy approaches so that the specifics of the depopulating regions be taken into account (*Tweede voortgangsrapportage bevolkingsdaling 2018*). An example in this regard is the reference to border regions that have cross-border housing market and labour market – this contextual specific also applies to Zeeland where housing purchases and labour migration across the border with Belgium has effects on regional and provincial policies. A reference is made to the need to identify specific economic potentials within depopulating regions in order to activate them and work towards competitiveness and growth (*Heel Nederland te klein voor grote verschillen 2020*). Additionally, following the argument of creating customizable and tailor-made policies for shrinking areas, national level documents refer to the regional deals as an instrument, developed for the purposes of addressing challenges that are specific to the various regions, experiencing population decline (see also below, section *Generative/Inventive*).

Broader contextualization can also be found in policy documents on provincial level. References are made to global processes and challenges, such as the continuing globalization of economy and the processes of digitalization across all areas of society. Further contextualization in the economic sector can be found with references to the role of regional business ecosystems in the achievement of larger national goals, such as energy and climate transition and improvements in quality of life (*Zeeland in Stroomversnelling 2.0 2018*). This is also supported with references to overall transition to circular economy and sustainability (*Kwaliteit en onderscheidend vermogen Kadernota Economische Agenda 2.0 2017*). The contextualization in terms of sustainability and climate and energy transition is also embedded in European context in reference to the agenda of the EU (*Kwaliteit en onderscheidend vermogen Kadernota Economische Agenda 2.0 2017*) (See also 6.5.4. Sustainability and circular economy considerations in Zeeland (the Netherlands) – empirical observations). Additionally, references are made to establishing connections between Zeeland and other population decline regions in the Netherlands and beyond. The cross-border cooperation is also framed as important from economic standpoint:

“We see making connections as our core business: connections between sectors, connections between institutions, connections between regions, connections with the rest of the Netherlands, Flanders and Europe.” (Nieuwe Wegen Nota Leefbaarheid & Bevolking 2014-2018 2014)

In terms of specific policy efforts that are contextualized on a broader scale, investments in sustainable energy infrastructure, energy efficiency and raw materials exchange between companies are contextualized in reference to national and European goals in those areas. The other aspect is the call for support and development of the port infrastructure within Zeeland in reference to the broader national policy in the same area.

In conclusion, the empirical data confirms that in the policy making efforts for Zeeland as part of the national approach to population decline in the Netherlands there is a strong contextual awareness to broader scales in various areas. A particularly distinguishable conclusion, albeit not referring to a particular area, is the shared understanding that there needs to be a tailor-made approach to policies for depopulating regions. In the identified examples of particular measures, justification in a broader context can be observed most notably in the areas of energy, climate, sustainability and economy, contextualized in broader national and international context. Hence, the *Applicability/Contextuality* feature can be considered as valid for the case of policy substance in Zeeland.

Integration

The analysed policy documents on national and provincial level reveal that the overall policy direction consistently stipulates an integrated approach to the consequences of population decline in the shrinking regions. This observation is consistent with the more complex understanding and framing of the shrinkage phenomenon as a multi-dimensional process cutting across policy areas (See also 6.4.3. Interpretive policy analysis of shrinkage conceptualization in Zeeland (the Netherlands) and (Ivanov 2021). On national level, the references to integrated policy making approach are related to developing capacity in this aspect and enabling cooperation and coordination between various government structures in order to ensure that the considerations for population decline are integrated in the overall policy approaches in the different sectors. In this context, it is stipulated that the policy actions should enable impact on a multitude of policy domains, corresponding to the broader understanding of the consequences of shrinkage:

“An integral approach means that projects and activities are not only carried out within one domain, but are set up at the boundary of domains and have an impact across the boundaries of domains. This means an integral approach: integral from the task (problems touch each other), from the content (policy domains are linked), and integral in partnership (requires a wide range of cooperation partners). The following is an example of how a number of domains can be interlinked:

- Businesses need to innovate in order to remain competitive in the market. As a result, these companies also remain interesting for young professionals.

- In order to interest the number of graduating students as much as possible, companies link up with the educational institutions. In addition, companies participate in the curricula of the educational institutions, so that the match between graduates and the business community is increased. In this way, educational institutions can deliver the students, who have good potential to build a professional career in the region.

- Shrinking regions can enlarge the labour market area if companies on both sides of the national border play an active role in projects of labour matching across the national border. Educational institutions respond to this by providing language and cultural education in the neighbouring country. The projects and initiatives together can increase young people’s bond with the region.

- This potential bond will be strengthened if the benefits of an attractive living environment are met. An important factor in this is to provide suitable attractive housing and opportunities for young professionals to enter the housing market, a high quality living environment with character and a good level of facilities.

- At the same time, the housing market must also provide suitable housing for an increasingly ageing population. There is a need for life-style housing and residential-care combinations. Projects at the intersection of the care domain (innovative care concepts) and the housing domain (residential care concepts) can have an impact on care improvement, housing market progression, and indirectly on economic vitality.

- Changing care concepts and residential care concepts require adaptation of the role and tasks of care professionals. Care-education institutions are adapting the curricula in order to respond to new care needs. As a result, care professionals are better trained for the region-specific labour market in healthcare, which in turn can lead to stronger regional ties.” (Tweede voortgangsrapportage bevolkingsdaling 2018)

The example above reveals the demonstrated integration between various policy areas such as education, economy, housing and liveability. This understanding is also shared on provincial level where the policy documents stipulate that the demographic perspective should be cross-cutting through policy domains:

“At the same time, the demographic consequences are bringing different policy areas ever closer together. In order to properly anticipate the consequences of the demographic changes in Zeeland, the principles will be embedded in sectoral policy processes, while also ensuring their mutual coherence. This will give demography a significant role in our spatial, social and economic tasks. However,

no separate policy line will be set up in the field of demography. In this way, the power of the sectoral policy lines is used and effectiveness is guaranteed. The realisation of the previous memoranda on demography shows that integrality can be well guaranteed despite implementation via the sectors.”(Plan van aanpak voor de gevolgen van de demografische veranderingen in Zeeland 2010-2012 2009)

Liveability is one of the topics that consistently appears as an additional justification for an integrated approach to the consequences of shrinkage in Zeeland (and overall on national level). Liveability is a loose translation of the Dutch term ‘leefbaarheid’, which is used to refer to a specific set of living conditions that encompass provisioning of necessary services and specific characteristics of a living environment (on regional, urban and neighbourhood level) that contribute to creating pleasant, attractive and satisfying conditions that make a place desirable to live in (Ivanov 2021). Liveability is consistently used to justify the integrated approach to measures on both national and provincial level:

“The Province of Zeeland wants to focus on coherence in its tasks. The added value of the Province lies primarily in its ability to play a cross-sectoral and connecting role at the regional and provincial levels. A shift from specific social policy to integral, liveability policy.”(Nieuwe Wegen Nota Leefbaarheid & Bevolking 2014-2018 2014)

Interview respondents also illustrate this integrated thinking through the examples they give about specific policy measures that address liveability. The most notable example is a provincial approach to areas with housing vacancy. The established planning instruments provide opportunity for financial support to owners to acquire nearby properties and to renovate them or demolish them. The approach is complemented by regeneration projects on neighbourhood level. The combined efforts are viewed as a way to intervene in the housing market to correct supply-demand mismatch as well as to improve the liveability of a certain area:

“R: Yes, yes. I was for a little time, a few years, project manager of a project which was addressing the problem of housing getting deteriorated and that was a problem in the beginning of the awareness of shrinking and which led to many problems of working governmental together.

I: So what did you do in this project? Can you tell me a little more about this?

R : What I did was getting the, trying to get a database of the houses which are deteriorated, who needed to be rebuilt. And to get soft addressing to the owners and if they are not reacting try to get a harder approach. Making them do this.

I: And did it work?

R: It some cases yes, but it began to work at the moment when the province was making another project with money to facilitate the rebuild. The renovation.

I: So that’s additional fund for the private owners to utilize to renew their houses?

R: Yes.

I: So why was this approach chosen? Why was this, why did this become a question to be solved? Why should the houses be renovated?

R : Oh because the liveability in space you could see this is not a place where you want to live! All the houses are empty and not good enough. "(Interview 003_ExPro)

—

"I: Is it focusing only strictly on demolition or it's doing something else?

R : It's much broader than that. It's an approach to the whole area, to give an improvement to the whole area, so you have like the social part of wellbeing of people and help people and you have the physical part so like the, how is it called, the buildings, the all the physical stuff. You make a plan for the whole environment, for the whole area, and one of the things is housing, the other thing is social welfare. So you have a lot of things you work on at the same time. Because it's not only one thing that will improve in the area. But we focus on this specific housing point, because the demolition of housing is really really expensive and it's most of the time also owner-led, so it's private, it's not from the housing corporations, who are doing social housing."(Interview 005_ExNat)

It can be concluded that the *Integration* concept feature is valid for the case of Zeeland and the Netherlands. It is consistently translated as an overall policy orientation, particularly emphasizing on the need to view the approaches to the consequences of population decline as a complex matter, corresponding to the complex nature of the phenomenon itself. Particularly intriguing is the correspondence of this integrated way of thinking with the additional concept of liveability in Dutch context that is used to further justify specific measures in housing and neighbourhood regeneration, as well as service provisioning on regional level.

Visionary/Future orientation

The analyzed documents on national level outline a consistent orientation to future desired states, complemented by clearly formulated visions in various sectors. The main topics that the national documents encompass are housing, service provisioning and economy. Normative leaps regarding the desired direction of development in these sectors are formulated separately, as well as in relation to one another through causal stories. Additionally, the already mentioned perspective of liveability, also interpreted as quality of life, consistently supports the formulation of normative leaps and visions in those areas, thus integrating them as factors for improved liveability and quality of life. The formulations in those policy areas directly correspond to the cross-cutting understanding of population decline as well as to the integrative view on the necessary measures. This is clearly visible in the following extract, illustrating the objectives of the population decline action plan:

"The aim of the Action Plan is "to promote the quality of life in areas that are experiencing, now or in the near future, substantial and structural population decline and other demographic changes". In doing so, a joint approach is sought from governments, civil society organisations, entrepreneurs and residents, by focusing on concrete activities on the three pillars of housing, facilities and economic vitality & labour market." (Eerste voortgangsrapportage bevolkingsdaling 2017)

The desired measures in those areas respectively contribute to the overall increase of liveability and quality of life for both remaining residents and potential new ones. The goal to attract new population through this increased liveability does not exclude the possibility

to improve conditions for the remaining citizens. This can be observed in the following two extracts from interviews with a provincial expert and a politician from Zeeland:

“R: Well of course the main goal of the whole province is to get a liveable province with a high profile welfare and prosperity, that kind of things, and when you look at the housing market, what we say we have to get to have a housing stock that is in 2040 fit for future, and it’s answers the needs of the people, both quantitative but also qualitative, that’s our main goal.”(Interview 001_ExPro)

The expert’s point of view corresponds to similar statements by other respondents, including on national level. At the same time, the politician’s point of view illustrates how the same approach to liveability improvement and good living conditions is used as a way to attract new population:

“R: Yes. We are now starting about two years with a real big programme of Zichtbaar Zeeland [visible Zeeland, translated by author] , we call it Zichtbaar Zeeland. That includes everything about tourism until getting enough medic people, how do you call them, general doctor, to get them here, because also doctors leave and they don’t come back, dentists leave and they don’t come back. So we have a big project now which is called Zichtbaar Zeeland with a scope of 10 years, to 2030, to improve the image of Zeeland. To get young people live here, or perhaps only live here and work in Rotterdam, Breda, or in Antwerp or in Brussels. We find that Zeeland is in the middle of a big regions like Ghent, like Brussels, like Rotterdam, like it’s only an hour travel to Rotterdam, it’s an hour travel to Brussels, it’s an hour travel to Ghent, and it’s a beautiful place to live – quiet, you can have good schools for your children, it’s not so expensive to live here like in Rotterdam and in Brussels. And it’s nearby, because within one hour you are on your workplace. This is something we strictly promote to young people all over Holland and also in Belgium. That’s one of the things we are really determined to get it on the map.”(Interview 004_PoPro)

The non-exclusivity of objectives to attract new population and to mitigate the anticipated consequences of population decline can be illustrated with this extract:

“In addition to policies that respond to demographic trends, many regions also have policies to ‘adjust’ to demographics, such as marketing the residential and living environment. This policy is aimed at slowing down the demographic transition by attracting new inhabitants. Target groups are, for example, young people from the region who have studied elsewhere, but would perhaps like to return, residents of neighbouring countries or city dwellers who would like to opt for peace and quiet. These policies exist side by side, anticipating the consequences of demographic change.”(Eerste voortgangsrapportage bevolkingsdaling 2017)

The overall objective to improve liveability and quality of life translates to the objectives in the different policy areas. The housing objectives encompass various considerations for the quality and quantity of housing. The objectives are oriented to combating housing vacancy and compensating the mismatch between supply and demand. This is complemented by objectives that focus on the quality of new building stock. The quality of housing is consistently justified with the need to provide ‘future-proof’ housing – a formulation that appears across various policy documents as well as in interviews with experts on different institutional levels. Considerations in this regard include ensuring the energy efficiency of housing, structural measures to ensure long-term use and quality and affordability through a well-functioning housing market for both ownership and rent. The interventions

into the housing market are also supported by objectives to resize it through demolition of low-quality existing housing. Another objective for the housing is to adapt it to the needs of elderly citizens, who are expected to be a growing population cohort, due to the demographic changes taking place. The interventions in the housing market are expected to be coordinated between different municipalities. In one of the regions of Zeeland – Zeelandic Flanders – the three neighbouring municipalities have formulated a common goal to coordinate their efforts for housing.

The role of a healthy economy is seen as crucial for ensuring the liveability of the depopulating regions. The anticipated consequences of population decline from this perspective are viewed mostly from labour market point of view, therefore specific objectives are formulated in this regard. One example are goals, oriented towards adjustment of skills between education and business needs on regional level – educational institutions are encouraged to adjust training curricula and content to the needs of industry in order to ensure better placement on the labour market within the region. In addition, overcoming the obstacles of cross-border education and employment is also seen as a key goal, especially for Zeelandic Flanders, which is geographically closer to Belgium. Another aspect of the economic objectives is related to commercial vacancy – measures to mitigate this phenomenon are seen as a way to increase attractiveness of town centers and as a way to improve commercial activity. Other economic objectives encompass the strengthening of tourism and innovation as well as provisioning of necessary infrastructure, including digital accessibility.

In terms of service provisioning, the objectives formulated on national level refer to providing the necessary facilities for the population, taking into account the changing demographic structure in depopulating regions. This spans across improvements in healthcare accessibility, education, social services and transport infrastructure.

The objectives and future orientation on provincial level are consistent with the findings on national level. The overarching concept of improving liveability translates more concretely in the objective to sustain and improve the image of Zeeland as an attractive place to live and work for remaining citizens, as well as for potential new ones:

“4. Exploiting and strengthening the perception and image of Zeeland. Zeeland has special environmental qualities; its location in the sea is unique and of great value to many residents, visitors and businesses. It is necessary to (continue to) interest knowledge workers, residents, entrepreneurs, investors, students and tourists in Zeeland. Therefore, promotion is focused on Zeeland as an attractive ‘total destination’.” (Kwaliteit en onderscheidend vermogen Kadernota Economische Agenda 2.0)

“A targeted promotional campaign could be one way of meeting the challenge of attracting new residents and employees. However, if Zeeland’s residential climate no longer distinguishes itself from surrounding areas, a promotional campaign will be pointless. In the long term, the challenge should therefore be to maintain and strengthen Zeeland’s residential climate (good, cheap housing, attractive landscape, nature, no traffic jams, leisure and play facilities, high-quality employment, etc.). In an environment where it is more attractive to live [.]” (Onverkende Paden Uitdagingen voor de provincie Zeeland door de veranderende bevolkingsopbouw 2008)

Under the framework of improving liveability, the objectives in other policy areas are causally related to this overarching goal. Demolition, renovation and adaptation of housing is seen as

a necessary intervention. This way the quality of living environment even on neighbourhood level can be improved. Addressing housing vacancy in this way is also seen as a solution to issues with illegal poor living conditions for migrants in vacant housing, which has been observed in Zeeland (*Interview 001_ExPro*). In addition, investment in housing is also seen as a way to adapt the available building stock to future needs, including those of their current or future residents:

"Vacant homes are bad for the quality of the living environment. Older people have different requirements than younger people with regard to facilities and their living environment." (Plan van aanpak voor de gevolgen van de demografische veranderingen in Zeeland 2010-2012 2009)

"[...] neglect of the immediate living environment. Window frames are no longer maintained, front gardens are no longer kept up or used as parking spaces, etc. This happens more often when houses are no longer occupied."

"This kind of property in a street brings the attractiveness of the street down considerably. And this is detrimental to the other house owners, who are therefore 'trapped' in their homes in case they want to sell them. Municipalities have instruments at their disposal to do something about this. Homeowners can be forced or stimulated to invest, demolish or renovate." (Plan van aanpak voor de gevolgen van de demografische veranderingen in Zeeland 2010-2012 2009)

"In other areas which are not very popular with tourists, empty houses and then people are using those houses for other purposes, like storage or well, sometimes criminal activities or weed plantations. But also very popular to use it for labour migrants. Which can be very lucrative, especially when you stow all kinds of mattresses in a tiny house and you ask a hundred euros per week for a mattress – that's ridiculous and it's also causing quite some problems for the neighbourhood." (Interview 001_ExPro)

The objectives in housing are combined with efforts to revitalize the whole area, as illustrated in previous sections of this chapter. Consistently with national level, the resizing of housing is seen as a necessary intervention to ensure a well-functioning housing market. In this context, the popularity of Zeeland as a tourism destination presents a challenge in terms of the quantity of second homes available in the province. They are seen as a burden to the housing market and require specific objectives:

"Another thing is when you look at housing – in some areas you have shrinking population shrinking households population but in the meantime it's quite popular with tourists. And it can also be something you can put in as a chance that people buy those empty houses and use it as a second home. That's happening quite a lot, especially in the Western part of Zeeuws Vlaanderen [Zeelandic Flanders]. I hear that 65% of all houses in that area are permanent living, the other 35% are used as mostly a secondary home. While that can be a solution for the problem, but it's also a threat. Because secondary homes are not a primary living location. A secondary home is like a luxury, if the economy goes down, then the first thing you do is get rid of your secondary home." (Interview 001_ExPro)

The active management of the housing market in cooperation between nearby towns is stipulated as a necessary goal. Cross-border housing accessibility is also formulated as a possible direction in the context of Zeelandic Flanders, which lies on the border with

Belgium. Adjusting the housing market there is viewed as an opportunity for ownership by Belgian citizens. In addition, the objectives for resizing the housing market and ensuring quality of the newly built stock are seen as related through the framework of reutilization of construction materials:

“Last but not least, part of Zeeland’s housing stock does not fully meet today’s quality requirements and living preferences. Now that the quantitative housing shortage has been more or less resolved, it is possible to build to remove the less desirable homes from the housing stock. The challenge for the coming decades is therefore to enable a quality shift in the housing market. This will require new construction that is tied into the existing housing stock with an umbilical cord. In this way, the proceeds from new construction will benefit the restructuring/ demolition of the existing homes.” (Onverkende Paden Uitdagingen voor de provincie Zeeland door de veranderende bevolkingsopbouw 2008)

Considerations for affordability and household structure are also integrated in the objectives for housing.

The second element of the broader objective to improve liveability on provincial level is economy. In Zeeland this aspect is viewed as oriented towards sustaining the existing broad industrial base of the province, its tourism attractiveness and existing businesses. In addition, the objectives are also oriented to maintaining the image of the province in this regard, so as to ensure continuing economic growth that is interpreted as positively contributing to improved liveability. This causal relationship translates to the formulation of objectives for the economy, focusing on labour market, image building and facilitating new investment. Consistent with national level, objectives are set to ensure better match between business needs and educational curricula. Labour market perspective is also used to justify the objective of ensuring Zeeland as an attractive location for high-skilled migrants, as expressed in an interview with a provincial expert:

“R: The immigration is mostly immigration at the lower parts of the labour market. We have recreation, we have industry and we have agriculture. And fishery. And in this agriculture we have lots of immigrants who are working to crop, fruits. We don’t have the intelligent immigrants; they are mostly in the Randstad [the area between Rotterdam, The Hague, Amsterdam and Utrecht, the central urban core of the Netherlands]. Go to ICT companies and that sort of things, research organizations. And we don’t have research organizations and that sort of things here. The only big corporation which has a large research department is the plant of DOW chemical, which is in Terneuzen and they have recently got a new headquarters in Terneuzen of all places, you should see it, for 1200 people. They are trying to attract some more businesses and to get more synergy and get higher educated people into the region. But that’s hard to do. What they say is: we can get them for a while, but not for a lifetime. People coming in from abroad, coming here for months or a few years, but not staying.” (Interview 003_ExPro)

The objectives for economic migration, for both highly-skilled and low-skilled labour force, are combined with objectives pertaining to the integration of migrants in reference to the good living environment of Zeeland. Additionally, considerations for improvement of startup ecosystem, innovations, energy production and sustainable development complement the economic objectives.

In the third pillar of liveability – service provisioning – the objectives encompass a variety of topics, however, the majority of the goals are oriented towards providing services of high

quality. A particular emphasis is placed on the need of social care for elderly people, due to the expected change in the population structure. The desired direction in this aspect is providing high-quality care services for people in need at their own homes. The distinction between the policy orientation of the documents and expert assessments and the political point of view is very visible in this topic. The political respondent frames the provisioning of social services as a burden that can be solved with increased migration by younger people:

"...every time the decline of young people gets on and on and on, more and more things are disappearing. So we are stuck with older people, and they need some other [...] services. Elderly people have more interest in other services, but we can't provide them with that because of lack of young people. So it's very hard in Zeeland to stop that, demographically till 2040 we foresee a decline of people, and a decline of people is a decline of services." (Interview 004_PoPro)

Other aspects are the educational and healthcare infrastructure – the objectives in these areas are oriented towards providing high-quality service on a regional level. This is justified with the sparsely populated regions of Zeeland. In the same vein, objectives in the area of public transport are oriented towards optimization. In the context of services, access to Internet is also integrated as a separate consideration.

Across policy documents on national and provincial level, as well as in interviews with experts, there is a latent narrative pertaining to the distinction between economic growth and broader prosperity. Along the same lines, there is also a partial understanding pointing to the acceptance of shrinkage, rather than counteracting it. These interpretations have influence on some of the normative leaps identified, distinguishing the overall orientation to economic growth and the goals for prosperity. The latter is integrated into the broader concept of liveability. These observations correspond to the observations on shrinkage conceptualization (See also 6.4.3. Interpretive policy analysis of shrinkage conceptualization in Zeeland (the Netherlands)).

In conclusion, the *Visionary/Future orientation* feature can be confirmed as valid for the case of the population decline policies in the Netherlands and Zeeland. The objectives in all areas are clearly formulated with specific details on the desired future direction. The concept of liveability is used as an overarching framework to justify objectives in the areas of housing, economy and service provisioning. The objectives are anticipatory in nature, rather than reactive, thus they attempt to maintain and partially change the status-quo. The objectives are formulated in a complementary manner and correspond to the findings on shrinkage conceptualization (See also 6.4.3. Interpretive policy analysis of shrinkage conceptualization in Zeeland (the Netherlands)) and *Integration* feature (this chapter).

Generative/Inventive

The national level documents expose clear assignment of responsibility for the execution of the formulated objectives. It is formulated that the government, represented by the Ministry of Interior and Kingdom Relations, is expected to provide administrative support to shrinking municipalities. The latter are outlined as the key institutions to take the lead in the implementation of the identified measures. Additionally, the national level is also outlined as supporting shrinking regions with investment and targeted funds, such as the regional deals. The regional deals are one of the key national instruments for shrinking regions. Although they have not been designed particularly for shrinking regions, their application in shrinkage context has been beneficial. They are seen as a flexible financial instrument to support interventions in various areas, tailor-made for the specific shrinking region. The

regional deals and their implementation is monitored as part of the cooperation efforts between the national government and shrinking regions (this chapter, section *Applicability/Contextuality*). The national documents outline that municipalities engage with financing demolition and renovation activities (not only with the regional deals), establish flexible zoning plans for housing restructuring projects. In the field of service provisioning, regional agreements on delivery of services are outlined as an instrument. In the area of economy, regional and provincial strategies for business acquisition are the main tool.

On provincial level, the analyzed documents illustrate a very clear justification for the identification of specific measures, instruments or responsible administrative entities to reach the desired goals:

“The rationale for the joint search for initiatives was to ensure that something would actually happen instead of being confined to a talking shop. To get people to change you must first offer them a perspective. People will not accept the closure of the school in their village if they are unsure whether there will be good alternative, for example.” (The path ahead - Zeeland)

The objectives in different areas are assigned with possible instruments for their implementation, as well as with responsible entities. Examples for this are working groups with programme managers on the regional resizing of the housing market, cross-border cooperation responsible, working groups on developing possible scenarios in the different sectors. Additionally, regional programmes for the housing market are identified, working groups on developing flexible zoning plans for areas subject to intervention, new legal instruments to support the refurbishment of housing (See *Interview 003_ExPro* citation in *Integration* section, this chapter) and citizen-led initiatives.

From provincial perspective, financial support, both national and European sources, has played a key role in identifying instruments or moving to the stage of execution of the identified measures:

“R: Because funding is fundamental in getting things done [very sober]. This kind of things, which are not profitable. So when you are, we saw houses which were empty for 10 years, well the owner wasn't here for 10 years. So when you call him and he says – what's the problem. I am waiting to sell it or not, but it's not whatever...Not interested. It could be part of a larger building project and then you can make money. As an example why these things happen.” (Interview 003_ExPro)

“R: [...] Then we come to the problem that we have ideas on it but then the political responsible person in the middle part of Zeeuws-Vlaanderen who said there is no problem. We have the Dow chemical company, there was no, there was no power to stimulate and to intervene with the local community. And then you as a province you have no partner. And but we have another partners in the European projects. Because the financial argument is always an argument which gets people on your side.” (Interview 002_ExPro)

Based on the empirical data, it can be concluded that the *Generative/Inventive* feature is valid for the case of Zeeland and the Netherlands. The objectives and desired directions of policies have not remained on goal formulation stage, but have been utilized to identify responsible administrative and other structures, as well as respective instruments for attaining those goals.

Know-How

Insufficient data can be found for the verification of the *Know-How* feature. The only indication of a specific approach that has been utilized is a cross-border European project for exchanging knowledge and practices with other shrinking regions in other countries (DC NOISE project¹). It is debatable to what extent the specific instruments and approaches, outlined in the *Generative/Inventive* section can be considered as “know-how” in the sense of a unique way to approach the various policy areas. Hence, it can be concluded that the *Know-How* concept feature cannot be verified as valid for the case of Zeeland and the Netherlands due to insufficient data.

Efficiency

The documents on national level illustrate efficiency considerations in line with the objectives and thematic scope of the measures for shrinking regions (outlined in the previous sections). The arrangement of the school infrastructure in shrinking regions is seen as inefficient for the lowering number of pupils, therefore it is outlined that the network needs to be optimized to provide quality education in a sparsely populated region, rather than maintaining a school in each small settlement. Similar considerations are expressed for the public transport within regions – the lower number of people puts the economic efficiency of the services in danger. Lastly, the provisioning of social services, particularly for elderly people, is expected to become more efficient with better planning of at-home services and decrease of the market-driven competition-led approach.

On provincial level, the interventions in the housing market can be viewed from the perspective of efficiency. The objectives set for adjusting supply and demand ultimately aim to ensure a balance between available resources for the proper functioning of the housing market. Consistent with national level, the public transport network is expected to be adjusted to ensure economic feasibility:

“When you look at the use of public transport – it’s going down and down. We know now that the whole system of public transport it’s not viable anymore. It’s very essential, especially for young people who want to go to school from one area to another, and elderly people, that’s because of the demographic decline, but also because of the other thing, you know, the use of public transport is and how you finance the whole system it’s under pressure, so it’s two developments that come together and that’s because, that’s why especially the bus system is on the brink of collapsing.” (Interview 001_ExPro)

Considerations for the organization of space on regional level are also expressed from efficiency perspective – the location and clustering of services, housing and facilities is supposed to contribute to a more efficient space organization in the whole province. In that sense, the argument continues to justify active management of space under conditions of shrinkage.

Based on the available data it can be concluded that the *Efficiency* concept feature is valid for the case of Zeeland and the Netherlands. Traces of efficiency considerations can be found across the various sectors, but the efficiency perspective is integrated in the normative orientation of the measures, in the objectives and desired approaches. Thus the concept feature is intertwined with the *Visionary/Future* orientation and *Generative* concept features

1 <http://archive.northsearegion.eu/ivb/projects/details/&tid=78&back=yes> – visited on 29.03.2022

as it illustrates a particular normative orientation that is manifested under the scope of the various normative leaps.

Collaboration

The documents on national level outline the collaborative perspective mostly from the point of view of administrative capacity. Thus the observations are consistent with the ones in the *Generative/Inventive* section (this chapter). They are outlined in the readiness for different institutions to collaborate in the implementation of the measures and to plan ahead whose responsibility it is, including if shared, to deliver the desired goals. Additionally, the integrated view on the consequences of shrinkage translates also here – the desired execution of the measures should be coordinated between different actors, both official and informal/citizen-led.

On provincial level, the emphasis of collaboration shifts mostly to citizens. The involvement of citizens in every step of the execution of the measures is outlined as a crucial element in the path to improved liveability of affected shrinking areas, including on neighbourhood level:

“The social cohesion of a village or neighbourhood is at least as important for the liveability of a neighbourhood. After all, a key to success in maintaining liveability is the involvement of residents in their immediate surroundings. It would therefore seem to be to everyone’s advantage to promote and elicit this involvement.”
(*Onverkende Paden Uitdagingen voor de provincie Zeeland door de veranderende bevolkingsopbouw 2008*)

Involvement of citizens in the implementation of projects and interventions is seen as necessary to cultivate responsibility, solidarity and community which are found to be important in the context of shrinkage.

Some interview respondents from the province also highlight the involvement of local businesses and the large international companies that operate in Zeeland – their partnership is seen as essential for the delivery of specific initiatives.

In conclusion, the *Collaboration* concept feature can be considered as valid for the case of Zeeland and the Netherlands as there is a consistent understanding across institutional levels that the implementation of the measures should not depend only on the public institutions, but also on the involvement of a broader scope of actors and agents, including civil society, businesses and informal citizen groups on all scales.

6.2.4 CONCLUSIONS FOR THE VERIFICATION OF HYPOTHESIS 2 AND MAIN POINTS OF ANALYSIS AND DISCUSSION

Definition of the hypothesis:

The shrinkage-related policies outline conclusions and recommendations, based on previously gathered data, assessments, studies and evaluations. The policies do not prescribe direct actions without scientifically-backed justification (*Inquiry*). The policy direction and decisions outlined are justified and interpreted as applicable for the specific context by referencing contextual characteristics, specificities of the planning system, political, cultural, civil factors that influence the respective policy approach and its relevance for the specific context (*Applicability/Contextuality*). The policy direction and decisions are

interpreted as interrelated, the measures specified attempt to respond to a more complex understanding of the shrinkage phenomenon or its effects (*Integration*). The policy outlines a direction to a desired future state, a vision or an outline of the preferred change that the policy is supposed to deliver, implicitly or explicitly stated future condition (*Visionary/Future orientation*). The policy stipulates which actors or institutions are supposed to deliver the proposed policy measure or introduces elements or outlines of the implied implementation of the proposed measures. The policy measures outlined do not remain as ideas and wishes, but are “brought” to reality (*Generative/Inventive*). The policy stipulates proposed course of action for the implementation of the proposed measures, particular steps that are supposed to be delivered (*Know-How*). The policy addresses the optimal utilization of available resources in any policy area. The policy stipulates how resources should be distributed (*Efficiency*). The policy stipulates that the effects of the desired change serve different social actors and groups. The policy outlines that different social actors and groups have a role to play in the delivery of the policy (*Collaboration*).

Conclusions

The empirical data for Hypothesis 2 illustrates that its validity can be partially confirmed for all three cases. In each of the examples there are concept features that can be confirmed and such that cannot. The two concept features that were found to be valid for all three cases are *Collaboration* and *Visionary/Future orientation*. This is indicative of the compatible formulation of the concept features. The *Collaboration* concept feature is specific and more easily traceable across the empirical data as it pertains to particular action points as related to various social actors being involved in the implementation of the policies. The *Visionary/Future orientation* concept feature is the most clearly formulated one pertaining to the normative orientation of the policies. The *Integration* and *Applicability/Contextuality* features can be verified partially or fully for all three cases – there are indications that the policy measures designed have been outlined in an integrated way, corresponding to the understanding of the shrinkage phenomenon in each of the cases. In the case of Bilbao, the integration point of view is mostly presented from territorial planning perspective. In all three cases, the contextualization of measures has been consistently justified in reference to national and international economic processes, but also to various other contextual specifics, such as geographical positioning, national agenda (such as housing or climate change) as well as from European perspective.

The concept features *Visionary/Future orientation*, *Generative* and *Efficiency* allow for various perspectives to the policy substance in the reviewed cases, but from conceptual standpoint they become closer. The three concept features reveal the various extent of the normative orientation of the policies. This is most visible in the case of Zeeland where the objectives, identified under *Visionary/Future orientation* are complemented by specific normative considerations for efficiency (thus pertaining to the *Efficiency* concept feature), as well as by specific measures and assignment of responsibility (thus pertaining to the *Generative/Inventive* concept feature). These observations are indicative of the proximity of these concept features (as considered also from methodological and research design perspective) and the formation of the so called normative strand in the concept formulation. The observations are also indicative of dominant concept features that may contribute to stronger conceptual coherence of the specific policy effort. Thus, for comparative purposes and for the creation of applicable approaches to urban shrinkage and population decline, the normative orientation has to be considered as a separate point, rather than split into standalone perspectives. This observation has to be viewed in parallel to the analysis of

planning substance in the cases of Bilbao and Leipzig (See also 6.3. Hypothesis 3: Concept-based planning substance).

Additionally, the normative concept features reveal the thematic scope of the policies which varies widely across the reviewed empirical data. Therefore, for comparative purposes and for applicability purposes, the thematic scope needs to be critically examined and reviewed in consideration of the planning system specifics.

The data reviewed under *Generative/Inventive* concept feature for Bilbao and Leipzig exposes that the policies have implications on local urban planning, either from processual or substance perspective. This is indicative of the non-universal delineation between the policy and planning scope that depends on the planning system in each case.

The *Know-How* concept feature could hardly be verified for each of the cases. This is indicative of its vague formulation and unclear scope. It is thematically related to the *Generative/Inventive* concept feature, but it is difficult to distinguish what exactly constitutes a specific know-how as this requires the introduction of additional criteria. Therefore, the *Know-How* concept feature has to be viewed in parallel to the analysis of planning substance (See also 6.3. Hypothesis 3: Concept-based planning substance).

In conclusion, for the comparative analysis, the points of comparison, determined by the concept features, have to be selected in parallel to the analysis of the planning substance (in the cases of Bilbao and Leipzig). This ought to determine the scope of the policy and planning responses as well as their thematic and normative orientation. Additional point of consideration is the continuous assessment of the planning system specifics that would determine the boundary between policy and planning in each of the cases and would provide input for the applicability framework. This delineation can be complemented also by the thematic scope and specific contextual characteristics. The sustained attention to the planning system can also provide insight into the role of regional planning in either of the cases and in potential other cases. In all of the three reviewed empirical examples, the regional perspective has played a key role, therefore its function has to be examined in a comparative mode as well.

6.3 HYPOTHESIS 3: CONCEPT-BASED PLANNING SUBSTANCE

Definition of the hypothesis:

The shrinkage-related plans outline conclusions and recommendations, based on previously gathered data, assessments, studies and evaluations. The plans do not prescribe direct actions without scientifically-backed justification (*Inquiry*). The planning direction and decisions outlined are justified and interpreted as applicable for the specific context by referencing contextual characteristics, specificities of the planning system, political, cultural, civil factors that influence the respective planning approach and its relevance for the specific context (*Applicability/Contextuality*). The planning direction and decisions are interpreted as interrelated, the measures specified attempt to respond to a more complex understanding of the shrinkage phenomenon or its effects (*Integration*). The plan outlines a direction to a desired future state, a vision or an outline of the preferred change that the policy is supposed to deliver, implicitly or explicitly stated future condition (*Visionary/Future orientation*). The plan stipulates which actors or institutions are supposed

to deliver the proposed planning actions or introduces elements or outlines of the implied implementation of the proposed measures. The planning measures outlined do not remain as ideas and wishes, but are "brought" to reality (*Generative/Inventive*). The plan stipulates proposed course of action for the implementation of the measures, particular steps that are supposed to be delivered (*Know-how*). The plan addresses the optimal utilization of available resources in any policy area. The plan stipulates how resources should be distributed (*Efficiency*). The plan stipulates that the effects of the desired change serve different social actors and groups. The plan outlines that different social actors and groups have a role to play in the delivery of the policy (*Collaboration*).

Hypothesis 3 is verified with empirical data from Bilbao (Spain) and Leipzig (Germany)

Hypothesis verification approach:

- ***Inquiry***

- Review and analysis of coded segments of data, pertaining to scientific and data driven justifications of planning recommendations. Identification of causal links between such conclusions and planning recommendations.
- Main questions:
 - Are the conclusions and recommendations in the planning documents, justified with references from previously gathered data, assessments, studies and evaluations?

- ***Applicability/Contextuality***

- Review and analysis of coded segments of data, pertaining to contextual references, political, cultural and economic specifics or planning system specifics that provide justification to the specific planning approach.
- Review and analysis of Nested context discursive elements.
- Thematic mapping of the above two points.
- Main questions:
 - Are the conclusions and recommendations in the planning documents justified as applicable for the specific context by referencing contextual characteristics, specificities of the planning system, political, cultural, civil factors that might influence the outcome of the respective policy?

- ***Integration***

- Review and analysis of coded segments of data, pertaining to references that outline interrelations between planning areas, issues and solutions, particularly one solution to multiple issues identified.
- Identification of statements that suggest interrelations between a more complex understanding of the shrinkage phenomenon and planning solutions to it.
- Thematic mapping of the above two points.
- Main questions:
 - Are the conclusions and recommendations in the planning documents interpreted as interrelated, as addressing more than one problem? Do they correspond to a more complex understanding of the shrinkage phenomenon or its effects?

- **Visionary/Future orientation**

- Review and analysis of coded segments of data, pertaining to outlines of the desired effects of the respective plans or a desired future condition of the respective planning scope or sector. Review and analysis of visionary statements. Review and analysis of statements that pertain a desired distribution of resources or social goods. Review and analysis of statements that outline a preferred way of approaching a specific issue.
- Identification of Normative leap discursive element. Identification of Story discursive element. Identification of Causal story discursive element. Identification of Metaphor discursive element. Identification of statements, pertaining to distribution of social goods (politics building).
- Thematic mapping of the above two points.
- Main questions:
 - Do the planning recommendations outline a desired future state or condition? Do they formulate a vision? Do they formulate or outline a preferred change of the current situation? Do they attempt to change the status-quo or to reproduce it? Do they attempt to establish control of the situation, to empower actors by assigning responsibility? Do they formulate a solution, pertaining to the desired future state? Do they imply a preferred distribution of social goods and available resources? How do the recommendations from the plans correspond to the recommendations of the policies, is planning viewed as a disruptive practice that can challenge the status-quo or deliver change?

- **Generative/Inventive**

- Review and analysis of coded segments of data, pertaining to assignment of responsibility to institutional actors or outlining a desired way of implementing a specific planning recommendation. Identification of actionable statements and suggestions for implementation of a specific planning measure.
- Identification of Normative leap discursive element. Identification of Story discursive element. Identification of Causal story discursive element. Identification of Metaphor discursive element. Identification of statements, pertaining to distribution of social goods (politics building).
- Thematic mapping of the above two points.
- Main questions:
 - Do the planning recommendations outline which actors or institutions are supposed to deliver the proposed measures? Do they introduce a desired way of delivering the desired change through specific action points or nodes that translate the desired direction into executable implementation?

- **Know-How**

- Review and analysis of coded segments of data, pertaining to a unique or specific outline of implementing a planning recommendation.
- Thematic mapping of the above point.
- Main questions:
 - Do the planning recommendations outline a preferred course of action for the implementation of the proposed measures? Are specific steps for delivering the desired change outlined?

- **Efficiency**
 - Review and analysis of coded segments of data, pertaining to redistribution of resources (of any kind), oriented to optimization and their utilization in the most efficient way (either due to their scarcity or with the intention to achieve a broader effect with less resources).
 - Identification of Normative leap discursive element. Identification of Story discursive element. Identification of Causal story discursive element. Identification of Metaphor discursive element. Identification of statements, pertaining to distribution of social goods (politics building).
 - Thematic mapping of the above two points.
 - Main questions:
 - Do the planning recommendations address or outline optimal utilization of available resources? Do they imply how the available resources should be distributed?

- **Collaboration**
 - Review and analysis of coded segments of data, pertaining to the implementation of specific planning actions by multiple social actors, including public and private. Identification of statements and suggestions of the desired effects of a specific planning point to multiple social actors.
 - Thematic mapping of the above point.
 - Main questions:
 - Do the planning recommendations outline the effects of the desired course of action on different social actors and groups and the potential benefits for them? Does the plan outline that different social actors and groups are to deliver the desired outcome of the policy?

6.3.1 INTERPRETIVE POLICY ANALYSIS OF THE PLANNING SUBSTANCE IN BILBAO (SPAIN)

The establishment of the planning system in the Basque Country had implications on the timeline of plan-making and approvals in the city. The Master Plan of the city that came into force in 1995 was initially drafted as a preliminary version (“Avance” back in 1989), however, it underwent multiple changes until its official approval in the mid-1990s. Therefore, many of the plans and projects that occurred during the 1990s effectively happened in a planning void. After that, prior to the year 2000, a number of planning documents began to obtain approval and this process continued after the year 2000 with the further advancements of the planning processes within the Basque Country and the establishment of the planning system. Therefore, multiple plans began to have an impact on the development of the city and are reviewed under the planning unit of analysis.

The Partial Territorial Plan of Metropolitan Bilbao is assigned to the planning unit of analysis because it has stronger implications on local planning and logically supports the strategic orientation of the city, but acts as a bridge between the practical physical planning of the city and the strategic orientation. It is more specific in terms of content and has direct references to spatial points of action as opposed to the metropolitan strategies.

Overall, there were not enough document sources that could be subject to analysis for the planning unit in Bilbao, therefore large sections of the analysis here are complemented by the information from interviews.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

Inquiry

The reviewed planning documents indicate that there are additional scientific and data-driven assessments executed for the application of planning decisions in Bilbao. The Partial Territorial Plan for Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*) indicates that additional studies have been performed in order to outline the number of price-protected housing units in Bilbao. The study has assessed the needs and profile of potential first-buyers as well as users of protected housing in Bilbao and has determined the price limit for protected housing. In an interview with a local expert, the system of protected housing is outlined in detail (*Interview 012_ExLoc*). There are three types of protected housing that the Basque Government maintains as part of the official housing policy. The standard protected social housing is targeting families and users in vulnerable social situation. These housing units are built and maintained by the government. The second type are housing units with maximum selling price, determined by the government, that are targeting first users and buyers, such as young people or families that attempt to enter the housing market. The third type is again price controlled housing units that have a coefficient of potential increase of pricing so as to ensure long-term viability of the housing units on the housing market. The price is determined in a way to be competitive on the market, but still accessible, in the lower price range. The housing policy is coordinated by the Basque Government but is implemented in close coordination with the local planners and municipalities:

"R2: So it gives you a criterion that you have between X and Y dwellings and that is what you have to comply with. So the council has to play within that margin of the number of dwellings. This is a normative criterion that comes from the [government]. But it has a lot of leeway, it can set its own

R1: We can decide to build a lot less of these thousands of dwellings because we believe that the land in the municipality should be used for something else, or we can build the maximum number of dwellings that are allowed. But we cannot decide what we want. That is what the territorial planning is for, to balance a bit all the functional areas in the territory of the Basque Country." (Interview 011_ExLocP1)

The Partial Territorial Plan reviewed indicates that the determination of the price limits and the allocation of percentage of housing units under the three categories of protected housing has been determined through studies and investigation.

The local plan of the project for the rehabilitation of the area of Zorrotzaurre (*Resolución Plan Especial de Ordenación Urbana del Área Mixta de Zorrotzaurre 2012*), an assessment has been performed on the building condition and rehabilitation needs of the residential area of Ribera de Deusto. This area consists of a number of buildings, located in a compact area on the island of Zorrotzaurre. They have been incorporated into the rehabilitation project. Their condition has been improved through targeted investment by the government, executed by the local agency SURBISA after an assessment of the needs and scope of support.

Interviews with local planners indicate that with the development of the planning process in parallel to the establishment of the planning system of the Basque Country (See also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)), the procedures for updating the local plans became more demanding, including with the incorporation of

various assessments on different topics that are subject to approval, prior to the creation of the local plan:

“R1: The legal basis has changed a lot, since 2000 we have in 2006, a new Basque legislation, which obliges us to do a lot of things. And all the plans have to be updated. There are also a lot of other supra-municipal regulations – railway, aeronautical, gender, linguistic, which are going to generate the general plan. Before, there were not so many sectorial regulations, we are at a time when the sectorial regulations of other institutions that influence us, such as climate change, affect us more and more. So, we have to include them, make our general plan, the new regulations with reports, we need those administrations to approve the plan, it is much more complicated than before. Before there was none of this, in 96. It affects not so much the strategy, but I think it affects the time it takes to process the plan. Because you have to wait for a lot of reports, a lot of bureaucracy, a lot of paperwork, and it takes much longer. And it is more complex to have a more transversal vision. But it doesn't affect the urban strategy so much.

I: It affects the process, the creation.

R2: Yes.” (Interview 011_ExLocP1)

Based on the empirical data it can be concluded that the *Inquiry* concept feature is valid for the planning substance in the case of Bilbao. There are indications that the necessary capacity and administrative procedures have been established in order to support the creation of plans with the necessary scientific assessments and data.

Applicability/Contextuality

The reviewed planning documents outline only partial references to contextual specifics as justification for specific measures. There are general statements in regards to the desired economic competitiveness of Bilbao that are contextualized in relation to the global economic changes. These references correspond to the overall justification for economic competitiveness on the level of territorial planning (See chapter 6.2.1. Interpretive policy analysis of the policy substance in Bilbao (Spain)).

In the special plan for the area of Zorrotzaurre (*Resolución Plan Especial de Ordenación Urbana del Área Mixta de Zorrotzaurre 2012*) there are references to the new role of the canal of Deusto in the new economic context of the city. It is illustrated that the canal served mostly industrial functions in Bilbao's industrial heyday. This function is contrasted to the new situation where the portuary activity has been moved to the external port of Bilbao on the Atlantic coast and the canal's function is now to support the redevelopment of public space near the river.

There is a reference in regards to the greening efforts in the city that the species utilized should be native, as per the recommendations of the Aalborg Charter (*Texto refundido de la modificación del Plan Especial de reforma interior de Abandoibarra 1999*).

Interviews with local planners and experts reveal very strong sensitivity to contextual specifics that have been and are being taken into consideration in the local planning. One of the key considerations is the topographical characteristics of Bilbao. The city is situated in the valley of the river Nervion and is surrounded by hills with steep elevation. Many of the neighbourhoods of Bilbao are situated on those hills, such as the Bilbao La Vieja

neighbourhood that was subject to renovation efforts. These topographical characteristics have influenced the overall spatial development of the city (see also 6.5.1. Economic and spatial development of Bilbao (Spain)). Local planners outline that the urban rehabilitation measures had to take into account those topographical specifics in the projects (*Interview 011_ExLoc_P1*)

Another contextual consideration that has influenced planning efforts from geographical perspective is the flood risk in Bilbao. Due to the climate specifics and the topographical characteristics, the city is prone to floods, the latest of which occurred in 1983. As a result, the efforts for the decontamination of the river also incorporated engineering solutions to decrease the risk of similar large-scale floods, including in the area of Zorrotzaurre (See also 6.5.1.6. Intersection of economic and spatial considerations – Zorrotzaurre and Bilbao La Vieja).

A second contextual consideration concerns the rehabilitation of the historic neighbourhood of Casco Viejo. Local planners indicate that the efforts for its renovation were part of a wider trend of old town rehabilitation that was happening in Spain after the 1980s (*Interview 009_ExLoc*).

The measures on renovating buildings and housing were strongly influenced by contextual characteristics. Local experts outline that the financial and implementation support is not easy to implement due to the high percentage of private property of housing in the city, similar to the rest of Spain. This contextual specific has also influenced the project for the rehabilitation of Zorrotzaurre where new planning and legal instruments had to be developed in order to manage the project in a holistic way. Interview respondents contrast the approaches that they need to take in such an environment with the more straight-forward situation when there is a higher percentage of public property or single ownership in the rest of Europe (although perhaps referring to Northern European countries). In addition, the rehabilitation measures for private buildings and homes have to be negotiated with owners due to cultural specifics. Respondents indicate that the “negotiation mentality” of the local citizens can also be an obstacle and the rehabilitation measures have to be “sold” to people, they have to be convinced why they are necessary and usually they have to be adapted in a way to incorporate elements pertaining to specific local problems, such as accessibility of the building (*Interview 009_ExLoc*). Lastly, those measures are also threatened by the economically precarious situation of owners and inhabitants – as per local experts, building rehabilitation and maintenance is of lower priority for citizens when their economic situation and job security is unstable:

“And here there is a mentality that I have to see what I can get out of it. Let’s see what I get out of it and see what they give me, right? So we work a little bit on that. About people who, when you give them something and they say: hell, if they give me 30% [...] You have to strike a balance.” (Interview 009_ExLoc)

“Or to specify it, for other things, for so, that is why often [...] you go there and the problematic that they live is also a topic of sensibility. There can be places that are very sensitive to accessibility, we can make a neighbourhood where we can’t get there by stairs, we want lifts to be installed [imitates complaint]. And then you go and pull on that sensitivity. Well, in that sensitivity you get into energy efficiency, you don’t do anything because there is no such sensitivity.” (Interview 009_ExLoc)

"We have that problematic [...] because that money comes [and] if I put it all in the house and if I remain without work what happens? (Interview 009_ExLoc)

Lastly, as per local experts, the rehabilitation projects in Bilbao are influenced by an overall understanding that projects need to be economically feasible. As per interview respondents, this is a trend that is applicable to Spain as a whole. When asked why a specific project includes high percentage of commercial property instead of green areas, for instance, the argument that it has to be economically feasible comes up (*Interview 012_ExLoc*). As per their point of view, this limits the options of local planning, but still allows for high quality investment in public space.

Based on the reviewed empirical data it can be concluded that the *Applicability/Contextuality* concept feature is valid for the case of planning substance in Bilbao. As an overall planning approach as well as in relation to specific interventions, local planners have to adapt their work in order to facilitate specific cultural characteristics, as well as topographical and economic considerations.

Integration

The Partial Territorial Plan of Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*) outlines some spatial configurations that refer to integrated use in a general sense. These refer particularly to the development of mixed zones where economic and residential activities are integrated spatially.

Interviews with local experts reveal that the integrated approach to planning gradually entered the plan-making practice of the municipality, but these observations pertain mostly to the planning process (See also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)). In interviews, the topic of integrated planning leads to examples, related to mixed use in existing or new regeneration projects (See also 6.5.1. Economic and spatial development of Bilbao (Spain)).

Due to insufficient data from planning documents and interviews, the *Integration* concept feature cannot be confirmed for the case of planning substance in Bilbao.

Visionary/Future orientation

As per interviews with local planners, the overall orientation of the development of Bilbao gradually became more and more influenced by the different levels of the planning system. The interview respondents share that the strategic orientation for the development of the city became more dependent on processes on higher level, but ultimately the way that the city executes the steps to achieve this strategy are up to the local planners. Additionally, the plan-making process on local level consists of preliminary steps of the plan – the preliminary outline of the plan ('Avance' in Spanish) and the actual plan that is approved after multiple rounds of discussions and reviews. The preliminary outline of the plan usually presents the desired direction and the objectives of the plan. At the second stage, the plan itself translates those objectives into specific regulations and action points that are to be applied in the fragmented property landscape of the city. As a result, the plan itself does not outline much content that pertains to objective setting or visionary statements, but is rather technical and pragmatic. The additional planning documents, such as the Partial Territorial Plan of Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*) however, are more focused on the objective setting and future orientation of the city.

The Partial Territorial Plan revolves around objectives and visions in two main areas – economy and space. The objectives and goals formulated in these two topics usually intersect and manifest in specific recommendations for steps that need to be undertaken to achieve those goals. On a broader level, the plan sees the spatial development of Metropolitan Bilbao through the metaphor of ‘chassis’ for the new economic profile of the city and surrounding areas:

“To build a renewed integrated physical support or chassis, properly metropolitan, for this new industrial and service economy, resolving situations inherited from the past and configuring what, in the final analysis, must be ultimately considered, as it could be shortly said, building the metropolis by formalising and structuring the urban agglomeration which Bilbao and the surrounding urban centres already constitute today.” (Plan Territorial Parcial Bilbao Metropolitano 2006)

This overall orientation complements the conclusions made for the overall orientation of Bilbao from territorial planning standpoint and the predominantly economic view on its transformation and the emphasis on creating space for new economic activities (See chapter 6.2.1. Interpretive policy analysis of the policy substance in Bilbao (Spain)).

The accent on this objective is complemented by multiple normative leaps recommending a balanced distribution of uses across the city and the metropolitan area. This distribution is to be supported by a system that manages the various types of uses in order to regulate this more balanced split:

“The balance of the territory has been taken as a frame of reference in order to establish a system or city model that includes the necessary spaces for the development of the different economic sectors and which allows for the rebalancing of the weight of economic activity and the resident population in order to avoid the creation of specialised nuclei and minimise displacements between them.” (Plan Territorial Parcial Bilbao Metropolitano 2006)

This normative leap clearly outlines that as part of the planning efforts in Bilbao the emphasis is on active management of the available land. The indications of a system of uses mentioned in the Partial Territorial Plan corresponds to the findings and the design of the actual master plan of the city. The plan consists mostly of detailed technical regulations and various instruments that can be utilized for the redevelopment of land (see also *Generative/ Inventive* in this chapter). The balanced distribution of uses is seen as a way to achieve the desired economic diversification but also to achieve broader societal objectives such as just, equitable and integrating society.

A latent narrative of normative orientation can be found in the normative leaps, pertaining to sustainable urban development. The plan outlines that the overall sustainability orientation of the planning of the city has to attempt to contain the development within existing space, to enable environmental considerations into regeneration projects, to create efficient public transport system in order to minimize car dependency and to stimulate mixed use. In the same vein, objectives towards the reutilization of available housing units through revitalization and building conversion as well as active management of the available housing units are seen as necessary in order to achieve the desired sustainable goals. The objectives on compact development, reutilization of land, including industrial space, and building renovation also pertain to the overall assessment of the spatial development of Bilbao (see also 6.5.1. Economic and spatial development of Bilbao (Spain)). References for those topics have also been found in the special planning documents for the areas of

Zorrotzaurre and Abandoibarra. Considerations on increased amount and connectivity of green and public spaces can also be found among the objectives within those special plans.

The objectives in the area of housing pertain to stricter control of existing free market housing units in order to avoid price speculation as well as higher investment in protected housing in order to ensure accessibility and housing provisioning for different income groups and users. Similarly, interviews with local experts illustrate that the measures to maintain existing housing are not only focused on temporary improvement of the building condition, but also attempt to build a new culture of maintenance in citizens (*Interview 009_ExLoc*).

Interviews with local planners also reveal that the overall objectives of the planning in the city historically (since the beginning of the regeneration efforts in the 1990s through now) were attempting to serve the dual goal of enabling the global presence of the city through an image of competitive and attractive place with strong economic profile as well as a place with high quality of life (*Interview 011_ExLoc_P1*). In order to work towards this dual objective, local planning and the management of the various project attempt to create high quality urban environment, promote external and internal mobility and improved living conditions. This sentiment is shared in different interviews. It is indicative of the overemphasis on the image building of Bilbao that appears to have obscured the additional efforts that have been put in place in order to improve the overall quality of life in the city. As one respondent puts it, the Guggenheim Museum is only “*the cherry on the cake*” (*Interview 011_ExLoc_P1*).

The planning objectives are consistent with the perspectives outlined in different policy, strategic and planning documents and they attempt to address the intersection between space and economy. Local planners outline that some of the key interventions in the city attempted to create new points of economic activity that are supposed to incorporate the historical industrial tradition of the city, together with new competitive advantages. In addition, the unsatisfactory condition of the former industrial zones justified the overall objective of spatial improvement and regeneration. The objectives of reusing space and investing in improved urban quality correspond to the conceptualization of shrinkage in the case of Bilbao – an economic and spatial crisis (Ivanov 2021) (See also 6.4.1. Interpretive policy analysis of shrinkage conceptualization in Bilbao (Spain)). This overall transition and intersection between economy and space can be observed in the following story:

“Alongside this historical cycle that was coming to an end, a new model of economic activity was beginning to emerge, looking towards the 21st century. [...] The economic tertiarisation appeared as the solution to the great economic and social problems brought about by the reconversion, and the beginning of the 90s was marked by the idea that the Bilbao should be transformed from an industrial metropolis to a tertiary metropolis” (Plan Territorial Parcial Bilbao Metropolitano 2006)

Based on the reviewed empirical data, it can be concluded that the *Visionary/Future orientation* concept feature is valid for Bilbao. It corresponds well with the shrinkage conceptualization in the case as well as with particular action points that are tied to those objectives (thus it corresponds to the *Generative/Inventive* concept feature). The main perspectives that intersect in the objectives and future orientation are space and economy, but those are complemented by considerations for improved urban quality and good living conditions.

Generative/Inventive

Due to the fragmented property landscape and the significant variety of urban space in Bilbao, the identification of means for the achievement of objectives is closely related to the planning process and concerns specific planning instruments and approaches (See also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)). Interviews with local planning experts reveal the considerations that have shaped the planning instruments. The main consideration that shapes the planning approach is the fragmentation of property and the high percentage of private property. Therefore, the plans and the planning instruments are not only an actionable approach to achieve the planning objectives, but act as a quasi-legislative requirement for the owners:

“Our urban planning system in Spain makes a general plan a very complicated thing. Because it is a plan that has a strategy, it is a classic strategic plan, but at the same time it is a regulation. It has the status of a regulation, like a law. So, this means that because of our system, which is a bit special in legal terms, with the state land legislation, we have to define everything down to the last corner. We draw everything in the general plan, it has to comply. Why? Because it generates a series of rights and obligations for the owners of the land. In other countries this does not happen, but in Spain it does. As it generates its duties and rights and we are talking about money, we have to define exactly this little basin of money. That is why we have such a detailed and well-drawn general plan.” (Interview 011_ ExLocP1)

The general plan and the instruments in it should enable both the proper control and management of vast private property, but also allow for the planning department to pursue the objectives of the city (defined and influenced by various strategic and planning processes even on upper institutional levels):

“If the strategy says, well, we want to promote tourism, so we look for land for tourism or another use. So, it is a little bit the link - the strategy that is made in the [preliminary version], and then the final document that you read, it is very legal, it already has all the details because - because [it should say to an owner] - you can build X square metres of land, you can build X square metres. And these you lower a profit. People are not going to look at the strategy, they are going to look at how much they will pay me for my land, and that’s why the general plan is so detailed but the general plan is part of a document in two magnifying glasses. It starts from a strategy, but goes down to the detail.” (Interview 011_ ExLocP1)

The dual role of the planning process triggers two perspectives for the actionable points from planning perspective. The first one concerns the day to day management of the fragmented urban fabric. The second one concerns the key interventions in specific urban projects and areas of higher importance. These two perspectives translate into the two different types of planning instruments that serve these goals – the zoning approach in the plans that introduces a variety of regimes for the management of the urban land and the particular approaches for intervention in specific urban areas:

“Sometimes we have large areas like Zorrotzaurre, where the general plan is such a large and complex document, it doesn’t make sense to put all this in. Because it needs a lot of detail. So, when we have important areas - the general plan says, this is going to be coordinated with a smaller plan. I am going to say, because I am legally required to do so, how many square metres can be built here, but I am

not going to draw how many buildings there are, or where the road is, or where the parks are, or anything else. And well, a special plan after Zorrotzaurre and it designs it exactly. It cannot change the square metres that can be built, because that [...] is determined by the general plan. But it does determine the details of the urban planning. So the general plan draws small areas that it considers would not need a detailed special plan, but then it has large areas that it refers to for future special plans.”(Interview 011_ExLocP1)

The Master Plan of the city (*Plan General de Ordenación Urbana 1996*) introduces a system of uses of space that determine how those areas can be developed. The main distinction is between urban consolidated land, urban non-consolidated land; land subject to urbanization and land no subject to urbanization. Within the land that is not consolidated or is subject to urbanization, specific planning instruments can be utilized in order to develop this land. These are Partial Plans and Special Plans. These plans are intervention instruments to develop the respective land or area which is not subject to “every day” planning due to its size and complexity.

The planning instruments are then followed by specific management instruments that coordinate the implementation of the plans – Urbanization Programmes, Implementation Sections, Reparcelation Projects and Urbanization Projects. This is the case of the area of Zorrotzaurre which is being developed through a Special Plan, whose implementation is also managed by a dedicated institutional entity (see also 6.5.1.Economic and spatial development of Bilbao (Spain)).

As part of the regular planning system and management of the land, there are detailed categories of management of the space, outlined in the Master Plan of the city – areas of specific management, areas of generic planning, referral areas and incorporated planning areas. Additional regimes of management are added to these categories in order to enable control on the urban fabric by the local administration and to ensure that the provisioning of services and infrastructure is not interrupted by private investment or specific development projects. Further limitations are placed within the various categories and regimes of management that effectively introduce control on each aspect of potential investment opportunity by private owners as well as determine the scope and responsibility to the furthest possible detail in spatial terms. The establishment of this system of planning and management has been gradually developed in parallel to the development of the planning process (see also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)) and has effectively led to increased institutional control on the development of the city. A specific department within the municipality has also been set up to coordinate the implementation of this complex system of land management:

“day-to-day urbanism and modifications, plans, they take it to the Area [of urban planning], there is planning, we are a part of this, but we are separate, but our mission is to make a new plan. And their mission is to apply the old plan until it is approved.”(Interview 011_ExLocP3)

The areas that are subject to specific interventions due to their further fragmentation or due to their condition are subject to specific planning instruments that are determined in the Partial Territorial Plan of Bilbao and that are paired with the specific objectives that they serve. Some of the specific planning instruments are regeneration (large scale remodeling of existing obsolete space), renovation (interventions in areas to promote economic activity and mixed use with high urban quality), redensification (for areas with low density to be

turned to residential or commercial and improve efficiency of land use) (*Plan Territorial Parcial Bilbao Metropolitano 2006*).

In addition to those planning and management instruments, certain areas within the city are subject to targeted policies from governmental level. This is the case of the neighbourhood of Bilbao La Vieja which is categorized from the government as an Area of Integrated Rehabilitation. This statute enables the targeted funding for rehabilitation of housing and economic measures. On planning level, this categorization is supported by a Special Plan for the area which is managed by the administrative entity, responsible for the area – the agency SURBISA (See also 6.2.1. Interpretive policy analysis of the policy substance in Bilbao (Spain)). From planning perspective, due to the complexity of the area and its specific needs, it is categorized as predominantly residential zone, but is subject to a Special Plan and specific management regime:

“R2: Yes, everything that is [government funding] and it is exclusively SURBISA. Let's say that what the city council does is to coordinate that [the Special Plan] is in line with [the Master Plan], and that they have to carry out the necessary procedures. But this movement of participation and needs, of aid, of all these kinds of things is SURBISA.

I: How is Bilbao La Vieja classified in the Master Plan?

R2: Well, what it really prescribes is that it is a residential area, which does limit the maximum number of dwellings that can be created. But on this site we work in coordination with them. That is to say, we have sat down and we have seen what number of incremental dwellings they need and then we have taken the plan and we have given it to them.” (Interview 011_ExLocP3)

Within either of the regimes of management (through the Master Plan or through the dedicated instruments) there are further legal instruments to execute and put pressure on owners to follow guidelines. These are legal instruments that vary from fees to expropriation.

The reviewed empirical data illustrates that the *Generative/Inventive* concept feature can be considered as valid for the case of planning substance in Bilbao. The findings expose very close interrelation between objective setting, planning process and assignment of responsibility and instruments. The specific characteristics in the case of Bilbao indicate very fragmented property landscape as well as very differentiated institutional structure to manage this. Parts of the city are subject to multiple regulations and multiple regimes with a variety of instruments that can be applied to the specific cases. This enables flexibility and strong control on the urban fabric.

Know-How

Based on the reviewed planning documents, it is difficult to distinguish specific references to elements or procedures that would fulfill the criteria for the *Know-How* concept feature. The planning instruments outlined in the *Generative/Inventive* concept feature conclusions reveal the preferred way of action. The overlap between the criteria of the *Generative/Inventive* and the *Know-How* concept feature is difficult to distinguish in this case.

The interviews with local planners reveal some specific approaches that are not outlined in the reviewed documents. The particular approach was initially applied in the regeneration project of the Abandoibarra area (surrounding the Guggenheim Museum), led by the Bilbao

Ria 2000 executive agency. The approach involves the creation of a governing entity that would manage the consolidation of the fragmented property in a specific regeneration project in order to ensure its full completion. In the typical case in Bilbao, a regeneration project subject to this intervention, addresses an area that consists of properties, owned by multiple public and private owners. In the preparatory phase, the owners import their property into the portfolio of the specifically created organization and are later compensated with an amount of developable land or property that they can manage after the regeneration project has been completed. This approach has been applied to the Abandoibarra area and is now utilized in the Zorrotzaurre area:

“R1: We have a system of urban planning that consists of each private or public owner contributing land and depending on the land they contribute, they receive some future benefits, X houses or X industry or whatever is going to be done. In proportion to what they contribute, they are given a number of buildable square metres. In this case, we have private and public land from the Basque Government. So, the Basque Government, which is the management commission, will probably use its square metres to build social housing. The private owners will use them to build private housing, each one providing what they contribute and the resulting product.”(Interview 011_ExLoc_P2)

As per the interview respondents, a critical factor in this approach was the public-public partnership since vast areas of land are owned by the Basque Government or Spanish state institutions (such as the port areas). The driver to redevelop certain areas compels the institutions to work together. Another factor is the trust in the capacity of the local institutions to manage such projects. One respondent emphasizes that for the case of Zorrotzaurre they have found indications that the citizens trust the local institutions to deliver properly, due to the success of the previous projects. But the main factor for the gained trust is the good management of the project, otherwise it can result in *“horrible things”* (Interview 012_ExLoc).

Based on the identified empirical data it is difficult to conclude to what extent the *Know-How* concept feature is applicable in the case of Bilbao’s planning. This is mostly due to the improper formulation of the feature and the difficult distinction between its scope and the *Generative/Inventive* feature. Yet, based on the information outlined, it can be concluded that the specific management approach with the transfer of property to the dedicated agencies and the increase public-public partnerships can be partially considered as a know-how. The *Know-How* concept feature can be considered as partially confirmed for the case of Bilbao’s planning.

Efficiency

Efficiency considerations have been identified only in the reviewed Partial Territorial Plan of Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*). They concern the redevelopment of available space in the city as well as some aspects of sustainability. It is outlined that from the perspective of sustainable development, the resources utilized in the city should be limited, so as not to surpass the limitations of the environment. From the perspective of space, the efficiency considerations correspond to the normative leaps identified in the *Visionary/Future* orientation concept feature in regards to further densification, balanced use of space with different functions as well as further densification of obsolete industrial spaces. Additionally, some considerations for housing and reutilization of available buildings have been outlined as a preferred mode of intervention. These considerations, however,

are not primary normative leap, but rather interpreted as a supporting justification to the overall orientation of densification and mixed use (see also 6.5.1. Economic and spatial development of Bilbao (Spain)).

In conclusion, based on the identified data the *Efficiency* concept feature cannot be verified for the case of Bilbao's planning. Some efficiency considerations have been found, but they are embedded in the overall normative orientation of planning and are not a separate line of reasoning for the utilization or redistribution of resources.

Collaboration

No references under the *Collaboration* concept feature have been found in the reviewed planning documents. Interviews with local experts reveal that the spirit of working together and identifying ways to deliver the desired actions between various partners is one of the main efforts in the execution of the plans. The gradual complication of the planning process has had implications on the various institutional bodies, involved in the preparation of the plans and this has triggered the need to improve communication and coordination (see also 6.1.1. Interpretive policy analysis of the planning process in Bilbao (Spain)). Additionally, in specific regeneration projects, such as Zorrotzaurre, the execution of the project is strongly dependent on the ability of the multiple actors and owners within the management body to coordinate and work together:

"R1: [...] The majority of the private owners in Zorrotzaurre, 50% of which is public, is in the Basque Government which probably develops the land either through the government itself or perhaps through [agencies]. The other 50% are private. And practically all of them are land developers. So, what they are going to do is they are all going to agree, commission the land to develop and then the places they have left in the private developers, they as they are developers and owners, they are going to develop their own buildings here and make a profit. [...]"

I: But you need this consensus between

R1: Yes, [it is necessary]. They have to agree.

I: Because without this agreement and without this consensus, this plan was not going to be done.

R1: That's it.

R2: Yes, that's it.

R1: The management commission is the one that is going to coordinate all the agreements." (Interview 011_ExLocP2)

The overall efforts on local level, beyond planning and beyond specific regeneration projects have included extensive coordination between the various institutional or private actors in order to facilitate the execution.

With that said, it can be concluded the *Collaboration* concept feature is valid for the case of Bilbao's planning, taking into account that its characteristics and scope can be found mostly as part of the planning process and some of the planning instruments utilized in specific projects.

6.3.2 INTERPRETIVE POLICY ANALYSIS OF THE PLANNING SUBSTANCE IN LEIPZIG (GERMANY)

The planning system in Germany is very clearly differentiated and this applies for the case of Leipzig as well. The planning unit of analysis encompasses two major phases of planning in Leipzig during the investigated period – the urban development plans (STEP-Stadtentwicklungsplan) from the year 2000 (the complete timespan is between 1999 and 2005) and the urban development concept plan (SEKO-Stadtentwicklungskonzept) from the year 2010. The smaller-scale plans are either part of the larger planning effort or occur in-between. The analysis often follows a chronological sequence by differentiating the two phases of planning.

Due to specifics of the planning culture, multiple documents were produced for each of the phases of planning, therefore the analysis focuses mostly on document data while information from interviews is mostly supplementary.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

Inquiry

The reviewed planning empirical data illustrates that scientific assessments, data gathering and evaluations have been continuously used to justify specific interventions and approaches in Leipzig. In the first phase of planning documents, backcasting and scenario building were utilized for the purposes of identifying potential uses of commercial building land to support the decisions and interventions on the former industrial areas (*Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999*). Similarly, in the plans from 2010, continuous assessment and monitoring of the housing market have been included as part of the active management of the housing market, following the demand-oriented planning approach (*Stadtentwicklungsplan Wohnungsbau und Stadterneuerung STEP W+S Fortschreibung Teilplan Wohnungsbau 2010*).

In one of the dedicated plans for the area of Leipziger Osten, it is outlined that continuous surveys, housing monitoring, cultural and social space analysis as well as evaluations on objectives and target groups have been performed in order to support the different interventions in the area.

The local plans perhaps do not expose as much information under this concept feature due to the extensive scope of the Stadtumbau Ost programme which had a considerable amount of verification and data collection to support its execution (see also 6.2.2. Interpretive policy analysis of the policy substance in Leipzig (Germany))

Additionally, many of the reviewed planning documents include a section of assessments and evaluations prior to outlining planning objectives and measures.

Therefore, it can be concluded that the *Inquiry* concept feature is valid for the case of Leipzig's planning. Measures and planning objectives in different areas have been supported by scientific and data-driven assessments and justifications. The planning efforts also correspond well with the data-driven approach, introduced under the Stadtumbau Ost programme.

Applicability/Contextuality

The main contextualization references identified in the reviewed planning documents refer to the economic perspective and role of Leipzig in regional, national and international economic context. As early as the plans from the year 2000 (*Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999*) Leipzig's role is contextualized in relation to regional, national, European (in light of the then upcoming EU expansion) and international economic networks. This contextualization is made in regards to the active management of commercial building land so as to enable the activation of local potential of the city through the proper approach to those areas. At the same time, it is recognized that Leipzig's economic development is strongly influenced by external contextual factors:

"Nevertheless, it must be taken into account that the influence of external factors on the development of the city, which cannot be influenced by the municipality, is very great. It is therefore important that Leipzig's strategy is flexible enough to be able to react quickly and appropriately to changes in the general conditions." (*Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999*)

The economic perspective on contextualization continues in the later plans from the year 2010. There, the influence of the already globalized economy and the development of the knowledge society is taken into account in reference to the overall strategic orientation of the city. These influences are interpreted as crucial in terms of strengthening Leipzig's role as a regional and international growth pole:

"The innovative potential, the attractiveness and the current increase in population show that the city is well positioned and can assume its role as an engine of growth in the region. The socio-demographic development will also require a great deal of prudence in the future in order to be able to shape targeted adaptation processes in the city's construction and infrastructure and integration services for a changing urban society." (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009*)

"Increasing national and international significance

In order to increase Leipzig's level of recognition and significance nationally and internationally, the city's existing and well-known strengths must be further developed. These talents and potentials must be communicated concisely and effectively. At the same time, intensive co-operations with comparable large cities must be based on regional, national and international level is an important success factor for the self-confident and successful profiling of the city as a location in a globalised world." (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009*)

Further contextual influence has been outlined in relation to climate change. In the later plans, climate change has been referenced as a significant global process that requires Leipzig to also adapt to those changing conditions through action plans and preparatory activities:

"In order to relate the global climate protection goals to Leipzig, a climate protection programme of the city was adopted in 2005, which comprises five areas of measures: Climate protection in urban development and urban land use planning, environmentally compatible energy supply, transport, energy saving in buildings

and compensation measures. The aim is to reduce Leipzig's CO2 emissions per inhabitant by 50% between 1990 and 2010. A reduction of 46% has been achieved to date. The city of Leipzig is currently beginning to develop an energy efficiency plan for the entire city.(Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo)2009)

Regional and national contextualization references are also used in relation to transport planning. The transport plan of the city from 2004 (*Beiträge zur Stadtentwicklung 40-Stadtentwicklungsplan Verkehr und Öffentlicher Raum 2004*) outlines that the road infrastructure, the airport expansion and the railway improvements are expected to contribute to increased connectivity and to build on the central location of Leipzig within Germany and Europe.

The identified contextualization references expose the strong influence of the economic perspective on Leipzig's plans and the changed economic conditions between the earlier plans (2000) and 2010 when the city had already begun to regrow, both economically and population-wise (see also 6.5.2. Economic and spatial development of Leipzig (Germany)). Additionally, the reviewed data outlines strong sensitivity to global processes beyond economy – climate change. The contextualization is not introduced only with general statements, but is logically connected to specific measures and action points in the development of the city. There is a consistent recognition of the European dimension. In conclusion, the *Applicability/Contextuality* concept feature can be considered as valid for the case of Leipzig's planning.

Integration

The reviewed empirical data outlines consistency between the overall integrated approach in the planning process, identified under Hypothesis 1, and the integrated policy orientation, identified under Hypothesis 2 (see 6.1.2 and 6.2.2.) In reference to those findings, it appears that the first planning period, around the year 2000, established the integrated approach to planning and created the necessary capacity within the city to continue planning in an integrated way. This was also supported by the integrated approach demanded by the *Stadtumbau Ost* programme. There is a very visible normative leap, outlining that the integrated way of planning is the preferred orientation:

“The integrated urban development concept (SEKo) formulates a cross-departmental urban development strategy for the city of Leipzig on the basis of the current socio-demographic framework conditions. By networking sectoral planning (urban development plans and sectoral planning), it defines substantive and urban space objectives and focal points of action and approaches for their implementation. This results in guidelines for targeted administrative action. At the same time, the SEKo is a communication and cooperation offer for citizens and is aimed at the numerous partners of the urban development.”(Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009.)

„The SEKo is designed as an urban development planning in process in order to be prepared for changing framework conditions of urban development. Integration was to be achieved both in terms of the concept statements and in the context of the work and communication process. This requirement is clearly illustrated by the working method for the core statements of the overall strategy, which was developed in an intensive communication process within the administration: the core statements are linked to the framework conditions of urban development

and were formulated and justified in the discussion of the technical concepts.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009).

Thus, in the later plans, around the year 2010, the overall approach is even more strongly integrated and encompasses a variety of topics. Additionally, its application is very clearly outlined through the examples of integrated district concepts, developed under the Urban Development Concept (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009*).

The plans outline that the variety of challenges in specific districts of Leipzig encompass social, spatial and economic issues. Through continuous monitoring and overlap of specific negative measurements, certain areas of Leipzig, such as Leipziger Osten or Grünau, are identified as areas that need to have a specific and targeted approach which is to be outlined through an integrated differentiated planning concept referring only to the area, but embedded in the overall planning of the city. These challenges are interpreted in the framework of the overall urban planning of the city with consideration of the spatial aspect and risks associated with the concentration of social issues in certain areas:

“Differentiation in social space

The contradictory demographic developments in urban space are also associated with risks of socio-spatial segregation. Integration is therefore becoming a cross-cutting task which covers all areas of urban development.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009).

The integrated assessment of those areas triggers specific interventions that are to mitigate the negative effects and improve the overall situation. Those interventions are designed under the framework of the local integrated plans:

“This support will be flanked by measures for location marketing, upgrading trade and commerce and improving the image. A comparable strategy is conceivable in Schönefeld, for example, where, on account of the social situation, a targeted economic and employment policy promotion seems sensible” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009).

“In some districts there is a mixture of urban development, economic, ecological and social problems, which can reinforce each other in the sense of a downward spiral. Such developments must be countered by integrated district development and the bundled use of funds, which must include all problem areas, potentials, and actors.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009).

“Socio-spatial planning: An important goal of the SEKo is to strengthen interdisciplinary socio-spatial action. To this end, a uniform understanding of social and planning spaces is to be established in the various sectoral plans and coordinated action in these spaces is to be established” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009).

“On the basis of integrated action concepts, they are also to be networked with one another and with urban development and economic approaches.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009).

The integrated approach to economic, spatial and social problems corresponds to the observations and overall orientation of the Soziale Stadt programme and its flexible approach (see also 6.2.2. Interpretive policy analysis of the policy substance in Leipzig (Germany)).

The identified empirical data here, however, indicates that planning is the leading factor in the development of the local integrated plans whilst the Soziale Stadt programme becomes an instrument, subordinate to the integrated planning approach. The local integrated concepts also outline that the districts with such are to have a local management centre that is supposed to coordinate the measures in the different areas and act as a focal point for citizens and businesses.

Other aspects, interpreted from integrated standpoint are transport planning and public space as well as environmental measures. For the planning in both areas, it is stipulated that they are to be either embedded in the overall integrated planning effort of the city or be subject to specific integrated plans for the sector:

“At the same time, the existing environmental pollution, the foreseeable consequences of climate change and the need for energy efficiency give rise to new fields of action for integrated urban development.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

“The planning of the city’s transport networks and public spaces must be integrated into a comprehensive urban development policy concept. In this respect, the urban development plan „Transport and Public Space“ must be integrated into an overall strategy for the future development of the city.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

In conclusion, it can be determined that based on the available empirical data, the *Integration* concept feature is valid for Leipzig’s planning. The conclusions under this point are very strongly related to the findings under Hypothesis 1 (Planning process) and Hypothesis 2 (Policy substance) (see also 6.1.2. and 6.2.2.). The integration perspective encompasses a variety of topics including spatial development, social issues, transport planning, public space, economy and environment. These are manifested in a variety of planning approaches on both city and district level.

Visionary/Future orientation

The local planning documents of Leipzig can be grouped in two phases, outlining the two main stages of planning within the investigated period. The future orientation and objective setting in the two phases (around 2000 and around 2010) differs but also encompasses similar and complementing topics. In the earlier phase, the overall orientation of the plans outlines a future vision that not only outlines the desired direction of development but also reaffirms the readiness of Leipzig to build its own future:

“For 15 years now, Leipzig has been undergoing a continuous transformation process that has lost little of its intensity despite changes in the economic environment. In order to use the potential of change, everyone - citizens, business, urban politics and administration - must be open to new ideas in order to move Leipzig forward.” (Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999)

In the earlier planning stage, Leipzig’s economic orientation is one of the most visible long-term objectives. Local plans outline the overall orientation to improving Leipzig as a business location and continue building on the positive indications in the last years of the 1990s:

“The overarching goal of the STEP is to develop and strengthen Leipzig as a business location. The aim is to strengthen the manufacturing sector and raise Leipzig’s profile as a business location. Inter-communal cooperation is to be expanded in the process.” (Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999)

This normative leap to support and enable the competitive advantages of Leipzig has very clear implications on a number of other normative leaps, concerning the land use management within the city. As an overall orientation to compact development and limiting sprawl, the earlier plans set up a number of objectives that lead to active management of former industrial spaces and vacant lands. This active management enables the distribution and active policy of land allocation to potential investors in a strictly controlled way:

“4: Differentiated land usage, adequate usage and active land marketing

Differentiated uses of the available land can be provided and should be encouraged. Adequate usage of available land and mix of usage creates high-quality places with identity. Within the individual commercial centres, fine differentiation is to be made, if necessary, in order to do sufficient justice to the individual micro-locations, such as business locations for offices and good public transport for them. The differentiated use of those spaces should not be left to chance but is an object and should be supported by proactive supply planning.” (Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999)

This approach enables the coordination of investment activity by the municipality and also relates to the reuse of vacant lands (see also 6.5.2. Economic and spatial development of Leipzig (Germany)). This overall approach has implications on other normative leaps in the area of transport planning, mixed use and neighbourhood management.

The second element in terms of objectives and future orientation in the earlier plans is housing. The framing of housing vacancy as a major element of the shrinkage conceptualization leads to the introduction of a normative leap for active management of the housing market so as to counteract vacancy, improve the balance between supply and demand and improve the quality of housing (see 6.4.2. Interpretive policy analysis of shrinkage conceptualization in Leipzig (Germany) and (Ivanov 2021)):

“Goals: The development strategy for industrial housing estates focuses on improving the quality and stabilization of the available buildings stock and proportionally to reduce housing vacancy in Leipzig” (Beiträge zur Stadtentwicklung 34-Stadtentwicklungsplan Wohnungsbau und Stadterneuerung Teilplan Großsiedlungen 2002)

“the noticeable population decline is seen as a challenge and an opportunity in equal measure. the surplus of housing in particular creates opportunities to: improve the quantitative housing supply through increase of available living space for each tenant, greater variety and higher quality of the housing on offer, adapting to the current housing needs of different target groups of residents and future users” (Beiträge zur Stadtentwicklung 34-Stadtentwicklungsplan Wohnungsbau und Stadterneuerung Teilplan Großsiedlungen 2002)

The normative leap for active management of the housing market translates into multiple objectives in this sector that encompass rent accessibility of housing, differentiated

housing provisioning for different demand groups, good living conditions across the city and implicit or explicit active policy towards owner-occupied housing. The approach to the housing policy and the active management of the housing market are seen as an important element of the overall urban development objectives of the city. In this context, the future outlook of the population in the earlier plans is stipulated as “stagnating at best”:

“Goals: the city’s housing policy, in harmony with urban development and social policy, aims at a sustainable and socially contractual design of the necessary urban redevelopment with, at best, stagnating population figures. The goals and action points are focused mostly on the administrative bodies, but also local market actors and particularly the housing cooperatives as well as the state and federal policy should also support this concept.” (Beiträge zur Stadtentwicklung 36-Wohnungspolitisches Konzept der Stadt Leipzig Neufassung 2002)

„Goals: Support the reduction of the housing stock to the extent necessary for a functioning market with a high fluctuation reserve. to this end, in addition to the demolition and deconstruction of housing, housing mergers, conversion and decommissioning of stock should be promoted. in order to avoid overreactions and negative effects of a housing shortage, the targets are to be adjusted annually in response to current developments. to this end, ongoing monitoring of the housing market and neighbourhood development is being established.“ (Beiträge zur Stadtentwicklung 36-Wohnungspolitisches Konzept der Stadt Leipzig Neufassung 2002)

The active management of the housing market in the earlier plans results in positive evaluation and further future projections in the later plans around the year 2010:

„Leipzig will therefore continue to have a very relaxed housing market in the future. The city of Leipzig is pursuing the goal of further developing itself as an attractive and competitive residential location with the comprehensive qualities of a prime city in the region and of enabling all citizens to find adequate housing in accordance with their wishes, needs and financial possibilities. It sees itself as responsible for contributing to the development of a housing market that functions in the long term, which also includes ensuring a sufficient supply of affordable housing for low-income households and special needs groups. Integrated urban development is also intended to stabilise the disadvantaged neighbourhoods of old buildings in Leipzig’s east and west with impulses from townhouse development. The role of property development should not be underestimated.“ (Teilplan Stadthäuser in Leipzig Innenstadt 2010)

In the later plans, there is further intersection between the objectives of compact development, counteracting sprawl, active management of housing market and vacancy handling. The intersection occurs in the active planning of new locations for single-family houses:

“Young families, who were previously more likely to find adequate offers on the outskirts of the city, now have the chance to build affordable property in Gründerzeit neighbourhoods.

From an urban development point of view, the implementation of the urban redevelopment that is still necessary in Leipzig offers opportunities for the

realisation of townhouses on brownfield sites or in gaps between buildings in certain locations in almost all of Leipzig's Wilhelminian quarters. The city of Leipzig is primarily pursuing the goal of providing attractive housing within a radius of three to four kilometres of the city centre.

The aim is to present locations for individual housing construction in order to support the creation of residential property - especially for young families - in their own urban area. The preservation and enhancement of urban structures as well as the strengthening of civil society in disadvantaged neighbourhoods are welcome side effects.”(Teilplan Stadthäuser in Leipzig Innenstadt 2010)

The efforts for resizing and control of the housing market that started in the earlier planning phase lead to stabilization, more confidence and differentiated coordination of the housing market in the later phase of planning:

„The focus of a reorientation of Leipzig's urban development policy at that time was therefore on stabilising the housing market. Through the targeted demolition of residential buildings, the support of the formation of ownership in listed old buildings and new townhouses, through the creation of large-scale green structures and small-scale housing projects, the city's housing market was stabilised.”(Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

„At the same time, a qualitative change in demand is to be expected, resulting in the need for action. In particular the demand groups of small households middle-aged, households with children and the very elderly will continue to grow.”(Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

„Now the aim is to qualify the offer for small households, families and senior citizens and to stabilise the previously difficult locations. At the same time, low-cost flats must be kept available and the locations for owner-occupied homes must be concentrated in integrated locations. Therefore the sectoral concept formulates spatial focal points of action and small-scale target statements for the housing stock.”(Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

The active management of space and land that began with the earlier phase of planning evolves to another normative leap and objective in the later plans - that of sustainable urban development.

“The spectrum ranges from listed old buildings to the normal detached house and townhouses with modern architecture. In the interests of sustainable urban development, it is important to reduce the use of new areas on the outskirts of the city and to exploit the potential for densification in well developed areas or on redevelopment sites” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

“In the interests of sustainable urban development, the existing approaches to support inner-city development will be further developed and expanded.”(Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

This understanding has also been shared in interviews with local planners. The idea of sustainability translates to compact development and mixed use within neighbourhoods:

“One could say that this is the approach of sustainability to further develop the district from within itself and to promote the already existing, not possible new ones, one could say that is the sustainability idea.”(Interview 006_ExLoc)

The convergence between the objectives in different areas and their interrelation strengthens in time due to the overall integrated approach of planning within the city that also solidifies throughout the investigated period (see Integration section, this chapter). Therefore, the overall future orientation in the later plans begins to encompass aspects and topics under particular normative orientation. This is quite visible in the following extract:

„Strategic urban development requires the setting of priorities and concentration of measures on selected spatial priorities. The priority areas identified in the SEKo either have particular strengths, in accordance with the SEKo’s objectives, in order to increase Leipzig’s external importance, strengthen its competitiveness and/or improve the quality of life in the city. In some cases, however, they are also characterised by particular weaknesses, the reduction of which can contribute in particular to social stability, but also to improving the quality of life and competitiveness.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

It is very clear from this normative leap that a positive evaluation is placed on the economic development of the city since the year 2000 but its competitiveness is seen as requiring further improvement. In parallel, however, the desire to continue improving the quality of life in the city remains and does not contradict with the economic competitiveness orientation (Ivanov 2021). The integrated approach to planning enables the intersection between different planning topics on spatial level and also relates to the differentiated approach to some districts of the city that combine social, economic and spatial problems. Respectively, the objectives to further improve the quality of life there as well as their economic performance translate to the district level:

“In some urban areas the proportion of SGB II recipients is well below 10%, in others over 40%. In districts with a particularly high rate of SGB II recipients, therefore, the economic and employment promotion measures targeted at the city as a whole or the region are supplemented by a module aimed at the small-scale economic structure in the district. This local economic structure requires a specific approach. The focus is on addressing the business community and local contacts, support for network building, support for dealer initiatives in shopping streets and space management.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

The objectives and goals in the economic sector are juxtaposed to the demographic development of the city, thus stipulating the need to ensure the demand for skilled workers, respectively to encourage population growth:

“The development prospects for Leipzig’s economy are good as long as the city itself can influence the general conditions. This opens up opportunities for a long-term improvement in the employment situation. At the same time, due to demographic developments and the demand for qualification profiles, great attention must be paid to securing the demand for skilled workers.”(Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

Based on the reviewed empirical data, it can be concluded that the *Visionary/Future orientation* concept feature is valid for the case of Leipzig's plans. The data indicates that the objectives and thematic scope intersect due to the more conceptually coherent integration between various aspects and interventions within the planning of the city. The two planning phases can be clearly distinguished as well as the evolution of the objectives between them. This is mostly visible in the effective restart of the housing market as a result of its restructuring as well as in the continuous efforts in reutilizing vacant land. The introduction of overall normative orientation of economic competitiveness exists in parallel with quality of life objectives. Both of those intersect in the active spatial management of the available land in the city as well as in differentiated approaches to districts with accumulation of issues.

Generative/Inventive

The reviewed empirical data indicates the evolution of the assignment of responsibility and actions as part of the plans between the two phases of the planning in the investigated period. The earlier plans sustain the actions, oriented to the restructuring of the housing market and the management of the extensive land vacancy. These objectives are supported by the utilization of temporary use arrangements with private owners, a non-traditional planning instrument as well as other informal instruments, aimed at enabling local uses of space led by citizens. One respondent refers to the application of this method in the area of Plagwitz as *'playground for adults'* (Interview 006_ExLoc). Additionally, the role of the housing corporations, public housing agencies and private owners in the restructuring of the housing market is highlighted as part of the plans.

The evolution of the planning process between the two phases of planning (see also 6.1.2. Interpretive policy analysis of the planning process in Leipzig (Germany)) and the establishment of integrated planning as an overall planning approach has implications on the assignment of responsibility and identification of action points. The overall integrated approach to various sectors triggers the creation of specific integrated concepts for certain areas in the city that incorporate the intersection of topics and are expected to facilitate the achievement of the (integrated) goals in those areas. This has implications both on administrative level and on implementation level:

"By networking sectoral planning (urban development plans and sectoral planning), it defines substantive and urban space objectives and focal points of action and approaches for their implementation. This results in guidelines for targeted administrative action. At the same time, the SEKo is a communication and cooperation offer for citizens and is aimed at the numerous partners of the urban development" (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

„Against this background, the SEKo provides a basis for action for the various public and private players in Leipzig's urban development. It has been developed in a multi-stage process within the city administration. On the basis of a thorough survey and as a result of an interactive procedure, it takes up technical principles and facets in a broad spectrum of urban development and integrates them into a strategic and action-oriented concept." (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

In the later planning phase these local integrated concepts are the leading instrument for the planning in specific areas of the city. They facilitate a spatially selective approach and are oriented to priority areas. In addition, municipal enterprises are expected to translate the integrated planning objectives in their work. In parallel to the integrated concepts, some of the objectives reviewed under *Visionary/Future orientation* result in specific action points, such as the creation of pool of available industrial and commercial land that is supposed to be marketed to potential investors.

The reviewed empirical data illustrates that the integrated approach to planning with differentiation on city and district level becomes not only the preferred planning method, but also a key component in the identification of actionable points for the execution of the (integrated) objectives. In parallel to the policies, implemented in Leipzig (See also 6.2.2. Interpretive policy analysis of the policy substance in Leipzig (Germany)) the empirical analysis under the *Generative/Inventive* concept feature reveals the primacy of the planning implementation on local level to any other remaining implementation approach. As the policy substance analysis revealed, the policy interventions become an instrument of the local planners, so the upper institutional levels of the planning system only oversee the overall logic of those programmes, rather than implement them themselves. This is confirmed also in this chapter with the *Generative/Inventive* analysis as well as with the previous findings under sections *Visionary/Future orientation* and *Integration*. Due to the entangled nature of the overall approach of planning in Leipzig, oriented to plan-driven integrated approach on city level and on area level through separate integrated concepts and objectives, it is difficult to draw a boundary between the scope of those concept features in the case of Leipzig. For the purposes of verifying to what extent the formulated goals have been assigned with a responsible entity (the scope of the *Generative/Inventive* concept features), this can be confirmed. However, in the case of Leipzig this cannot be viewed separately, but in relation to the *Integration* concept feature as well as with the *Visionary/Future orientation* and even the *Planning centrality* and *Integration* from the perspective of the planning process (See also 6.1.2. Interpretive policy analysis of the planning process in Leipzig (Germany)) as the integrated planning becomes the primary driver for the objective definition, responsibility assignment and identification of action points.

Know-how

No information has been identified that pertains to the *Know-How* concept feature. Thus it cannot be confirmed for the case of Leipzig's planning.

Efficiency

The main efficiency considerations identified across the planning documents concern the active management of space and land and the pursue of compact development through the reuse of available sites (see also section *Visionary/Future orientation* in this chapter and 6.5.2. Economic and spatial development of Leipzig (Germany)). In addition to those aspects, efficiency considerations have been outlined as a general approach to the planning of the city due to the limited financial coverage as well as in light of the expected population decline. Those factors influence the optimal management of available resources both in the earlier and in the later plans.

Efficiency considerations have also been outlined in terms of transport planning with the suggested optimization of the public transport network.

Overall, there is not enough empirical data to conclude whether the Efficiency concept feature can be verified for the case of Leipzig's planning. The main efficiency considerations are outlined in regards to the land use management and the compact-oriented development, reviewed under Hypothesis 5 (see 6.5.2.).

Collaboration

The reviewed planning documents outline the involvement of various actors in the implementation of the planning objectives and actions. There is a continuous distinction between private and public actors, since the private ones play an important role in the land management within the city. In addition, the housing ownership is also split between various actors, including housing corporations, communal owners and other housing ownership structures. The role of the housing companies has also been emphasised in interviews with local and state experts – particularly in light of the restructuring of the housing market, their role has been crucial to delivering the measures (see also 6.2.2. Interpretive policy analysis of the policy substance in Leipzig (Germany)).

Partnerships with business and local companies have been envisioned in the image promoting activities of Leipzig in the earlier phase of planning (*Beiträge zur Stadtentwicklung 28-Stadtentwicklungsplan Zentren 2000*).

There is a consistent emphasis on the role of citizens in the implementation of the plans. This understanding has also been shared in interviews with local experts. The possibility for citizens to contribute to the implementation of the plans and to actively take part in the re-invention of the city has been very important. One respondent even highlights how this proactive engagement has changed throughout the years:

"we have less active people who are practical, could do something by their hands and are able to do something by themselves. Many people I think, especially younger people, are looking for something they need to do this service, to be done by administration or sponsoring or don't know how. Before it was different – more people were able to do the things by themselves." (Interview 006_ExLoc)

"Citizens in Leipzig are building their city. They continue to build on the heritage of the civic city, for themselves and for their future. They are those who have always been there, those who have consciously stayed and also those who have newly fallen in love with the city. They combine their personal life planning and a major investment in the future with the development of the city in which they live and, together with other developers, add new, individual building blocks of high architectural and urban planning quality. They take responsibility, enrich their neighbourhood and thus give the city as a whole a future again." (Teilplan Stadthäuser in Leipzig Innenstadt 2010)

Overall, it can be concluded that there is a consistent understanding across planning documents and interviews that the implementation of the plans was not only in the scope of the administration, but also depended on other actors, including citizens and private owners and businesses. The administration and the planning processes have aimed to enable this collaboration in the implementation of the measures, not only in the planning phase. Thus, the *Collaboration* concept feature can be considered as valid for the case of Leipzig's planning.

6.3.3 CONCLUSIONS FOR THE VERIFICATION OF HYPOTHESIS 3 AND MAIN POINTS OF ANALYSIS AND DISCUSSION

Definition of the hypothesis:

The shrinkage-related plans outline conclusions and recommendations, based on previously gathered data, assessments, studies and evaluations. The plans do not prescribe direct actions without scientifically-backed justification (*Inquiry*). The planning direction and decisions outlined are justified and interpreted as applicable for the specific context by referencing contextual characteristics, specificities of the planning system, political, cultural, civil factors that influence the respective planning approach and its relevance for the specific context (*Applicability/Contextuality*). The planning direction and decisions are interpreted as interrelated, the measures specified attempt to respond to a more complex understanding of the shrinkage phenomenon or its effects (*Integration*). The plan outlines a direction to a desired future state, a vision or an outline of the preferred change that the policy is supposed to deliver, implicitly or explicitly stated future condition (*Visionary/Future orientation*). The plan stipulates which actors or institutions are supposed to deliver the proposed planning actions or introduces elements or outlines of the implied implementation of the proposed measures. The planning measures outlined do not remain as ideas and wishes, but are “brought” to reality (*Generative/Inventive*). The plan stipulates proposed course of action for the implementation of the measures, particular steps that are supposed to be delivered (*Know-how*). The plan addresses the optimal utilization of available resources in any policy area. The plan stipulates how resources should be distributed (*Efficiency*). The plan stipulates that the effects of the desired change serve different social actors and groups. The plan outlines that different social actors and groups have a role to play in the delivery of the policy (*Collaboration*).

Conclusions

The empirical data for Hypothesis 3 illustrates that the scope of the concept features begins to blur in the planning narratives. As opposed to the conclusions from Hypothesis 2 where the concept features could more easily be distinguished, under Hypothesis 3 only the *Inquiry*, *Collaboration* and *Applicability/Contextuality* concept features could be fully verified for both Bilbao and Leipzig in their complete clear-cut formulation.

The rest of the concept features are in one way or another either connected or “absorbed” by a dominant concept characteristic or a specific element. This is most visible in the case of Leipzig where the integrated planning approach (identified under the *Integration* concept feature), becomes a normative leap on its own and becomes the leading factor in the objective setting (*Visionary/Future orientation*), the identification of action points (*Generative/Inventive*) and creates logical links between the policy and planning scope. Thus it goes beyond the planning substance scope and also encompasses the policy substance. The primacy of the integrated planning process in the case of Leipzig becomes a key determinant for the overall planning approach of the city. Due to this overemphasis on the integrated planning, the concept feature itself cannot be strictly confined within the limits of the planning substance, but has to be viewed across substance and process (see also 6.6. Conclusions from empirical findings. Assessment of concept features across units of analysis.). In a similar way, the findings under the *Generative/Inventive* concept feature for Leipzig also relate to the integrated planning as one of the key instruments utilized within the city were the integrated district concepts that applied the overall logic of the integrated planning on city level and incorporated tools that also were supported by the state or federal

levels (through the *Statdumbau Ost* and the *Soziale Stadt* programmes). Thus, the integrated planning becomes the leading factor in the overall planning logic within Leipzig and this subordinates the policy instruments as supportive tools.

The second observation is related to the implications of the concept features in planning substance on the planning process. Apart from the centrality of the integrated planning in Leipzig, the *Inquiry* concept feature from Bilbao also relates to the planning process as the evolution of the process itself has led to increased consideration of studies and assessments for planning decisions. Additionally, for both Bilbao and Leipzig the *Generative/Inventive* concept feature from the planning substance has direct relation to the planning processes. The various statutes of planning and management introduced in Bilbao, as well as the integrated district concepts in Leipzig are planning instruments that establish the actionable step between the objectives and the implementation. For the case of Leipzig this becomes even more complicated because the integrated thinking has influenced also the objective formulation. For Bilbao, the objectives also influence the instruments as the flexibility and the dedicated special and regeneration projects for certain areas are selected as instruments for important parts of the city whose transformation would contribute to external objectives (image building). The emphasis on quality of life in Bilbao thus becomes part of the everyday planning agenda, but not so much as a documented objective that triggers specific actions. In Leipzig quality of life is embedded in the integrated objective setting also across documents.

This leads to the third element of the concept features assessment. The findings under *Visionary/Future orientation* expose the overall normative orientation of the plans in both cities. The efficiency considerations (initially tracked under the *Efficiency* concept feature) are embedded into the overall normative direction. Both of the cities formulate goals pertaining to improved economic performance and positioning, improved quality of life and compact development with emphasis on mixed use (see also 6.5. Hypothesis 5: “Non-growth” oriented economic and spatial development (Implementation substance)). In both cases the additional concept sustainable urban development has contributed to these goals.

Lastly, in planning context, it is difficult to differentiate the scope of the *Know-How* concept feature. Although some findings were identified in the case of Bilbao, these observations can also be reviewed under the *Generative/Inventive* concept feature.

In conclusion, the concept features assessment under this hypothesis has to be viewed in parallel to the findings from Hypothesis 2 (Policy substance) in order to determine the fruitfulness and applicability of the overlapping concept features as well as to delineate the boundary of the planning and policy scope from conceptual standpoint. This has been done in the concept assessment chapter (chapter 6.6.). The case-specific findings illustrated above also lead to the conclusion that for the purposes of constructing a comparative framework as well as applicable approaches to urban shrinkage, the concept features need to be verified in a broader context, also taking into account planning process specifics and contextual characteristics.

6.4 HYPOTHESIS 4: SHRINKAGE CONCEPTUALIZATION

Definition of the hypothesis:

The shrinkage phenomenon is interpreted in a different way in the different cases investigated. It encompasses different areas, problems, effects. The way that the phenomenon is conceptualized and interpreted influences the desired decision and course of action, outlined in policies and plans.

Hypothesis 4 is verified with empirical data from Bilbao (Spain), Leipzig (Germany) and Zeeland (the Netherlands).

Hypothesis verification approach:

- *Review and analysis of coded segments of data that outline the representation of the shrinkage phenomenon and describe its scope, effects and implications on a broader scale.*
 - Identification of Frame/Framing discursive element.
 - Main questions:
 - How is the shrinkage phenomenon represented in the respective policies and plans?
- *Review and analysis of coded segments that particularly outline the effects and consequences of specific features of the shrinkage phenomenon.*
 - Identification of Story discursive element.
 - Main questions:
 - What effects, consequences and problems are outlined in association with it?
- *Review and analysis of coded segments that outline the problematization of the effects or descriptions of shrinkage and imply possible responses to those effects. Identification of causal links between problems and solutions.*
 - Identification of Causal story discursive element. Identification of Story discursive element. Identification of Frame discursive element. Identification of possible cognitive and logical links between those discursive elements and Normative leap discursive element.
 - Main questions:
 - How are the effects and consequences of shrinkage problematized and how it is implied that they need to be addressed?
- *Review and analysis of coded segments that contextualize the effects or interpretations of the shrinkage phenomenon in the respective social, cultural and other context.*
 - Identification of Nested context discursive elements.
 - Main questions:
 - How are the effects and consequences associated with the respective social, cultural, economic and institutional context?

6.4.1 INTERPRETIVE POLICY ANALYSIS OF SHRINKAGE CONCEPTUALIZATION IN BILBAO (SPAIN)

The analysis is based on all documents from across the policy and planning units of analysis as well as on all interviews performed. Distinction between policy and planning is sustained based on the differentiation outlined in the previous hypothesis (policy – territorial planning of the Basque Country and strategic planning of Bilbao; planning – metropolitan and urban planning).

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

ANALYSIS

The main interpretation of the shrinkage-associated changes in the case of Bilbao is related to the economic transition of the city and the spatial effects of this transition (Ivanov 2021).

This interpretation can be found across the various levels of the planning system, based on the analyzed document data. The territorial planning agenda, addressing the overall planning for the autonomous community of the Basque Country, places an emphasis on the economic transition that the community has been undergoing since the 1980s. Migratory, territorial, economic and social development trends are framed as a consequence of the economic downturn, experienced as a result of the post-industrial transformation. The process of industrial decline is framed as a significant change with implications on the whole territorial structure, but also on the main urban cores of the Basque Country (including Bilbao). From territorial perspective, the main urban centers lose their previous economic significance as drivers of the development of the Basque Country. The totality of this intertwined change is framed as a ‘rupture’ of the associated territorial model (*Directrices para ordenacion del territorio 1997*).

A similar notion of contrasting the industrial heyday of Bilbao to the economic downturn after 1980s is put forward by the interpretations of local planning experts. Representatives of different planning institutions frame the overall process of transition in a remarkably consistent way, outlining the whole trajectory of change that has occurred in the city, starting with the economic perspective, but also introducing spatial and social consequences. In addition, a number of other social and political crises appear partially in some of the interpretations of the local experts, most notably the period of terrorism by ETA and the then increasing social problems, such as high drug consumption. Both of those crises occurred at the same timeframe as the main shrinkage-related challenges in the city. The frame encompasses a larger period of time and references are made also to the flood that occurred in the city in 1983. All those negative effects, paired with the process of deindustrialization, are framed as causally interrelated and leading to processes of population decline, particularly through outmigration due to economic reasons, unemployment, urban blight in the remaining industrial zones (such as Abandoibarra and Zorrotzaurre) as well as low quality urban structures in former working class neighbourhoods, such as Bilbao La Vieja. Additionally, high rates of unemployment are also introduced as part of the overall framing. The effects of those transitions on the spatial characteristics of the city are framed negatively, rendering it as an unattractive place to live, thus with lower quality of life, leading to outmigration to nearby towns with better urban quality. Another emphasis is placed on the centrality of the former industrial areas – they are framed as located in an attractive place with high land value in the center of the city.

The local planning documents place a stronger accent on the economic perspective. The available space left from the closure of industries is framed as a possible new economic resource that can restore the economic primacy of Bilbao (*Plan Territorial Parcial Bilbao Metropolitano 2006*). This framing corresponds consistently with the story of economic transition – the desired direction of development of Bilbao is to turn from industrial center to a service-oriented city. This story is also strongly embedded in some local strategic documents, that have been produced in parallel to planning documents in a wider process of involvement of local businesses (*Bilbao The city where dreams come true - Strategic Reflection 1999; Bilbao as a Global City - Strategy 2001; Ahora, las personas - Strategic Reflection 2005; Es tiempo de profesionales - Strategic Reflection 2010*). The story of this desired transition places an emphasis on the endogenous potential of the city that needs to be explored in order to recover its competitiveness. This understanding can also be found in a frame, pertaining to the area of Zorrotzaurre – it is described and framed as an obsolete industrial space with low number of active companies. The framing of the condition of Zorrotzaurre as a consequence of the economic crisis is also shared in an interview with a local planning expert (*Interview 012_ExLoc*).

The perspectives of economic downturn and the consequences of the post-industrial transition in Bilbao are framed as undesired and are placed as an underlying cause for almost all spatial and physical changes that took place in the city. As a second step in the overall framing, the spatial consequences are framed in a negative way, particularly affecting the overall spatial quality of the city, the quality of life of citizens and the image of Bilbao. The economic and spatial frames intertwine in the planning documents and expert interpretations, establishing a solid ground for justification of the measures that were chosen. The various approaches to specific areas in the city, as well as the overall normative orientation of the interventions is justified with the need to overcome the spatial consequences of the industrial transition and to contribute positively to the economic recovery of Bilbao. (see also chapters 6.2.1, 6.3.1 and 6.5.1).

The frames and stories outlined in the shrinkage conceptualization narratives are also complemented by various levels of overall contextualization of the frames. On territorial level, the post-industrial changes affecting the Basque Country are contextualized in reference to the global economic changes occurring after 1980s. This notion is even more strongly emphasized in the local competitiveness strategies where globalization is referred to as a large-scale inevitable process that needs to be recognized as an opportunity for the city, thus further justifying the need for approaches that should contribute to a renewed competitiveness and better image.

6.4.2 INTERPRETIVE POLICY ANALYSIS OF SHRINKAGE CONCEPTUALIZATION IN LEIPZIG (GERMANY)

The analysis is based on all empirical sources from the policy and planning units of analysis, outlined in the previous hypotheses as well as interviews on local, regional and state level. Distinction between policy and planning units of analysis is sustained (policy – federal policies and programmes, state planning, regional planning; planning – local city and area urban planning).

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

ANALYSIS

The main interpretation of the shrinkage phenomenon in Leipzig is expressed through frames that establish causal relationships between demographic decline and various effects on different policy areas (Ivanov 2021).

The starting point of the framing is usually associated with the negative demographic trends that were experienced in the eastern German states around the year 2000. The effects associated with these trends are most strongly connected to the housing market and overall quality of life in cities. Framing the effects of shrinkage as a housing crisis is more pronounced in multiple policy documents, but is complemented by an overall interpretation of the phenomenon as a multifaceted process of change with impact on other areas as well. On federal level, the *Stadtumbau Ost* programme frames shrinkage as a crisis that has negative impacts on housing market and quality of life with a specific emphasis on parts of different cities (*Stadtumbau Ost – Stand und Perspektiven 2006*). On state level, in various policy documents from Saxony, the demographic aspect of the changes is accentuated as irreversible. Its impacts are framed in a broader way – it impacts negatively the urban development of Saxon cities, the housing market, the provisioning of infrastructure and services as well as the economy. From regional planning perspective, the emphasis is placed on the functional role of Leipzig. As a central city within Saxony, it is expected to provide services and to act as an economic driver of the region (of West Saxony), thus the decreasing population threatens its function as such (*Regionalplan Westsachsen 1998/2001*).

The narratives in local planning documents are consistent with the federal, state and regional levels. Additionally, they introduce a stronger emphasis on the spatial dimension of shrinkage and its effects. A specific element of the framing is placed on the land vacancy. It is interpreted as an undesirable condition that offers an important potential for future development in the city. The vast vacant lands are outlined as spaces with good infrastructure provisioning and favourable location that can be attractive to future investors (*Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999*).

The emphasis on the housing condition and housing market remains also on local level. In the local plans, there is an additional emphasis placed on the unsatisfactory condition of housing in specific areas of the city in contrast to newer developments in others. These effects are framed as distorting the housing market and potentially leading to further vacancy and overall decrease in quality of life in specific neighbourhoods. The plans from 2002 place a specific accent on the operations of housing companies – the effects of the vacancy are framed as threatening for them.

In addition to the above framing of housing and spatial issues, challenges to the overall economic development of the city are also introduced in the interpretations of the phenomenon. In the plans from the year 2000, the economic trajectory of the city is framed as undesirable in relation to the depopulation. This interpretation is illustrated through challenges for the labour market (*Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen Fortschreibung 2005*). In the later plans from the year 2010, the economic development of the city had already begun to improve but the economic emphasis is placed on unemployment in specific districts of the city (*Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009*). In the same documents, the unemployment in specific districts is also associated with persisting social segregation.

Interviews with local experts outline the consequences of shrinkage along similar lines as in the planning documents. Land and housing vacancy are framed as a main reason for overall

decrease in urban qualities of the city. State ministry experts emphasize more on the social challenges associated with shrinkage in specific areas in Leipzig. Additional perspective shared from local experts is the divergence of the image of Leipzig as a depopulating city from the actual situation. In their interpretation, after the year 2000, although the population decline had stabilized, the image of Leipzig was still associated with shrinkage.

The interpretations of the shrinkage phenomenon and its effects are consistently supported by stories that further justify the measures to be taken to address the associated issues. The stories are usually centered on the need to exercise control and mitigate the particular effects of shrinkage. The more complex understanding of the phenomenon supports the justification for an integrated approach to planning as the most suitable way to approach urban shrinkage and its effects. The integrated development concepts are introduced as a requirement for the participation in the *Stadtumbau Ost* programme (*10 Jahre Stadtumbau Ost - Berichte aus der Praxis 2012*). Additionally, the integrated approach to planning is recognized at state and regional level as the most appropriate for the situation. The link between the holistic understanding of shrinkage and the integrated planning is a particular characteristic for the case of Leipzig and has implications on the planning process (see also 6.1.2. Interpretive policy analysis of the planning process in Leipzig (Germany)). This interpretation is complemented by another frame of shrinkage that is not so clearly expressed as the other ones but provides further support to the claim for integrated planning. In some documents, shrinkage is framed as an opportunity. The crisis of shrinkage and its overall effects on quality of life and urban development are seen as a chance to focus particularly on improvements in those areas. These broader frames encompass the particular issues, outlined in the main frames above, and are hence interpreted as a lever to intervene and approach shrinkage in an integrated way.

The contextualization of the framing of shrinkage changes throughout the examined period. The frames, associated with the economic changes are the more contextualized ones. In the earlier documents from the year 2000, the economic consequences of shrinkage are contextualized in reference to the transition to market economy and 'external effects' that go beyond the city's control (*Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999*; *Beiträge zur Stadtentwicklung 28-Stadtentwicklungsplan Zentren 2000*). The same contextualization is also aligned with the influence of overall federal level economic policy and its effects on Leipzig's economy. In the later plans, around the year 2010, the economy of Leipzig had already begun to change. The continuing effects of shrinkage then are contextualized in reference to the globalizing economy. This economic reference is additionally expanded to include also regional considerations in reference to the economic area of the Saxon Triangle (Leipzig, Zwickau/Chemnitz and Dresden) as well as beyond the borders of Saxony – Halle (Saale). Additionally, the continuing changes are also contextualized in reference to persisting demographic changes on city level and on country level, including ageing and migration patterns.

6.4.3 INTERPRETIVE POLICY ANALYSIS OF SHRINKAGE CONCEPTUALIZATION IN ZEELAND (THE NETHERLANDS)

The Dutch planning system is very clearly structured, therefore the policy effort on national and provincial level can be very clearly distinguished. The analysis sustains the distinction between national and provincial level.

The empirical data from documents and interviews is largely consistent and balanced, therefore the conclusions for both perspectives are based on documents and interviews analysed.

Further details on the empirical scope and classification of documents and respondents can be found in Appendix 3 Documents from MAXQDA and Appendix 4 Interviews.

ANALYSIS

The main interpretation of the shrinkage phenomenon in the Netherlands and, respectively, Zeeland is centered on the demographic perspective. A key indication of this is the interchangeable use of 'shrinkage' and 'population decline' in various narratives (Ivanov 2021).

On national level, the phenomenon is interpreted as an inevitable process of population decline in specific regions of the Netherlands, including Zeeland. Consequently, this change is viewed as having implications on multiple policy areas (*Actieplan Bevolkingsdaling 2016*). The framing of the phenomenon as cross-cutting change in circumstances that affects various aspects can be found across document and interview narratives on multiple institutional levels (*Tweede voortgangsrapportage bevolkingsdaling 2018*). Most notably, the crises and threats of population decline/shrinkage are associated with implications on local and regional economies, housing market and service provisioning (such as education and healthcare). The cumulative effects of all those aspects are seen as an overall threat to the quality of life in depopulating regions. The centrality of the demographic aspect of shrinkage places a stronger emphasis on perceived causal links between the population decline and its consequences. This causal link leads to specific frames, pertaining to the identified policy areas.

The economic frame posits that population decline/shrinkage has negative impact on labour market in the affected regions. The implications on labour market are consequently interpreted as a threat to the economic performance of the regions and, respectively, as threatening to the desired economic growth. The service provisioning frame indicates that the changing population structure in shrinking regions impacts the quality and efficiency of regional services. The framing of housing is associated mostly with housing vacancy and its implications on the dynamic of the housing market. The increasing housing vacancy is seen as resulting in a mismatch between supply and demand. This mismatch is framed as threatening for the proper functioning of the housing market. The housing vacancy is also framed as impacting the quality of housing – vacant homes are considered as under maintained, which subsequently leads to overall lower quality of housing stock from the perspective of their future use.

A specific frame of the consequences of depopulation concerns liveability. Liveability is the closest English translation of the Dutch word 'leefbaarheid' which consistently appears in various document and interview narratives. It is understood as a constellation of factors and characteristics of a specific place that contribute positively to the desired levels of liveability. These include most notably a pleasant and attractive living environment and good provisioning of services. The scope of the liveability is on multiple levels – it can concern a region, a city or even a specific neighbourhood. In this context, the consequences of population decline are framed as a threat to the expected standards of liveability in affected areas. Hence, this frame complements the housing and services frames, outlined above.

In an interview with a national expert, the point of view that liveability standards have to be equal across the country is stated as a constitutional right (*Interview 005_ExNat*).

The framing of the effects of population decline as a threat to a well-functioning housing market, service provisioning and liveability justify the proactive approach of the overall policy efforts. The policies are designed in a way to anticipate and avoid the undesirable effects in different sectors. (see also 6.2.3. Interpretive policy analysis of the policy substance in Zeeland (the Netherlands))

The framing of shrinkage and population decline on provincial level in Zeeland is remarkably consistent with the one on national level, most prominently in the interpretation that the phenomenon has implications on multiple policy sectors (*Plan van aanpak voor de gevolgen van de demografische veranderingen in Zeeland 2010-2012 2010*). A particular emphasis is placed on the liveability perspective. In provincial documents, the threat to liveability is not only associated with housing vacancy and services, but also with the economic performance of the province. Shrinkage is seen as a threat to all of them, but a causal relationship between the effects on economy, housing and services and the threat to liveability is central. The economic frame is associated with challenges for the labour market and a threat to the image of the province as an attractive business location. The frame on service provisioning is associated with decreasing efficiency and financial feasibility – due to lower number of residents, the services do not operate efficiently. One provincial expert illustrates this with challenges to provide healthcare, secondary education, services for the elderly and public transport (*Interview 003_ExPro*).

A specific characteristic of the framing of the different consequences of population decline on national and regional level is the anticipatory point of view. The overall approach to population decline in the Netherlands is to anticipate and prepare for the occurrence of the phenomenon in the affected regions (*Voortgangsrapportage Actieplan Bevolkingsdaling 2017; see also 5.3.3.*). This understanding translates in the policy design and justifies a proactive approach of the various measures (See also 6.2.3 Interpretive policy analysis of the policy substance in Zeeland (the Netherlands)).

An additional perspective that justifies the measures is the framing of shrinkage as an opportunity that opens room for experimentation (*Kanttekeningen bij Voortgangsrapportage Bevolkingsdaling 2011*). This is supported by a level of acceptance of the shrinkage/depopulation phenomenon:

“It seems that population decline is becoming a ‘normal’ phenomenon and not necessarily synonymous with a decline in prosperity and welfare.” (Onverkende Paden Uitdagingen voor de provincie Zeeland door de veranderende bevolkingsopbouw 2008)

This is complemented by a certain level of disenchantment with growth. One provincial expert expresses this point of view by referring to shrinking ‘in a smart way’ (*Interview 001_ExPro*).

The framing of shrinkage/population decline is contextualized in reference to two main perspectives. Firstly, the population decline is seen as a national issue. The interpretation of the phenomenon and its effects across various provinces of the Netherlands is framed as a matter of national significance as its implications may affect the overall prosperity of

the country (*Heel Nederland te klein voor grote verschillen 2020*). Secondly, the demographic perspective of the anticipated population change in the provinces is contextualized in broader European policy context with references to policy priorities of the European Union, as well as in reference to broader demographic developments that transcend the borders of the Netherlands (*Nieuwe Wegen Nota Leefbaarheid & Bevolking 2014-2018 2014; Plan van aanpak voor de gevolgen van de demografische veranderingen in Zeeland 2010-2012 2010*).

6.4.4 CONCLUSIONS FOR THE VERIFICATION OF HYPOTHESIS 4 AND MAIN POINTS OF ANALYSIS AND DISCUSSION

(See also (*Ivanov 2021*))

The empirical data from the three cases confirms the validity of the hypothesis, pertaining to shrinkage conceptualization. The data illustrates that in practice, the conceptualization of urban shrinkage or its variation as regional population decline (in the case of the Netherlands) differs from the established scientific all-encompassing definitions. The complexity of shrinkage is most notably observable in the frames from Leipzig. In the case of Bilbao, the more visible aspect is the economic perspective. In the case of Zeeland and the Netherlands, the emphasis is on the demographic aspect and its horizontal implications on various policy sectors. The multifaceted nature of the phenomenon as described in literature can be observed based on the conclusions from the cases, but not in its entirety. The various facets can be recognized in the different cases, but not in all of them they are perceived as entirely interrelated.

The different perspectives to the shrinkage phenomenon and its consequences can be observed in the various sectors and topics in the three cases. The distinction between economy, spatial effects, demography and housing is pronounced differently in all three cases. Each of those topics forms a separate narrative of crisis that has implications on the justification of the planning and policy measures. These justifications are complemented by specific causal links in each case, depending on the initial frames of shrinkage. The data illustrates that economy is consistently framed as a standalone topic that either becomes a main causal element in the framing of shrinkage (as in Bilbao) or the economic implications are a consequence of the population decline (in Leipzig and Zeeland). These observations point to the conclusion that the framing of shrinkage has significant implications on the selection of planning and policy responses. This needs to be factored in the design of alternative solutions to shrinkage by embedding a step that outlines how the issues are perceived by the respective planners and policy makers, rather than only factoring rational assessments of specific sectors.

Another consideration in this regard is the changing nature of the frames. The chronological review in the case of Leipzig illustrates how the interpretation of the economic implications of shrinkage changes in time with the improvement of the economic performance of the city. Initially, it is framed as critical for the whole city, while in the later plans, when the economy was already on an upward trend, it is framed as a crisis in specific areas.

Additionally, in some of the cases it can be observed that additional policy and planning topics are added, depending on the priorities in the respective case. Various interpretations of quality of life can be found across the different narratives. Most notably, the concept of liveability in the Dutch case is most clearly determined and appears to be shared across institutional levels. In the case of Leipzig, considerations for the overall quality of life are interpreted as related to the quality of urban development. Similarly, in Bilbao, the spatial

quality and attractiveness are the main elements in terms of quality of life.

The interpretation of the results across different institutional levels indicates that in all three cases there is a harmonization in the understanding of the phenomenon. Since the measures in Bilbao, Leipzig and Zeeland have originated on local, regional and national levels of the planning system (see also 6.2. and 6.3.) the shared understanding of the phenomenon and the desired direction may be considered as a critical factor in for the implementation of the measures. This conclusion points to the need to integrate an element of coordination between the different planning levels when alternative approaches to shrinkage are designed.

The harmonization between the different levels of the planning system is also indicative of the role of the contextualization of the frames. Local political, social and cultural factors may play a role in these interpretations. In the case of Bilbao, the economic primacy is further supported by an outward orientation to the global market, also from the perspective of the whole autonomous community of the Basque Country. In the case of Leipzig, references to regional and national scales are introduced in order to support the efforts in urban restructuring and economic planning. In the case of Zeeland, the frame of liveability under threat is contextualized in reference to a national consensus on the need to maintain a certain level of liveability. These considerations are indicative of differences in planning cultures that also need to be accounted for in the design of alternative solutions to shrinkage.

The conclusions from the verification of hypothesis 4 inform the recommendations for alternative approaches to urban shrinkage (see 8. *Applicability stage: "Shrinking Smart" as a planning concept*). These need to consider the framing of shrinkage in the specific case so as the solutions proposed should be relevant to the interpretation in the specific context. The attention to framing in the local context can complement rational assessments and measurements of the effects of shrinkage. Secondly, the thematic scope of the interpretation of shrinkage has implications on the scope of solutions that will be designed. Therefore, an element of thematic mapping needs to be integrated in the design of alternative approaches. Since in all three cases considerations for quality of life have been included, it may be argued that this topic needs to be included normatively, regardless of its local relevance.. The economic perspective has been one of the key elements in the framing of shrinkage or population decline in each of the cases. This indicates a consistent and solidified consideration of the economic effects of the phenomenon either on par with other considerations or as a leading negative effect of shrinkage or population decline. The emphasis on the economic perspective in all three cases (most notably in Bilbao) points to the need to also consider economy as a separate theme in the applicability stage. Distinction between economic considerations and other planning and policy domains can aid more critical and contextually relevant recommendations for approaching shrinkage and population decline. The coherent framing of the phenomenon across the institutional levels, observed in all three cases, points to the need of establishing a common language between various administrative actors prior to the selection of certain measures. This step may ensure broader understanding and acceptance of the measures and their desired effects and may contribute to improved coordination. Such synchronization may also contribute to changes in planning cultures.

6.5 HYPOTHESIS 5: "NON-GROWTH" ORIENTED ECONOMIC AND SPATIAL DEVELOPMENT (IMPLEMENTATION SUBSTANCE)

Definition of the hypothesis:

The implemented policy and planning interventions in the selected cases have not been focused on growth or have pursued objectives not related to growth in economic terms. The implemented policy and planning interventions in the selected cases have attempted to achieve efficient and equitable economic development. The implemented policy and planning interventions in the selected cases have not been focused on growth in spatial terms. The implemented policy and planning interventions have attempted to achieve efficient and equitable spatial development in terms of: land use (avoid sprawl, promote compact development, utilize available land, promote mixed use development), building stock (efficient management through demolition or renovation efforts), infrastructure (efficient management and optimization of railway infrastructure).

Hypothesis verification approach:

ECONOMIC ASPECTS

- ***Interpretive policy analysis - overall economic orientation***
 - Review and analysis of discursive elements Nested context, Frame, Story (Causal strand) and Normative leap, Causal story, Metaphor (Normative strand) with the following thematic scope:
 - Economy and labour market, culture, city image, human capital.
 - Non-growth
 - Sustainability, circularity, stakeholder capitalism
 - Main questions: How is the role of economy envisioned and formulated? Is the causal and normative orientation of the objectives oriented to economic growth? Is the causal and normative orientation of the objectives oriented to other economic alternatives, such as non-growth, sustainable development or circular economy? How is the role of private actors and private capital envisioned in the development of the city?
- ***Interpretive policy analysis - equitable economic development***
 - Review and analysis of discursive elements Nested context, Frame, Story (Causal strand) and Normative leap, Causal story, Metaphor (Normative strand) with the following thematic scope:
 - Quality of life
 - Social cohesion
 - Social integration
 - Main questions: What interpretations and measures for quality of life, social cohesion and integration have been considered in the planning of the city?
- ***Descriptive statistical review - economic indicators throughout the investigated period***
 - Overview of key economic indicators, pertaining to growth orientation:

- Population
- New arrivals
- Migration balance
- Natural balance
- Business start-ups
- GDP per capita
- Main questions: Was the economic performance of the city on a growth trajectory throughout the investigated period?

SPATIAL AND INFRASTRUCTURAL ASPECTS

• Interpretive policy analysis – spatial development

- Review and analysis of discursive elements Nested context, Frame, Story (Causal) and Normative leap, Causal story, Metaphor (Normative strand) with the following thematic scope:
 - Compactness
 - Land use
 - Vacancy
 - Greening
 - Mixed use
 - Building conversion, renovation, demolition, cultural heritage
- Main questions: What has been the approach towards the spatial development of the city?

• Quantitative and spatial analysis of spatial development

- Quantitative data – Wegweiser Komune indicators
 - Land use
 - New land use
 - Land use intensity
 - Population density
- Spatial data – Copernicus Urban Atlas indicators of land use function:
 - Construction sites
 - Continuous urban fabric (S.L. : > 80%)
 - Discontinuous dense urban fabric (S.L. : 50% - 80%)
 - Discontinuous low density urban fabric (S.L. : 10% - 30%)
 - Discontinuous medium density urban fabric (S.L. : 30% - 50%)
 - Discontinuous very low density urban fabric (S.L. : < 10%)
 - Fast transit roads and associated land
 - Green urban areas
 - Industrial, commercial, public, military and private units
 - Isolated structures
 - Land without current use

- Mineral extraction and dump sites
- Port areas
- Railways and associated land
- Sports and leisure facilities
- Water
- Observational data from field visits
- Main questions: How did the spatial development of the city change throughout the investigated period?

OVERVIEW OF THE APPROACH TO RESIZING RAILWAY INFRASTRUCTURE

- Main questions: To what extent was the railway infrastructure managed in an efficient way and what considerations influenced the approach to it?

OVERVIEW OF ECONOMIC AND SPATIAL CONSIDERATIONS IN KEY URBAN AREAS IN BILBAO AND LEIPZIG

- Main questions: How did the approaches to economy and space intersect in key urban areas in the cities?

Sources of empirical data for both cases:

- **Qualitative analysis:**
 - All documents from policy and planning units of analysis. Additional documents and online sources identified as relevant. (*Appendix 3 Documents from MAXQDA*)
 - All interviews with local, regional and governmental experts (*Appendix 4 Interviews*).
- **Economic and spatial analysis**
 - Data from Wegweiser Komune Database (Bertelsmann Foundation)
 - Data from official statistical sources
 - Data from EU Copernicus Urban Atlas
 - Observational data

6.5.1 ECONOMIC AND SPATIAL DEVELOPMENT OF BILBAO (SPAIN)

6.5.1.1 Interpretive policy analysis – economic development

Overall economic orientation

Economy takes a central position across policy and planning documents that outline the objectives for the economic development of the city. The positioning of economy is often presented in the context of the economic transition that has affected the development of Bilbao and the Basque Country as a whole. This positioning corresponds to the interpretation of the shrinkage phenomenon in general as an issue of economy and space (see also 6.4.1. Interpretive policy analysis of shrinkage conceptualization in Bilbao (Spain)). One of the main tropes on the economic perspective outlines a causal relationship between the deindustrialization process that has taken place since the 1980s across the territory of the Basque Country and, respectively, Bilbao and the need for a coordinated economic

transition process. The economic transition process is contextualized in a coherent story about the global economic changes taking place and the desired central role of the city in this globalizing new economy. Consequently, in order to achieve this role, the city is expected to transition to a service-oriented metropolis of global significance. In order to achieve this, the city had to identify and develop a number of competitive advantages. The enabling and function of these competitive advantages is seen as a way to advance not only the role of Bilbao, but of Biscay (Bilbao's region) and ultimately the Basque Country as a whole:

"To encourage the "diffusion" of the economic development of Metropolitan Bilbao towards neighbouring areas with the aim of achieving a greater balance within the Historical Territory of Bizkaia." (Directrices para ordenacion del territorio 1997)

The expected effects of the economic transition are interpreted on territorial level and supported by the territorial planning perspective (see also 6.2.1. Interpretive policy analysis of the policy substance in Bilbao (Spain)). Key potential competitive advantages are modernized industrial activity, port and naval services, favourable business climate for service-oriented companies, startup and entrepreneurial ecosystem. The intersection between economy and space is also visible in the particular recommendations provided for the achievement of those goals:

"The Partial Territorial Plan for Metropolitan Bilbao will have to provide space for the creation of an area of economic activities related to the for the creation of an area of economic activities related to the distribution sector, ship repair, leasing and distribution sector and other services, which find in the vicinity of the ports one of the natural areas for ports as one of the natural areas for the development of their activities." (Directrices para ordenacion del territorio 1997)

"4.6. In any case, the introduction of new types of productive settlement, such as 'parks', should be encouraged." (Directrices para ordenacion del territorio 1997)

Another important aspect on the way to achieving the desired economic competitiveness is the human capital of the city. This topic has been outlined in multiple policy documents, most profoundly in the strategies for Metropolitan Bilbao that outline a strategic shift that places an emphasis on the human capital of the city:

"Without this economic activity, people would not stay and live in the metropolis and the important human capital generated by the university or the different centres of the metropolis would be lost. The consequence of this is also that without economic activity the attractiveness of the city would be low and it would be difficult to retain professionals." (Es tiempo de profesionales - Strategic Reflection 2010)

The idea of human capital is seen as a potential that can be further multiplied by enabling local social business networks that can create ripple effects on the economy. In addition to the above key economic sectors and the human capital, culture has been also outlined as an important area that can contribute to improved competitiveness of the city.

The normative orientation towards improved competitiveness and the spatial dimensions of those objectives also intersect in the objective for improved city image of Bilbao. This objective has been sustained throughout the various policy and planning documents and has been used to justify interventions in urban regeneration as well as economic activity

(see also 6.5.1.3). The city image perspective also integrates considerations for quality of life for local citizens as well as projecting an image of Bilbao as an attractive place to live:

"It is therefore necessary to act to create a sufficiently attractive environment, which, together with the city's quality of life, is one of the issues most valued by people and one of the most important factors for the city. The city's quality of life is one of the issues most valued by people and one of the decisive factors when it comes to choosing a place of residence, as well as in attracting tourism and business investment. It is therefore essential to focus efforts on what affects the perception of the target audience, i.e. a competitive advantage over other locations must be created. On the one hand, by building on distinctive qualities that constitute a higher value for the target audience; and on the other hand, through cost superiority." (Bilbao as a Global City - Strategy 2001)

The majority of objectives and causal links in terms of economic performance of the city are strongly contextualized in reference to the globalizing economy and the re-positioning of Bilbao as a center in the new global economic networks. This contextualization is also supported by the desire to position Bilbao as a key location on the European map, particularly in the context of the European Union by utilizing Bilbao's geographical closeness to Western and Central Europe.

The international orientation is balanced with local considerations. The improvement of the economic performance of the city is seen as a way to overcome challenges related to unemployment, a functioning local economy and entrepreneurial activity, youth employment in key industries, improvements of transport infrastructure on local level and more balanced economic development of the Basque Country as a whole. In interviews with local planners, the historical perspective on the economic transformation of the city is evaluated positively (*Interview 010_ExLoc*).

No data has been identified in documents and interviews in regards to explicit non-growth economic orientation.

Considerations and objectives oriented to sustainable development and environmental protection along with economic considerations can be found across policy and planning documents. The preservation of environmental resources is outlined as an important consideration for future generations (*Directrices para ordenacion del territorio 1997*). The Partial Territorial Plan for Bilbao places an emphasis on sustainable development as a main principle for the future of the urban area:

"The development of the Plan's proposals takes its inspiration from two main aspects that we consider basic to constitute the real chassis of the Plan on which to structure the future of the urban area within a global vision.

- Sustainable development

- Balanced development

These reference elements establish the main lines on which the proposals are based. "(Plan Territorial Parcial Bilbao Metropolitano 2006)

The plan is aligned with the Basque strategy for sustainable development that outlines a desired balance between economy, environment and social justice. The objectives and

overall normative orientation in terms of sustainable development are aligned with the goals for competitiveness and orientation towards Western values:

„Integrating environmentally valuable space, an essential component, more than ever, of a modern and competitive metropolis.“

„This new conception of sustainable development has deeply permeated the collective subconscious of modern societies and is now considered an indisputable value in the mindset of the citizens of the Western world. „(Plan Territorial Parcial Bilbao Metropolitano 2006)

Circular economy and reuse ideas are outlined in regards to reuse of resources and energy efficiency. Specific considerations for both sustainability and circularity have also been implemented in some of the major regeneration projects within the city (see also 6.5.1.6.).

Interviews with local planners indicate that the role of private actors and private capital has been of significant importance for the city. Firstly, from strategic standpoint their partnership and overall activity has contributed to the economic competitiveness of the city. Secondly, due to the specifics of the local property market, the private property is of high percentage, therefore the collaboration with private owners has been critical to the successful implementation of regeneration projects.

Equitable economic development

The policy and planning documents across the different levels of the planning system expose consistent normative orientation towards quality of life, albeit the term is used loosely and is not necessarily determined as a coherent meaning. Quality of life is seen as a key factor for the wellbeing of residents as well as a competitive advantage to attract new citizens to the city. In that sense, the efforts for quality of life are also interpreted as complementary to the attractiveness of Bilbao and its international exposure. Culture is also seen as part of this perspective. At the same time, various documents expose considerations for social justice, solidarity and overcoming social challenges in specific areas of the city. In addition, the active public policy for housing is seen as an additional factor that may contribute to improved quality of life. In interviews one of the topics that appeared spontaneously was the economic precarity of part of the population due to unfavourable economic conditions (*Interview 009_ExLoc*). In that context, the economic growth is seen as a key factor for the regeneration of the city as a whole:

“because he says [I won't renovate] because what money will come if I put everything in the house and if I lose my job, what happens? [...] the experience we have, which is isolated, is that without development, without economic development, there is no rehabilitation. [...] if Bilbao is not so little concerned with stopping economic efficiency, economic production, then it has no future. And on the other hand, if Bilbao is only about economic efficiency, let's say, and not taking anything else into account, then many of us who live in Bilbao would leave Bilbao because we wouldn't want to live in this Bilbao.” (Interview 009_ExLoc)

6.5.1.2 Descriptive statistics – economic development

The interpretive policy analysis of the economic orientation of the city exposes a normative orientation to attract migration to the city. The statistical data on the population dynamics of Bilbao for the investigated period illustrates a positive trend in this regard. The indicators

for New arrivals and Migration balance are predominantly on an upward trend between 2001 and 2009 with some fluctuations for the period after that. The decrease in Migration balance after 2009 might be related to delayed effects of the economic crisis of 2007-2008 which has been referred to as a negative event for the economy of Bilbao in interviews with local experts (*Interview 009_ExLoc*). Table 6.1. outlines the population data of Bilbao for the investigated period.

Indicator/Year	2000	2001	2002	2003	2004	2005	2006	2007	Calculation and source
Population Bilbao	354271	353943	353950	353567	352317	353173	354145	353168	
Indicator/Year	2008	2009	2010	2011	2012	2013	2014	2015	INE
Population Bilbao	353340	354860	353187	352700	351629	349356	346574	345141	

Table 6.1: Population of Bilbao between 2000 and 2015

Figure 6.1. illustrates the population dynamics with the two key indicators tracing immigration as compared to the total population of the city in the respective period:

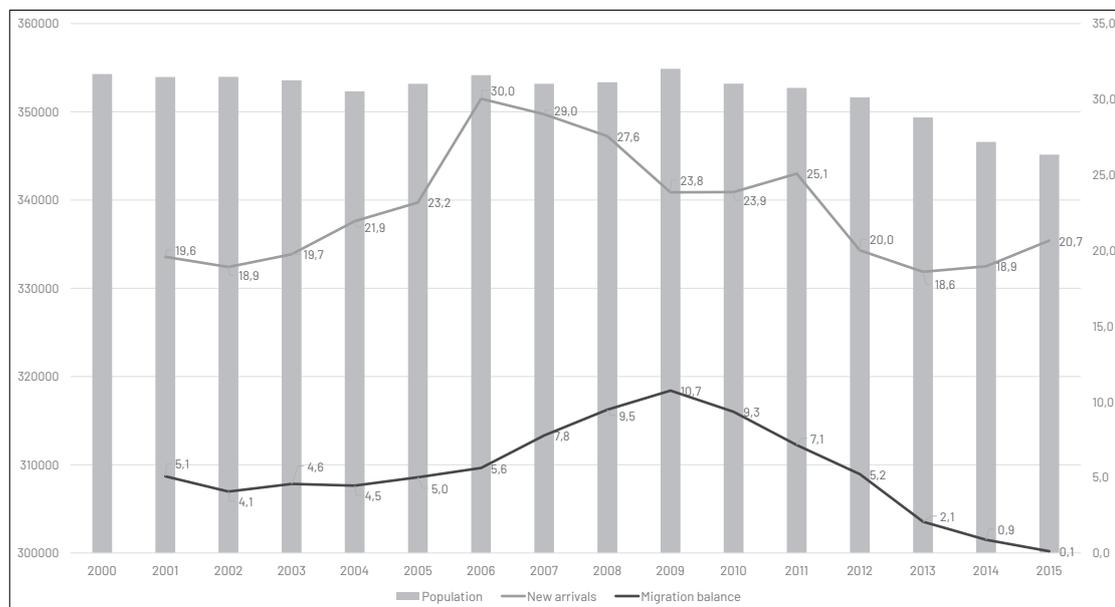


Figure 6.1: Population, New arrivals and Migration balance of Bilbao between 2000 and 2015. Source and calculation: Wegweiser Komune indicators methodology, own calculation - New arrivals: Immigration / population * 1,000 (reference years: immigration and population averaged over the last 4 years); Immigration - EUSTAT, Population - INE. Migration balance: (New arrivals - departures) / population * 1,000 (reference years: arrivals, departures and population averaged over the last 4 years); Arrivals and Departures - EUSTAT, Population - INE

The economic data, measured by two indicators, also illustrates a positive growth-oriented trend throughout the investigated period. Bilbao's GDP per capita gradually increases between 2000 and 2015, surpassing that of Spain and the EU in 2005 and that of the Eurozone in 2008. The city level measurement is comparable to the one of the whole autonomous community of the Basque Country. Figure 6.2. illustrates the data:

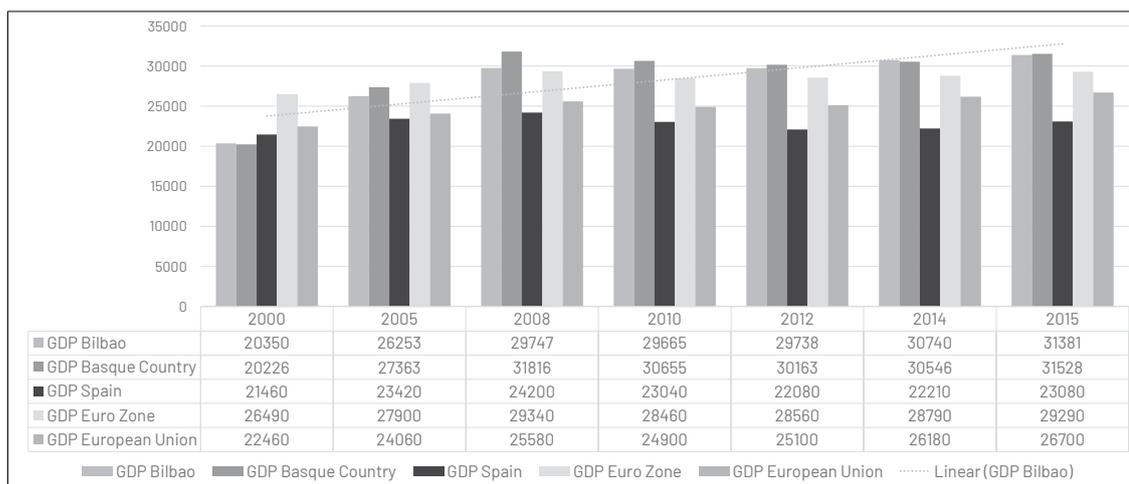


Figure 6.2: GDP Per capita (market prices) in EUR for Bilbao, Basque Country, Spain, Eurozone and EU; Sources: EUSTAT and EUROSTAT

The second indicator, tracing New business establishments in the city (Table 6.2.), measuring the entrepreneurial climate, illustrates inconclusive data.

Indicator per/Year	Business start-ups
2000	8,7
2001	8,3
2002	8,8
2003	7,8
2004	7,7
2005	10,5
2006	8,8
2007	10,0
2008	9,1
2009	7,8
2010	7,7
2011	7,2
2012	8,1
2013	7,1
2014	8,2
2015	9,4
Description	For every 1,000 residents, x new businesses are built.

Table 6.2: Number of new business establishments per 1000 people in Bilbao 2000-2015. Wegweiser Komune methodology indicator, own calculation: (Number of new business establishments) / (Number of residents) * 1,000; New business establishments - EUSTAT, Population - INE

6.5.1.3 Interpretive policy analysis - spatial development

The analysed policy and planning documents reveal a consistent justification and normative orientation between the economic transition that Bilbao has experienced and its spatial effects on the urban fabric. Some of the earlier documents outline a process of suburbanization that had been occurring since the 1980s. As a result of this, the metropolitan area of the city had been unevenly utilized, leaving the former vast industrial areas in the city proper vacant while simultaneously expanding residential areas on the hillsides surrounding the city. These two parallel processes have also had an effect on the depopulation of the urban core, as outlined by a local expert in an interview (*Interview 011_ExLoc_P1*). The overlap of the effects of those processes, together with the specific topography of the city (uneven terrain with steep hills and overall limited space within the city proper as well as the surrounding villages in the river valley) are one of the main causal elements in the narratives, revealing the normative orientation of the policies and plans for spatial development. The main objective stipulated in the analysed documents is to densify the urban core of Bilbao, both with residential and economic functions. Particular attention in this regard is placed on areas with lower density. The plans stipulate that the new developments within the city (for instance, new economic parks) are to be situated in a functionally and spatially integrated zones, rather than in dedicated economic areas outside of the city. Considerations of this approach have affected the regeneration project of the Abandoibarra area, where the Guggenheim Museum is located. The area has been regenerated with vast public and green spaces, residential areas, business areas and commercial functions. An emphasis on the utilization of vacant areas for economic activities is outlined as a likely option. In addition to this, the location of newly built residential areas is also targeting the urban core and lower density areas.

The densification efforts are also outlined in interviews with experts where a particular emphasis is placed on the railway trenches that used to cut through the city (*Interview 011_ExLoc_P1*). A number of those trenches were regraded and levelled so that the space above them can be utilized. One example of this is the Ametzola park where the railway station is now underground and a new neighbourhood with a park has been created above it (Photo 1):



Photo 1: Ametzola park and the new residential buildings next to it. Source: Author's archive, July 2021

The topographical characteristics have also compelled the city to work towards improvements in accessibility, such as installation of lifts for citizens to access areas, located on the hillsides (Photo 2):



Photo 2: Free of charge elevator from the foothill of the Miribilla neighbourhood.
Source: Author's archive, July 2021

A differentiation is made between industrial and service economic zones. Newly built industrial areas are to be located outside of the city boundaries but in the metropolitan area of Bilbao as they are seen as incompatible with residential use due to their effects on the environment and overall quality of life. This marks a shift from the previous spatial pattern of the city where the industrial zones were in the very center of Bilbao. Respectively, tertiary zones or service economy areas are deemed as compatible with residential areas in the spirit of promoting mixed use development. Such business zones are to be located in the urban core, including close to residential zones, in order to promote mixed use. Interview respondents reveal an existing tension between stakeholders whereas some of them favour exclusive business zones development while others, mostly the local planners, favour mixed use development (*Interview 009_ExLoc*). In that sense, the exclusive zoning for economic activities is not recommended in the reviewed plans. Mixed use is seen as a suitable approach to further promote compact development and densification. Locating service, commercial and office space in the city proper is seen as a way to both revitalize the economic activity within Bilbao as well as a contributor to improve functions of the city and better promotion opportunities for further attraction of investment. Additionally, this provides opportunity for creating jobs in proximity to residential areas and thus decrease transport-dependency for the working population.

The deindustrialization process is framed as a main contributor to the unsatisfactory condition of some areas and buildings. The efforts for renovation of buildings and areas are seen as a positive contributor to the overall economic transition of the city. At the same time, efforts in renovation and regeneration are also framed as a potential opportunity to reutilize obsolete industrial areas in the urban core, including some buildings in them, in order to positively influence the urban quality of the respective areas as well as to improve the external image of the city. The documents consistently outline that obsolete industrial

zones are to be regenerated into mixed use zones that amplify the economic potential of the city and provide a high-quality urban area. The heritage elements, buildings or specific areas, can be integrated in the regeneration projects with a case-by-case approach. Cultural heritage is integrated into the concepts for spatial redevelopment as a potential for the city that can contribute to its image, as well as to the preservation of its memory. Particular interventions have been done with targeted funding for building upgrades in the historical neighbourhood of Casco Viejo (Photo 3):



Photo 3: The narrow streets of Casco Viejo with some rehabilitated facades visible. Source: Author's archive, July 2021

The former predominantly industrial profile of Bilbao's economy is also framed as a main cause of the environmental condition of the city prior to the investigated period. Respectively, the environmental effects of the industrial activity within the city are the main causal frame for the objectives in terms of expansion of green areas. The objectives focus on reintroducing nature back to the city and closer to its citizens, paired with overall improvements in public space accessibility. Increasing the green areas in the city is seen as a contributor to improved quality of life as well as to the attractiveness of Bilbao. Interviews with local experts also reveal that planners have attempted to expand and connect the green areas in the city (*Interview 009_ExLoc* and *Interview 011_ExLoc_P1*). The environmental perspective is also emphasized in interviews where the decontamination of the river is highlighted as one of the key long-term interventions in the city (*Interview 010_ExLoc*, *Interview 011_ExLoc_P1*). On a smaller scale, efforts to improve public and green spaces in various neighbourhoods (Photo 4):

"R1: The estuary was impressive because it used to be [highly contaminated]. It was a totally different urban scenario, yes. Well, then, in the upper districts many actions have been carried out, we haven't mentioned escalators and lifts to improve accessibility. We have done a great many of them, I think we have 30 in the municipality already. In this sense, the quality of life of the citizens has improved a lot.

R2: It was like an impulse, the fact of regenerating the whole centre has been transferred to the upper neighbourhoods." (*011_ExLoc_P1*)



Photo 4: Small scale public and green space in the Zabala neighbourhood. Source: Author's archive, July 2021

6.5.1.4 Descriptive spatial data – quantitative, spatial and observational data

Quantitative data – measurements with Wegweiser Kommune methodology applied

Quantitative land use data could not be identified for the period between 2000 and 2009. The data between 2010 and 2015 shows moderate and stable land use and land use intensity of the city. The population density is also stable. Although partial, the data is indicative of further densification of the city which can be interpreted as the result of further efforts to sustain compact development within city boundaries (Table 6.3.).

Indicator/Year	2000-2009	2010	2011	2012	2013	2014	2015	Description
Land use	N/A	60,54	59,51	64,06	62,39	62,45	62,45	The share of settlement and traffic areas in the total area is x%.
New land use	N/A	0,00	-1,03	4,55	-2,79	0,07	0,00	The percentage rate of change in settlement and traffic areas is x% compared to the previous year.
Land use intensity	N/A	0,0071	0,0070	0,0075	0,0072	0,0073	0,0073	In the municipality, x m ² of settlement area (excluding "mining operations" and "opencast mining, pit, quarry") and traffic area per inhabitant are available. The indicator is based on data from the "Survey of areas according to the type of actual use" and the "Statistics of the extrapolation of the population".
Population density	N/A	85,52	85,40	85,14	86,07	85,38	85,03	There are x inhabitants per area in hectares.

Table 6.3: Land use, New land use, Land use intensity, Population density in Bilbao between 2010 and 2015. Wegweiser Komune methodology indicators, own calculation: Land use:(Settlement and traffic area) / (total area) * 100; New Land use: (Change in settlement and traffic areas compared to the previous year) / (total area) * 100; Land use intensity: (Settlement and traffic area) / (number of inhabitants); Source: EUSTAT"

SPATIAL DATA – LAND USE FUNCTION CHANGE BASED ON COPERNICUS URBAN ATLAS DATA

The spatial data for Bilbao between 2006 and 2012 (Figure 6.3.) indicates that the city's continuous urban fabric as well as dense urban fabric have increased. The industrial, commercial, public, military and private units' land has also increased. These data points indicate that the city has further densified and maintained compact development. The land without current use decreases by 3.6 hectares which indicates reutilization of vacant lots. The same applies for the construction sites which have decreased by 40.5 hectares. Green urban areas have increased with 3.7 hectares, while land for sports and leisure facilities has increased by 1.9 hectares. These data points are indicative of an increasing mix of functions within the urban core as well as an emphasis on green and recreational areas which may contribute to improvements in quality of life.

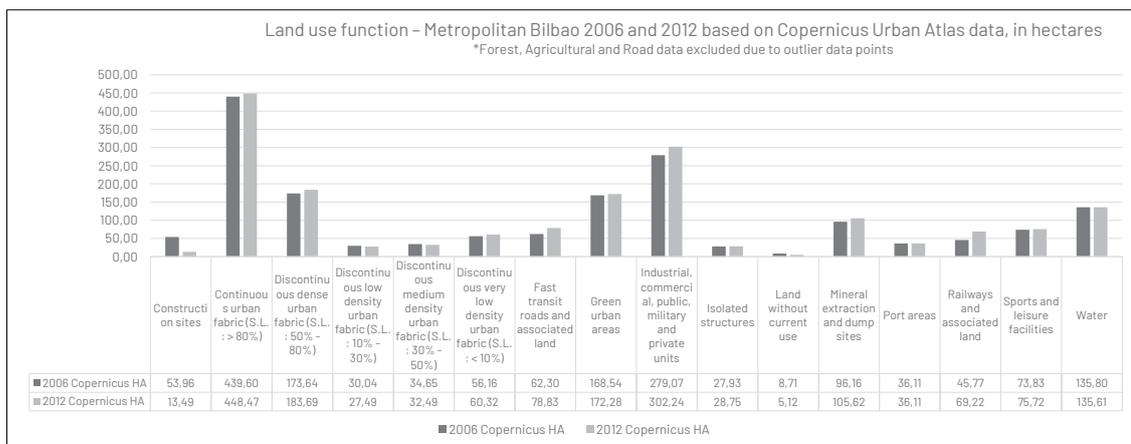
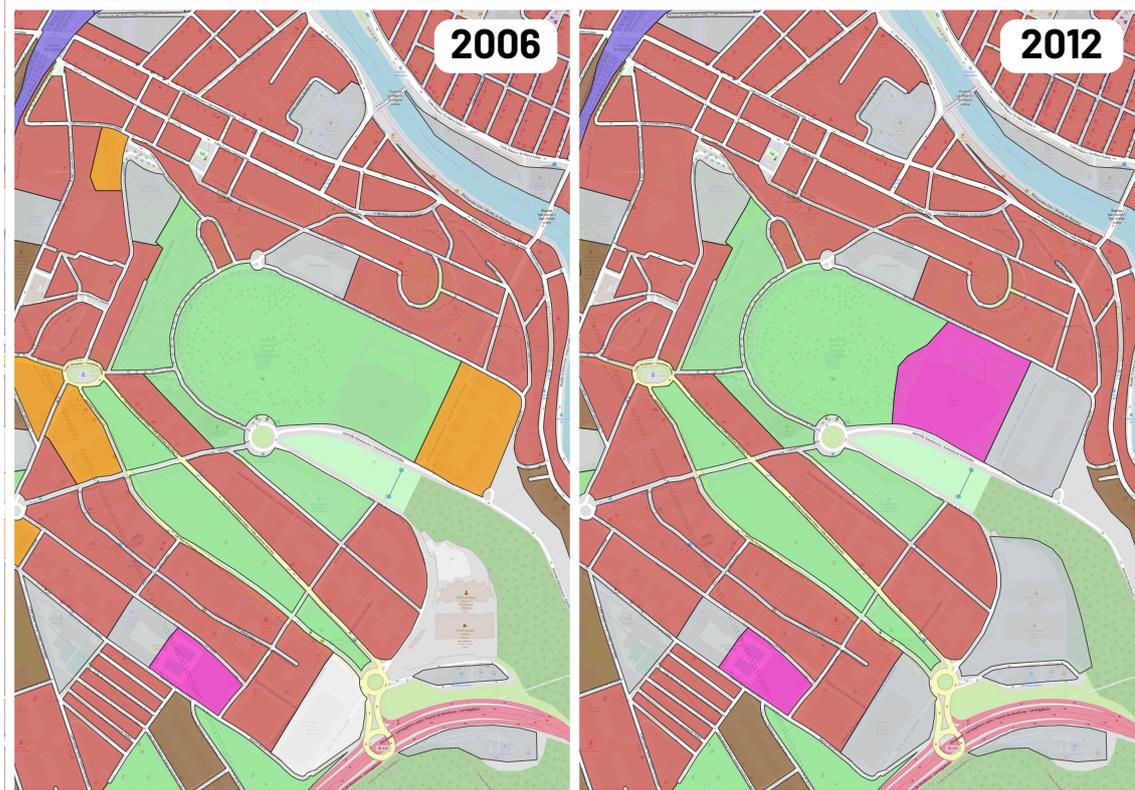


Figure 6.3: Land use function – Metropolitan Bilbao 2006 and 2012 based on Copernicus Urban Atlas data, in hectares

OBSERVATIONAL DATA

The spatial data illustrates land use function change in specific areas of the city which have additionally been observed as part of fieldwork. The neighbourhood of Miribilla was a former mining area outside of the city boundary which was incorporated into Bilbao and was regenerated into a residential area. The spatial data between 2006 and 2012 illustrates the construction of the new multi-functional sports arena, constructed as an extension of the terraced panoramic park of Miribilla. Additionally, the data shows how vacant lots in the neighbourhood and the neighbouring area of San Francisco were converted into dense continuous urban fabric with predominantly residential function (Map 6.1., Photo 5).

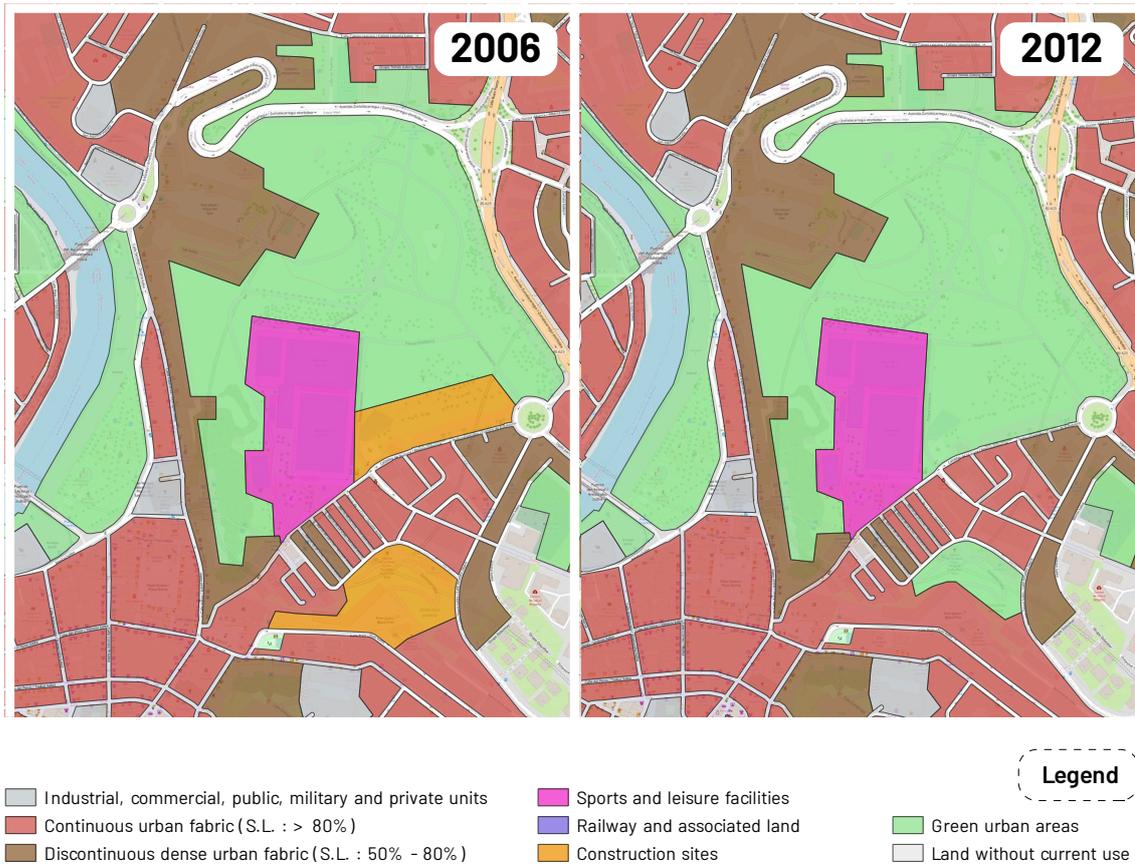


Map 6.1: Land use function change in the Miribilla neighbourhood in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the further densification of the neighbourhood. In the southeast, unused land is utilized for the construction of the new police station. In the centre, the construction terrains from 2006 are converted to the Bilbao Arena sports venue. In the southwest, further constructions sites are converted to dense urban fabric.



Photo 5: Outlook to the Miribilla terraced park and the sports arena from the new dense residential area along San Luis Meategiaren street. Source: Author's archive, July 2021

The green urban area of the Etxebarria park, also built on a former industrial site during the 1980s, was expanded with the acquisition of a vacant terrain (Map 6.2. and Photo 6).



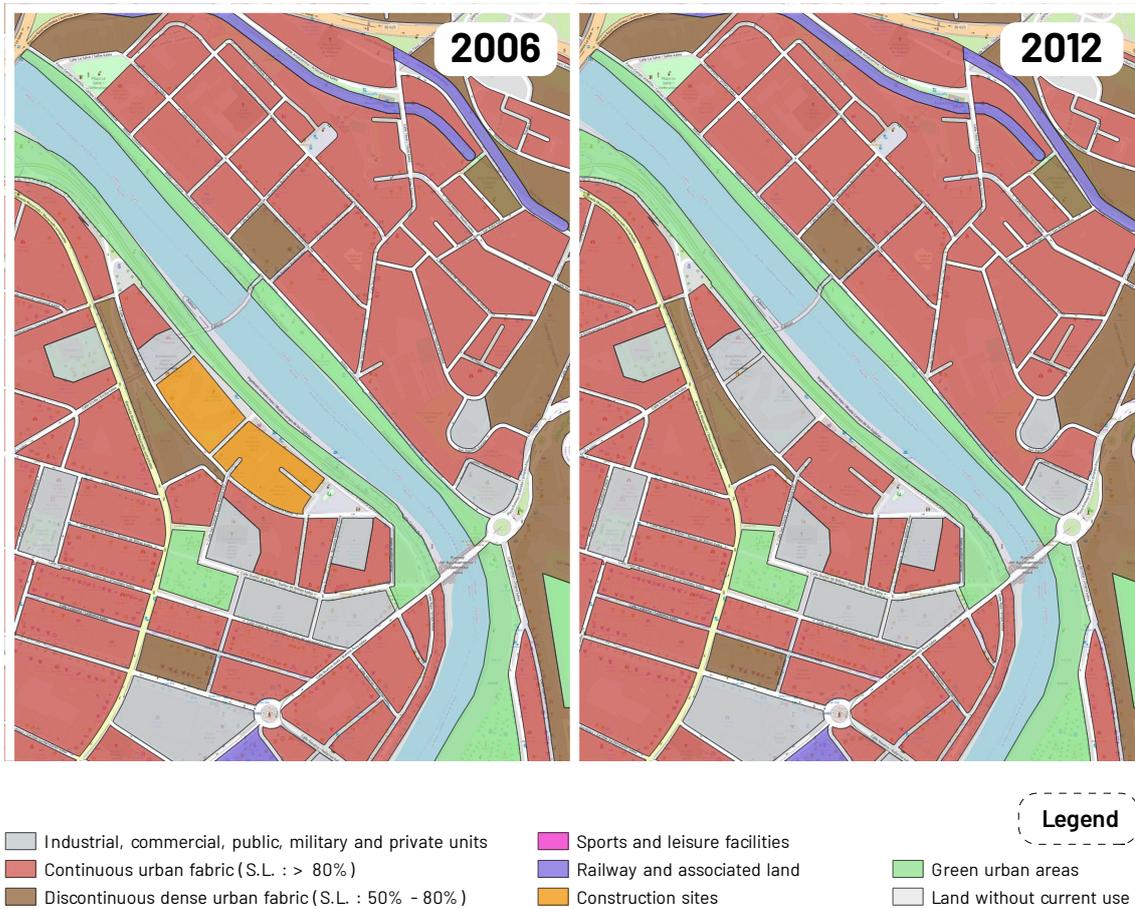
Map 6.2: Land use function change in the area of Etxebarria park in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the expansion of the park, further densification and a new green area in the neighbourhood at its foothill to the south.



Photo 6: Etxebarria park with the preserved industrial chimney. Source: Author's archive, July 2021

The data illustrates the final stages of the regeneration of the riversides within the city. Firstly, the construction sites close to the Zubizuri bridge in 2006 were completed by 2012

by expanding the commercial and business function of the downtown area close to the emblematic Izosaki Towers (Map 6.3. and Photo 7).

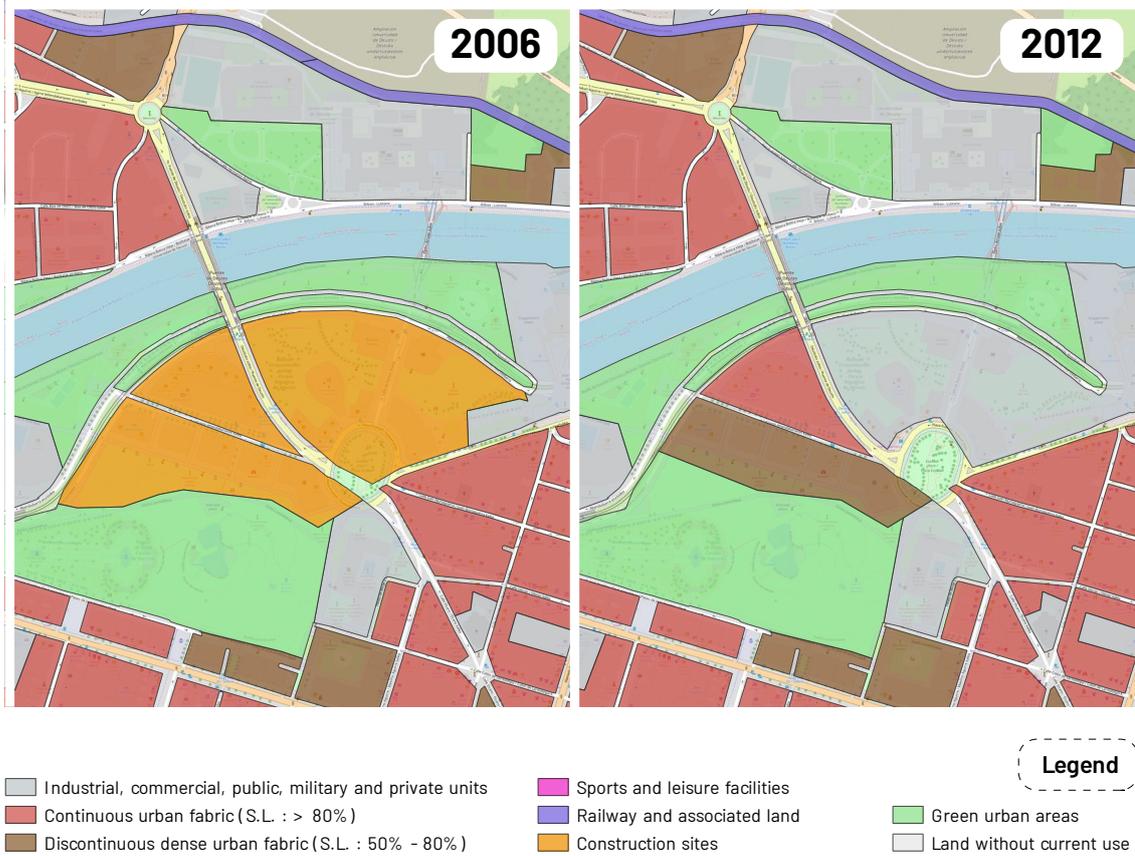


Map 6.3: Land use function change of the embankment area of the river in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the further densification of the left bank with the completion of the business and commercial area.



Photo 7: Zubizuri bridge and the Izosaki Towers. Source: Author's archive, July 2021

In 2006, the final works in the Abandoibarra area, where the Guggenheim Museum is located, were still in progress. By 2012, the project is completed and the area serves a predominantly commercial function with a good balance of expanded green area, adjacent to the Cassilda Iturrizar park and close to the symbolic Iberdrola tower (Map 6.4. and Photo 8).

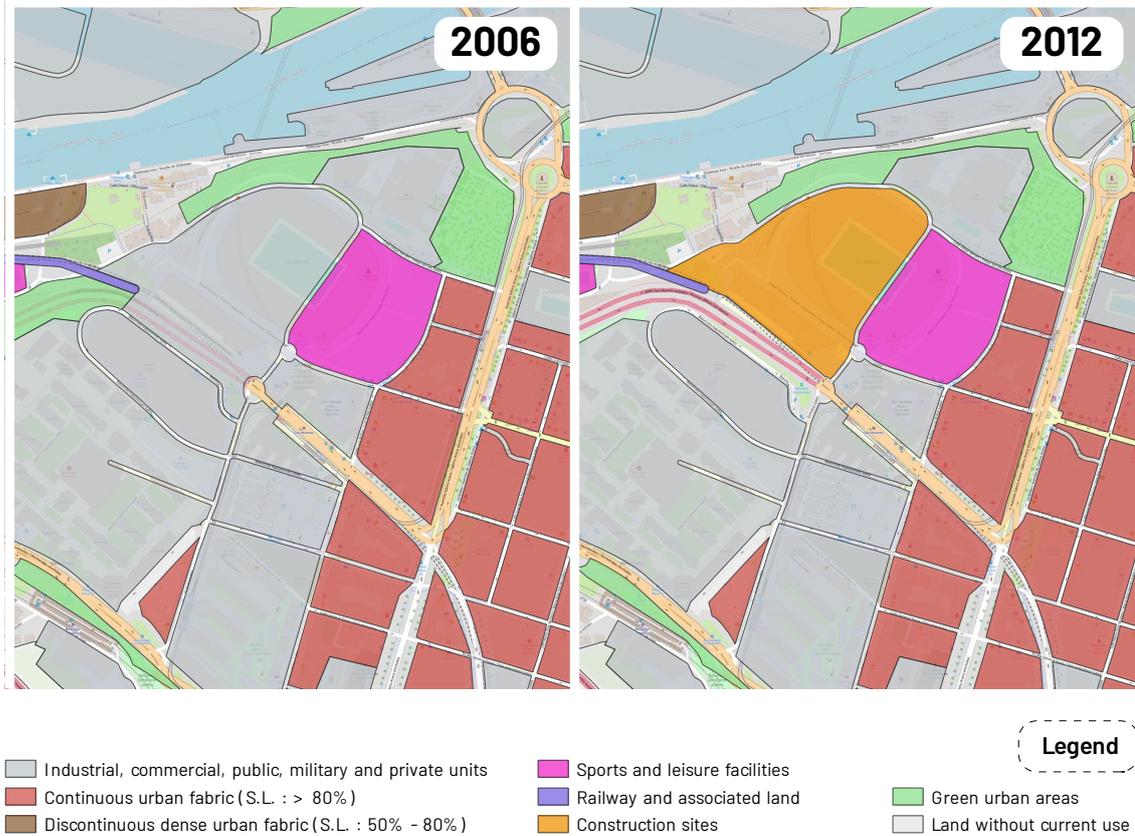


Map 6.4: Land use function change of the Abandoibarra area in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the final stages of the regeneration project with the completion of the Iberdrola tower and the surrounding business and commercial complex near the Guggenheim Museum.



Photo 8: Cassilda Iturrizar park and the Iberdrola tower. Source: Author's archive, July 2021

By 2012, the project to construct the underground bus station of Bilbao is in progress, while observations in 2021 indicate that the project has been completed while the newly vacated space on ground level has been further densified with high-rise residential complex and public spaces (Map 6.5. and Photo 9).



Map 6.5: Land use function change of the the area of Bilbao Intermodal Bus Station and San Mames stadium in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the dense commercial and public area and further construction activity.



Photo 9: Bilbao Intermodal bus/metro station – the station is underground, the square is on ground level and the new high-rise residential district can be observed in the background. Source: Author's archive, July 2021

6.5.1.5 Overview of the approach to resizing railway infrastructure

The railway infrastructure of Bilbao has been a central point in the planning efforts of the city before and during the investigated period. The approach to railway infrastructure has encompassed two perspectives – external connectivity of Bilbao and internal connectivity and accessibility improvements. From territorial planning perspective, the size, coverage and quality of railway infrastructure is viewed in the context of the Basque Country as an important factor to improve the access of the population to the main urban cores of the autonomous community. Improvements in railway accessibility are viewed also as a way to decrease car dependency and, indirectly, as a way to avoid suburbanization-related car traffic and car dependency. Planning documents outline ambitious efforts, focused on extending the Spanish high-speed train network to Bilbao – a project that is still due in 2021, as per interviews with local planners (*Interview 011_ExLoc_P1*). In economic context, the development of a high-quality railway infrastructure is viewed as complementary to the desired improvements in competitiveness of Bilbao as well as the Basque Country. Particular emphasis is placed on the availability of railway infrastructure that can also meet the needs of the external port of Bilbao, located on the Atlantic Coast.

Within the boundaries of the city, the topographic specifics have presented significant challenges for planners. The location of the city on terrains with different elevation, bounded by hills along the estuary of the river have historically resulted in the construction of deep trenches for the construction of the railway infrastructure. The location of the former industrial areas of the city in its very centre have also contributed to the complexity of the railway network and its maintenance. The location and deep trenches for railway infrastructure have resulted in isolation and creation of physical boundaries between some areas of the city. Respectively, the overall planning and resizing approach of the former network has focused on overcoming those barriers in parallel with optimization of the network so that its coverage is maintained. The most common approach particularly for the railway trenches has been their regrading and leveling, thus submerging the railway infrastructure underground and utilizing the space on ground level to connect neighbourhoods, increase density and reconnect parts of the city (*Interview 011_ExLoc_P1*). A successful example of this is the Ametzola area where the railway station and the tracks have been covered and a new neighbourhood and park have been created.

As of 2021, one of the last remaining trenches is at the Zabalburu train station adjacent to the Bilbao La Vieja area which plays a role in the overall isolation of the neighbourhood from the rest of the city (see also 6.5.1.6.). The area is expected to be regenerated in case the high-speed train connection is approved by the Spanish government. The project is expected to construct a new station for the high-speed train and to bridge the divide between the areas (Figure 6.4. and Photo 10).

4

NUEVOS ESPACIOS DE OPORTUNIDAD ABANDO ESTACIÓN

ESTADO ACTUAL

Ámbito ocupado por las instalaciones ferroviarias de las estaciones de Abando y La Concordia, así como por unos pabellones en torno a la calle Particular del Norte.

Es espacio de oportunidad por:

- La llegada del TAV y el soterramiento de las vías.
- La posibilidad de eliminar la barrera urbana entre los barrios de Abando, San Francisco, Irala y Zabala.
- Su gran centralidad y buenas comunicaciones.

PROPUESTA

Objetivos para el ámbito:

- Creación de un gran parque central con zonas de estancia y deportivas que contribuirán a reducir el déficit de espacios libres en los barrios adyacentes.
- Unión viaria de los barrios de Abando, San Francisco y Bilbao la Vieja.
- Previsión de superficies para actividades económicas (oficinas,...) y entre 1.000-1.200 viviendas en un modelo de usos mixtos.
- Creación de nuevos equipamientos locales para los barrios de la zona.
- Posibilitar la puesta en valor del patrimonio industrial del ámbito: bóveda de la estación y bodegas en la calle Particular del Norte.



Figure 6.4: Regrading project of the Abando station area: The train lines are moved underground, together with the new high speed line, and the area above is further densified and balanced with a new park. Source: Avance del Plan General de Ordenación Urbana de Bilbao 2016: Resumen de propuestas. Bilbao Udal/Ayuntamiento



Photo 10: The Zabalburu station and railway trench separating the Zabala neighbourhood (left) and the Bilbao La Vieja neighbourhood (right). Source: Author's archive, July 2021

Additional complications arise from the diversity of railway networks in Bilbao. Some of the lines and stations utilize the Iberian gauge (1,668 mm) while others the Standard gauge (1,435 mm). Separately, tram lines and the high-speed trains utilize different gauges. Planning documents consistently integrate these considerations in the context of desired intermodality of the different types of transport, including between railway options (e.g. tram and train).

“Intermodality between rail networks. This is considered to be the result of the conditions of implementation of the different networks, favoured by the convenience of mutual complementarity, in which the existing potential is exploited at the points where their routes coincide.

The provisions made in the plan for these points are those deriving from the content of the specific of the application of the specific regulations for the rail network. The nodes of this type currently in existence are as follows:

- *Abando, between the Metro and the Iberian and metric gauge railway.*
- *Casco Viejo, between metric gauge railway and Metro.*
- *Bolueta, between metric gauge railway and Metro.*
- *San Mamés, between the Metro and the Iberian gauge railway.*
- *Amezola, between Iberian and metric gauge railways. “(Plan Territorial Parcial Bilbao 2006)*

The creation and expansion of the Bilbao metro is considered as one of the most important projects for the city. Interview respondents consistently outline its significance particularly in terms of reconnecting Bilbao to the rest of the metropolitan area (*Interviews 011_ExLoc_*

P2, 012_ExLoc). This improved connectivity has contributed to better accessibility of the city and is also interpreted as a way to counteract depopulation of the urban core:

“the metro, which was an important work of the metropolis, one of the elements that allowed the trend of depopulation of Bilbao to be reversed a little.” (Interview 012_ExLoc)

In addition, the metro, designed by Norman Foster, is viewed as a symbolic element in the transformation of the city, contributing not only to the metropolitan function, but also to the metropolitan image and identity of Bilbao.

Resizing the railway, metro and tram network has been implemented in parallel to the other regeneration projects in the city. They have encompassed optimization of the network, decommissioning of certain lines, but improvement and expansion of others.

6.5.1.6 Intersection of economic and spatial considerations: Zorrotzaurre and Bilbao La Vieja

The observations and conclusions from the economic and spatial analysis can be traced clearly in some of the key interventions in two zones in the city – the former industrial area of Zorrotzaurre, subject to a major regeneration process that started during the investigated period and continues in 2021; and the area of Bilbao La Vieja – a socially vulnerable area in the centre of the city.

ZORROTZAURRE

Zorrotzaurre is an island in the Nervion river, located north of the city center of Bilbao, but within city limits (Map 6.6.). The area used to be a main industrial and port hub during the heyday of industrial Bilbao. As outlined by interview respondents, similarly to the former main industrial zone of Abandoibarra, Zorrotzaurre was also affected by the deindustrialization of the economy. As a result, the vast area, occupied predominantly by industrial buildings and port infrastructure, gradually deteriorated (*Interview 012_ExLoc*). The regeneration project, however, forms a central point in the overall efforts of the transformation of Bilbao and the work there continues as of 2021. The area was designated as a location of new centrality of the city. The master plan for the city has outlined a specific planning approach due to its complexity and size, thus Zorrotzaurre has a dedicated plan. The requirements for it were outlined by the city and the overall concept and spatial plan was delivered by Zaha Hadid Architects and was subject to multiple modifications throughout the years in order to adapt it to local context, as well as a result of citizen participation by the residential community in the area. The project is considered the second large-scale symbolic intervention in the city, following Abandoibarra. The regeneration plan fits within the overall planning logic to reutilize available space, rather than expanding the city further (*Plan Territorial Parcial Bilbao 2006*). Initially the project envisioned mostly residential use, but it was later adapted to incorporate economic and industrial elements, along with housing, in order to contribute further to the economic competitiveness of the city. A technology park is expected to be created there along with further infrastructure for creative industries and startups (*Resolución Plan Especial de Ordenación Urbana del Área Mixta de Zorrotzaurre 2012*). Planning documents refer to the main regeneration project as initially conceived as a sustainable project, incorporating economic, social and environmental considerations into the design of the mixed zone.

Planning documents and interview respondents reveal that the project has incorporated a number of elements, related to sustainability and circular economy. Since the area is located in the river and Bilbao is at a high risk of floods, the opening of the Deusto canal on the eastern side of Zorrotzaurre, was conceived as a contributor to improved flood safety of the whole area. Additionally, the project envisions elevating the ground level of the island in order to decrease the risk of high water. In addition, controlled inundation zones as well as storm water reservoirs will be integrated into the project in order to prevent further risks (*Interview 011_ExLoc_P2*). The elevation of the ground level of the island is being completed with residual materials from the controlled demolition of buildings during the cleanup phase of the project. In addition, the new buildings in the project will be required to incorporate energy efficiency measures in the initial design and in the constructions. In parallel, public investments are made into the energy efficiency of the remaining buildings that will be incorporated into the project.

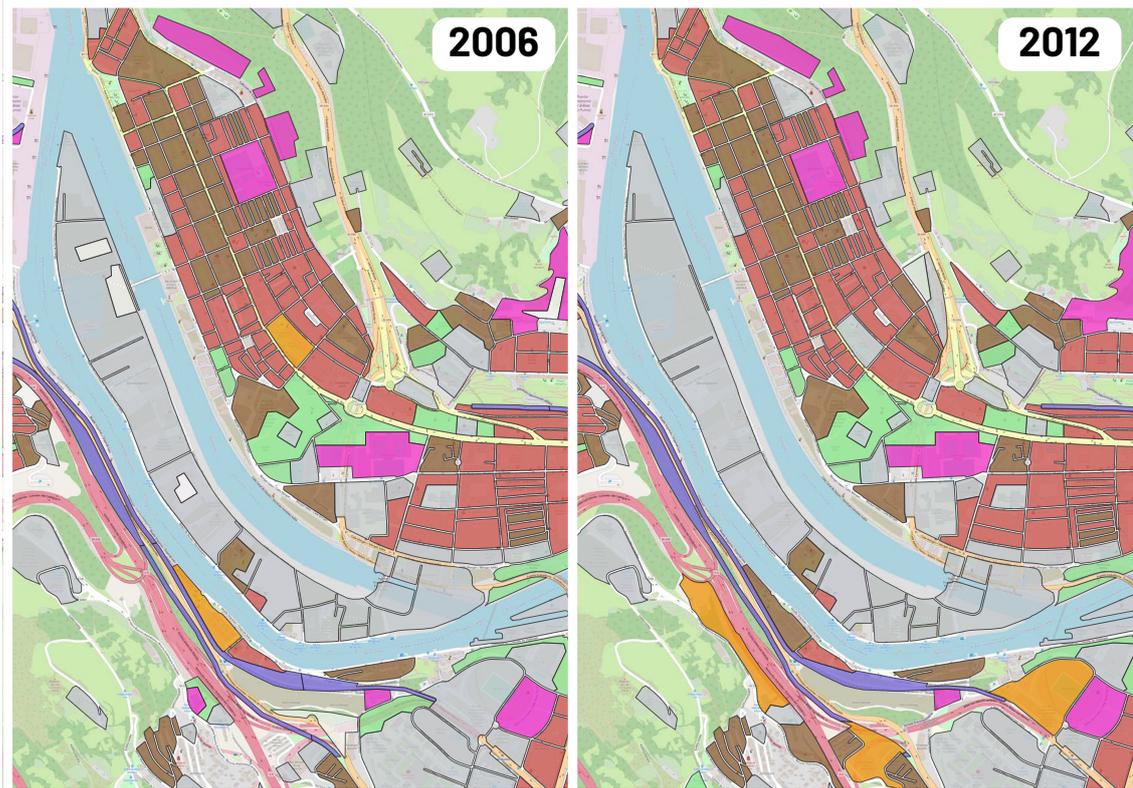
The approach to the regeneration project differs from the investments made in Abandoibarra due to the higher amount of private property. This has required the involvement of all private owners, the establishment of a dedicated management commission, legislative change and high level of public-private partnership (*Interviews 011_ExLoc, 012_ExLoc*). The planning instruments utilized have also involved consolidation of property and separation of intervention zones which are managed with dedicated teams.

In parallel, the Basque Government has utilized its housing programme to support the remaining owners and residents in the refurbishment of their buildings. In addition, the future housing units in the project will have a specific percentage of price-controlled apartments, in-line with the housing policy of the Basque Government (*Interview 012_ExLoc*).

The project has been adapted to a mixed use area with lower density and considerations for public transport accessibility and balanced use of functions between commercial, industrial, residential and public space. The condition of buildings has been assessed on a case-by-case basis. The buildings, evaluated as fitting in the project and subject to rehabilitation will be refurbished, while buildings in poor condition will be demolished. The cleared lots have allowed for a greater flexibility of the project and the incorporation of public spaces. Some elements of greening are also incorporated in the public areas.



Photo 11: “La casa de la Palmera” and demolition activities in the southern part of the island and a billboard for upcoming new residential development. New residential buildings on the opposing coast to the east (the district of San Antonio) can be seen in the background. Source: Author’s archive, July 2021



Map 6.6: Land use function change of Zorrotzaurre based on Copernicus Urban Atlas data: The map illustrates the reclassification of vacant lots to industrial area, thus consolidating the function of the area, so that the regeneration project can encompass the whole island.



Photo 12: Renovated house (back) and a house set for demolition (front) at Ribera de Deusto street. Source: Author's archive, July 2021



Photo 13: A cultural centre located in an old industrial building as part of the overall strategy of developing an innovation cluster on the island. Source: Author's archive, July 2021



Photo 14: One of the already completed phases of the project – renovated industrial buildings hosting startup communities and incubators along with a videogame university. Source: Author's archive, July 2021



Photo 15: An industrial building set for demolition (left) and the Heritage centre for industry (right). It is unclear if the latter is functioning. The approach to industrial buildings is differentiated and some industries will continue to operate from the island after the completion of the regeneration project. Source: Author's archive, July 2021

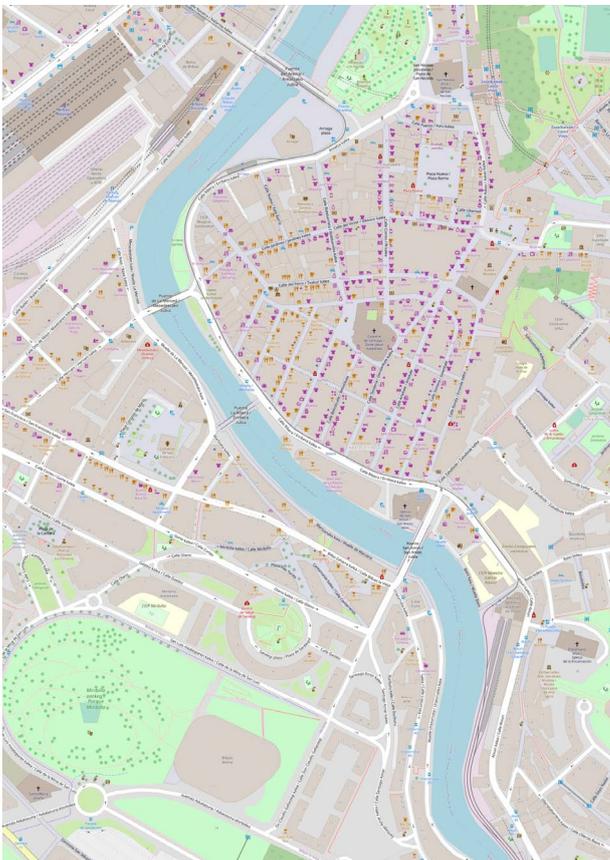


Photo 16: Residential and industrial buildings in very poor condition. The residential building appears to be illegally occupied. Source: Author's archive, July 2021



Photo 17: Land clearing activities, flood protection barriers and elevation of the level of the island are already in progress in the northern section which is inaccessible due to advanced construction works. Source: Author's archive, July 2021

BILBAO LA VIEJA



Bilbao La Vieja is a small, former working-class housing neighbourhood, located in the centre of Bilbao between the Miribilla hill (a former mining site) and the old town of Bilbao (Casco Viejo). The river Nervion separates Casco Viejo and Bilbao La Vieja. The neighbourhood is terraced due to the topography of the terrain. It is also physically separated from the centre by the railway trench of the stations Zabalburu and Abando. It is characterized by narrow streets and small, low-rise residential buildings (Map 6.7. and Photo 18).

Map 6.7: The neighborhood of Bilbao La Vieja on the left bank of the river. Source: Open street map



Photo 18: Non-renovated residential buildings in the steep streets of Bilbao La Vieja

The area was historically inhabited in an uncontrolled way during the industrial heyday of Bilbao (*Interview 009_ExLoc*). Respectively, the housing conditions there have never been at a satisfactory level, thus this has prompted the municipality to continuously address the challenges there (*Interview 009_ExLoc*) through dedicated financial and housing programmes.

Planners outline that specific social issues exist in the neighbourhood, implying that they may be related to the higher amount of immigrants living there. The area has also been associated with higher crime rates. The overlap of social challenges, poor living conditions, physical separation from the rest of the city and overall deterioration of the neighbourhood has prompted various institutions to address the issues there. In parallel to the planning efforts, the area has been included in the housing and social programmes of the Basque Government as an area for integrated rehabilitation with dedicated funds and social support. In addition to investments in physical space, measures to tackle unemployment and integration have also been implemented. On a local level, the municipality has attempted to contribute to revitalization by activating the ground level floors with commercial activity.

“La Vieja is not a start-up. It had an interesting upturn in, I would say to the years 2000 because it was that they became very dynamic in the ground floors of the buildings, because the city council bought the ground floors in very good prices, sold them that professional people were installed with what was the general a little bit the environment. And this to say that it was going to take the dynamics but then came the crisis ..” (Interview 011_ExLoc_P3)

The future plans for the regrading of the railway trench are expected to remove the physical barrier of the neighbourhood to the city, but planners also expect a certain level of gentrification as a result of the planned actions (*Interview 011_ExLoc_P1*). Efforts to engage

the local community have also been implemented (Photo 19). Additionally, some buildings have been demolished in order to improve accessibility and the overall structure of the area, along with rehabilitation and regeneration efforts in public space. Local planners highlight that main challenge to the implementation of the various measures remains the high private property, thus the approaches can be implemented only to a limited extent.



Photo 19: Cultural hub square in Bilbao La Vieja. Source: Author's archive, July 2021

6.5.1.7 Conclusions Hypothesis 5 – Bilbao (Spain)

The empirical data under Hypothesis 5 for Bilbao illustrates a consistent normative orientation towards economic growth. The planning interventions have attempted to develop competitive advantage of the city in economic terms. Considerations for quality of life for the remaining citizens, combined with social measures for vulnerable areas (e.g. Bilbao La Vieja) and policy sectors (such as housing accessibility) have been implemented, although with not as much emphasis as the economic orientation.

The normative orientation towards spatial development has been focused on compact development, avoiding sprawl and promoting mixed use. The regeneration efforts have been oriented to further densification of the city and reutilization of vacant areas. Measures towards the rehabilitation of buildings, including energy efficiency considerations, have been included in plans and projects. The railway infrastructure has been actively managed in the context of resizing and optimizing it. The optimization has focused on utilization of available land but also expansion of the network in order to improve mobility, quality of life and competitiveness.

Sustainable development and circular economy aspects have influenced both the economic development and spatial development of the city. Environmental considerations have been integrated in the economic efforts as well as in major regeneration projects (e.g. Zorrotzaurre). Reutilization of building materials has also been implemented. Private capital has played and continues to play an important role in all major transformations of the city due to high percentage of private property. The public-private partnerships have played a key role in the majority of economic and spatial interventions.

6.5.2 ECONOMIC AND SPATIAL DEVELOPMENT OF LEIPZIG (GERMANY)

6.5.2.1 Interpretive policy analysis – economic development

Overall economic orientation

The economic orientation of Leipzig throughout the investigated period is contextualized in reference to the transition to market economy, after the German reunification, as well as in reference to globalisation processes. The role and effects of the national economy on the city is also recognized through the influence it has through federal funding. The role of the city is also framed in the context of the then expected eastern expansion of the European Union and this is recognized as a potential for further economic development.

This perspective is complemented by a number of regional references in the context of the state of Saxony. Leipzig is framed as a key location in the concept of the Saxon Triangle (between Leipzig, Dresden and Zwickau). The economic development of the city after the reunification is evaluated as positive, oriented towards turning Leipzig into the growth engine of the region. The economic transition, however, is not viewed as an end-point, but rather as a process in progress that needs to further adjust to the new economic demands, namely knowledge economy and changed industrial demand. Therefore, the formation of industrial, knowledge and science clusters is seen as an important factor in the economic development of the city. From state perspective, this development is recognized as important in order for Leipzig to fulfill its role as an “upper urban center” in Saxony – a concept that also reinforces the idea of a key business location. The emphasis on competitiveness in Saxon context is also outlined in terms of the active policy towards investment – the need to strengthen the economic performance of Saxon cities is utilized to justify an active policy of land provisioning to potential investors, including in Leipzig:

“G 6.1.1 The spatial and infrastructural conditions for demand-oriented development of attractive industrial and commercial locations should be created and should encourage the establishment of new industrial and commercial enterprises and the maintenance, expansion or restructuring of existing ones.”

“The regional planning authorities are to ensure long-term location provision for large-scale, supra-regionally significant industry and commerce. Based on the need to be able to answer investors’ questions about the suitability and necessity of sites quickly and with the aim of keeping potential site areas free, planning instruments should be used to determine and keep sites free.” (Sachsen Landesentwicklungsplan 2003)

The notion of turning Leipzig into a competitive business location is also recognized in the local urban plans. Ultimately, the economic orientation of the city is to be oriented to further investments and competitive advantages in technology, research, trade fair, commercial, manufacturing, finance and insurance sectors. Retail is also seen as an important sector whose development is expected to turn inwards in order to compensate the sprawl and locational disadvantages that developed throughout the 1990s.

A particular consideration from economic standpoint is outlined for the housing market. Its development and proper functioning are viewed as necessary and requiring intervention to ensure balance between quality, supply and demand.

Apart from large-scale investments, the reviewed documents also outline consistent efforts in the revitalization of the local smaller-scale economic activities. The role of the integrated planning for specific areas is of key importance for the fulfilment of this objective (See also 6.2.2. Interpretive policy analysis of the policy substance in Leipzig (Germany) and 6.3.2. Interpretive policy analysis of the planning substance in Leipzig (Germany)). The planning efforts in those areas are an instrument to establish small-scale economic structures and reactivation. While the large-scale economic efforts also target highly qualified specialists as a desired group to migrate to the city, this objective is balanced by considerations for less-qualified people that are to be supported also through targeted programs for requalification.

The global, national, European and regional contextualization and the economic competitiveness orientation intersect in the objectives set towards the image of Leipzig. Planning interventions, mostly pertaining to the proactive provisioning of sites for economic activity, as well as the overall economic planning are expected to contribute to an image of a growing city with competitive economy. Leipzig is expected to develop its economic strengths and to project this image outwards. This effort is also supported by the application to host the Olympic games in 2012, for instance. Additionally, national and international forums are utilized in order to project the city image to potential partners. The cultural sector and the traditions that the city has in it is also seen as an additional factor in the image creation and maintenance. The efforts for image promotion are outlined in multiple policy and planning documents and aim to increase the visibility of the city.

Efforts in terms of quality of life improvements are outlined as objectives across policy and planning documents and are seen as a main contributor to overcoming the negative image of Leipzig as a shrinking city and to thus increase its attractiveness. This sentiment was also shared in an interview with a local planner:

“But in 2000 it was clear that it wasn’t enough to stabilize the physical space, you had to do something with the people. And you have to do it with the people. And because this decline and everybody was going away from Leipzig and especially Western Leipzig it was stopped in 1998 more or less. But people thought it was still emptying with the time. It was a difference between perception and real numbers.”
(Interview 006_ExLoc)

The perspective of non-growth, or not explicitly targeting growth, can be found partially in some of the formulated objectives in the analysed documents. The main frame in this regard focuses on land use and stipulates that new economic development should be accommodated in a proactive way with a controlled and plan-driven development of available land as opposed to expansion.

Considerations for sustainable development can be found consistently throughout policy and planning documents, mostly in the later years of the investigated period (after 2009). The importance of adaptation to climate change is highlighted as inevitable and particular actions are outlined from the perspective of the city. Climate protection is to be one of the elements of the integrated planning that was introduced in Leipzig. In this regard, the creation of the Leipzig Charter for Sustainable Cities is seen as the direct result of the sustainability considerations of the city’s planning and the integration of economic, environmental and social concerns:

“Contributions to climate, environmental and flood protection, e.g. by increasing energy efficiency, the use of renewable energies, a reduction in traffic-induced air and noise pollution, flood risk management and the implementation of the principle

“Internal development before external development”.

î the further development of the waterway network for tourism, leisure and sport as well as the revitalisation of watercourses in the alluvial forest and in the built-up area.

These objectives are underpinned by spatial and substantive action priorities of relevance to the city as a whole” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo)2009)

The particular measures in terms of energy efficiency and other environmental aspects are also integrated in the concepts for the different districts of Leipzig in a differentiated and tailor-made approach. The regional planning perspective also emphasizes on the need of balance between economy, environment and social considerations. A particular emphasis is placed on the preservation of the environment in reference to the Spatial Planning Act (Raumordnungsgesetz) – the main legal framework for planning in Germany:

“(2) The guiding principle for the fulfillment of the task according to paragraph 1 is sustainable spatial development, which brings the social and economic demands on the area in line with its ecological functions and leads to a lasting, spacious, balanced order with equivalent living conditions in the sub-areas.” (Raumordnungsgesetz)

The main considerations for sustainability, however, are recognized in terms of land use planning.

Circularity principles are not explicitly formulated in policy and planning documents from economic perspective. To a large extent, however, the reuse of land and buildings can be considered in line with circular principles. Interviews with local experts outline that circular economy itself is a rather newer trend in Leipzig and it’s gaining pace (*Interview 006_ExLoc*). Some elements of circularity are also recognized in terms of building materials reuse as well as soil and land reuse.

The involvement of the private sector is viewed mostly from the perspective of the housing market. The high level of differentiation of ownership types (community ownership, private ownership, private housing companies and others) has influenced the efforts on housing market management and interventions in buildings and has required extensive partnerships and participation with the various actors. In some interviews, the efforts to control the development through proactive planning are seen as a difficult task against private investment influence (*Interview 007_ExReg*). Housing companies have been explicitly outlined as a key factor in the majority of interventions in the housing market, thus the planning in this regard has been dependent on them.

Equitable economic development

Quality of life can be consistently found as an element of the objectives of Leipzig. These considerations are usually clearly formulated both in relation to the economic performance and attractiveness of the city as well as a particularly important factor and an objective on its own. Overall improvements of quality of life in Leipzig are stipulated as a desired direction for development in terms of overcoming the effects of urban shrinkage (see also 6.4.2. Interpretive policy analysis of shrinkage conceptualization in Leipzig (Germany)). Quality of life is interpreted from multiple perspectives, including provisioning of housing

of good quality, high quality public spaces, access to green and recreational areas. These objectives are also compatible with the goals at state level – Saxon cities are expected to become an attractive place to live with high quality living standards. In that sense, quality of life stands out from the rest of the topics and becomes more an issue of spatial planning that influences the various planning efforts in the city. The relation of the topic with the economic perspective is mostly supplemental whereas the competitiveness of the city may positively influence the overall quality of life.

Objectives and considerations for social cohesion and social integration are consistently included in the integrated concepts for urban development of Leipzig and have been explicitly oriented to specific areas of the city that suffer more than others in terms of social challenges. These vulnerable areas are mostly located in Leipziger Osten, Leipziger Westen and Grünau. These three areas are consistently listed as facing various challenges in terms of low employment, vulnerable economic structure, low social cohesion, challenges in integration for migrant communities and bad image. Respectively, measures to overcome those particular issues have been consistently included in the plans of the city, such as reactivation of local businesses, creation of social networks, economic coordinators, employment assistance. The embedment of the social perspective into the integrated urban concepts for the districts has resulted in the development of special instruments that address both urban, spatial, economic and social issues, such as the Soziale Stadt programme. The programme, together with other instruments, has been one of many approaches to the complex challenges faced in socially disadvantaged areas. They have also been complemented by measures for housing accessibility. Some of the areas appear to be facing another challenge – becoming only arrival areas. As outlined by an interview with experts working on the programme, the measures are oriented to supporting the local citizens, however, once they manage to stabilize their overall social situation they often move to another area of the city, thus the issues in the areas remain (*Interview 008_ExPro*). To a large extent, it can be concluded that considerations for equitable development from economic perspective are well balanced with the growth orientation of the city overall. The differentiated approaches and the dedicated funding and assistance instruments have allowed for consistent long-term measures in those vulnerable areas that are in-line with the objectives for quality of life improvements of the whole city.

6.5.2.2 Descriptive statistics - economic development

The measures to overcome population decline had already begun in Leipzig at the beginning of the investigated period (the year 2000). After the administrative expansion of the city, the population continuously grows throughout the period of interest (Table 6.4.).

Indicator name English	2000	2001	2002	2003	2004	2005	2006	2007
Population Leipzig	493208	493052	494795	497531	498491	502651	506578	510512
	2008	2009	2010	2011	2012	2013	2014	2015
	515469	518862	522883	510043	520838	531562	544479	560472

Table 6.4: Population Leipzig. Source: Bertelsmann Foundation/Wegweiser Komune and Statistik.leipzig.de

Although the natural balance of the city is negative between 2000 and 2014, the migration balance remains steady and moderately growing until 2011, while after that it's growing at an even faster pace. The same trend can be observed in the new arrivals statistics. Figure 6.5. illustrates the population dynamics with the two key indicators tracing in-migration as compared to the total population of the city in the respective period:

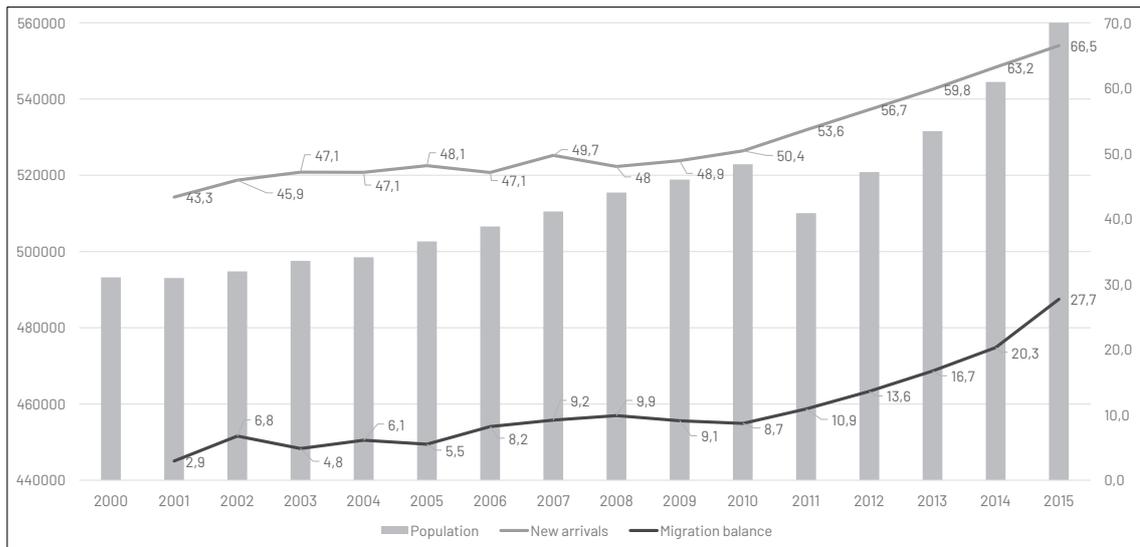


Figure 6.5: Population, New arrivals and Migration balance of Leipzig between 2000 and 2015. Source: Bertelsmann Foundation/Wegweiser Komune and Statistik.leipzig.de

The economic data for Leipzig illustrates a steady growth trajectory. Leipzig's GDP per capita is on a clear upward trend throughout the investigated period. In 2006 it surpasses the GDP per capita of the European Union, while in 2011 it surpasses the GDP per capita of the Eurozone. It edges the GDP per capita of Germany in 2013 and onwards on an upward trend (Figure 6.6.).

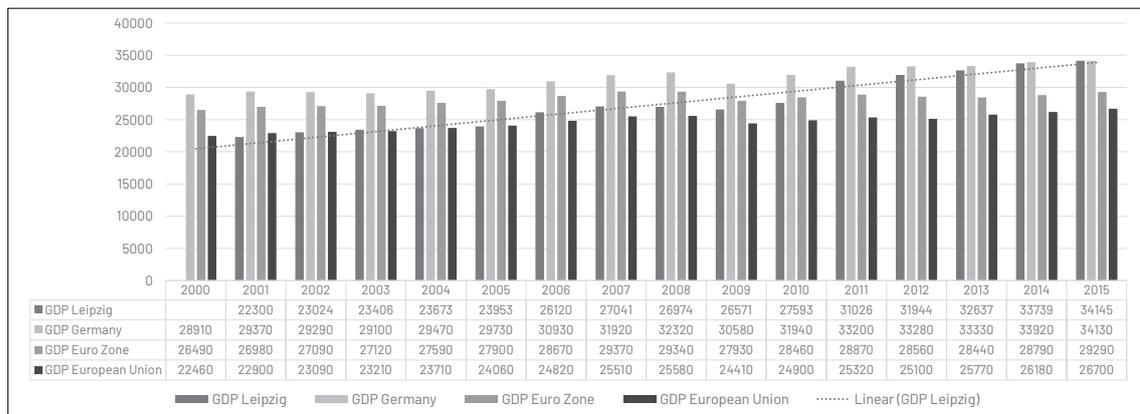


Figure 6.6: GDP Per capita (market prices) in EUR for Leipzig, Germany, Eurozone and EU. Source: Bertelsmann Foundation/Wegweiser Komune, Eurostat, statistik.leipzig.de

The indicator for new business establishments shows inconclusive data. Firstly, there is an upward trend until 2007, then a decrease and relative stabilization and then further decrease after 2012. This dynamic may be related to the growing population of the city as well as on factors such as the global financial crisis, although the data is not clear (Table 6.5.).

	2000	2001	2002	2003	2004	2005	2006	2007
Business start-ups	0	11,2	11,1	12,9	15,1	13,1	13,1	11,4
	2008	2009	2010	2011	2012	2013	2014	2015
	11,5	10,7	11,3	12,0	11,2	9,6	9,3	9,3

Table 6.5: Number of new business establishments per 1000 people in Leipzig 2001–2015. Source: Bertelsmann Foundation/Wegweiser Komune and statistik.leipzig.de

6.5.2.3 Interpretive policy analysis - spatial development

The document analysis on the spatial development of Leipzig reveals a high level of consistency on the framing and normative orientation of the spatial condition of the city. The main causal interpretations, outlined on state, regional and local levels, highlight the structural economic change that has occurred in Leipzig (in the context of the wider transition to market economy in Eastern Germany) that has resulted in parallel economic and social processes that have had spatial effects on the city. Particular highlight in the causality is the extensive sprawl pattern that has formed throughout the 1990s with commercial, residential and industrial activity outside of city limits, resulting in abandonment of areas, buildings and sites within the city proper. Some documents highlight those effects as a risk of a spatial disintegration of the city. An emphasis is placed on the brownfields and other industrial areas that have been established closer to residential areas, following the pattern of socialist cities, that have been abandoned and left in a derelict condition. The reasons behind these processes are attributed to unrealistic growth expectations in the 1990s and stimulus for suburban housing and new development areas:

“The challenges posed by the sometimes “hard change” are clearly shown by the development of the industrial economy in Leipzig. While 100,000 people were still employed in industry in Leipzig in 1989, only 37,000 were still employed four years later. Changes of this intensity have an impact on all sectors of urban development. The social, economic and fiscal consequences are obvious, but the impact of such a process on the physical urban structure is no less intense. In the structure of residential and commercial areas, which were still closely interwoven as a result of the industrial revolution, the commercial areas suddenly fall into disuse. The condition of these areas further complicates the already difficult urban renewal of the surrounding neighbourhoods. In the emerging competition between inner city and “greenfield” sites, old sites have a hard time, as their reuse is much more difficult than the mostly subsidised use of newly developed areas.” (Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999)

The resulting spatial imbalance is the main reasoning behind the various normative leaps identified in regards to the desired development of the city. They are often outlined with a differentiated assessment of specific areas and districts.

The overall orientation of the objectives, pertaining to spatial development, is focused on counteracting sprawl and on increasing the densification of the city. This normative orientation is shared across institutional levels. It envisages a balanced spatial development that considers reuse of existing sites and locations within the city limits with specific interventions that ensure economic viability and potential to attract long-term investment. In a similar context, the housing policy is also justified through the need to counteract suburbanization whereas the resizing and interventions of the housing market (as part of the Stadtumbau Ost programme) are seen as a way to improve its functioning and thus enable more interest in living within the city. The measures under the Stadtumbau Ost programme envision not only the resizing but also the improvement of living conditions in the neighbourhoods (See also 6.2.2. Interpretive policy analysis of the policy substance in Leipzig (Germany)).

The state and regional economic policies have a well-formulated spatial dimension whereas priority is to be given to existing industrial and commercial sites within city limits as opposed to further expansion and creation of new areas outside of the urban core. This orientation remains throughout the analyzed period, including in the later plans of 2010. The regional

perspective also emphasizes on the need of coordination between cities in order to avoid competition for investment through expansion. Investment is to be focused in existing areas with developed infrastructure and transport links (also seen as “axes” between the cities) thus resulting in decreased land consumption in the outskirts of the urban centers and further reduction of sprawl:

“Around 2000, we wanted to strengthen the city of Leipzig as a centre of attraction and to concentrate the development of the city again so that the number of inhabitants would at least remain constant or increase again, the redevelopment would progress and the cityscape would be reborn in order to create a compact city. [...] We do not develop any additional areas in principle where we have a strong population decline.” (Interview 007_ExReg)

The high amounts of private property subject to intervention from planning perspective and the consensus that the undesirable spatial patterns need to be counteracted have resulted in strong normative orientation towards an active land use management approach. This orientation is also shared across institutional levels. The planning of the city focuses on demand-oriented land use whereas the administration attempts to acquire control and regulate the land and thus to direct where new economic development is to be placed. This active policy orientation has resulted in the development of various planning tools such as interim use of space, land banks, registers of available industrial land, land acquisition legal instruments. In some documents this point is taken even further by suggesting that the administration is supposed to control the supply of land as a whole. The overall proactive policy appears to persist in time:

“Within the individual commercial centres, fine differentiation is to be made, if necessary, in order to do sufficient justice to the individual micro-locations, such as business locations for offices and good public transport for them. The differentiated use of those spaces should not be left to chance but is an object and should be supported by of proactive supply planning with active land marketing strategy.” (Beiträge zur Stadtentwicklung 25-Stadtentwicklungsplan Gewerbliche Bauflächen 1999)

“Active municipal real estate policy: Key implementation objectives are linked to the availability of suitable land. Through an active real estate policy, the City of Leipzig is to secure appropriate key sites and build up a pool of land in order to promote the desired developments, if necessary by exchanging plots of land.” (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

The proactive approach to land use appears to have proven as functional particularly for vacant areas which have been scattered across the city with different sizes. Within more densely populated areas these vacant sites are locked between buildings and the approach to them requires a particular intervention at a smaller scale. In other areas, however, vacant lots are larger and thus demand a more ambitious intervention by the local administration.

Greening is consistently outlined as a suitable approach in the context of encouraging compact development and addressing vacancy within Leipzig. State and regional plans contextualize environmental considerations as central for the overall regional development and refer to the creation of regional green corridors within Saxony. Leipzig's green areas are intended to be connected to those corridors. Environmental considerations have strongly influenced the interventions in this regard. Overall, the normative orientation is justified

through the principles of sustainable development and the spare use of resources, thus supporting the increase of green space.

"- the continuation of the gradual restoration of ecological damage (air and water pollution, pollution of soils, contaminated sites and old sites, lignite mining)

[...]

- a general effort to use the land sparingly, minimising impacts on nature and the landscape and landscape-friendly land use in all spatially significant measures. should make a significant contribution to this." (Regionalplan Westsachsen 1998/2001)

The increase of green space on a larger scale is also used as a justification for compact development of the urban centres. A particularly important project was the conversion of the former mining operations south of the city to an artificial lake district with high recreational qualities that is also expected to contribute to the image improvement of the city. Railway areas and brownfield sites that are not suitable for redevelopment are also framed as a potential source of new green space (see 6.5.2.5.). The connectivity between green spaces is viewed as a way to create better living environment within the city as a whole as well as to contribute to improvements in quality of life in separate districts, especially districts with vacant areas and insufficient green space. The interventions in this regard vary from large scale projects, such as the Eilenburger Bahnhof turned into the Lene-Voigt Park, to smaller scale greening interventions in particular lots, especially following demolition.

Additional effort in terms of green areas connectivity is the creation of pathways between buildings that utilize the available green space and make it more accessible. Smaller scale interventions within districts are seen as a key contributor to quality of life improvements. Overall, greening and recreational areas are viewed as a preferred way of handling land vacancy.

"- the connection of the city centre via green corridors and roads with the surrounding area

-the safeguarding of urban open spaces and the creation of new green spaces for recreation, sport and leisure and for the upgrading of the urban residential environment, with the emphasis on urban redevelopment areas" (Leipzig 2020 Integriertes Stadtentwicklungskonzept (SEKo) 2009)

Mixed use approaches are consistently envisioned as a principle in the spatial interventions. Mixed use is recognized as a suitable approach to maintain the provisioning of various services across districts, contribute to positive image and quality of life, preserve local business activity and contribute to identification of citizens with their areas. Mixed use development is encouraged for new commercial areas as well, together with balanced provisioning of public space. The overall approach is integrated into the system of central spaces within Leipzig that regulates where and what types of functions should the different levels provide:

"To overcome this, the planning department has developed a decentralized system of centres across the different districts which should lie in the centre of

each neighbourhood and offer multifunctional area with a good public transport which are a recognised goal in the sense of the European city.

The centre-central area is not to be considered only an area for shopping but also a mix of activities such as leisure offerings, cultural institutions. The city district centres are diverse areas with varying quality and various distributions of open space.”(Beiträge zur Stadtentwicklung 28-Stadtentwicklungsplan Zentren 2000)

The management of the building stock in Leipzig is included in the overall integrated concepts per district and in the framework of the planning of the city as a whole. The various approaches that include demolition, renovation, maintenance and cultural heritage protection are applied to a different extent for the various types of buildings. Demolition is mostly applied in the context of the resizing of the housing market as an overall policy goal. Renovation efforts for housing are also included in this goal as part of the framework of the Stadtbau Ost programme. Additionally, the maintenance and improvement of the existing building stock is seen as an important element of the overall sustainable urban planning adopted by the city:

“The conversion and re-use of buildings is of great importance in terms of sustainable, land-saving settlement development. It is characteristic of urban redevelopment areas that the existing use of the buildings no longer meets current needs. Particularly for old buildings within the city and for buildings that characterise the cityscape, it is important to develop conversion concepts and to improve the quality of the building fabric through targeted renovation measures.” (Stadtbau Ost – Stand und Perspektiven 2006)

Improved condition of buildings is seen as a contributor to quality of life and image improvements. Specific attention is paid to age appropriate adaptation of buildings in light of the ageing population of the city. Cultural use of old buildings is viewed as a suitable alternative in line with the overall strategy of the city to maintain its image as a cultural hub.

Preservation of cultural heritage is highlighted as important for maintaining the image of the city, particularly the Wilhelminian style buildings. In addition, the renovation of cultural heritage buildings is a long-term project that remains as a goal also in the later plans. It is also included in the integrated concepts. Considerations for maintaining the industrial heritage buildings are also outlined.

6.5.2.4 Descriptive spatial data – quantitative, spatial and observational data

Quantitative data – measurements with Wegweiser Kommune methodology applied

The quantitative land use data shows a gradual increase in the land use of the city which is indicative of increasing density as well as further utilization of vacant land. The data on New Land Use is incomplete until the year 2007 and after that shows fluctuating dynamic which is inconclusive. The Land Use Intensity remains stable throughout the investigated period and increases after 2008. Population density gradually increases throughout the investigated period, in-line with the population growth (Table 6.6.)

Indicator/ Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Calculation
Land use	0	43,8	44,3	44,6	45,1	45,2	45,3	45,4	49,5	50,5	51,2	51,6	52,0	52,2	52,5	53,2	(Settlement and traffic area)/(total area)*100
New land use	0	0	0	0,20	0,33	0,10	0,00	-0,02	1,03	1,03	0,75	0,36	0,40	0,21	0,34	0,74	(Change in settlement and traffic areas compared to the previous year)/(total area)*100
Land use intensity	0	0,02	0,03	0,02	0,02	0,02	0,02	0,02	0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,03	(Settlement and traffic area)/(number of inhabitants)
Population density	0	16,6	16,6	16,7	16,8	16,9	17,0	17,1	17,3	17,4	17,6	17,1	17,5	17,8	18,3	18,8	Total population / area in ha

Table 6.6: Land use, New land use, Land use intensity, Population density in Leipzig between 2001 and 2015. Source and calculation: Bertelsmann Foundation/Wegweiser Komune and statistik.leipzig.de

SPATIAL DATA – LAND USE FUNCTION CHANGE BASED ON COPERNICUS URBAN ATLAS DATA

The spatial data illustrates increasing density within the city, albeit with not significant increases in the different land use types. There is an increase in continuous urban fabric (+5Ha), discontinuous dense urban fabric (+30Ha), Discontinuous medium density urban fabric (+14Ha). This is indicative of the smaller scale approaches to reutilizing separate lots within the city, rather than large-scale projects of urban regeneration. The Industrial, commercial and public land has increased with ~170 hectares which encompasses mostly larger lots. Small increases can be observed in green urban areas, sports and leisure facilities, indicative of small-scale interventions. Small decrease can be observed in railways and associated land, indicative of the further reutilization and conversion of lots. Construction sites have increase also, indicative of continuing interventions in the city. The decrease in mineral extraction and dump sites may be related to continuing decontamination efforts.

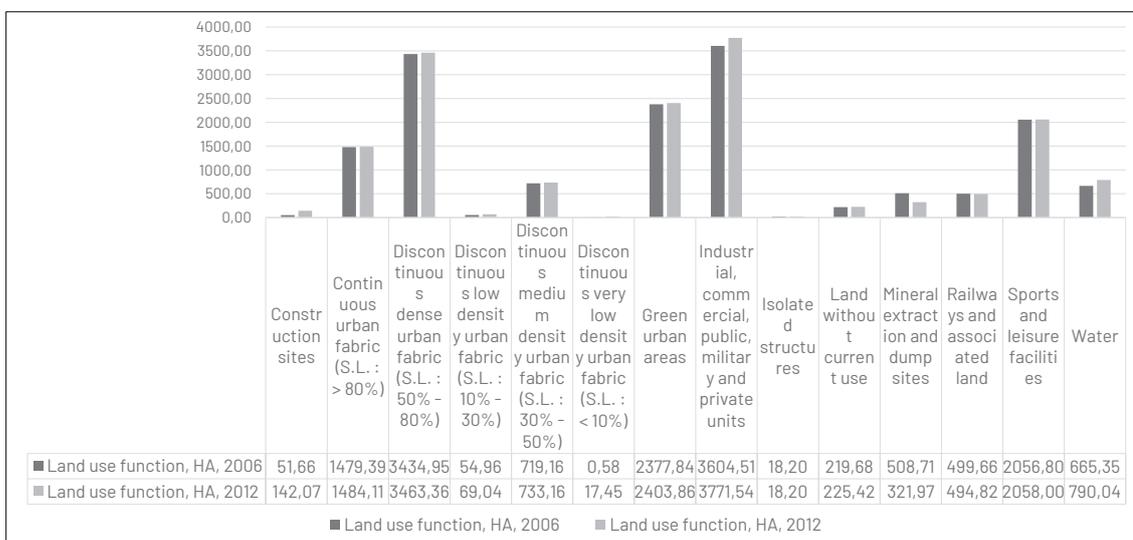


Figure 6.7: Land use function - Leipzig 2006 and 2012 based on Copernicus Urban Atlas data, in hectares

OBSERVATIONAL DATA

The various measures towards utilizing vacant lots and refurbishing buildings can still be observed in Leipzig nowadays. As outlined in the previous sections of the analysis, the interventions are mostly with smaller scale approaches to specific lots and areas in particular neighbourhoods. The observations reveal the contrasts between old and new as well as the gaps in the built environment, some of which still remain. The traces of the utilization of non-traditional planning instruments, such as the temporary use of buildings, can still be found in Leipzig (Photos 20 and 21).

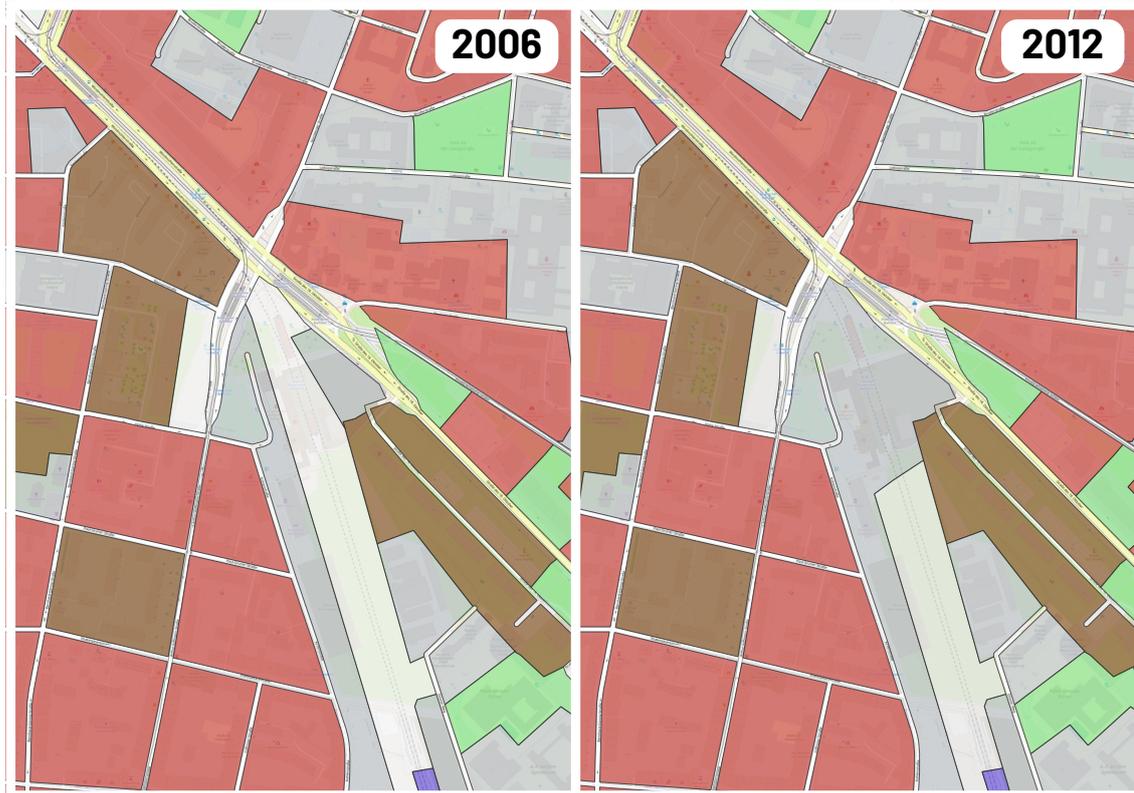


Photo 20: Vacant lot and abandoned building in Leipzig Schönefeld. Source: Author's archive, June 2021

The demolition of residential buildings as part of the Stadtumbau Ost programme has resulted in increase of open space in some neighbourhoods, such as Grünau. These new open areas have been converted to green public and recreational space (Photo 22):



Photo 21: Wachterhaus in Abtnaundorf – the temporary use instrument utilized to preserve old buildings. Source: Author's archive, June 2021

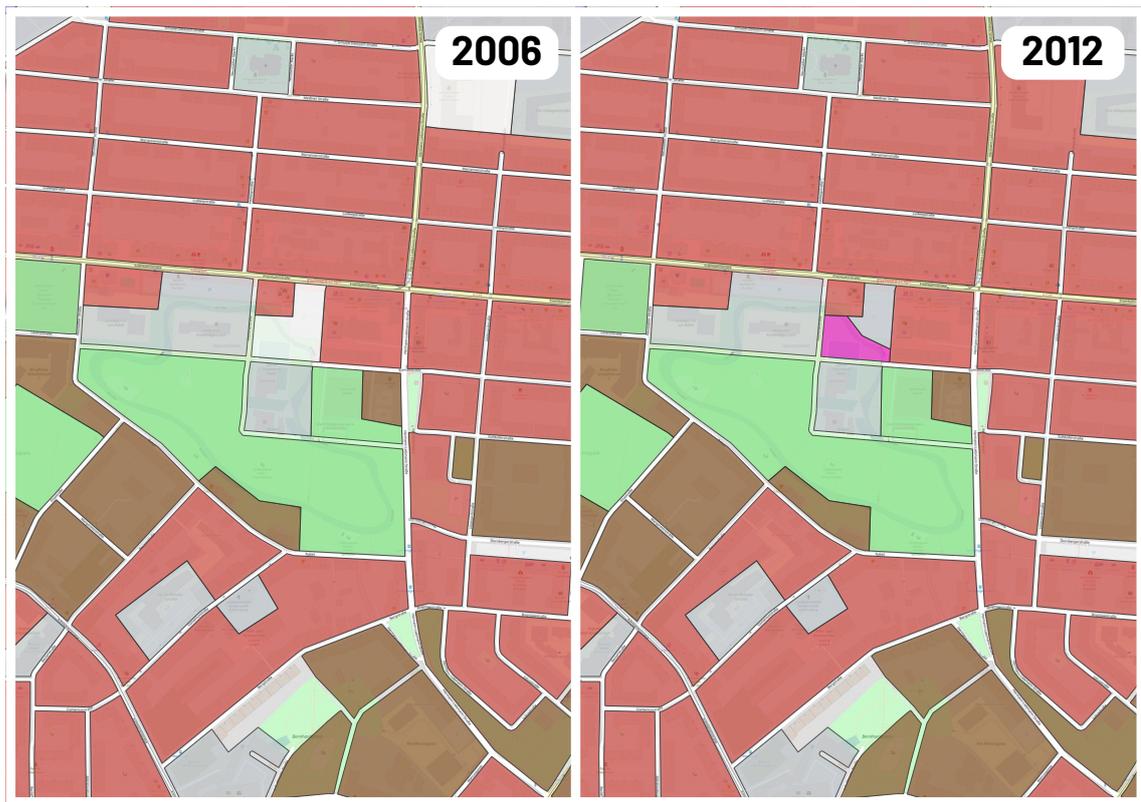


Map 6.8: Land use function change of the area of Bayerischer Bahnhof in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the conversion of land without use to public.



Photo 22: Lot after demolition in Grünau with a climbing tower created from the remaining materials. Source: Author's archive, June 2021

The spatial analysis shows clearly reutilization of areas without use between 2006 and 2012. Examples of this are the areas of the Bayerischer Bahnhof station (Map 6.8.) and the Rabet park (Map 6.9). Part of the station area has been redeveloped into a public space while the remaining part is going to be turned into a residential area after 2021 (Photos 23 and 24).

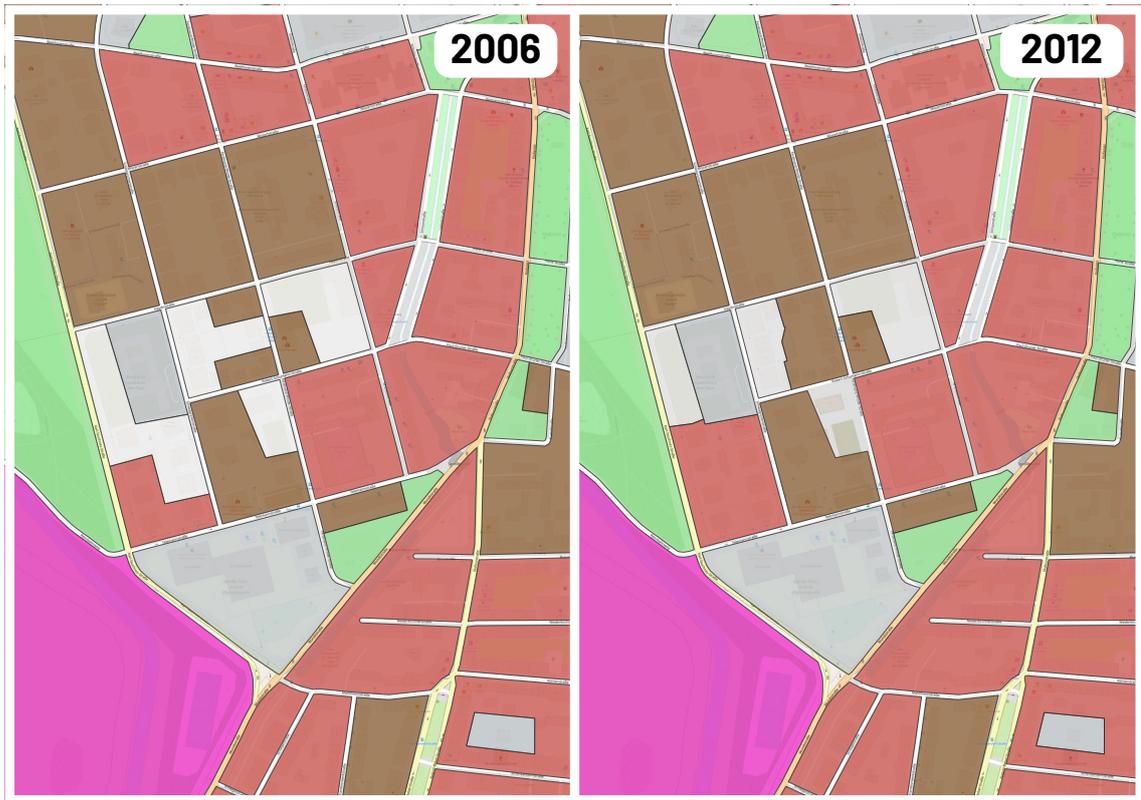


Map 6.9: Land use function change of the area of Rabet Park in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the conversion of land without use to sports and leisure area.



Photo 23: Bayerischer Bahnhof. Source: Author's archive, June 2021

Certain vacant areas in the Musikviertel district have been further densified into a predominantly residential zone (Map 6.10. and Photos 25 and 26).



Map 6.10: Land use function change of the Musikviertel district in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the repurposing and continuing densification of land without use, including small parcels.



Photo 24: The area behind the station where a new residential project is going to be developed. Source: Author's archive, June 2021



Photo 25: New residential building in the Musikviertel area. Source: Author's archive, June 2021



Photo 26: New residential development in Zentrum West. Source: Author's archive, June 2021

The measures for buildings rehabilitation are clearly visible in certain areas, while the buildings that were not refurbished can still be found (Photos 27 and 28).



Photo 27: Renovated and non-renovated buildings in Südvorstadt. Source: Author's archive, June 2021



Photo 28: Renovated residential block in Südvorstadt. Source: Author's archive, June 2021

6.5.2.5 Overview of the approach to resizing railway infrastructure

Railway infrastructure and associated lands are one of the key elements of the overall planning strategy of the city. Leipzig's location in Germany has predetermined its significant role as a railway transport centre. The main railway station, located in the centre of the city, is one of the biggest in Germany. At the same time, the railway tracks leading to the city are extensive and penetrate the city from all directions. This locational perspective has been utilized to justify the need to connect Leipzig to the existing railway networks of Germany in order to enable its external accessibility, attractiveness and competitiveness in German and international context.

The structure of the network within the city limits has influenced significantly the availability and functioning of the railway network and associated land in Leipzig throughout the investigated period. Railway areas form a significant part of the derelict and underutilized land in the city. At the same time, their location is scattered across various parts of Leipzig. A central element in the reorganization of the network was the missing connection between the northern and the southern parts of the city through the center. For this purpose, the so called City Tunnel became one of the main railway projects that determined the development of the railway network throughout the investigated period (Map 6.11.).



Map 6.11: Leipzig City Tunnel as part of the broader S-Bahn Network. Source: <https://www.faz.net/aktuell/wirtschaft/city-tunnel-leipzig-baut-und-wird-rechtzeitig-fertig-12708438.html>; visited on 14.04.2022

In the planning documents, the City Tunnel has been referred to as a means to strengthen the connectivity of the centre and to enable a better transport service for the entire city. The centrality of the project is contextualized in the overall normative orientation of efficient

and optimized railway network. The need for optimization is mostly justified through the challenges associated with scarce resources of Leipzig and the need to improve the overall transport planning of the city. It integrates a balance between improvement with implied expansion (in order to improve the service) but also reuse of existing structures:

"4. intensive use of the existing infrastructure: Against the background of scarce resources, the ongoing maintenance of the existing transport infrastructure and the optimal utilisation of its capacities are becoming increasingly important. One of the focal points of the urban development plan is therefore to complement the expansion of the "hard", technical infrastructure with "soft" measures of traffic organisation, traffic management and communication." (Beiträge zur Stadtentwicklung 40-Stadtentwicklungsplan Verkehr und Öffentlicher Raum 2004)

As outlined above, the overall approach to the infrastructure considers its expansion and optimization at the same time. Particularly for the case of the railway areas, this approach is associated with the utilization of obsolete vacant railway sites while in parallel the improvement and optimization of the transport function of the network through further investment. The planning documents outline that the radial structure of the railway network should contribute to the compact development of the city by making the centre more accessible to the various neighbourhoods. This approach also contributes to the decrease of the car traffic and dependency that was associated with the sprawl tendencies prior to the investigated period. Effectively, the restructuring of the railway network (including the construction of the tunnel) and the optimization of services have played a key role in the overall spatial strategy of compact development and reversing sprawl as a response to the spatial effects of shrinkage. The strategy had to sustain a bidirectional approach – the reutilization of land as part of the vacancy handling and the optimization of the network, including investment in the improvement of key railway corridors in the city. Some of the railway corridors are extensive and also act as a physical barrier between parts of the city (Photos 29, 30, 31).



Photo 29: Approach to central station from the Branderburger bridge. Source: Author's archive, June 2021



Photo 30: Connewitz station area in the south of Leipzig. Source: Author's archive, June 2021



Photo 31: The Grünau train station constructed next to the commercial centre in the district and thus enabling faster access to the city centre. Grünau is located more than 10km from the city centre. Source: Author's archive, June 2021

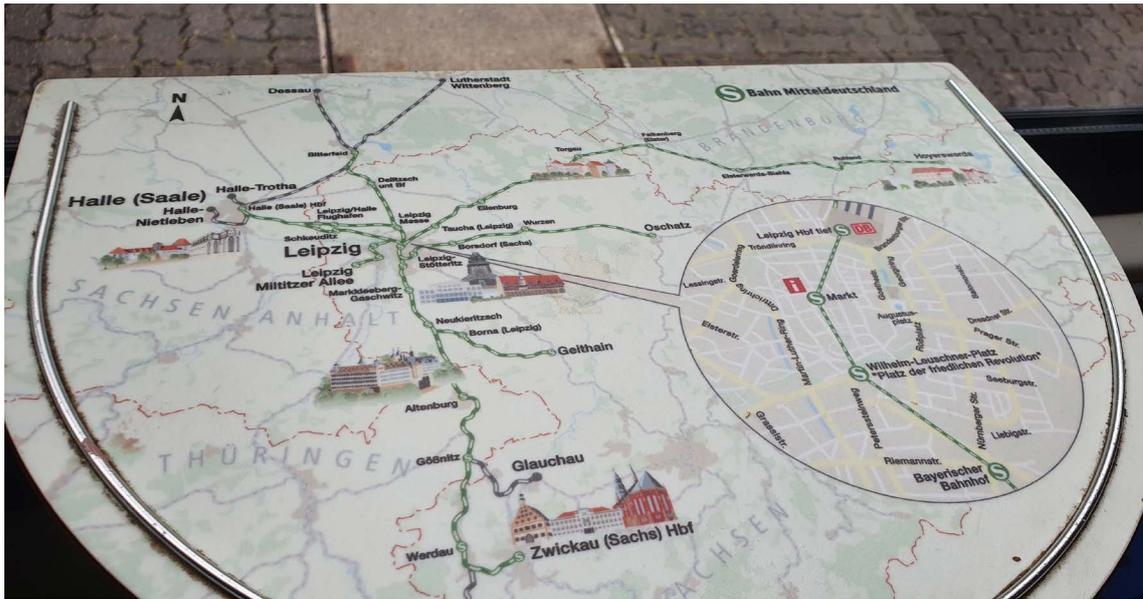
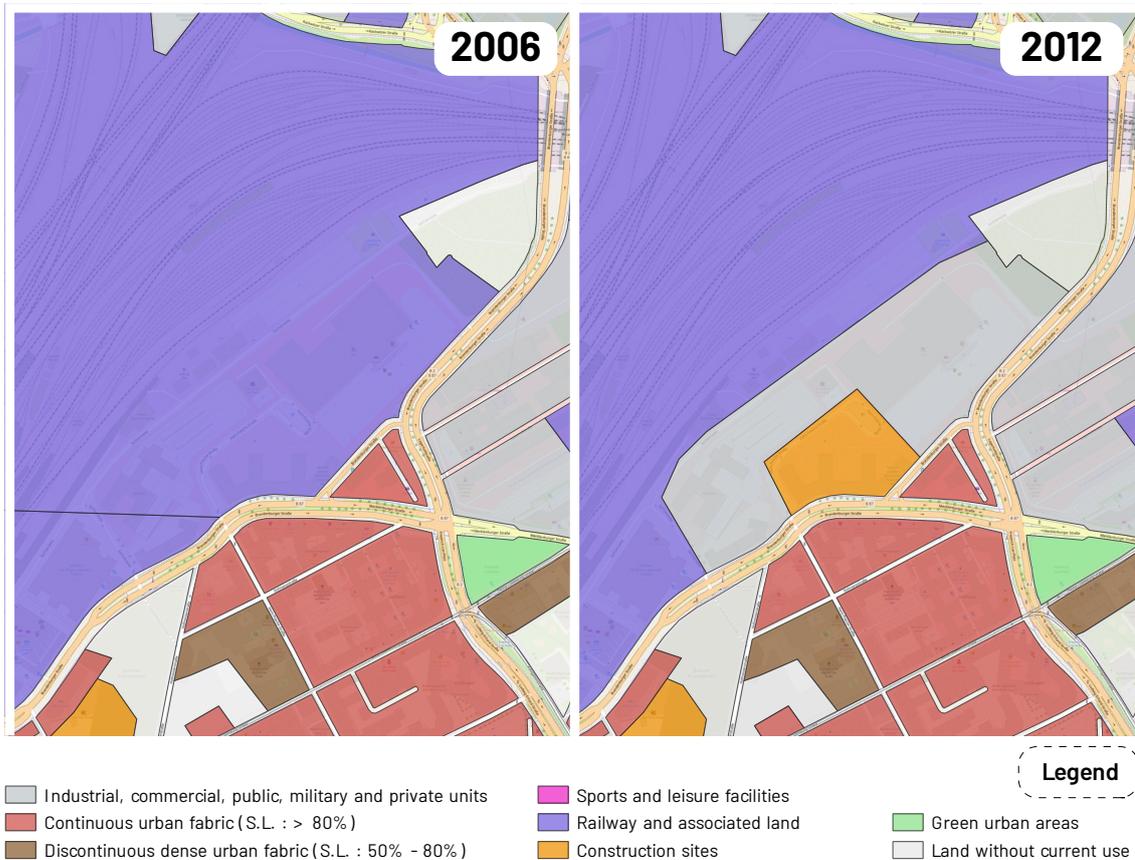


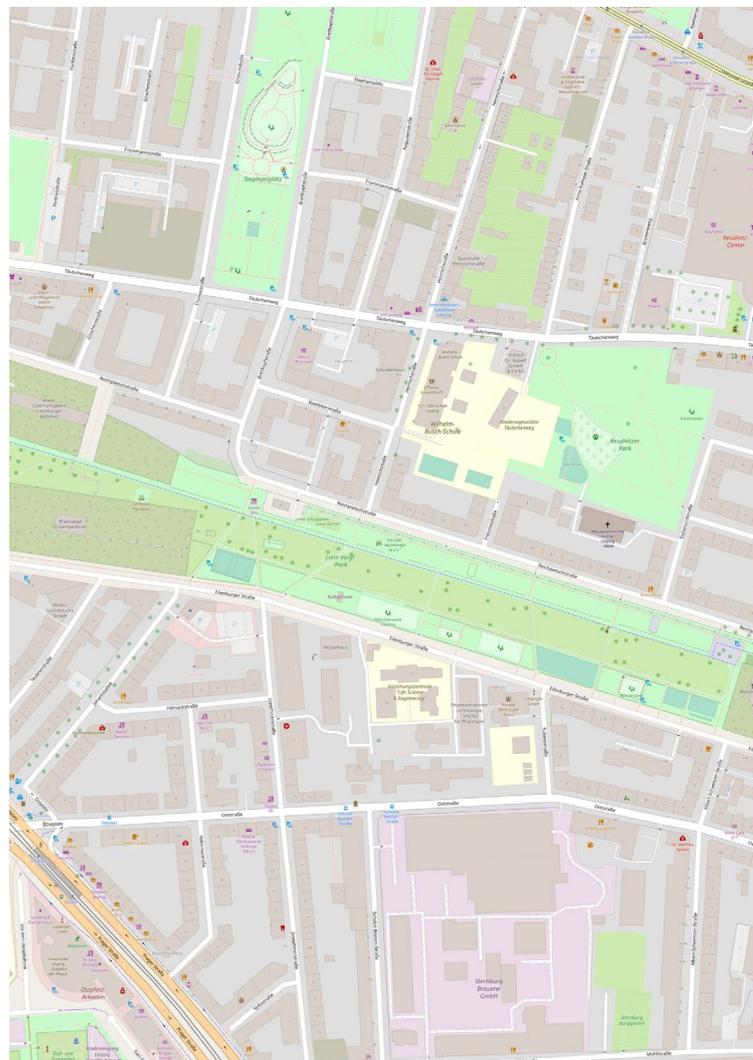
Photo 32: Information stone plate of the S-Bahn urban railway in Leipzig showing its extensive coverage.
 Source: Author's archive, June 2021

With the investment in the tunnel under the city centre and the revitalization of the Bayerischer Bahnhof station (see previous section of this chapter), the S-Bahn network effectively begins to function as a metro network of the city and the spine of the overall transport structure (Photo 32).



Map 6.12: Land use function change of the Freiladebahnhof area in 2006 and 2012, based on Copernicus Urban Atlas data: The map illustrates the conversion of railway area to commercial.

Thus, the resizing of the railway infrastructure is guided by efficiency considerations mainly from the perspectives of enabling optimal provisioning of transport services, thus reducing car dependency, while at the same time the differentiated approach to specific obsolete railway areas complements the overall strategy of reutilization of vacant land and further densification of the city. In parallel, key projects of reuse of railway associated land are related to the district integrated plans. An example of this is the area of Freiladebahnhof, on the eastern side of the main train station (Map 6.12.). The area has changed function from servicing the main station to a business area that contributes to the reactivation of the Leipziger Osten district, associated with high levels of vacancy and social challenges. The railway areas in Leipziger Osten surround the district and also isolate it from the rest of the city. They remain a particular challenge even nowadays. The edges of the district close to Rosa Luxembourg street and near the railway tracks are in disuse. They have been occupied by squatting activities². An example of redevelopment of railway areas is the former Eilenburger Bahnhof in the eastern part of the city centre where the former railway land was turned into a park in the early 2000s (Map 6.13.).



Map 6.13: Lene Voigt Park – the former Eilenburger railway station area. Source: Open Street Map

² <http://trailermoon.blogspot.de/> ; <https://www.lvz.de/Mehr/Bilder/Trailerpark-Wagenplatzbesetzung-Leipzig/1> ; <https://rhizomia.noblogs.org/warum-besetzen/> ; visited on 30.03.2022

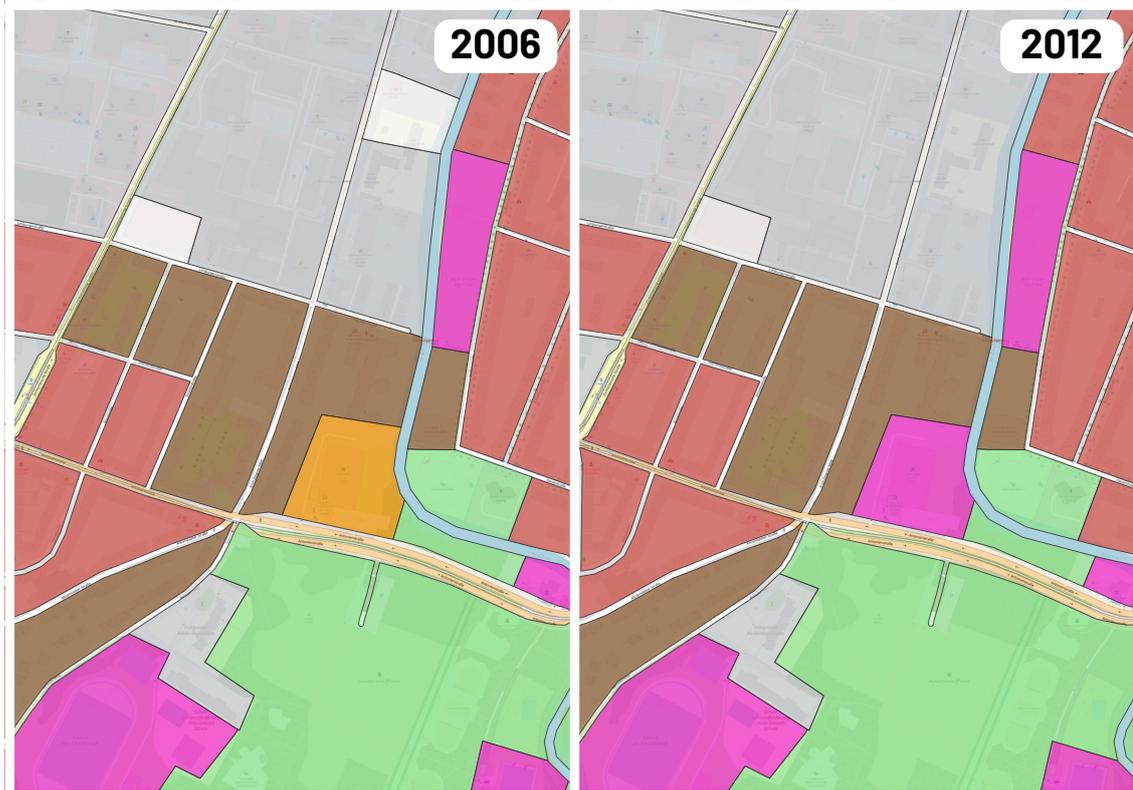
6.5.2.6 Intersection of economic and spatial considerations: the area of Leipzig West: Plagwitz/ Lindenau/Kleinzschocher

The area of Leipziger Westen (Leipzig West) has been consistently referred to as one of the most challenging ones in the transformation of the city. It encompasses the districts of Lindenau, Plagwitz and Kleinzschocher. The area of Plagwitz is in the centre of the whole district and has been historically serving an industrial function with heavy factories located close to extensive working class residential areas. Respectively, historically the whole area has been dependent on the industry but has also suffered the environmental consequences of it. After the end of the socialist period and the reunification of Germany large parts of the industry in the area closed. In parallel, the living conditions in the residential buildings were below standard, buildings were under maintained during the socialist period, thus the condition of the whole area in the beginning of the 1990s was very poor and the vacancy was very high:

"They were first because the situation, the architectural situation and the state of the houses was very bad, so. Many roofs were open and damaged, the roofs were damaged so water came inside for many years, the houses didn't have modern heating systems, they were heated by coal. And many of the apartments didn't have toilets, the toilets were sometimes outside. The windows were not very isolated and the from the soil als o came water and it was rising in the walls inside. So the houses were in a very poor state and in the last years of the GDR you could observe that the lower the first floor and the last floor of the buildings were emptied. And in the second and in the third floor they were already two of four apartments with people inside. So the houses were emptied from above and below. And you had to do something, because the buildings did not have much more time to live without renovating. And also in the last years of the GDR they started to destroy these buildings because it was clear that renovating was much more expensive than building new apartments like in Grünau in these new satellite cities." (Interview 006_ExLoc).

Against these premises and history, the area of Leipziger Westen represents an overlap of the majority of measures that were implemented in the spatial planning of Leipzig and many examples of the various approaches towards vacancy management, building rehabilitation, railway infrastructure and greening can be observed there. The measures encompassed a long period since 1990, even before the investigated timeframe, but observations in 2021 also illustrate the legacy issues and effects of the different instruments in the area.

One of the main issues was related to the land vacancy. Following the demolition of buildings in poor condition, similar to the rest of the city, many vacant lots appeared between existing buildings. This pattern still determines the development of the whole area (Photo 33). The differentiated approach to small lots can also be observed in the land use pattern of the area between 2006 and 2012 (Map 6.14).



Map 6.14: Land use function change of Antonienstraße in 2006 and 2012 based on Copernicus Urban Atlas data: The map illustrates the individual lot approach to land use conversion – the completion of the construction of a new swimming pool.



Photo 33: A renovated residential building and an empty lot next to it, illustrating the punctuated street line.
Source: Author's archive, June 2021

At the same time, larger vacant lots still remain in the area and they have either been renaturalized, not necessarily in a planned way, or are inaccessible due to private property (Photo 34). The private ownership of many lots has remained a challenge throughout years, including in the renovation efforts of residential property (*Interview 006_ExLoc*).



Photo 34: Abandoned industrial building and the adjacent lot. Access is not possible due to a fence surrounding the private property. Source: Author's archive, June 2021

In parallel, certain areas have been redeveloped into parks as part of the overall effort for increasing green space and making it accessible. Areas between buildings have also been converted into green passageways in order to enable accessibility of green areas (Photos 35 and 36).



Photo 35: A green area next to the Carl Heine Canal where the old railway tracks are still visible. Source: Author's archive, June 2021



Photo 36: Green passageway between Gießerstraße and Zschochersche Straße. Source: Author's archive, June 2021

Other vacant and former railway areas have been reused as a space of culture, graffiti areas, activism, temporary and squat usage. The graffiti areas have contributed to the conversion of these spaces into a form of outdoor gallery (Photos 37 and 38).

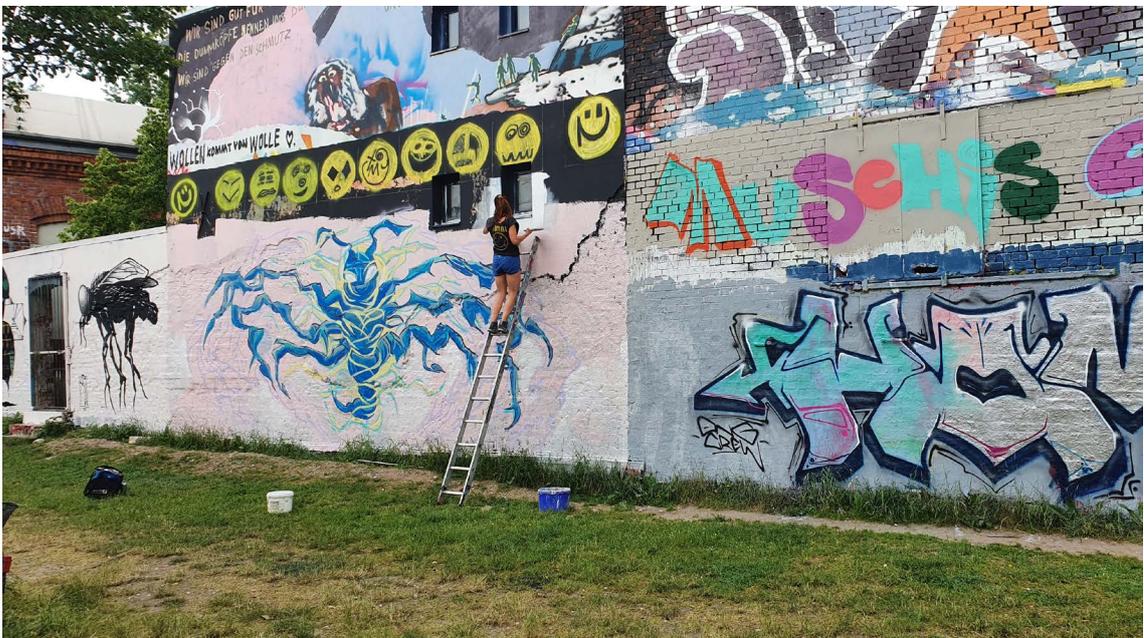


Photo 37: Graffiti artist painting a wall near Plagwitz train station. Source: Author's archive, June 2021



Photo 38: Temporary residence occupied building. Source: Author's archive, June 2021

More targeted projects for culture-led regeneration have also been implemented in the area. Former industrial buildings have been converted to cultural and event centres (Photo 39).



Photo 39: Leipzig Baumwoll Spinerei Cultural Centre in a former factory area. Source: Author's archive, June 2021

The railway areas have been converted to different uses, as outlined above, but the district's connectivity has been maintained and improved by renovation of the train station and the tracks, enabling connectivity to the rest of the city while in parallel preserving the historical building of the station (Photo 40).



Photo 40: Plagwitz train station – historical building functions as a bar and game club, while the nearby platform has been renovated along with the tracks and is in use. Source: Author's archive, June 2021

The overall approach to encouraging mixed use of the area as a result of the rehabilitation measures can be observed. The district combines cultural, residential, logistic and commercial use (Photo 41).



Photo 41: The area along the Carl Heine Canal and the White Elster riverbed where a home for the elderly is constructed close to the business area. Source: Author's archive, June 2021

Local planning experts highlight also that the empowerment of the local citizens has played a significant role in the transformation of Plagwitz and the adjacent area. The opportunity for experimentation and the continuous involvement of local groups has contributed significantly to the reactivation of the area (*Interview 006_ExLoc*). In that sense, citizens have also begun to explore ideas and initiatives, related to sustainability and exchange and reuse of resources on a smaller scale. Businesses, however, are still hesitant in exploring

opportunities for reuse of building resources, for instance, due to difficult procedures for obtaining them or lower capacity.

“One thing is the rather small scale thing, this interchange of things and services which is done in the city quarter and which is done by neighbours and helping each other and repairing device and giving it away, these things are based here, they have tradition, I would say. There are many individuals and associations and social sozial Unternehmen [social enterprises] which are doing at least one or more of these aspects. Or food production, for example, as it’s not very strong in numbers but it’s everywhere in Western Leipzig. From honey production to obst und gemuse [fruits and vegetables] and restaurants selling the products of the neighbourhood gardens.”

“The other part [about circularity of resources] and this is the majority they are formal development real estate development companies and they are not interested, they don’t know it, they are not interested, it’s complicated, it’s not their business idea and they don’t understand it.” (Interview 006_ExLoc)

The overlap of the different measures has resulted in a dynamic and diverse neighbourhood with traces from the previous condition but also a lively everyday life with commercial activity of small and large businesses, diverse population and a balanced urban environment of vast public and green spaces. Still, due to its increasing popularity, local experts highlight a risk of gentrification.

6.5.2.7 Conclusions Hypothesis 5 Leipzig (Germany)

In conclusion, the empirical data shows that the economic orientation of Leipzig throughout the investigated period has pursued economic growth and competitiveness but in balance with quality of life considerations. Although quality of life has been used in a rather flexible way in the justification of the various planning interventions, its persistence across institutional levels and topics indicates its importance. Quality of life considerations as well as long-term efforts in addressing social issues (e.g. unemployment or housing) have been consistently utilized in differentiated approaches to specific areas in the city as part of the integrated planning concepts.

The spatial implications of the economic development, particularly the sprawling pattern that developed during the 1990s, have been the main driver behind the spatial planning interventions. The efforts on reutilizing vacant lots, refurbishing buildings, resizing the residential building stock and increasing green and public spaces have been concentrated on re-attracting citizens within the city boundaries as well as on stimulating and sustaining compact development and improved urban environment. The compact development orientation can also be observed in the railway infrastructure resizing and the differentiated approach towards specific obsolete railway zones that were converted into other uses, while at the same time enabling the connectivity of the different parts of the city with an optimized railway structure.

Mixed use has been the preferred planning principle on district level. Due to the specifics of the planning approach (the integrated planning concepts on neighbourhood level), the mixed use orientation cannot be tracked on city level. The observations in Leipziger Westen indicate the overlap of the conclusions pertaining to economy and spatial development as well as the persisting challenges in some of the aspects, particularly remaining vacancy and building stock condition. Sustainability considerations have been a factor in the planning

decisions mostly from spatial perspective, with a particular emphasis on the environment. Circular economy considerations have still not gained pace although the reuse of land and buildings can be considered as fitting into the circularity framework. The role of private actors has been central in the various redevelopment efforts, particularly in the housing market resizing.

6.5.3 CONCLUSIONS FOR THE VERIFICATION OF HYPOTHESIS 5 AND MAIN POINTS OF ANALYSIS AND DISCUSSION

Definition of the hypothesis:

The implemented policy and planning interventions in the selected cases have not been focused on growth or have pursued objectives not related to growth in economic terms. The implemented policy and planning interventions in the selected cases have attempted to achieve efficient and equitable economic development. The implemented policy and planning interventions in the selected cases have not been focused on growth in spatial terms. The implemented policy and planning interventions have attempted to achieve efficient and equitable spatial development in terms of: land use (avoid sprawl, promote compact development, utilize available land, promote mixed use development), building stock (efficient management through demolition or renovation efforts), infrastructure (efficient management and optimization of railway infrastructure).

Conclusions

The policy and planning efforts in the economic area and the normative orientation of the objectives in the planning and policy documents for both Bilbao and Leipzig indicate that both cities pursued economic growth as part of their approach to addressing the consequences of shrinkage. Bilbao has been focused explicitly on competitiveness in reference to the global economy, translated into key projects, including such of symbolic and image-making importance. Leipzig has pursued a diversified economic base with emphasis on particular sectors in parallel to solidifying its importance in German and European context. Efforts in reinventing the image of the city as a good place to live as well as a good business location have supported this orientation. With these conclusions, the first aspect of the hypothesis pertaining to not pursuing economic growth has been falsified – both cities were oriented to economic growth.

The growth orientation has contributed to achieving efficient economic development, focused on maximizing the benefits from the existing resources and optimal utilization of available assets. Both Bilbao and Leipzig have put efforts in achieving equitable economic development. For both cities social measures have been oriented towards specific socially disadvantaged zones. For Bilbao, the social measures are secondary to the economic competitiveness measures. They were less dependent on local institutions and more on the Basque government. For Leipzig, the social considerations and measures were consistently supported by urban planning tools and state or federal policies. They were oriented to particular actions in terms of enabling employment, overcoming social segregation and achieving better social cohesion. Both cities pursued improvements in quality of life, however, the lack of unified understanding behind this term has enabled a rather overly inclusive justification of various measures under this label. Quality of life as a normative orientation can be consistently found in Leipzig across various sources and has been factored in spatial and economic interventions. Quality of life considerations were

secondary for Bilbao and were causally related to improved competitiveness. With these conclusions, the second aspect of the hypothesis, pertaining to efficient and equitable economic development, can be confirmed for both cases.

Both Bilbao and Leipzig have oriented their spatial strategies towards reutilization of existing land, building renovation, urban regeneration measures, mixed use projects, demolition and decommissioning of obsolete buildings and optimization of railway network. In the case of Bilbao, physical characteristics of the topography have put limits to the city expansion. The development of the metropolitan area of Bilbao has compensated the need for targeted spatial expansion, allowing for the urban core to be the focus of regeneration efforts and further compact development. Various instruments have been utilized towards regeneration of land and renovation of buildings. The railway network has been resized in a way to ensure proper transport service for the citizens as well as to utilize as much as possible the existing space occupied by railway infrastructure. Leipzig's spatial development has been oriented and justified through the need to counteract sprawl. Considerations for compact development and reutilization of land on large and small scale parcels have influenced the spatial interventions with the underlying intention of keeping the urban core intact and avoiding sprawl. Various instruments have been designed and utilized for the reuse and rehabilitation of buildings and vacant lots. Demolition has been employed mostly as part of the overall objective of resizing the housing market. Increasing green public space and preservation of existing green spaces have been central considerations in the spatial interventions in Leipzig. The implementation of the various approaches has been done through the integrated concepts for the specific districts. The railway network has been resized in a way to ensure good level of transport service, reuse of existing land and ultimately counteract any sprawling tendencies. With that said, the aspect of the hypothesis pertaining to efficient and equitable spatial development can be confirmed for both cases.

Considerations for sustainable development have been integrated into the planning strategies for both cities. The environmental element of sustainability has played a central role for both Bilbao and Leipzig since both cities had to address severe long-term effects environmental pollution. In time, the sustainability considerations expanded in order to integrate the social and economic element and provided a solid basis for a consistent normative orientation of plans and policies. The element of the hypothesis that traces alternative economic ideas shows partial empirical indications, mostly found in Bilbao. Circularity principles were gradually introduced in Bilbao where even reutilization of construction materials has been utilized. Private capital and its role were important for both cities due to high levels of private property. Both cities had to involve the private actors and the private capital extensively in order to achieve their spatial and economic objectives. For Bilbao the involvement of private actors has been central for the major regeneration projects where consolidation of private property and public-private partnerships were necessary. For Leipzig, the involvement of private actors has been a central element of the housing resizing strategy where multiple types of private actors control major parts of the housing.

6.5.4 SUSTAINABILITY AND CIRCULAR ECONOMY CONSIDERATIONS IN ZEELAND (THE NETHERLANDS) – EMPIRICAL OBSERVATIONS

The observations are presented separately because Zeeland does not fall under Hypothesis 5, thus the identified observations do not pertain to the verification of the hypothesis, however, they are important for the overall conclusions of the research.

Considerations for sustainable development and circular economy have been consistently found across the empirical data from the Netherlands. On national level, the population decline and expected demographic transition is aligned with the wider challenges that the country is expected to face, namely climate change and climate adaptation measures as well as transition to circular economy. The national documents highlight the possibility of utilizing the demographic changes to achieve a better balance economy, environment and society. Shrinking regions are identified as potential areas for pilot and large-scale projects, related to energy transition based on renewables. The idea of “future-proof” housing (see also 6.2.3. Interpretive policy analysis of the policy substance in Zeeland (the Netherlands) is also viewed as a task on national level, related to ensuring long-term high-quality housing with high standards of energy efficiency.

The topics remain important also on provincial level with the significant involvement of private companies and industrial actors. Various initiatives and policies have been designed in order to support sustainable development of Zeeland and to enable circular economy in the province. Aligning with the overall EU policy, the provincial government attempts to stimulate decarbonization and environmental protection as part of the economic profile of Zeeland. New areas of business activity are expected to be built with sustainability considerations as well as with circular principles in mind. The provincial policy supports initiatives for optimization of supply chains for the reuse of materials, particularly in construction. A cross-border initiative with Flanders (Belgium) has been focusing on construction materials exchange (*Interview 004_PoPro*). Sustainability and circularity have also been viewed as an endogenous economic potential by introducing educational programmes on those topics in regional universities in order to achieve green growth:

“If Zeeland wants to remain a profitable business location, the challenge is to focus on a circular economy in order to contribute to green growth, preserve the quality of materials and raw materials, and also to use alternative energy.” (Kwaliteit en onderscheidend vermogen Kadernota Economische Agenda 2.0)

“Our economic policy is aimed at a transition to an economy that reuses goods and raw materials and promotes sustainability (circular economy).

The framework is concrete:

- Making the economy more sustainable through a commitment to a circular economy. The aim is to maximise the re-usability and increase the value of goods and raw materials, closing chains and conserving natural resources;*
- Biobased economy. With the traditional sectors as a basis, we are working towards an economy based on green raw materials;*
- Sustainable energy. We focus on biomass, solar energy, energy from water and energy from wind. We limit our efforts on large-scale wind energy to our share of the national task. We limit it to existing large-scale locations and at sea outside the 12-mile zone. For solar energy, the integration of the landscape is an important factor.” (Kwaliteit en onderscheidend vermogen Kadernota Economische Agenda 2.0)*

Energy production is a central topic for Zeeland. Apart from hosting the only nuclear power plant of the Netherlands (as of 2021), the region has been at the forefront of wind energy

with the start of operations of two wind farms off the coast in the North Sea (Borssele 1 and 2). In addition, the reviewed empirical sources outline that investments in the utilization of biomass have been carried out. The energy transition is closely related to another key topic for Zeeland, namely the production of green hydrogen. Due to the high level of industrial activity in the province, hydrogen is required for the heavy processes in the factories. Thus the provincial government has supported the local industrial actors to explore the possibilities of producing green hydrogen through the usage of renewable energy for this highly-energy intensive industrial process. Further industrial interest has been developed as a result of this objective – the transportation of the off-coast wind electricity to the coast³. The Smart Delta Resources initiative⁴ is another successful example of public-private partnership, aiming to support the greening of the heavy industry in the region (including cross-border) and to enable the exchange of resources between the companies (*Interview 004_PoPro*). The Province is also expected to secure European funding from the Just Transition Fund for the above tasks⁵.

As a coastal region, Zeeland has been focused on preserving the environmental qualities of its seashores. As a result of the Coastal Vision of the province⁶, requirements for sustainable densification of the coast have been implemented in order to avoid over construction and to enable preservation of natural habitats (*Interview 002_ExPro*). Measures to ensure the sustainability of the harbours have also been undertaken. The province has also been open to different specific initiatives in the areas of housing and transportation. Prefabricated housing has been considered as a less resource-intensive option. In addition, electric bikes have also been explored as an alternative transportation measure in the province in order to improve cost efficiency (*Interview 001_ExPro*).

6.6 CONCLUSIONS FROM EMPIRICAL FINDINGS. ASSESSMENT OF CONCEPT FEATURES ACROSS UNITS OF ANALYSIS.

The empirical results in this chapter attempted to verify to what extent the proposed concept features in Chapter 4 can be a fruitful (Hagen 2017) theoretical construct for the creation of a new planning concept under the label of Shrinking Smart. The formulated concept features and their mapping across the three units of analysis allowed for tracing their validity in the three selected case studies within the research. The concept features were associated with Hypotheses 1 – Planning process, 2 – Policy substance and 3 – Planning substance following the deductive research design. They were formulated as proposed hypotheses in order to trace possible characteristics of holistic interpretations of the approaches to shrinkage. Hypotheses 4 and 5 were not constructed with the concept features in mind as they looked at other aspects of the research questions, namely the understanding of shrinkage and depopulation and the economic and spatial development of two of the case studies. Therefore, Hypotheses 1 through 3 can inform the validation of the proposed concept features as theoretical constructs. Once verified, these theoretical constructs can be used as elements of a comparative analytical approach as well as focus points for the selection of alternatives to handling urban shrinkage and depopulation. The conclusions

3 <https://www.tennet.eu/de/#&panel1-2> ; visited on 30.03.2022

4 <https://www.smartdeltaresources.com/en> ; visited on 30.03.2022

5 <https://www.pzc.nl/zeeuws-nieuws/eu-geeft-zeeland-60-miljoen-om-industrie-te-vergroenen~aaad3150/> ; visited on 30.03.2022

6 <https://www.zeeland.nl/ruimte/zeeuwse-kustvisie> ; visited on 30.03.2022

from Hypotheses 4 and 5 can also support the comparative analysis as well as the creation of applicable approaches to handling shrinkage.

CONCLUSIONS FROM HYPOTHESES 1-3:

ASSESSMENT OF CONCEPT FEATURES AND OUTLINE OF COMPARATIVE ANALYSIS POINTS

Three of the proposed concept features apply to the planning process and the planning and policy substance. These are *Inquiry*, *Applicability/Contextuality* and *Integration*. From planning process standpoint, the *Inquiry* feature posits that scientific assessments and data-informed practices informed the planning process. From substance standpoint, the *Inquiry* feature translates to justifications of specific measures through data and scientific conclusions. The empirical data indicates that the *Inquiry* concept feature is a fruitful construct that is valid across the investigated cases, except for its partial validity in the planning process of Bilbao and its non-validity in the case of the policy substance in Bilbao (Table 6.7.).

Concept feature	Planning process Bilbao	Planning process Leipzig	Policy substance Bilbao	Policy substance Leipzig	Policy substance Zeeland	Planning substance Bilbao	Planning substance Leipzig
Inquiry	Partially valid	Valid	Not valid	Valid	Valid	Valid	Valid

Table 6.7: Inquiry concept feature validity across hypotheses. Source: Own work

The *Applicability/Contextuality* concept feature posits that the planning process has been sensitive to local specifics. From substance standpoint, the concept feature posits that specific contextual characteristics have been used to justify and interpret the identified measures and approaches. The empirical data cross cases indicate that the concept feature is valid across the investigated cases, except for its partial validity for the case of policy substance in Leipzig (Table 6.8.).

Concept feature	Planning process Bilbao	Planning process Leipzig	Policy substance Bilbao	Policy substance Leipzig	Policy substance Zeeland	Planning substance Bilbao	Planning substance Leipzig
Applicability/Contextuality	Valid	Valid	Valid	Partially valid	Valid	Valid	Valid

Table 6.8: Applicability/Contextuality concept feature validity across hypotheses. Source: Own work

The *Integration* concept feature outlines a characteristic of the planning process as a process that attempts to encompass multiple areas of planning in reference to perceiving shrinkage as a complex phenomenon. In terms of planning and policy substance, the *Integration* concept feature posits that the decisions and measures outlined also correspond to a more integrated and complex view on the problem, rather than being focused on only one aspect. The empirical data confirms the validity of the concept feature across the investigated cases, except for its partial validity in Bilbao (for the planning substance - due to insufficient data)(Table 6.9.).

Concept feature	Planning process Bilbao	Planning process Leipzig	Policy substance Bilbao	Policy substance Leipzig	Policy substance Zeeland	Planning substance Bilbao	Planning substance Leipzig
Integration	Valid	Valid	Partially valid	Valid	Valid	Insufficient data	Valid

Table 6.9: Integration concept feature validity across hypotheses. Source: Own work

Two of the proposed concept features pertain only to the planning process hypothesis. These are *Planning centrality*, outlining the centrality of the planning process as part of delivering the measures for handling shrinkage, and *Participatory*, outlining increased deliberation and participatory measures as part of the planning process. The empirical data indicates that the concept features are valid for both of the cases and are thus fruitful as conceptual constructs (Table 6.10.).

Concept feature	Planning process Bilbao	Planning process Leipzig
Planning centrality	Valid	Valid
Participatory	Partially valid	Valid

Table 6.10: Planning centrality and Participatory concept features validity across hypotheses. Source: Own work

Based on the reviewed empirical data, the proposed concept features that pertain to the planning process are confirmed as fruitful for both cases, thus it can be concluded that these specific characteristics of the planning process can be used for an outline of comparative analysis and further conclusions for the elements of the planning process under the framework of “Shrinking Smart” (Table 6.11.).

Concept feature	Planning process Bilbao	Planning process Leipzig
Planning centrality	Valid	Valid
Participatory	Partially valid	Valid
Inquiry	Partially valid	Valid
Applicability/Contextuality	Valid	Valid
Integration	Valid	Valid

Table 6.11: Planning process concept features validity. Source: Own work

The remaining proposed concept features pertain to the substance of the proposed policies and plans in the identified cases. For one of the concept features, the empirical data indicates that either not enough data can be found based on its formulation or its validity is questionable or partial in the identified cases. This is the *Know-How* concept feature that posits a specific know-how was utilized as part of the measures (Table 6.12.). Due to its partial validity and insufficient data, the *Know-How* concept feature cannot be properly used either for further comparative analysis or for designing applicable alternatives for shrinkage. Its partial overlap with the *Generative/Inventive* concept feature, that also focuses on specific actions taken, allows for the latter to be used to identify particular policy and planning instruments or actions as part of the comparative analysis, rather than utilizing an unclear categorization as know-how.

Concept feature	Policy substance Bilbao	Policy substance Leipzig	Policy substance Zeeland	Planning substance Bilbao	Planning substance Leipzig
Know-how	<i>Insufficient data</i>	Valid	Not valid	Partially valid	<i>Insufficient data</i>

Table 6.12: Know-How concept feature validity across hypotheses. Source: Own work

The *Collaboration* concept feature, outlining that the delivery of the selected measures is to involve various social actors as well as to provide benefits for different social groups, can be confirmed as valid for all analyzed cases across hypotheses. In the case of Leipzig, there are implications to the planning process, resulting from the *Collaboration* feature, namely its participatory nature and the integrated concepts that were applied as part of the planning in the city (Table 6.13.).

Concept feature	Policy substance Bilbao	Policy substance Leipzig	Policy substance Zeeland	Planning substance Bilbao	Planning substance Leipzig
Collaboration	Valid	Valid + <i>Implications on planning process</i>	Valid	Valid	Valid

Table 6.13: Collaboration concept feature validity across hypotheses. Source: Own work

The remaining concept features encompass the normative orientation of the analyzed policies and plans (Table 6.14.). The *Visionary/Future orientation* concept feature stipulates that the reviewed policies and plans outline a desired future state and desired change in the respective area. The *Generative/Inventive* concept feature posits that the outlined direction of the measures results in identification of specific actions and actors, responsible for the delivery of those measures. These two features have been confirmed across the different hypotheses and in the different cases. The concept features allow for the identification of the normative orientation of the measures and expose the overall direction of the policies and plans. Therefore, they are fruitful for the further comparative analysis and design of applicable measures for shrinkage and depopulation.

The *Efficiency* concept feature is normative in nature as much as it suggests a particular normative criterion for the redistribution of resources and their optimal utilization. With that said, the *Efficiency* concept feature is the most clearly formulated normative criterion in the assessment of the policies and plans. Respectively, it is deemed fruitful as the empirical data suggests that it is valid at different levels across the hypotheses and investigated cases. It also allows the identification of specific logical links between the concept feature itself and particular aspects of the overall policy orientation (in the case of Zeeland) and of the overall planning orientation in terms of economy and space (for the cases of Leipzig and Bilbao). Thus, the *Efficiency* concept feature not only contributes to the conceptual coherence of the conclusions, but also logically corresponds to Hypothesis 5 that focuses on economic and spatial development. The other two normative concept features (*Visionary/Future orientation* and *Generative/Inventive*) overlap at times in the different cases, allowing for a deeper view on the normative orientation of the policies and plans. Thus, their fruitfulness is also confirmed in relation to the overall concept logic. The overlap of the concept features, identified in the empirical data, indicates that as part of the comparative analysis and as part of the identification of planning and policy alternatives, the normative orientation has to be examined on a broader scale with considerations of particular aspects, stipulated in the concept conclusions. In addition, the analytical output of the normative orientation analysis

may correspond with different severity to the conclusions from Hypothesis 5, pertaining to spatial and economic development.

Concept feature	Policy substance Bilbao	Policy substance Leipzig	Policy substance Zeeland	Planning substance Bilbao	Planning substance Leipzig
Visionary/ Future orientation	Valid	Valid	Valid	Valid	Valid
Generative/ Inventive	Valid	Partially – related to planning substance	Valid	Valid	Valid – related to Visionary/ Future orientation, Integration and planning process
Efficiency	Valid	Not valid	Valid – related to Visionary/Future orientation and Generative/Inventive; overall normative orientation	Not valid – related to overall spatial and economic planning normative orientation	Insufficient data – related to overall spatial planning normative orientation

Table 6.14: Normative concept features validity. Source: Own work

The empirical data reviewed under the verification of Hypotheses 1-3 allows for the following conclusions to be made:

- The planning process needs to be analyzed and treated separately and its characteristics can be informed by the proposed concept features, namely *Planning centrality, Participatory, Inquiry, Applicability/Contextuality, Integration*.
- The substance of the policies and plans and the conclusions that can be drawn across them can be informed by the proposed concept features by forming the following main analytical and applicability perspectives:
 - **Justification or causal perspective** – outlining the reasoning behind the selection of specific measures. This perspective is informed by the conclusions from concept features *Inquiry, Applicability/Contextuality* and partially *Collaboration* (in its aspect on the effects on different social groups and actors). The perspective provides a logical link to the conclusions from Hypothesis 4, pertaining to shrinkage conceptualization.
 - **Actionable and (administrative and planning system) capacity perspective** – outlining the particular mechanisms, instruments and actions that have been selected in reference to the differences in the planning systems. This perspective is informed by the conclusions from the concept features *Generative/Inventive* (in its aspect on identifying particular actionable levers and points of the planning and policy measures and compensating the non-validity of the *Know-How* concept feature) and *Collaboration* (in its aspect of identifying different actors that are supposed to deliver the selected policy and planning measures).
 - **Normative perspective** – outlining the particular normative orientation of policies and plans, identifying the overlap of the proposed different directions of normative orientation and their overall objectives. The perspective provides a logical link to the conclusions from hypothesis 5, pertaining to spatial and economic development. The perspective

is informed by the conclusions from concept features *Visionary/ Future orientation, Efficiency and Generative/Inventive* (in its aspect of identifying implications for action with normative orientation).

CONCLUSIONS FROM HYPOTHESIS 4:

SHRINKAGE CONCEPTUALIZATION

The conclusions from the shrinkage conceptualization hypothesis outline the different considerations that were taken into account in the interpretation of the urban shrinkage or population decline phenomena. The empirical data across the three cases indicates that the variety of interpretations in the three cases has influenced to a different degree the selection of measures in the examples of Bilbao, Leipzig and Zeeland (Ivanov 2021). These conclusions need to be taken into account in the comparative analysis so as to allow tracing in greater detail the logical links between the causality, framing and normative orientation of policies and plans. Thus, the conclusions, pertaining to shrinkage conceptualization, are going to contribute to the comparative analytical perspectives outlined in the previous section.

CONCLUSIONS FROM HYPOTHESIS 5:

NON-GROWTH ORIENTED ECONOMIC AND SPATIAL DEVELOPMENT

The conclusions from the economic and spatial development hypothesis provide indications on the results of the planning and policy interventions in two of the selected case studies. They also outline a deeper view on the normative orientation of economic and spatial policies and plans, thus contributing further to the analytical scrutiny of the conclusions from the normative concept features, outlined in the previous sections. The particular emphasis on spatial development and the empirical conclusions there can provide valuable insight into the applicability of the proposal for a new planning concept under the label Shrinking Smart in its physical and spatial dimension. The conclusions from the empirical data, pertaining to alternative economic considerations such as sustainable development, circular economy and stakeholder capitalism, can provide insights on the suitability of heterodox economic ideas for shrinkage or population decline context.

7

ANALYTICAL STAGE: COMPARATIVE ANALYSIS – BENCHMARKING RESPONSES TO URBAN SHRINKAGE AND POPULATION DECLINE

As outlined in the previous chapter, the research design of the study allowed for tracing and verifying the conceptual coherence of the different aspects in the three case studies by differentiating between the planning process and the planning and policy substance. In addition, the empirical data illustrated that differences in the various spatial and economic measures as well as in the shrinkage conceptualization can also be traced. Taking into account these observations, the comparative analysis is executed in a benchmarking framework that takes into account the above conclusions as well as in reference to the overall research design.

7.1 CONSTRUCTION OF BENCHMARKING FRAMEWORK

Following the methodology presented in an earlier chapter (see 3. Research design and methodology and (Papaioannou, Rush, and Bessant 2006)), the benchmarking framework should enable a comparison across cases, focusing on practices, rather than performance. Performance measurements are not suitable for the research design and the available empirical data, however, practice benchmarking is more suitable as it allows to trace particular actions undertaken by the various planning and policy actors across the different contexts. Following the main principles, presented by Papaioannou et.al.(2006) the practice benchmarking framework should ensure that comparison is made in a focused way, with clearly defined comparative points. The principle of comparability should contribute to this aspect as well. The principle of applicability, emphasizing on the contextual differences in cross-country comparisons, should play an important role in the proposed benchmarking framework due to the strongly contextual character of shrinkage, the differences between planning systems and, respectively, the implications of both of those differences on the practices of planning and policy making. The contextual sensitivity as well as the focus on interrelations between actions, policies and planning practices should result in the identification of critical factors and points of leverage that have resulted in complementary effects of the various efforts (Room 2005). As outlined previously, the learning principle and the measurement principle (Papaioannou, Rush, and Bessant 2006) are not applicable for the case of this comparison as the benchmark is done on practices and the study does not involve a learning stage that ought to facilitate exchange between countries or entities.

In addition to the methodological considerations outlined above, the benchmarking framework is informed by the theoretical conclusions, presented in Chapter 6, particularly the concept features and their fruitfulness (Hagen 2017). The benchmarking framework

takes into account the conclusions and their validity and incorporates specific elements of the concept features into the design, so as the comparison is relevant for the particular case of urban shrinkage and depopulation. In addition, the incorporation of the concept features conclusions enables a conceptual coherence of the proposed benchmarking framework and thus contributes to the overall output of the study. It also corresponds to the planning concept, presented in the next chapter (Chapter 8).

The empirical conclusions from Chapter 6 confirm the need to separate the comparative analysis between the planning process and the policy and planning substance. However, since some of the findings can be positioned at the intersection between process and substance, they are highlighted in the comparative analysis.

7.2 ASSESSMENT OF CONCEPT FEATURES AS ELEMENTS OF BENCHMARKING FRAMEWORK

The concept features that were identified in the previous chapter were verified as a conceptual tool to review the empirical findings. In order for them to be applied as elements of the benchmarking framework, they need to be juxtaposed to the respective practices of policy making and planning in order to produce the subsequent benchmarking categories. The three particular practices that are integrated in the benchmarking framework are the planning process, the policy and planning substance and the economic and spatial development in the selected cases. All three of the practices apply to the cases of Bilbao (Spain) and Leipzig (Germany), while the policy substance and the economic development, apply to the case of Zeeland (the Netherlands). Once applied to the respective practices, the concept features produce benchmarking categories that enable a comparative analysis across cases. The comparative analysis is structured according to a sequence, that represents the benchmarking phases.

PLANNING PROCESS

The concept features, pertaining to the planning process, are *Planning centrality*, *Participatory*, *Inquiry*, *Applicability/Contextuality* and *Integration*. The *Participatory*, *Inquiry* and *Integration* concept features refer to particular characteristics of the planning process itself. Therefore, they can directly be applied to the planning process practice in order to produce the respective benchmarking categories. Figure 7.1. illustrates the formulation of the benchmarking categories in this case.

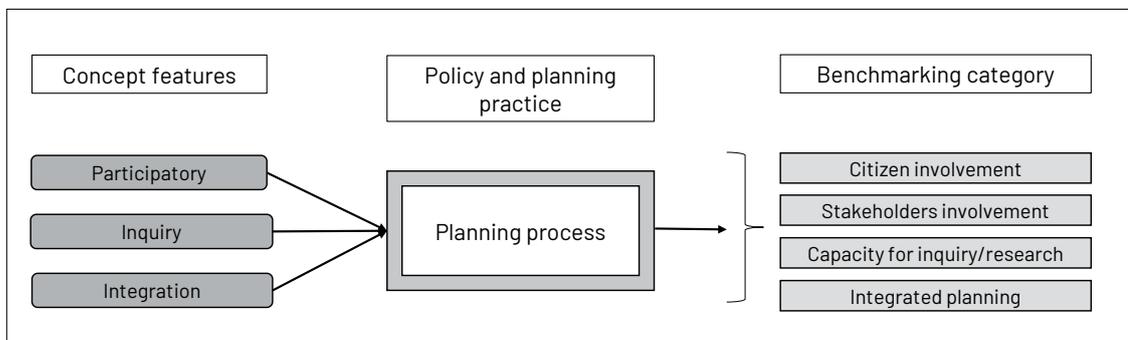


Figure 7.1: Planning process benchmarking categories

The resulting benchmarking categories are Citizen involvement, Stakeholders involvement (referring to other actors, such as businesses and other entities), Capacity for inquiry/ research and Integrated planning.

The *Planning centrality* and *Applicability/Contextuality* feature are oriented towards the planning process but exert an outward perspective towards the planning system and the context in which planning is happening. This requires viewing the planning process in reference to a broader context. In regards to *Planning centrality*, this means viewing the planning process in the context of the overall planning system, thus outlining its scope in reference to the overall structure and functioning that concern the handling of urban shrinkage. The *Applicability/Contextuality* feature requires viewing the planning process in reference to a broader social, political and economic context, among others. This means that the perspective applied to the planning process also relates to the overall context of shrinkage and depopulation, occurring in the respective case. This last point also requires taking into account the shrinkage conceptualization in the specific city. Figure 7.2. illustrates how the benchmarking categories are derived from these concept features.

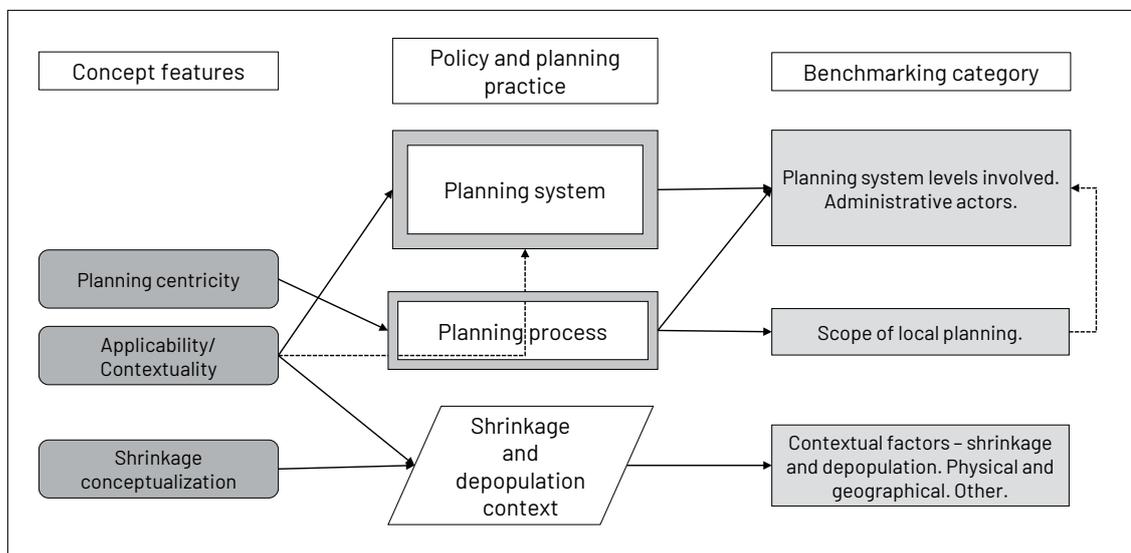


Figure 7.2: Contextual benchmarking categories

The resulting benchmarking categories are Assessment of the planning system, as related to the particular planning system levels that were involved in the policies and plans for shrinkage; Scope of local planning; Contextual factors, related to the handling of urban shrinkage.

As a result of the juxtaposition of the concept features on the planning process and its related practices, the below benchmarking categories have been formulated. They are presented in a logical order that would complement the benchmarking phases in the comparative analysis:

- Contextual factors – shrinkage and population decline. Physical and geographical context. Other characteristics
- Planning system (levels involved). Administrative actors.
 - Scope of local planning

- Planning process characteristics
 - Citizen involvement
 - Stakeholders involvement
 - Capacity for inquiry/research
 - Integrated planning

ACTIONABLE AND CAPACITY PERSPECTIVE

The empirical results from Chapter 6 outlined that an analytical perspective can be formulated in regards to the administrative capacity. This perspective is informed by the action-oriented concept features juxtaposed on the policy and planning substance, rather than the process or the structure. Following this point, the *Generative/Inventive* concept feature and the *Collaborative* concept feature result in the formulation of further benchmarking categories for the comparative analysis. As applied to the policy and planning substance, the two concept features lead to the identification of particular policy and planning instruments, utilized in the specific cases, as well as their thematic scope. As a supporting analytical perspective, the conclusions from the *Integration* concept feature (applied to policy and planning substance) can be utilized to track the interrelations between topics in the respective instruments. Figure 7.3. illustrates this formulation.

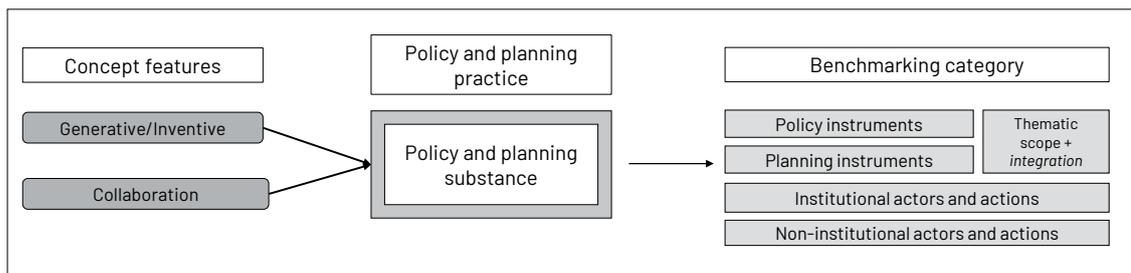


Figure 7.3: Actionable and capacity perspective benchmarking categories

The formulated benchmarking categories are Policy instruments and Planning instruments, along with a focus on their respective thematic scope and the interrelation between topics within it. Further benchmarking categories, derived from the *Collaboration* concept feature, are Institutional and Non-institutional actors and actions.

The Actionable and Capacity perspective corresponds logically to the planning process perspective as it pertains to the specific instruments, utilized as part of planning or policy under shrinkage or depopulation conditions. In the cases of Bilbao (Spain) and Leipzig (Germany) the comparative analysis can establish links between the benchmarking categories of the process and the ones from the Actionable and Capacity perspective. In the case of Zeeland (the Netherlands), the perspective can be viewed alone, with no relation to the planning process as it is not subject to investigation for this case.

NORMATIVE PERSPECTIVE

The normative concept features are applied to the policy and planning substance and result in a normative perspective as part of the benchmarking framework. It pertains to the normative orientation of the policy and planning instruments. In addition, it creates a logical

link to the spatial and economic development, allowing for comparative conclusions across these benchmarking categories. Figure 7.4. outlines how the benchmarking categories of the normative perspective are formulated.

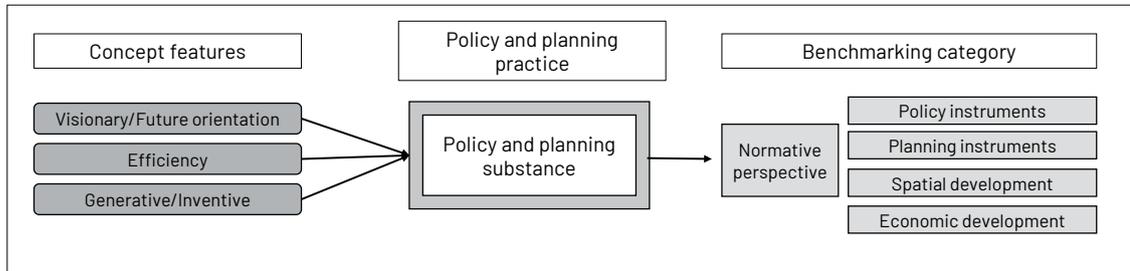


Figure 7.4: Normative perspective benchmarking categories

JUSTIFICATION AND CAUSAL PERSPECTIVE

As outlined in Chapter 6, the conceptualization of shrinkage has implications on the particular measures chosen (Ivanov 2021). As stipulated earlier in this chapter, the contextual characteristics of the shrinkage phenomenon are taken into account in the analysis of the planning process. In regards to the benchmarking categories derived from the policy and planning substance, the justification and causal perspective is also important as the influence of the context and the perception of shrinkage or depopulation influences the particular measures or objectives. With that said, the justification and causal perspective is integrated in the benchmarking framework as a cross-cutting analytical category that relates to both the planning process benchmarking and the substance benchmarking. The perspective itself is informed by the concept features *Applicability/Contextuality* and the conclusions from Hypothesis 4: Shrinkage conceptualization. Figure 7.5. illustrates how the perspective is formulated and how it relates to the other categories.

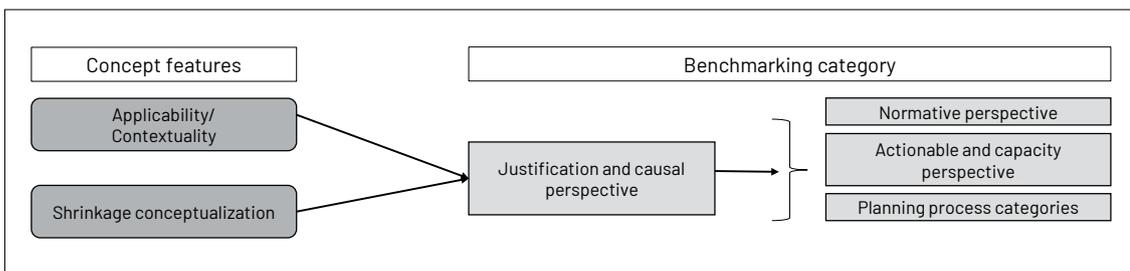


Figure 7.5: Justification and causal perspective category

The justification and causal perspective also encompasses the shrinkage and depopulation context, presented as a separate element in the Planning process benchmarking.

BENCHMARKING FRAMEWORK

The above presented formulation of benchmarking categories can be integrated into the benchmarking framework visually, as outlined below (Figure 7.6.).

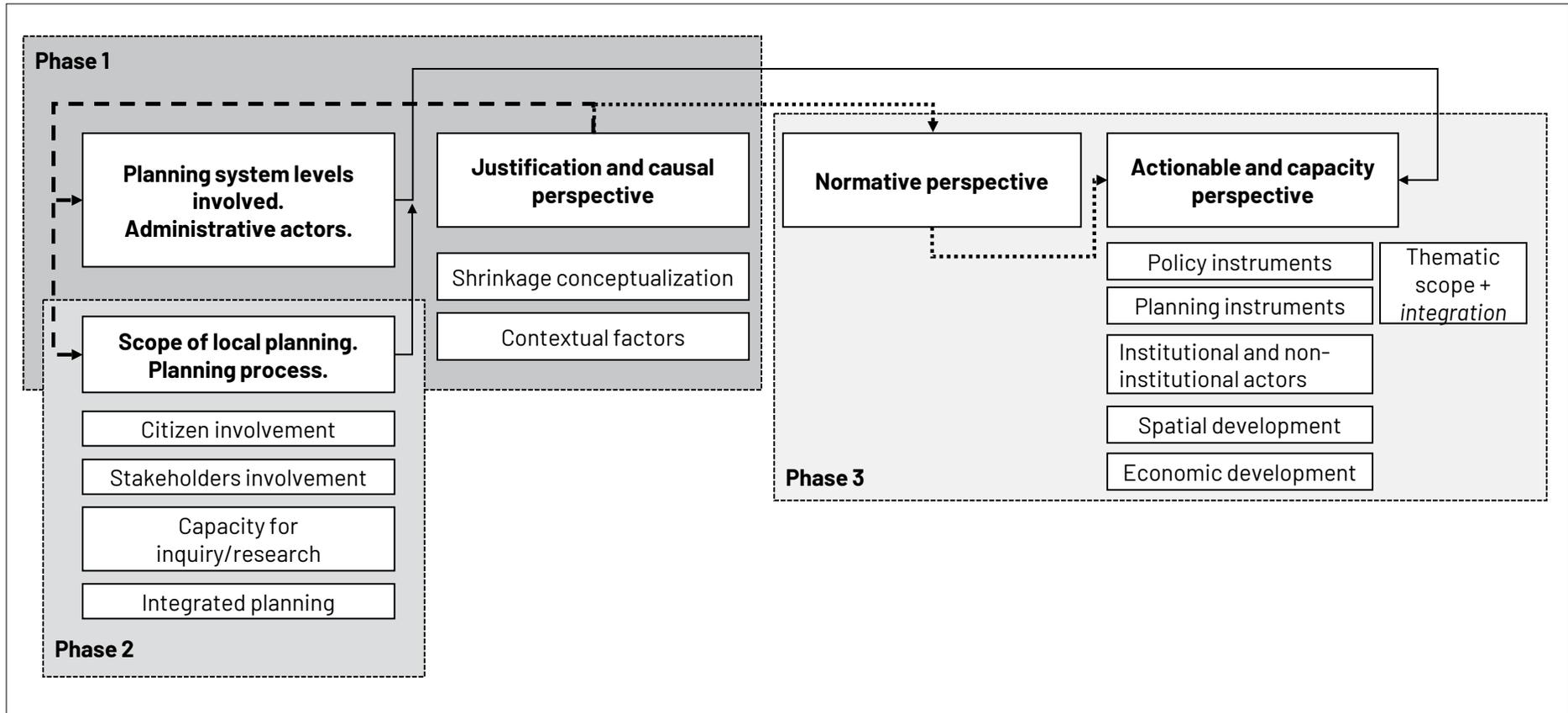


Figure 7.6: Benchmarking framework

Phase 1: Outline of shrinkage conceptualization and contextual factors that have influenced the planning and policy making.

Outline of key planning system characteristics, planning levels involved and administrative actors. Outline of the scope of local planning.

Phase 2: Local planning and planning process. Evolution of the planning process. Outline of citizen involvement, stakeholders' involvement, capacity for inquiry/research and integrated planning capacity.

Identification of causal links between shrinkage conceptualization and contextual factors and the planning process and overall approach.

Phase 3: Outline of policy and planning instruments with thematic scope and integration between topics in reference to planning and policy making. Identification of normative orientation of instruments and causal links. Identification of institutional and non-institutional actors involved. Outline of spatial and economic development.

Due to the complexity of the framework, for analytical purposes it is difficult to include the findings into a visualization. Therefore, the benchmarking phases can provide a sequence to the analysis in order to display and view the findings in parallel. In Phase 1 of the benchmark, the focus is on the shrinkage conceptualization and other factors that have influenced the planning process and the planning and policy making substance. Once those factors are outlined, they form the Justification and causal perspective that creates logical links to the Planning process and the Normative perspective of the measures. In addition to the above, the planning system characteristics in reference to the handling of urban shrinkage are also reviewed in Phase 1. Since the planning system itself is not an object of the analysis, it plays a more contextual role as the planning process and the scope of policies and plans are reviewed in reference to the planning system. As part of the review of the planning system, particular administrative actors are also identified. This allows for a differentiation between the various levels of the planning system and the delineation between planning and policy making in the specific context.

In Phase 2 of the benchmark, the focus shifts to the Planning process. Its scope and general characteristics are outlined, together with an emphasis on the key points, outlined in the previous sections – its participatory nature, its capacity for inquiry and research and the capacity for integrated planning. The characteristics of the planning process are analyzed in reference to the planning system.

In Phase 3 of the benchmark, the focus is on the utilized instruments. They are viewed in reference to the planning process and the planning system. This allows for further delineation between administrative levels as well as between planning and policy making. In addition, the various institutional and non-institutional actors involved in the implementation of the instruments are also outlined. As a second step, the instruments are viewed in reference to the Normative perspective and the Justification and causal perspective. This way, a specific instrument can be viewed and analyzed in reference to contextual factors and shrinkage conceptualization, as well as in reference to its normative orientation. The review

of instruments is also supported by thematic mapping with an outline of intersecting topics which allows the identification of versatile instruments utilized to address multiple challenges. Lastly, the economic and spatial development are also viewed in reference to the Justification and causal perspective and the Normative perspective.

7.3 COMPARATIVE ANALYSIS

7.3.4 PHASE 1: JUSTIFICATION AND CAUSAL PERSPECTIVE. PLANNING SYSTEM SPECIFICS.

JUSTIFICATION AND CAUSAL PERSPECTIVE

Benchmarking perspective and categories/City or region	Bilbao	Leipzig	Zeeland
Justification and causal perspective			
Contextual factors	Territorial planning perspective European and global economic orientation Topographical characteristics (limited space) Flood risk Rehabilitation trend in Spanish cities High percentage of private property	Demographic transition (depopulation) National and European economic orientation Central national location Climate change	Regional depopulation National agenda Maintaining economic competitiveness Sustainability and digitalization
Shrinkage conceptualization	Economic transition with significant spatial effects (obsolete structures and vacancy)	(Irreversible) demographic decline with multifaceted negative effects on urban development, housing, quality of life and economy	Inevitable process of population loss with negative effects on quality of life and economy
Planning system			
Scope of local planning	City limits, Metropolitan area	City limits	
Intermediate planning level	Metropolitan area	Regional (West Saxony)	
Other institutions/ levels involved	Autonomous community government (state level)	State government, Federal government	Provincial government
Further administrative specifics	Financial autonomy of the Basque Country	Financial dependence on federal government	Financial dependence on national government

Table 7.1: Benchmarking Justification and Causal perspective and Shrinkage conceptualization

SHRINKAGE CONCEPTUALIZATION

The conceptualization of shrinkage differs across the three studies cases by attributing different levels of importance to the separate elements of the interpretations. Economy, demography and quality of life have different significance in all three cases. In Bilbao, the shrinkage phenomenon is viewed mostly from economic perspective, placing the economic transition of deindustrialization first. The centrality of this process is utilized to justify the further effects on demography and quality of life, namely outmigration and decrease of attractiveness. The framing of this causal perspective is long-term, encompassing a change that spans more than 20 years. In Leipzig, the economic transition and the demographic transition are placed at the centre of shrinkage conceptualization. The demographic perspective, highlighting the depopulation processes occurring in Eastern Germany as a whole, is the starting point of the conceptualization. The consequences of the population decline result in economic challenges and threat to quality of life. In Zeeland, the anticipated population decline is the starting point of the causal link to the expected challenges to maintaining economic competitiveness and quality of life. In Leipzig and Zeeland, quality of life is more firmly embedded in the interpretation of the phenomenon, which is indicative of a more established consideration of this topic.

The spatial consequences of urban shrinkage are interpreted similarly in Bilbao and Leipzig. In both cities obsolete industrial areas and land vacancy as a result of discontinued economic activity are framed as undesirable spatial effect with implications on the overall urban development, spatial quality and attractiveness of the cities. The vacant space is considered a possible potential for the economic revitalization of both cities.

In both Leipzig and Zeeland, a stronger emphasis is placed on the effects of shrinkage on the housing market. In both cases, the planning and policy refer to the need of active management of the housing market so as to avoid housing vacancy and to provision higher quality housing. Similarly, both cases refer to challenges in service provisioning (such as social infrastructure) as a result of shrinkage or depopulation.

Only Leipzig introduces a closer lens on area specific issues in the city as a result of shrinkage. The overall interpretation of the phenomenon and its social, economic and quality of life effects are framed as particularly acute in specific areas of the city.

In Leipzig and Zeeland, the framing of shrinkage triggers implications on the planning process and the policy approach, respectively. In Leipzig, this is the area specific integrated way of planning. In Zeeland, this is the proactive long-term anticipatory policy approach to the consequences of depopulation.

CONTEXTUAL FACTORS

All three cases introduce a level of contextualization in terms of the economic effects of shrinkage or population decline and respectively utilize this contextualization as a justification of measures, related to economy. This is most strongly pronounced in Bilbao where the interpretation of the shrinkage phenomenon as an economic crisis is tied to the contextualization of the urban economy to the global economic network, thus providing reasoning towards increasing competitiveness, attractiveness and city image so that Bilbao becomes an international urban centre. In Leipzig, the contextualization of economy is tied to the importance of the city on national level, due to its central location, as well as in European context. In Zeeland the economic contextualization is oriented towards maintaining the competitive advantage of the region's existing industrial economy.

Locally specific factors are most pronounced in Bilbao. The topographical limits of the city and the higher risk of floods have influenced decisions as an important contextual factor. In Leipzig and Zeeland, contextual factors on higher level are more pronounced. In Leipzig, considerations for climate change adaptation have been highlighted. In Zeeland, nationally relevant aspects, such as sustainability and digitalization have influenced the policy approach.

CONCLUSIONS

Phase 1 of the benchmarking illustrates that the comparative perspective allows to uncover locally relevant topics and concepts that have influenced the interpretation of the shrinkage or depopulation phenomena and have established key points of reference that influence the selection of planning and policy measures. This is particularly visible with the emphasis placed by Leipzig and Zeeland on the quality of life perspective and the housing perspective. The emphasis on housing is indicative of planning culture specifics that dictate a more proactive management of the housing market. The importance of quality of life (and liveability in the case of Zeeland and the Netherlands) is indicative of overall consideration of the topic in the planning cultures of both countries as opposed to economy-led justification in the case of Bilbao. The persistence of the economic perspective, including its implications on the spatial structure and attractiveness, indicates that economic growth orientation remains pervasive across different cases of urban shrinkage and depopulation.

PLANNING SYSTEM SPECIFICS

In Bilbao and Leipzig, the local urban planning level encompasses the cities in their administrative boundaries. In Bilbao, the local scope of planning is supported by the metropolitan perspective of planning. Due to the contextual specifics, outlined above, the development of Metropolitan Bilbao compensates for the topographical limits of the city itself and provides further potentials for the economic development of the whole area. Respectively, plans, strategies and policies also address this level of planning which also acts as an intermediate level of planning in the context of the territorial planning agenda of the Basque Country.

In contrast, Leipzig has clearly distinguished boundaries between the local and intermediate levels of planning. The regional planning encompasses the region of West Saxony and addresses predominantly service provisioning planning, transport and economy. The regional planning is derivative of the state-planning level which is specific to Germany's Länder. Each German state has the authority to spatially plan its own territory in harmony with the upper levels of the planning system, following the Gegenstromprinzip of coordination between the planning levels. In addition, planning is more spatially oriented in Germany. The legal framework dictates that spatial planning is a responsibility of the various levels of the planning system.

In all three cases, the planning on state level plays a key role in the delivery of planning and policy for addressing shrinkage and depopulation. In Spain this is the government of the autonomous community of the Basque Country. This case is also the outlier out of all three examples – due to the financial autonomy of the Basque Country (different than other Spanish autonomous communities), the Basque Government can pursue independent policy for its internal affairs supported by financial measures. This is vastly different from the examples in Germany and the Netherlands. In Germany, the state also has a chance to

pursue specific policy goals, but financially it is dependent also on the federal government. In the Netherlands, the provincial government also has a level of independence in terms of policy, but financially it depends on significant transfers from the national government.

CONCLUSIONS

The differences in the planning systems, highlighted above, determine the boundaries and scope of action of local planning and higher planning system levels, including state and national government involvement with policy instruments (reviewed in Phase 3 of benchmarking). The higher autonomy, including financial, of the Basque Country is an outlier which results in the Basque Government acting *de facto* as a national level in the case of Bilbao. The higher dependence on upper levels, including financial dependence, in the cases of Leipzig and Zeeland determine the closer involvement of state and national/federal governments in the overall planning and policy approach in the two cases.

7.3.5 PHASE 2: PLANNING PROCESS

PLANNING PROCESS

Planning process		
Benchmarking perspective and categories/City or region	Bilbao	Leipzig
Involvement of citizens	Initially limited, evolving in time	Extensive, evolving in time. Involvement in decision making and action.
Involvement of stakeholders	Extensive (private and public stakeholders). Partnerships.	Extensive (private and public stakeholders)
Capacity for inquiry/research	Limited, evolving in time	Extensive, evolving in time.
Capacity for integrated planning	Moderate, evolving in time.	Extensive. Planning and policy integrated by design.

Table 7.2: Benchmarking: Planning process

There are significant differences in the involvement of citizens in the cases of Bilbao and Leipzig. Since the planning process in Bilbao was evolving over time with the development of the planning system, the participatory practices were also initially limited, however, grew to play an important role in the planning process at a later stage in the investigated period. Practices such as neighbourhood councils and extensive discussions on planning decisions were gradually incorporated into the planning process. The most distinctive example of the growing importance of participation is the modification of the initial spatial plan of Zorrotzaurre after the involvement of the local community. These conclusions illustrate that under shrinkage conditions, participatory practices can gradually evolve and also empower local communities, thus contributing to improved democratic practices.

In Leipzig, the planning process has been designed as highly participatory from the very beginning. Extensive discussions, local activities and involvement of citizens at all stages of planning and execution have been included in the local planning practice. The participatory

practices were also included on neighbourhood level with particular emphasis on socially disadvantaged neighbourhoods. The role of citizens has been critical in the regeneration of specific areas, such as Plagwitz, with innovative planning instruments that allow citizen-led interventions. Involvement of citizens is consistently highlighted as a critical factor for Leipzig's planning process under shrinking conditions.

The involvement of other stakeholders in the planning processes in the two cities has some parallels. In Bilbao, the fragmented property landscape required the involvement of various state institutions (such as the Spanish railway RENFE) as well as local private capital. In order to steer specific planning interventions, the planning process required extensive consultations and tailor-made public-private and public-public partnerships that involve various interested parties. This approach has been applied on strategic planning level for Metropolitan Bilbao through the establishment of strategic planning process that ran in parallel to the formal spatial planning for the city. It has also been applied for specific projects in key areas of Bilbao, such as Abandoibarra and Zorrotzaurre. The involvement of multiple stakeholders has required also the development of specific planning instruments.

In Leipzig, the centrality of the local urban planning and its wider scope has allowed for the incorporation of various stakeholders in the planning process itself. Most notably, the interventions in the housing market required the involvement of both housing companies and private housing owners in order to ensure that the necessary large-scale resizing efforts would be implemented properly. In addition, specific consultation and involvement activities with private owners of commercial and industrial land allowed for higher engagement of these actors and, respectively, contributed to their support in the handling of land vacancy, for instance.

Bilbao's planning process had limited justification through scientific and data information in the beginning. The evolution of the planning process during the investigated period introduced a number of requirements that expanded the need for data-driven decision making and the inclusion of scientific assessments in the planning process and the practices of plan-making. In contrast, Leipzig's planning process has been extensively supported by scientific data. The process has also involved the development of capacity for inquiry-led planning through the establishment of local database capacities and open-data solutions that have been improving and extending over time. The above mentioned fragmentation of property requires that the planning process and capacity ensure the accuracy of existing registers in order to facilitate the identification of owners prior to any intervention. In addition to city-level inquiry-led planning, assessments and data-oriented decisions have been executed on area level in order to adapt planning to the concrete circumstances in areas, that require specific attention.

Due to the centrality of the economic perspective for Bilbao, the planning of the city was not following integrated principles from the beginning of the investigated period. Gradually, however, integrated planning became part of the planning process, mostly from spatial perspective. That is, urban redevelopment with focus on mixed use and specific area concepts that integrate functional considerations. This is very visible in the plan for the area of Zorrotzaurre, which integrates industrial, commercial, recreational and residential functions. In contrast, Leipzig's planning process has been integrated by design from the very beginning. The utilization of integrated planning is very strongly pronounced throughout the investigated period and it corresponds to the more complex understanding of the shrinkage

phenomenon and its effects. The dominance of integrated planning has been central to the overlap of planning and policy efforts, especially in certain socially disadvantaged areas (such as Leipziger Osten). This dominance has translated to planning-led approaches to issues that go beyond the urban scope, such as unemployment and social segregation. Such issues have been consistently addressed with urban planning measures, however, they appear to have persisted over time. This may be indicative of the limitations of integrated planning or planning-led instruments for issues that transcend the urban realm.

CONCLUSIONS

The planning processes of Bilbao and Leipzig represent two distinctive planning practices under shrinkage conditions. Due to the unestablished planning process and planning system in the beginning of the investigated period, Bilbao effectively utilized the addressing of urban shrinkage and its consequences as a learning period to also develop its planning process. The empirical data illustrates that the participatory practices and the integrated planning gradually developed in time, leading to a well-established and structured planning process. Under the conditions of a complex administrative division within the Basque Country and Bilbao, the planning process became a mechanism for improved coordination between various entities.

In contrast, Leipzig's planning process was consistent with the more structured and regulated planning culture within Germany. With the clearly distinguished roles and the overall importance placed on urban development on national level, the planning process in Leipzig was central to addressing urban shrinkage. The centrality of planning and its design as integrated planning from the beginning of the investigated period illustrate that when perceived as a strictly urban issue, urban shrinkage can be addressed with a well-structured, albeit predictable, planning process. At the same time, the over fixation on planning as the key process to address all implications of shrinkage, particularly social challenges, illustrates that there are certain limitations to the planning-centered approach and certain issues may require a broader policy view and measures that go beyond the planning scope.

7.3.6 PHASE 3: NORMATIVE PERSPECTIVE. ACTIONABLE AND CAPACITY PERSPECTIVE.

(See Table 7.3.: Benchmarking: Normative perspective. Actionable and capacity perspective)

NORMATIVE PERSPECTIVE

The dominant normative orientation of planning and policy instruments is determined by the shrinkage conceptualization in the three different cases. In the case of Bilbao, the dominant narrative surrounding shrinkage is that of an economic crisis. The spatial and social effects of shrinkage are framed as a consequence of the economic downturn of the city (and the Basque Country as a whole). As a result, the dominant normative orientation in Bilbao is on economy – the results of the policy and planning efforts were expected to contribute to an improved image and the global competitiveness of the city. The high quality urban interventions were also seen as a way contribute to this desired improved image. The improved quality of life was obscured by the dominant economic perspective – it remained important as part of the overall image building as well as in terms of providing the necessary interventions for the remaining citizens, but ultimately it was subordinated to the economic transformation of the city as a whole.

Table 7.3: Benchmarking: Normative perspective. Actionable and capacity perspective

City or region		Bilbao		Leipzig		Zeeland	
DOMINANT NORMATIVE ORIENTATION		Improved urban image, global competitiveness, urban quality, quality of life.		Integrated approach to issues. Quality of life. National and regional economic centrality.		Maintain economic profile. Maintain quality of life and service provisioning. Efficiency.	
Benchmarking category	Thematic mapping	Policy and planning substance	Normative orientation	Policy and planning substance	Normative orientation	Policy substance	Normative orientation
Policy instruments	Economy and labour market	New industrial zones and business parks	New space for economic activity		Dependent on state and federal policy	Targeted policy support for existing companies	Maintain economic profile
		Reskilling programmes. Educational infrastructure.	Overcoming social exclusion Attract talent			Education and labour market coordination	Labour market accessibility. Counteract labour market shortages.
						Cross-border agreements	Labour market accessibility. Counteract labour market shortages.
	Economy and space	Flagship regeneration projects	Image - global competitiveness and attractiveness	Demand-oriented spatial offer for economic activities	Competitiveness		
				Reuse of obsolete space	Avoid sprawl and promote compact development		
	Urban settlements and regional development.	Quality of life.		Programme for urban redevelopment - housing demolition and renovation	Quality of life improvement Image & attractiveness	Financial instruments	Liveability improvement
	Housing					Housing and neighbourhood renovation. Housing restructuring projects.	Service provisioning
	Social issues	Areas of integrated rehabilitation (ARI) - district specific	Improvement of housing conditions, urban quality and overcoming social issues	Financial programme for social issues in vulnerable districts	Promote social inclusion		

City or region		Bilbao		Leipzig	
DOMINANT NORMATIVE ORIENTATION		Improved urban image, global competitiveness, urban quality, quality of life.		Integrated approach to issues. Quality of life. National and regional economic centrality.	
Benchmarking category	Thematic mapping	Policy and planning substance	Normative orientation	Policy and planning substance	Normative orientation
Planning instruments	Urban blight and deterioration	Revitalization and regeneration (incl. reuse of obsolete space)	New space for economic activity Image - global competitiveness and attractiveness	Revitalization measures	Quality of life improvement Image & attractiveness
	Land use	Limits to developable land	Land use efficiency	Municipal land allocation to investors	Active management of obsolete industrial space
		Zoning: land use function, regimes of use, strict regulation, sanctions.	Balanced/mixed use of land, economic diversification, just use of space Market control (high private property)	Temporary land use. New green areas.	Counteract land vacancy
		District specific interventions	Green and public space connectivity		Green space connectivity
	New construction	Limitations and strict rules	Market control. Avoid speculation.	Active district-led planning	Demand-oriented construction
	Socially disadvantaged areas and district-specific interventions	Special plans for key areas and districts	Address specific area needs incl. social issues *Special plans deliver the interventions from the government programme for Areas of Integrated Rehabilitation	District-specific interventions & dedicated programmes	Overcoming social issues Promote economic activity Quality of life improvement
			Large-scale urban regeneration	Local integrated plans	Integrated objectives-blurring boundaries *Local integrated plans deliver the interventions from the government programme for socially disadvantaged areas
	Housing	Renovation and accessibility investment	Improve housing conditions	Housing market resizing	Counteract housing vacancy Improve quality of housing Ensure market functioning Housing accessibility
	Large-scale urban regeneration	Property consolidation in key areas	Efficient implementation (fragmented property)		

City or region		Bilbao		Leipzig		Zeeland	
DOMINANT NORMATIVE ORIENTATION		Improved urban image, global competitiveness, urban quality, quality of life.		Integrated approach to issues. Quality of life. National and regional economic centrality.		Maintain economic profile. Maintain quality of life and service provisioning. Efficiency.	
Benchmarking category	Thematic mapping	Policy and planning substance	Normative orientation	Policy and planning substance	Normative orientation	Policy substance	Normative orientation
Spatial development	Overall orientation	Normative orientation		Normative orientation		Normative orientation	
		Densification (limited space)		Densification (counteract extensive sprawl)			
	Land use approach	Compact development		Counteract land and industrial vacancy			
		Mixed use		Mixed use			
		Greening & public space expansion on district level		Greening (incl. large-scale projects)			
	Building stock	Building rehabilitation & preservation of cultural heritage		Building rehabilitation & preservation of cultural heritage			
	Infrastructure (railway)	Railway optimization - internal and external mobility; reuse of space		Railway optimization - internal and external mobility; reuse of space			
Environmental considerations	Environmental sustainability, reuse of materials		Climate change adaptation (incl. energy efficiency)				
Economic development	Overall orientation	Growth-oriented		Growth-oriented		Growth-oriented	
	Migration	Attracting migration		Attracting migration		Attracting migration	
	Existing economy	Preserve industry		Develop endogenous economic potential		Preserve existing economic profile.	
	New economy	Tertiary global competitiveness. Culture. Tourism.		Regional, national, European competitiveness. Knowledge economy. Culture.		Adapt industry to new global conditions	
	Private capital	Key role of private capital		Private ownership of housing - involvement		Key role of private capital	
	Non-traditional economic ideas	Circularity				Greening of industry, circularity, supply chain agreements, renewable energy, green hydrogen	
Institutional actors		Higher autonomy of the Basque Country		Federal system and partial state autonomy		Higher dependence on national government	
		Basque Government, Bilbao Municipality, local executive agencies (e.g. SURBISA, BilbaoRia2000), RENFE Spanish Railways, Port authority		Federal government, Saxony State Government, Regional Planning Authority West Saxony, Leipzig Municipality, District management agencies, Deutsche Bahn German Railways		National government, Zeeland Provincial Government, Zeeland Municipalities	
Non-institutional actors		Public-private management commission (e.g. Zorrotzaurre), local citizen councils, strategy quangos (e.g. Bilbao Metropoli-30), private owners, companies, local business networks		Housing companies, local citizen initiatives		Regional expert and citizen working groups, regional business networks	

The normative orientation in Leipzig was reversed. The emphasis on urban interventions and the urban perspective on the question has influenced significantly the formulation of objectives for the various policy and planning instruments. The interpretation of the shrinkage phenomenon as a multifaceted urban issue has influenced the dominant normative narrative, placing an emphasis on the integrated perspective. Thus, the objectives of the policies and plans encompass an integrated approach as well as an urban interventionist logic. The latter is strongly supported by the particular emphasis on the effects on housing and the functioning of the housing market. The objective to improve quality of life is delicately intertwined in this complex interpretation and the policy and planning narratives ensure its prominent positioning. In parallel, however, a broader view on the policy and planning approaches allows the identification of the latent economic competitiveness normative orientation. The centrality of the urban-spatial-housing perspective has partially obscured the economic perspective to the effects of shrinkage, however, in a broader policy setting, Leipzig has also attempted to position itself as a central economic location, particularly in German and European context.

Lastly, the specific interpretation of population decline in the context of Zeeland as an anticipated issue with expected negative effects on regional liveability and economy has influenced the normative orientation of policy measures in the same direction. The main narratives focus on proactively sustaining the existing level of liveability (particularly influenced by the level of services provisioned, as well as the housing conditions) as well as on ensuring the functioning of the provincial economic structure. The causal effects between the perspectives of liveability, economy and housing are well-determined and allow for an integrated approach to the formulation of measures. The emphasis on the integrated perspective is not as strong as in Leipzig, thus some of the policy measures appear to be more focused.

The comparative perspective towards the normative orientation of policy and planning efforts in the three cases exposes the pervasiveness of economic considerations in addressing shrinkage and depopulation. Economic growth has been part of the normative orientation in all three cases. This is most pronounced in Bilbao where the overall interpretation of the phenomenon is mostly economy-centered. Similarly, in Zeeland, the existing economic base of the province is considered a significant factor in maintaining the liveability of the area, thus the efforts are focused on sustaining the existing economic profile. In Leipzig, the economic perspective is somewhat obscured from the focus on urban and spatial integrated measures, but the broader view on the question, including upper planning levels, reveals that economic growth and competitiveness were also part of the objectives on par with quality of life considerations. The above conclusions also reveal that considerations for quality of life and economic growth are not mutually exclusive and can be pursued simultaneously.

Further contextual factors that determined the policy and planning responses in the three cases encompass housing, quality of life and social issues. In the cases of Leipzig and Zeeland, a greater emphasis is placed on policy and planning actions towards the housing market. The objective is to ensure that the market functions properly, that there is a balance between supply and demand and that the quality of housing is satisfactory. In contrast, the approach to housing in Bilbao is determined by a government policy to ensure affordable housing in a predominantly market-driven setting. These conclusions reveal differences in planning cultures and particularly the focus on active management of the housing market in Germany and the Netherlands. This difference can be attributed to the contextual specifics in those two countries where large housing companies and large scale investors are the major

players in the housing market. An additional factor for Leipzig has been the Stadtumbau Ost programme whose financial dimension has also been oriented towards investment in housing, thus directly related to the owners of the housing units. In the German and the Dutch case, the housing policy requires coordination and control over the housing companies in order to ensure a proper provisioning of housing. This empirical observation is indicative of the more important role and higher influence of the housing companies in both cases. In the case of Bilbao this is not so well-pronounced since the investment in housing is driven by market logic thus the policy attempts to fit into the market dynamic by focusing on price control to ensure affordability of units.

The topic of quality of life can be found in all three cases, however, its meaning and scope is not uniform. In Zeeland (and respectively the Netherlands), liveability is the concept utilized most in regards to quality of life. The empirical data reveals a rather consistent interpretation of liveability and its significance on national level. Its scope and dimensions appear to be reiterated across policy and planning documents. This observation is indicative of a stronger contextual consideration of liveability as a dominant normative orientation, perhaps also with political implications. Quality of life has been consistently referred to as important in Leipzig, but its meaning and significance varies across empirical sources. At times, the concept has been used loosely or in an overly-inclusive manner. Still, it has remained central in the justification of measures and responses on policy and planning level. This observation is indicative of its overall importance in the German case. In contrast, quality of life is secondary in the case of Bilbao. There is a stark difference between the conclusions from the document analysis and the interviews. Quality of life, interpreted as high quality urban space and service provisioning, is embedded in the planning practice of the city and has resulted in particular local interventions, but the emphasis in policy and planning documents remains on economy and image, where quality of life is only an additional factor for Bilbao's image and global positioning.

Social issues are a topic that has been addressed in both Bilbao and Leipzig and there is a clear parallel in the approaches of the two cities. In both cases there are specific neighbourhoods where social issues such as segregation, poverty, crime and poor housing conditions appear to overlap – Bilbao La Vieja and Leipziger Osten. Both districts have been subject to intervention with specifically designed policy or planning instruments. In both cases, the interventions have been supported by government programmes. In Bilbao, the Basque Government determines which areas can become Areas of Integrated Rehabilitation (ARI) and then dedicates specific financial and policy instruments for them. Similarly, the Soziale Stadt federal programme in Germany provides an instrument, including financial support, for urban regeneration and social-economic measures for socially disadvantaged areas. The difference between the two cases is that in Leipzig the centrality is on the urban dimension while in Bilbao it is on the social one. That is, since the planning-led intervention in the city plays a more important role in Leipzig, the measures for social issues are also addressed through this dimension. In Bilbao, the urban planning plays a supporting role in the implementation of the measures as the instrument (Areas of integrated rehabilitation – ARI) originates on government level. On local level, its implementation is coordinated by a dedicated agency and in the master plan, the area is subject to a special plan in order to facilitate the proper execution of the government policy. The parallel between those instruments reveals a difference in the practices of policy making and planning that are determined by contextual factors, the structure of the planning system and the delineation between policy making and planning.

ACTIONABLE AND CAPACITY PERSPECTIVE

The identification of various planning and policy instruments is influenced by the structure of the planning system and its embedded limitations and functional distribution of responsibility, as well as the planning culture. In the case of Bilbao, the greater administrative and governance autonomy of the Basque Country has determined the more extensive involvement of the Basque government, particularly in the large scale regeneration projects. The overall interpretation of the urban transformation of the city places an emphasis on its importance in a broader context – the projects become important for the Basque Country as a whole. In contrast, the greater dependence of Leipzig on the federal government determined the higher influence and reliance on federal instruments, such as the Stadtumbau Ost programme as well as the Soziale Stadt programme. The urban regeneration agenda was important at federal level and this enabled action in different cities, including Leipzig, and ensured that administrative and financial support was available. In the Netherlands, the overall approach to population decline is well defined on national level and is perceived and assessed as a regional phenomenon. This conceptualization, paired with the municipal financial dependence on the national government, determined the higher involvement of the latter and the need to develop capacity on both national and provincial levels. In addition, the characteristics of the population decline as a regional phenomenon required a particular effort at intermediate level – between the province and the municipalities. Although the regions are not administrative structures, the approach to population decline enabled the additional effort to develop expert and administrative capacity at regional level in order to approach the issues.

An additional factor for the cases of Bilbao and Leipzig is the planning process. In Bilbao, the planning process was developing in parallel to the efforts to address shrinkage consequences. The lack of well-established planning process led to higher reliance on the Basque Government, particularly for the larger scale projects. The evolution of the planning process, however, also resulted in the establishment of the necessary administrative and executive structures. In contrast, the strong planning process tradition in Germany and the importance of the urban agenda enabled a stronger emphasis on the centrality of urban planning in addressing the consequences of urban shrinkage. This has been additionally influenced by the overemphasis on the integrated perspective to the questions, influencing also the overall normative orientation of policies and plans – led and determined by an integrated urban planning perspective.

Policy instruments

(See Table 7.4: Benchmarking: Policy instruments)

The policy instruments, utilized in the three cases, are overall different when viewed from comparative perspective. The territorial planning agenda in Bilbao ensured the allocation of space for new economic activities with the creation of new business and industrial zones across the metropolitan area of the city. In parallel, the flagship regeneration projects were delivered at the intersection of planning and policy as they became a key driver of urban transformation that was supported by various institutional levels. These two major policy lines of action were supported by targeted policy in terms of education, housing and social issues.

In Leipzig, the distribution of new economic activity in the city was guided by a planning-centered approach, supported by the regional planning perspective with the proactive allocation of spatial lots for new investment. The two major policy instruments in Leipzig

City or region		Bilbao		Leipzig		Zeeland	
DOMINANT NORMATIVE ORIENTATION		Improved urban image, global competitiveness, urban quality, quality of life.		Integrated approach to issues. Quality of life. National and regional economic centrality.		Maintain economic profile. Maintain quality of life and service provisioning. Efficiency.	
Benchmarking category	Thematic mapping	Policy and planning substance	Normative orientation	Policy and planning substance	Normative orientation	Policy substance	Normative orientation
Policy instruments	Economy and labour market	New industrial zones and business parks	New space for economic activity		Dependent on state and federal policy	Targeted policy support for existing companies	Maintain economic profile
		Reskilling programmes. Educational infrastructure.	Overcoming social exclusion Attract talent			Education and labour market coordination	Labour market accessibility. Counteract labour market shortages.
						Cross-border agreements	Labour market accessibility. Counteract labour market shortages.
	Economy and space	Flagship regeneration projects	Image - global competitiveness and attractiveness	Demand-oriented spatial offer for economic activities	Competitiveness		
				Reuse of obsolete space	Avoid sprawl and promote compact development		
	Urban settlements and regional development. Quality of life.			Programme for urban redevelopment - housing demolition and renovation	Quality of life improvement Image & attractiveness	Financial instruments	Liveability improvement
						Regional agreements on service provisioning	Service provisioning
	Housing	Price controlled housing provisioning	Housing accessibility. Strict control on market-led housing construction			Housing and neighbourhood renovation. Housing restructuring projects.	Combat housing vacancy Ensure housing market functioning Quality of life improvement
	Social issues	Areas of integrated rehabilitation (ARI)- district specific	Improvement of housing conditions, urban quality and overcoming social issues	Financial programme for social issues in vulnerable districts	Promote social inclusion		

Table 7.4: Benchmarking: Policy instruments

were the Stadtumbau Ost and the Soziale Stadt programmes which, however, were designed as urban intervention instruments, thus their delivery was dependent on the local planning. As policy instruments, however, they reaffirm the focus on key issues such as housing, urban development and social challenges as well as provide a consistent long-term financial support for their implementation.

In Zeeland, the tailor-made approach to the specific regional challenges resulted in particular initiatives to support existing companies, to promote requalification of citizens, and to enable cross-border agreements. Additionally, national funds were dedicated to locally relevant projects, focusing on improving liveability and housing market interventions. On provincial level, agreements on cross-municipal service provisioning, aiming at optimization of the existing services, were also implemented.

Planning instruments

(See Table 7.5: Benchmarking: Planning instruments)

In both Bilbao and Leipzig, certain areas were affected by urban blight and deterioration. In Bilbao these areas were rather large and concentrated in specific locations of the city (such as Zorrotzaurre). In contrast, the problematic areas in Leipzig have punctuated the landscape of the city and were at smaller parcels, between buildings or in specific parts of districts (such as Plagwitz). Due to these differences, the approach in Bilbao concentrated on large scale regeneration projects while Leipzig had to identify various flexible instruments for specific lots, depending on the context in the particular area. This logic has been reflected in the respective planning approaches, too – Bilbao employed dedicated plans for the large regeneration projects, while Leipzig assessed each area individually and identified particular solutions for the specific cases. These conclusions also apply for the land vacancy in both cities. In Bilbao, land vacancy was mostly in the former industrial areas and was consequently addressed as part of the larger regeneration projects. Certain vacant parcels in different parts of the city were handled with local smaller-scale interventions. In Leipzig, the land vacancy was mostly scattered across different parts of the city and required specific solutions in each case, such as temporary land use and greening.

The overall approach to land use and building stock is similar between the two cases, but there are also differences. The gradual evolution of the planning regulations in Bilbao is indicative of a stricter control on more market-led development in the city. Concrete spatial limitations and legislative requirements were introduced for private investors. In Leipzig, the planning documents reveal a more proactive role of the local government with allocation of lots to potential investors. This reveals a less pronounced market-driven logic in Leipzig and a more active role of public institutions.

Both cities employed district-specific plans. In Bilbao, these plans were the main instrument for the implementation of the large-scale regeneration projects, such as Zorrotzaurre. In Leipzig, the local integrated district concept-plans were translating the integrated planning logic from the city level to a smaller scale and were facilitating tailor-made interventions in specific districts. In both cities, district-specific plans allowed for the application of policies from the upper levels of the planning system to be applied in urban context. As outlined earlier, this also encompassed social measures.

Apart from the overall differences in the approach to housing outlined earlier, both cities put efforts in renovating existing housing stock. In Bilbao, the approach was on smaller-scale level, funded by a government programme and coordinated by a local agency. In Leipzig, due to the larger intervention in the housing market, the renovation efforts were also part of the

City or region		Bilbao		Leipzig	
DOMINANT NORMATIVE ORIENTATION		Improved urban image, global competitiveness, urban quality, quality of life.		Integrated approach to issues. Quality of life. National and regional economic centrality.	
Benchmarking category	Thematic mapping	Policy and planning substance	Normative orientation	Policy and planning substance	Normative orientation
Planning instruments	Urban blight and deterioration	Revitalization and regeneration (incl. reuse of obsolete space)	New space for economic activity Image - global competitiveness and attractiveness	Revitalization measures	Quality of life improvement Image & attractiveness
	Land use	Limits to developable land	Land use efficiency	Municipal land allocation to investors	Active management of obsolete industrial space
		Zoning: land use function, regimes of use, strict regulation, sanctions.	Balanced/mixed use of land, economic diversification, just use of space Market control (high private property)	Temporary land use. New green areas.	Counteract land vacancy
	Greening and public space	District specific interventions	Green and public space connectivity		Green space connectivity
	New construction	Limitations and strict rules	Market control. Avoid speculation.	Active district-led planning	Demand-oriented construction
	Socially disadvantaged areas and district-specific interventions	Special plans for key areas and districts	Address specific area needs incl. social issues *Special plans deliver the interventions from the government programme for Areas of Integrated Rehabilitation	District-specific interventions & dedicated programmes	Overcoming social issues Promote economic activity Quality of life improvement
			Large-scale urban regeneration	Local integrated plans	Integrated objectives-blurring boundaries *Local integrated plans deliver the interventions from the government programme for socially disadvantaged areas
	Housing	Renovation and accessibility investment	Improve housing conditions	Housing market resizing	Counteract housing vacancy Improve quality of housing Ensure market functioning Housing accessibility
Large-scale urban regeneration	Property consolidation in key areas	Efficient implementation (fragmented property)			

Table 7.5: Benchmarking: Planning instruments

implementation of Stadtumbau Ost programme and encompassed larger areas and more buildings and required the involvement of multiple stakeholders.

A specific planning instrument in the case of Bilbao is the consolidation of property for the large-scale regeneration projects. Due to the fragmented property landscape, projects, such as Zorrotzaurre, employed the successful practice from the previous regeneration initiatives by consolidating the property into a public entity and then distributing construction rights as part of the urban renewal project.

Economic and spatial development

(See Table 7.6: Benchmarking: Economic and spatial development)

Spatial development

Both Bilbao and Leipzig have focused their efforts on increasing densification and promoting compact development. The contextual factors that have influenced this approach differ. In Bilbao, this has been mostly attributed to the limited physical space due to the topography of the city, offset by the development of the metropolitan area. In Leipzig, the extensive sprawl that occurred in the 1990s justified the efforts to “pull back” the city into its limits by increasing its density. Mixed use approaches to urban areas have been the preferred direction in both cities. Greening and public space expansion have been utilized in both Bilbao and Leipzig. In the former, these interventions were mostly on small-scale district level, whereas in Leipzig some of the projects involved larger lots. Efforts in preservation of cultural heritage have been embedded into the building stock maintenance efforts in both cities.

Railway infrastructure has been approached in a similar manner in both cities. It has been optimized in order to improve internal and external transport accessibility while obsolete space has been reutilized with new functions (smaller lots above former trenches in Bilbao and larger areas in Leipzig). The comparative perspective allows to determine that infrastructure handling under shrinking conditions is not necessarily handled through efforts focusing on cutting costs, thus resizing to a smaller scale. The example of railway infrastructure illustrates that when an objective towards providing better services has been set, investments in such infrastructure may also involve expanding it.

Lastly, environmental considerations have been embedded in the spatial planning of both cities. In Bilbao, flood protection has been the leading factor. Construction materials following demolition have been utilized for flood protection barriers in the regeneration of Zorrotzaurre. In Leipzig, adaptation to climate change has influenced some planning decisions, resulting in new recreational wet zones south and north of the city, energy efficiency measures for buildings as well as preservation of the existing alluvial forest.

Economic development

As outlined in the conclusions on the dominant normative orientation, economic growth has been central to all three cases, however, with different intensity. In all three cases positive migration has been desired. This is most strongly pronounced in Bilbao. The empirical data from Leipzig shows some contradictory results. While the economic perspective has sustained the necessity and potential of positive migration, particularly for qualified migrants, another part of the planning documents has attempted to respond to expected long-term population decline. The results indicate that the latent economic

orientation towards growth may have contributed also to the positive migration, leading to the “surprise” of planners when the population of the city began to grow again. Additional factors may have been also in play - Leipzig gradually became popular particularly because of its transformation under shrinkage conditions, therefore it is difficult to determine causality between one particular factor, influencing the population growth. Lastly, Zeeland relies on positive migration, particularly from economic perspective, in order to preserve the functioning of the existing economic structure, but also anticipates and prepares for stagnant and later on declining population.

In terms of existing economy, both Bilbao and Zeeland have attempted to preserve part or all of the existing economic structure, particularly industrial activity. Leipzig’s efforts have focused mostly on developing the endogenous potential of the city, including small-scale businesses. In terms of new economic activity, Bilbao’s approach has been most specific, focusing on service-oriented economy and the attraction of large international companies. Both Bilbao and Leipzig have recognized the potential of culture and tourism as new sources of economic activity. In Zeeland, due to the heavy environmental effects of the existing industry, the efforts have been oriented towards adapting the existing industry to new more sustainable standards.

In all three cases, the involvement of private capital has been crucial to the policy and planning efforts. In Leipzig this is most pronounced in the housing market efforts. In Bilbao, private actors have been involved extensively in regeneration projects as well as other planning initiatives. Similarly, the provincial government in Zeeland has been actively working with the local private companies. These observations illustrate that involvement of private actors may be beneficial and even required for complex policy and planning approaches. Concepts such as degrowth and post-growth that tend to deemphasize the role of major capital may be challenged in situations where the economic profile of a city or a region is strongly dependent on large private initiatives.

Lastly, new economic models, such as circularity, have been utilized in Bilbao and Zeeland. Additionally, Zeeland is at the forefront of “green efforts” with initiatives that involve supply chain optimizations, renewable energy and green hydrogen projects in partnership between public and private actors.

Institutional and non-institutional actors

(See Table 7.7: Benchmarking: Institutional and non-institutional actors)

The administrative division, the structure of the planning system and the existing planning and policy making practices have determined the level of involvement of institutional and non-institutional actors in the three cases. In Leipzig and Zeeland, the involvement of the national government is most clearly seen, while in Bilbao the autonomy of the Basque Country enables the Basque government to take over the role of national. The state government and the regional planning authorities have also been involved in the case of Leipzig as a result of the more differentiated planning system. Similarly, in Zeeland the provincial government has also played a key role. In contrast, in Bilbao the municipal level has worked directly with the Basque Government. In both Bilbao and Leipzig, the national railway companies were involved due to the interventions in the railway networks.

In all three cases, local business networks or key private organizations were involved. Specific capacity has been developed in Zeeland with the regional expert groups as well as in Bilbao with the designated management commissions and strategy quangos. Local citizen groups and councils were established in Bilbao and Leipzig.

City or region		Bilbao		Leipzig		Zeeland	
DOMINANT NORMATIVE ORIENTATION		Improved urban image, global competitiveness, urban quality, quality of life.		Integrated approach to issues. Quality of life. National and regional economic centrality.		Maintain economic profile. Maintain quality of life and service provisioning. Efficiency.	
Benchmarking category	Thematic mapping	Policy and planning substance	Normative orientation	Policy and planning substance	Normative orientation	Policy substance	Normative orientation
Spatial development	Overall orientation	Normative orientation		Normative orientation		Normative orientation	
		Densification (limited space)		Densification (counteract extensive sprawl)			
	Land use approach	Compact development		Counteract land and industrial vacancy			
		Mixed use		Mixed use			
		Greening & public space expansion on district level		Greening (incl. large-scale projects)			
	Building stock	Building rehabilitation & preservation of cultural heritage		Building rehabilitation & preservation of cultural heritage			
	Infrastructure (railway)	Railway optimization - internal and external mobility; reuse of space		Railway optimization - internal and external mobility; reuse of space			
Environmental considerations	Environmental sustainability, reuse of materials		Climate change adaptation (incl. energy efficiency)				
Economic development	Overall orientation	Growth-oriented		Growth-oriented		Growth-oriented	
	Migration	Attracting migration		Attracting migration		Attracting migration	
	Existing economy	Preserve industry		Develop endogenous economic potential		Preserve existing economic profile.	
	New economy	Tertiary global competitiveness. Culture. Tourism.		Regional, national, European competitiveness. Knowledge economy. Culture.		Adapt industry to new global conditions	
	Private capital	Key role of private capital		Private ownership of housing - involvement		Key role of private capital	
	Non-traditional economic ideas	Circularity				Greening of industry, circularity, supply chain agreements, renewable energy, green hydrogen	

Table 7.6: Benchmarking: Economic and spatial development

City or region	Bilbao		Leipzig		Zeeland	
DOMINANT NORMATIVE ORIENTATION	Improved urban image, global competitiveness, urban quality, quality of life.		Integrated approach to issues. Quality of life. National and regional economic centrality.		Maintain economic profile. Maintain quality of life and service provisioning. Efficiency.	
Benchmarking category	Policy and planning substance	Normative orientation	Policy and planning substance	Normative orientation	Policy substance	Normative orientation
Institutional actors	Higher autonomy of the Basque Country		Federal system and partial state autonomy		Higher dependence on national government	
	Basque Government, Bilbao Municipality, local executive agencies (e.g. SURBISA, BilbaoRia2000), RENFE Spanish Railways, Port authority		Federal government, Saxony State Government, Regional Planning Authority West Saxony, Leipzig Municipality, District management agencies, Deutsche Bahn German Railways		National government, Zeeland Provincial Government, Zeeland Municipalities	
Non-institutional actors	Public-private management commission (e.g. Zorrotzurre), local citizen councils, strategy quangos (e.g. Bilbao Metropoli-30), private owners, companies, local business networks		Housing companies, local citizen initiatives		Regional expert and citizen working groups, regional business networks	

Table 7.7: Benchmarking: Institutional and non-institutional actors

7.4 CONCLUSIONS FROM COMPARATIVE ANALYSIS

CRITICAL FACTORS AND POINTS OF LEVERAGE

The conclusions from the comparative analysis, presented above, allow for the differentiation of critical factors and points that characterize the approach to shrinkage or population decline across the three cases. These points can serve as a reference for the structure of the planning concept of “Shrinking Smart” as well as to inform its scope and normative orientation.

Locally relevant contextual factors have had influence on the formulation of policy and planning approaches in the three examples. In addition, the conceptualization or framing of shrinkage or depopulation as a crisis of a specific nature has influenced the direction of planning and policy. In this sense, the economic perspective remains central across cases therefore it can be concluded that its role needs to be considered with a particular emphasis.

The contextual factors, the framing and the particularly relevant thematic areas influence the normative orientation of policies and plans. The retrospective analysis of planning and policy unveils that a dominant normative orientation is formulated and it has influence on the level of integration of different objectives. For instance, if shrinkage is perceived as a complex issue with effects on various sectors, then the objectives may also be oriented to addressing a complex and interrelated problem. However, this perspective can also be complemented by a more focused approach to particularly important planning and policy sectors for the specific context (e.g. housing market in Leipzig and Zeeland). The persistence of the economic perspective indicates that separate objectives need to be formulated in this regard. The comparative analysis reveals that the three different cases pursued, explicitly or implicitly, either economic growth or at least economic stabilization of the existing economic structure.

Additionally, objectives have also been formulated in particularly important topics across the three cases such as urban space, quality of life, housing and social cohesion. These aspects correspond to a wider perspective on the effects of shrinkage or depopulation. In other examples, they need to be assessed depending on the specific context, in order to take into account the particular contextual characteristics that may limit or expand the scope of some of them, as well as their local relevance.

The conclusions concerning the planning system, the planning process and the involvement of actors indicate that in all three cases particular attention has been paid to developing the necessary capacity to address shrinkage or population decline. Depending on the planning system and the particular administrative constellation, this capacity may involve a greater emphasis on the urban planning dimension (such as in Leipzig) or a broader, regional approach (such as in Zeeland). This scope is also determined by the scale of the issue and the overall characteristics of the shrinkage or depopulation phenomena. The delineation between policy and planning scope is also determined by the particular structure of the planning system and the administrative specifics. This delineation may also have influence on the formulation of objectives as well as on the identification and involvement of relevant institutional and non-institutional actors. Determining the key institutional levels and the specifics of the planning system allows to identify the most appropriate level of intervention for a specific policy area and to develop the necessary instrument on this level (urban intervention, regional policy, national policy instrument or programme).

In terms of the planning process, the conclusions indicate that an integrated planning approach, informed by research and data and with established participatory practices can be utilized in shrinkage context. The planning process conclusions indicate that the planning under shrinkage conditions can be used as a learning curve to establish a planning practice (such as in Bilbao) or to further develop expertise in this area (such as in Leipzig).

In the context of delineating the boundary and scope of planning and policy, the regional planning perspective has played a key role in all three cases. This is indicative of its importance in shrinkage context, especially when the phenomenon occurs on regional level (such as in Zeeland). Developing the necessary regional planning capacity ensures streamlined coordination with national government, better complementarity and efficiency of measures on regional level and identification of solutions that may overcome particular urban limits. Additionally, the regional planning perspective plays a key role in the economic dimension and the identification of focal points of economic activity and their development through policy and planning instruments.

From spatial perspective, both Bilbao and Leipzig have addressed similar challenges and have selected a compact development and increased density approach in order to address land vacancy and, in the case of Leipzig, sprawl. The conclusions indicate that no matter what the particular geographical setting and spatial pattern, compact development, densification, greening and public space interventions and mixed use approaches are suitable for shrinkage context. Additionally, measures oriented to maintaining existing building stock as well as developing district-specific interventions, especially for socially vulnerable areas, have been utilized in both cases. The development of the necessary policy and planning capacity, including legislative framework, is important for the successful delivery of those actions. The various interventions have taken into account specific local factors, such as property landscape.

In the same vein, assessing and determining the approach to the railway infrastructure may become a driver for urban interventions and to contribute to improved urban space. The decision on how to approach oversized infrastructure depends on its envisioned function and role in the future objectives of the city. In both Bilbao and Leipzig, railway infrastructure has been intended as an important element of the future structure of the cities.

Last but not least, environmental considerations have influenced the spatial and economic approaches of both cities. Factors such as environmental preservation, flood risk and decontamination have led to particular spatial interventions. From contemporary perspective, this dimension remains central.

The above mentioned pervasiveness and importance of the economic dimension illustrates that all three cases have considered either developing new economic activity and competitiveness (most explicitly in Bilbao) or have attempted to sustain the existing economic profile. Across the three cases, the economic development has been oriented to the endogenous economic potential (most explicitly in Leipzig) and to possible new economic activity. These conclusions are indicative of the need to consider those two economic perspectives in shrinkage context. Furthermore, the central role of private capital across all three cases is indicative of the need to involve private actors and to account for market-related considerations from economic perspective. Lastly, the proactive approach to economy allows for the identification of opportunities, related to heterodox economic ideas.

Conceptual coherence

Since the analytical and comparative perspectives outlined the critical factors and points of leverage across cases, the second question is to what extent these factors and points were conceptually coherent and guided by a unified idea. The empirical data does not illustrate conclusive evidence in this regard.

Firstly, across all the three cases it can be observed that there was a shared commitment to act and respond to the effects of shrinkage or depopulation. To a certain extent it can be concluded that despite the effects of shrinkage were perceived as a type of crisis of a certain nature, the crisis was also viewed as an opportunity. That is, various institutional levels decided to act as a response to the effects of the phenomenon and were committed to this action in the long-term. This commitment was supported by a shared understanding of the effects of the phenomenon and, respectively, resulted in the developing of the necessary capacity to respond and act through the practices of planning and policy making.

Secondly, the formulation of a dominant normative orientation can be found across the three cases. This dominant normative orientation was different in the three studies examples, but some overlaps can be identified. The economic perspective appears to be pervasive across the three examples and the focus was either at regrowing the local economy or sustaining it. In addition, improving the image of the shrinking cities or regions, providing services and improving quality of life appear to be key normative stances that have shaped the policy and planning responses. Considerations, related to achieving effects across policy areas also appear to have influenced the approach. Additionally, considerations for efficient management of existing resources, including land use, have also been found across cases.

In order to translate these conclusions into an applicable planning concept under the label of “Shrinking Smart” they need to be embedded into a number of steps that can potentially be followed in other shrinkage or population decline contexts.

8

APPLICABILITY STAGE: “SHRINKING SMART” AS A PLANNING CONCEPT

This chapter outlines the proposal for the new planning concept of “Shrinking Smart” together with particular recommendations for its application. The planning concept is developed in four variants – as a driver for the planning process, as an assessment and decision making mechanism, as a broader policy and planning framework and as a spatial planning concept. As an intermediate step the normative orientation of the concept is outlined in the form of preliminary normative stances. The different variants are logically connected from two perspectives. Firstly, as conclusions from the research and in the form of recommendations and secondly as a possible sequence of steps that can be applied in practice. Where feasible, particular recommendations for instruments and methods are also provided.

The recommendations are formulated based on the conclusions from the empirical stage and comparative analytical stage (benchmarking). To a certain extent, the proposed variants of the concept correspond to the different phases of the benchmark. Additionally, the outline of the concept variants and their application are informed by methods derived from systems thinking, design thinking and futuring.

8.1 “SHRINKING SMART” AS A PLANNING PROCESS DRIVER

The formulation of the proposal for “Shrinking Smart” as a planning process driver is based on the conclusions pertaining to the planning process, outlined in earlier chapters, as well as on Phase 2 of the benchmarking framework that compares the planning process across the cases of Bilbao (Spain) and Leipzig (Germany).

The planning process under the framework of “Shrinking Smart” should be participatory and deliberative with early involvement of citizens and broader stakeholder engagement, including private and public. It should utilize data and specifically collected information in order to define evidence-based planning decisions. Planning should be integrated and attempt to address various objectives with different planning approaches.

Overall, the conclusions from the research indicate that specific features of the planning process can be incorporated in a cohesive recommendation for planning process practices under shrinkage conditions. The implementation of these features and recommendations would however be dependent on the maturity, capacity and expertise of the existing planning system in the specific case as well as the political situation in the specific moment.

The “Shrinking Smart” planning process should be participatory of nature, focusing on local citizens and a broader set of stakeholders. The conclusions indicate that in a shrinkage setting, the involvement of a wide array of actors is important as it can contribute to

establishing shared understanding of the issues at hand and the overall shrinkage context as well as can contribute to the support for specific projects or interventions. This recommendation is particularly relevant in planning contexts with increased private property, both by citizens and business actors, as their actions may be crucial in the implementation of those measures. The involvement of citizens and stakeholders can start as early as possible in the design of policies and plans for shrinkage as this would ensure transparency, better understanding of the issues at hand and their complexity. This extensive participation can contribute also to the creation of a shared view on the shrinkage situation, contribute to acceptance as well as on the determination of objectives. Furthermore, such extensive involvement of multiple actors can outline critical contextual specifics that may have been overlooked from a broader planning perspective. This element of the planning process can be supported through the engagement of already established local groups and initiatives, the creation of public information portals, active communication with the public from the side of the public administration, local contests, initiatives, public discussions and events that can further involve citizens in the planning process.

Ideally, the planning process should attempt to be evidence-based. This includes identifying points of action and measures that have been supported by data, collected as part of the regular planning and policy making processes or studies carried out particularly for the purposes of addressing shrinkage. This aspect of the “Shrinking Smart” planning process ought to act as a control mechanism for “quick fix” ideas in shrinkage context. Such ideas can be large scale projects envisioned as a single solution or importing an idea from elsewhere without any scrutiny. This means that any decision, approach or an instrument identified should be based on some level of data-based evidence in order to ensure that it would be relevant for the specific situation. This aspect is important particularly for large-scale projects that may be envisioned as an easy resuscitation mechanism for shrinking cities. Ideally, if such are carried out, they ought to be justified as meaningful for the specific context, as politically appealing as they may be. The collected data and assessment of the city or region experiencing shrinkage or population decline can also contribute to the better understanding of the situation and to more detailed knowledge on the particular challenges the city faces.

Many shrinking cities and regions suffer from insufficient capacity for well-structured planning processes or data collection and expertise in this regard. The conclusions from this research indicate that shrinkage is a fruitful setting for also developing such a capacity as long as there is institutional agreement that this direction will be pursued in the long-term. Ideally, the development of this capacity can happen in a well-established planning system with strong traditions (as in Germany), but even if this is not the case, shrinkage and depopulation present a challenge that can help cities, regions and administration develop the necessary capacity for good planning and policy making and as a learning curve. This capacity development can also involve the establishment of specific task force teams for certain issues or long-term learning mechanisms between responsible institutions. Such efforts can be additionally supported by in-country learning and exchange initiatives between cities, cross-border and international projects and initiatives for exchanging planning practices (including EU-funded projects for capacity building), participation in international networks of cities, involvement of external consultants, development of databases and other instruments.

The participatory element outlined previously can also be a challenge for shrinkage conditions due to insufficient participatory practices or due to low civic engagement. The conclusions from this research indicate that with the necessary support and commitment

from public actors, participatory practices can be enabled and developed in time, especially if the involvement starts early. This way, planning processes under shrinking conditions can also indirectly contribute to improved democratic standards.

In the same vein, the involvement of private business stakeholders should be viewed with caution, especially in settings with higher private property and higher dependence on private capital. Such settings may be cities or regions with more neoliberal and market-driven approach to certain policy domains, especially land use management. In such settings, the involvement of business stakeholders and their further participation in the implementation of specific measures would be ultimately dependent on the democratic maturity and expertise of the public administration in order to minimize the risk of corruption. Corruption risks ought to be managed as part of the planning process through the establishment of control mechanisms, formal commitments, monitoring groups or external evaluations.

Lastly, planning under shrinkage conditions ought to be integrated. Planning initiatives should attempt to produce plans that address the multitude of issues in shrinking conditions and attempt to provide integrated solutions for specific areas. Integrated planning should support a more efficient planning practice as well as to encourage more holistic approach to the challenges that shrinking cities face. In case the local administration does not have the capacity for integrated planning, such capacity can be developed as part of a learning process.

8.2 „SHRINKING SMART” – PRELIMINARY NORMATIVE STANCES

The formulation of the preliminary normative stances is based on the conclusions from the empirical data pertaining to the normative strand of concept features, verified in the analytical stage - *Visionary/Future orientation, Generative and Efficiency*. The overlap and comparative analysis across the normative perspective in Phase 3 of the benchmarking framework allows for the formulation of these preliminary normative positions that characterize the proposed concept and result in its normative orientation in broader policy and planning setting and in spatial terms.

Preliminary overall normative stances

The main conclusions from the research lead to the identification of key normative positions that can inform the new planning concept of “Shrinking Smart”. The main normative position that ought to be the starting point of any further identification of measures, approaches, planning and policy instruments and further objectives is the commitment **to manage shrinkage**. The conclusions from the empirical data indicate that this is a shared trait, found in all the three contexts of shrinkage and population decline. The decision and follow up commitment to respond to the consequences of shrinkage or population decline in an orderly way, through a coordinated and focused effort is what would constitute handling shrinkage under the framework of “Shrinking Smart”. This commitment is informed by a particular perspective that views the critical situation of shrinkage or population decline in a specific context as an opportunity for planning and policy making instead of a crisis that grinds to a halt any action from public actors. Cities and regions, experiencing shrinkage and population decline, ought to establish as a preliminary step the decision to act in the given circumstances and to, respectively, manage the presented challenges. In case such a commitment is not made, then the approach would not constitute an effort under the “Shrinking Smart” framework.

The two main conclusions in terms of overall normative orientation under the proposed framework pertain to **economy and quality of life**. Firstly, the quality of life objectives and economic growth objectives are not mutually exclusive and they can be pursued simultaneously. Therefore, it can be concluded that there is no contradiction between attempts to improve quality of life in a certain shrinking or depopulating setting and pursuing economic growth objectives, explicitly or implicitly. The meaning and scope of quality of life as a normative orientation, however, are not consistently defined. Its scope and importance depend on the existing planning culture, political agenda or local contextual considerations, therefore including quality of life as an objective requires scrutiny on its meaning and scope in order to avoid its utilization as a presumably universal idea or as a smokescreen or a scapegoat for other objectives. Both normative perspectives of economy and quality of life and the measures derived from them have implications on the **image improvement** of a certain shrinking city or a region. The image perspective can contribute to the formulation of a shared future-oriented view on the desired direction of development and can also contribute to the conceptual coherence of measures through the formation of discourses, narratives and stories that outline the future orientation.

This conclusion informs the second recommendation as part of “Shrinking Smart” as a new planning concept, namely the **need to distinguish the acceptance level of shrinkage from the commitment to manage shrinkage**. The three investigated cases illustrated that the level of acceptance of shrinkage was different. The conclusions from Bilbao indicate that acceptance of shrinkage was not particularly established, but this did not impede the efforts to respond to the consequences of shrinkage. In the case of Leipzig, acceptance was explicitly formulated on city level, however, in broader policy setting, taking into account the regional planning level and a historical perspective, the city actually was ready to grow and this eventually happened. In the case of Zeeland, the proactive policies are based on the premises of population decline acceptance, but they envision stabilization as the most desired scenario. In the three examined cases there was a detailed understanding of the consequences of shrinkage or depopulation which was interpreted in from a certain dominant perspective that contained various levels of acceptance. In all three cases, efforts to attract new population were formulated, explicitly or implicitly. Hence, shrinkage and depopulation can be actively managed under conditions of acceptance or non-acceptance of long term population decline. This results in three possible scenarios for the formulation of “Shrinking Smart” as a planning concept – accept and manage; not accept and manage; or be indifferent to growth and manage (outlined in more details below). The growth acceptance perspective encompasses both population and economy. Traditional planning thought pairs economic growth with population growth and this logic is firmly embedded into the examined planning and policy practices. The empirical data does not show indications of decoupling these two ideas in the investigated cases. This is indicative of the firm embeddedness of growth orientation in planning and policy making practices. The conclusions from the research indicate that the distinction of acceptance can also be applied in economic terms, namely to differentiate between pursuing economic growth or not explicitly pursuing economic growth. The data indicates that growth orientation remains consistently across policies and plans, however, it is interpreted from different perspectives and with different weight as compared to other topics, such as quality of life. In any case, economic growth remains pervasive either as an ambition to expand the economy or as a more modest aspiration for at least stable and favourable economic development. Due to the said pervasiveness of growth orientation, the second possibility of not explicitly pursuing economic growth would align with at least pursuing economic stabilization or maintaining the existing economic profile of the city or region.

Lastly, in all three cases the consequences of shrinkage resulted in particular challenges in terms of **social issues and service provisioning**. The empirical data indicates that such challenges were observed at neighbourhood level, at city level as a whole or from a regional perspective. The demographic structure of shrinking cities and regions is at the centre of this normative perspective. When attempting to apply “Shrinking Smart” as a planning concept, cities and regions ought to assess their demographic structure and perspectives, incorporating specific emphasis on inequality, poverty and social marginalization as well as access to services for different population groups. These two points define some of the most critical issues under shrinking conditions that ought to be addressed in any policy or planning effort. The services perspective can also be applied to the existing infrastructure of cities and regions – social and technical one. Infrastructure should essentially deliver specific functions and services to citizens, therefore its management would also be related to the demographic structure and existing deficiencies or opportunities for improvement.

Preliminary spatial normative stance

The conclusions from this research indicate that under shrinking conditions there is no justification for spatial expansion of cities. Depending on the geographical, topographical and overall spatial setting, shrinking cities ought to pursue **compact development** and **densification**. This overall approach should encourage the reutilization of lots and buildings, handling vacancy and obsolete space and overall increase the efficiency of space use. By targeting compact development and further densification, cities ought to explore **mixed use** developments, incorporating residential, commercial and **public** uses of space. The latter can also be supported by targeted interventions in **greening**. From **regional perspective** the spatial development ought to encourage **connectivity**, including cross-border connectivity. Cities that are located in shrinking regions ought to work together in order to deliver the necessary services to citizens in their regions and to coordinate their efforts.

8.3 “SHRINKING SMART” AS A PLANNING CONCEPT – ASSESSMENT AND DECISION MAKING MECHANISM

The formulation of the assessment and decision making mechanism corresponds to the comparative conclusions from Phase 1 of the benchmarking framework. It encompasses the understanding of shrinkage, the main contextual factors and the mapping of the institutional setting as part of the planning system. As a result, the proposed assessment and decision making steps provide recommendations as to how such a phase can be applied in practice. Due to the non-experimental nature of the research, this proposal is not verified, thus it can only be considered as ideal type recommendation. The scenarios outlined below are based on the analytical conclusions from the research and also constitute an ideal type of modeling which may differ in practice. Methodologically, this variant of the planning concept has been informed by systems thinking, design thinking and futuring. The methods from these fields allow the incorporation of normative future orientation (van der Kerkhof, Hisschemöller, and Spanjersberg 2002), critical factors of a specific policy setting and their interrelations (International Institute for Applied Systems Analysis 2019), and the coherence of the perceptions of policy makers and planners (Strelkovskii et al. 2020; Mintrom and Luetjens 2016)

Taking into account the preliminary normative stances of the concept presented above, the application of the planning concept needs to consider that ultimately the decision on

how to approach shrinkage or population decline in a specific context would depend on the discretion of the planning and policy actors in a broader political and administrative setting. In order to accommodate that, incorporating an assessment and discretion phase as part of the utilization of the planning concept aims to support this decision making phase by proposing particular points that ought to be taken into account in this stage prior to identifying the desired normative direction for addressing shrinkage as well as prior to identifying the possible instruments to implement this normative direction.

Ideally, this phase can be part of the proposed “Shrinking Smart” planning process, outlined earlier. Even if not, the assessment phase ought to produce the necessary understanding of the specific shrinkage or population decline setting in which the decision has to be made. This assessment should incorporate specific contextual factors in terms of population structure and forecasting, geographical and topographical specifics, environmental considerations (incl. risks) and also a regional perspective. The regional perspective, particularly from economic and demographic standpoint, is important as it can determine possible instruments in a broader context, depending on the overall demographic and economic trends – e.g. depopulating economically weak regions have a significantly different setting than depopulating regions close to major economic hubs. Ideally during this assessment phase, critical factors that will also influence the selection of instruments can be defined. The main goal of the assessment phase is to produce a detailed understanding of the shrinkage effects in the certain city or region, the main challenges that need to be solved, the main characteristics and factors that need to be taken into consideration and based on these observations to identify the desired future direction of development.

Due to the complexity of this phase and the multitude of factors that need to be taken into consideration, various tools can be utilized to facilitate the phase. Proposed methods that can be suitable for this phase are outlined at the end of the chapter.

The collected information and data in the assessment phase ought to produce insight on the following points that can be used as a point of departure to select the desired direction to address shrinkage under the framework of “Shrinking Smart”:

- Common understanding on the shrinkage effects in the specific case
- Demographic perspective – current structure and long-term forecasts for the population size and structure of the city and/or region
- Economic performance – current structure and economic potential
- Understanding, scope and validity of quality of life considerations
- Spatial assessment – if the spatial variant of the concept is going to be applied

Based on the above assessment the decision making process should be able to select one of the three scenarios:

- **Citadel scenario:** Commit to manage shrinkage and accept long-term population decline by either pursuing economic stabilization or some level of economic growth. Attempt to improve the quality of life of citizens.
- **Aspiring phoenix scenario:** Commit to manage shrinkage but not accept long-term population decline (view shrinkage as temporary phase) by actively pursuing at least economic stabilization or economic growth. Attempt to improve the quality of life of citizens.
- **Lifeboat scenario:** Commit to manage shrinkage and be indifferent to population projections. Pursue some level of economic stabilization and maintain decent quality of life.

The balance and prioritization between the variables of population size and structure projections, quality of life considerations and economic potential and aspirations would be a matter of decision between the planning system actors and would also be influenced by wider political considerations (see also 8.5. Applicability - normative shifts, sequence of steps, capacity development). The appeal of scenarios and the common adoption of a coherent understanding of the shrinkage or depopulation phenomenon should be able to determine the desired direction of development under managed shrinkage conditions and should provide a conceptual coherence in the identification of approaches to managing decline. The identified desired direction of development also has image implications, related to the balance and prioritization between economy and quality of life. As a result of this iterative process, objectives ought to be determined in the different planning and policy domains. These objectives can be combined in an integrated way (also as part of the integrated effort of planning) that attempt to address more than one desired direction of development and would influence the selection and design of policy and planning tools. The iterative process of understanding the effects of shrinkage or depopulation and the establishment of objectives should result in the creation of a coherent future-oriented story or narrative.

Ideally this decision making process also incorporates the proposed assessment step which also encompasses the identification of critical factors that should be able to support the decision and the further selection of alternatives. These factors encompass the following domains:

- Economy – existing endogenous potential of the area, existing industry dependence and regional economic structure
- Demographic structure – different population groups and needs
- Land use and building stock – amount of private and public ownership, particularly in key areas, affected by decline; market-driven spatial development or more regulated and publicly controlled development

The last domain, pertaining to land use and building stock, has implications on the applicability of “Shrinking Smart” as a planning concept in spatial terms. These variable factors need to be taken into account in order to select specific planning instruments, suitable for the different situations.

Lastly, in the assessment and decision making phase, the planning system and existing planning processes and policy making practices are also evaluated. This should result in the mapping and identification of responsible institutional actors as well as private ones, the identifications of points of action in the context of the planning system in order to facilitate the assignment of responsibility to the different actors. In addition, the identification of all stakeholders can contribute to the establishment of the wider network of interested parties that ought to be maintained in the long-term, including, ideally, in the planning process under the framework of “Shrinking Smart”.

8.4 “SHRINKING SMART” AS A PLANNING CONCEPT – IDENTIFICATION OF PLANNING AND POLICY ALTERNATIVES

Taking into account the above conclusions, this section provides particular recommendations under the three scenarios of managing shrinkage or population decline.

The recommendations are structured according to the conclusions from the Phase 3 of the benchmarking framework that outline the normative perspective and its influence on the selection of possible planning and policy instruments. Some of the key factors that determine the possibilities under the proposed framework include the pervasiveness of growth orientation in economic terms, and indirectly in demographic terms. Secondly, the understanding and importance of quality of life considerations in the context of a specific planning system or social and political setting also influence the effort and orientation of the actions in this area.

The recommendations for the spatial approach strictly on urban level are formulated separately in the next section. Possible intersections of some of the domains in the first set of recommendations with the spatial domain are formulated. Finally, recommendations for two particular policy domains outside of the structure of the planning concept are also added

8.4.5 “SHRINKING SMART” AS A BROADER POLICY AND PLANNING FRAMEWORK

“Shrinking Smart” as a broader policy and planning framework can be formulated as follows:

A policy and planning effort under the conditions of urban shrinkage or depopulation on regional scale where the long-term projections indicate a population decline. Based on an informed assessment of the effects of the phenomenon, specific contextual characteristics and planning system capacity, planners and policy makers commit to manage the consequences of shrinkage in a coordinated effort across the levels of the planning system which may involve planning and policy instruments originating and encompassing different scales. The planners and policy makers may or may not accept the long-term population decline, however, this does not affect their commitment to manage the consequences of shrinkage taking into account the economic effects, attempting to address the quality of life of the remaining citizens and to address existing social and service provisioning challenges. Based on the normative decision in the above areas, planners and policy makers decide to accept the long-term population decline and manage shrinkage; not accept the long term population decline and manage shrinkage but eventually pursue regrowth; or focus only on managing the effects of the phenomenon. In either of the options, the planners and policy makers attempt a balance between economic considerations and quality of life considerations. The decision is formulated with a perspective for the future with a coherent idea to guide the long-term planning and policy efforts and this idea may also have specific image implications.

The conclusions outlined above result in the formulation of three ideal type possible scenarios for handling shrinkage and depopulation in a broader policy and planning setting. The outline of these scenarios may differ in practice but the proposal is designed in a way to provide possible recommendations for the implementation of the concept of “Shrinking Smart” as a broader framework (Table 8.1.).

"SHRINKING SMART" AS A BROADER POLICY AND PLANNING FRAMEWORK					
Preliminary normative stance			Commitment to manage shrinkage		
Population decline acceptance			Accept (stable or declining population)	Not accept (stable population, ready to regrow)	Indifferent
Factors					
Image implications and dominant normative orientation	Political appeal and discretion		The Citadel: a good place to live (Commitment to adapt to shrinkage and to improve quality of life at least on par with economic considerations)	The (Aspiring) Phoenix: regrowing stronger (Commitment to manage shrinkage but willing to regrow economically with improved quality of life for remaining and future citizens)	The Lifeboat: a safe place (Managing available resources and attempting to sustain economically and in terms of quality of life)
PLANNING OR POLICY DOMAIN					
Economy	Growth pervasiveness. Existing endogenous economic potential. Existing industry dependence. Regional economic structure.	Pursue growth	Enable/not impede endogenous small scale businesses Preserve existing industries Ready to grow but not actively working on it Regional: smart specialisation, clusters, networks	Preserve existing businesses and industries Actively attract external investment Actively develop endogenous potential Regional: smart specialisation, clusters, networks; actively attract investment	Preserve existing business and industry
		Pursue stabilization or not actively growth	Preserve existing endogenous small scale businesses Speculatively small scale heterodox approaches (e.g. degrowth) Dependent on regional/national context	Preserve existing businesses and industries	Preserve existing endogenous small scale businesses Speculatively small scale heterodox approaches (e.g. degrowth) Dependent on regional/national context
Quality of life	Existing understanding and importance of the topic. Planning culture.		Improve	Improve	Maintain
Social issues and service provisioning. Technical and social infrastructure.	Population structure and needs. Existing social challenges. Inequality and segregation. Condition and accessibility of technical and social infrastructure.		Social measures. Adapt services and optimize infrastructure to existing population. Regional connectivity (technical and transport) and service provisioning (technical and social)	Adapt services and infrastructure to existing population. Ready to provide services and infrastructure for newcomers. Service accessibility and social cohesion risks (tradeoffs existing and future inhabitants). Regional connectivity (technical and transport) and optimize service provisioning (technical and social). Competition risks.	Ensure services and infrastructure for existing population. Social measures desirable. Regional connectivity (technical and transport) and optimize service provisioning (technical and social)

Table 8.1: "Shrinking Smart" as a broader planning and policy framework

SCENARIO 1: The Citadel - Manage shrinkage, accept stable or declining population, improve quality of life at least on par with economic considerations. Ready to regrow but not pursuing it actively.

In this scenario, the assessment and discretion phase has resulted in outlining an expected long-term decline of the population of the specific city (or region). The planning and policy actors have decided to accept this projection and not attempt to reverse it. Still, they would be ready to lead a path to regrowth in case an opportunity arises, but will not actively work on it. They are willing to improve the quality of life of the remaining citizens and this objective is at least equally important to them as the economic dimension. The quality of life objective may or may not become a main driver for the managing of shrinkage – this would depend on the existing understanding and importance of the topic in the respective planning culture that they operate in.

As a result of the economic assessment performed, they are willing to either pursue some level of economic growth or are willing to pursue economic stabilization and not actively try to grow economically.

In the former hypothesis, they would not put limits to existing local small scale businesses and may even attempt to enable them. They would attempt to preserve existing industries or at least find substitutes for them, especially if the economic development of the city or region is strongly dependent on one industry. They would be ready to grow economically, but they would not actively pursue this objective. From regional perspective, they would attempt to strengthen the regional economic network and potentially develop existing industries or businesses, including through synergies between them.

In the latter hypothesis, they would attempt to preserve the existing small scale businesses and they may be willing to experiment with small scale initiatives, oriented to alternative economic models, such as degrowth or post-growth, community based initiatives or other suitable ones. Overall, however, the economic development would mostly depend on the regional and national context.

As a result of the assessment performed, the policy and planning actors have identified the needs of the remaining citizens, the social challenges of the population and the condition of the technical and social infrastructure in the city or region. They would be willing to take the appropriate measures to address the identified social challenges, to adapt the services and infrastructure to the needs of the existing population in order to ensure access to services to wider population groups as well as decrease inequalities. From regional perspective, they would cooperate with other cities in the region to ensure transport connectivity and service provisioning on a local scale. Improvements in terms of digital connectivity may also be undertaken.

SCENARIO 2: The Aspiring Phoenix - Manage shrinkage, not accept declining population, accept stable population and willing to regrow, including economically; improve quality of life for remaining and potential future citizens

In this scenario, the assessment and discretion phase has resulted in outlining an expected long-term decline of the population of the specific city (or region). The planning and policy actors have decided not to be passive about this possibility and to try to reverse it in the long-term while responding to the current situation in the short-term. They may have

political or other reasons or convictions to believe that the long term population decline is reversible or that they can achieve at least stable population. They are willing to have the city or region grow again, both in terms of economy and population. At the same time, they are also willing to improve the quality of life for the remaining citizens, but also for future citizens, which may require additional efforts. Quality of life may become a secondary priority in their motivation. This would depend on existing understanding of quality of life in the respective planning culture, as well as on existing political context.

As a result of the economic assessment performed, they are willing to pursue either economic growth or strong economic stabilization.

In the former hypothesis, they would attempt to preserve existing businesses and industries, including large-scale ones which may be deemed very important for the specific case and for the citizens. They would actively try to attract further external investment or actively develop the existing endogenous potential. On regional level they would attempt to develop synergies between industries and actively encourage the development of clusters and networks while at the same time actively try to attract investment also on regional level.

In the latter hypothesis, they would strongly attempt to preserve existing industries and businesses. This may become a major issue in case these industries are polluting or are planned to be phased out (e.g. coal industries). They could be willing to consider substitute industries but would want to ensure this with certainty in order to avoid risks for the long-term economic prospects of the city.

As a result of the assessment performed, the policy and planning actors have identified the needs of the remaining citizens, the social challenges of the population and the condition of the technical and social infrastructure in the city or region. They would be willing to take the appropriate measures to address the identified social challenges, to adapt the services and infrastructure to the needs of the existing population in order to ensure access to services to wider population groups as well as decrease inequalities. At the same time, however, they would be willing to ensure that potential new citizens have the necessary services and infrastructure available. This may create challenges in terms of prioritization between remaining and new citizens and, respectively, result in longer effects of existing social issues and further tradeoffs between remaining and potential new citizens. This may also present financial challenges. From regional perspective, they would cooperate with other cities in the region to ensure transport connectivity and service provisioning on a regional scale. Improvements in terms of digital connectivity may also be undertaken. Possible tensions may arise with other cities in the region due to attempts for competition between them.

SCENARIO 3: The Lifeboat - Manage shrinkage, manage available economic and other resources and attempting to sustain decent economy and quality of life.

In this scenario, the assessment and discretion phase has resulted in outlining an expected long-term decline of the population of the specific city (or region). The planning and policy actors are unable or unwilling to formulate a clear perspective towards their desired future in terms of accepting this prospect but are willing to at least attempt to manage the available economy and quality of life in the city or at least ensure they develop in a satisfactory manner.

As a result of the economic assessment performed, they are willing to pursue either some level of economic growth or economic stabilization at best.

In the former hypothesis, they would attempt to preserve existing businesses and industries.

In the latter hypothesis, they would attempt to preserve the existing small scale businesses and they may be willing to experiment with small scale initiatives, oriented to alternative economic models, such as degrowth or post-growth, community based initiatives or other suitable ones. Overall, however, the economic development would mostly depend on the regional and national context.

As a result of the assessment performed, the policy and planning actors have identified the needs of the remaining citizens, the social challenges of the population and the condition of the technical and social infrastructure in the city or region. Depending on its condition, they would either be willing to at least maintain the services and infrastructure at the existing level, although they may suffer from deficiencies, or at least attempt to achieve a decent level of service provisioning and infrastructure coverage. They may not have the tools or the possibility to address social challenges, but this would be highly desirable. From regional perspective, they would cooperate with other cities in the region to ensure transport connectivity and service provisioning on a local scale. Improvements in terms of digital connectivity may also be undertaken. The regional perspective may act as a safety net for this case.

As mentioned above, the outlined scenarios can be considered as ideal types and their application in practice may differ or be affected by particular local contextual factors as well as other normative decisions, influenced by current planning and policy agenda.

8.4.6 “SHRINKING SMART” AS A SPATIAL PLANNING CONCEPT

As outlined previously, the conclusions from this research indicate that under shrinking conditions there is no justification for spatial expansion of cities. With that said, “Shrinking Smart” as a spatial planning concept can be formulated as follows:

A concept that guides efforts in spatial planning under conditions of declining population where, depending on the geographical, topographical and overall spatial setting, a shrinking city pursues **compact development** and **densification**. This would encourage the reutilization of lots and buildings, handling vacancy and obsolete space and overall increased efficiency of land use. By targeting compact development and further densification the city encourages **mixed use** developments, incorporating residential, commercial and **public** uses of space. The latter can also be supported by targeted interventions in **greening**.

The concept can be translated into recommendations for planning instruments which are influenced by specific factors, ideally identified in the assessment stage (Table 8.2.).

"SHRINKING SMART" AS A SPATIAL PLANNING CONCEPT			
Preliminary spatial normative stance			<i>Compact development, densification, mixed use, public space, greening. Regional connectivity and coordination.</i>
Planning or policy domain	Factors	Specific objective	Planning instruments
Overall spatial development	Market-driven	Impose control, limit unregulated activity, return to city limits	Spatial expansion limitations, stricter zoning, sanctions, regimes of use, well-maintained ownership databases/cadastral data, public-private partnerships, regional spatial management
	Controlled	Actively manage and intervene in urban space within city limits	Proactive allocation of developable land, public funded regeneration projects, flexible planning instruments (e.g. temporary use, reuse)
New construction	Market-driven	Actively manage new construction	Stricter zoning, mixed use incentives, public-private partnerships, regional coordination of new construction (avoid competition)
	Controlled	Encourage mixed use	Mixed use incentives, public funded regeneration projects
Land use	Private ownership	Partner with owners	Public-private partnerships, flexible planning instruments (e.g. temporary use, reuse, regimes), sanctions, compensation mechanisms
	Public ownership	Actively manage land use	Public funded regeneration projects, flexible planning instruments (e.g. temporary use, reuse), proactive allocation of land, ownership transfer between public owners, land banks, backup development lands
Existing building stock	Private ownership	Encourage reuse and maintenance. Impose control.	Instruments and stimuli (incl. expert and financial) for rehabilitation, energy efficiency, cultural heritage preservation, reuse and maintenance.
	Public ownership	Reuse and maintenance	Public-led programmes, projects, instruments and initiatives for rehabilitation, energy efficiency, cultural heritage preservation, reuse and maintenance.

Table 8.2: "Shrinking Smart" as a spatial planning concept

In case the overall **spatial development** of the city is more market-driven (neoliberal/laissez-faire), led by private initiative, in order to achieve the desired compact development and densification, the city would need to increase the control on private initiatives (such approaches have been observed in Bilbao). The city would need to limit any unregulated activity, especially if it can result in further spatial expansion. This may be challenging in case the administration does not have the capacity to maintain proper databases of land ownership. Ultimately, the efforts would be oriented to returning the development back to city limits (the approach of Leipzig and Bilbao). Further instruments that can be utilized are spatial expansion limitations through limits on projects outside of city borders, stricter zoning regulations, including functional limits (e.g. exclusive use of space, rather than multifunctional large-scale projects). Furthermore, cities may introduce regimes of use and management in order to ensure compliance from private owners (applied in Bilbao). They may also put additional effort in developing the necessary capacity to maintain cadastral databases to ensure there are no lots with unclear ownership (efforts in this direction have been observed in Leipzig). Cities may cooperate with private owners by actively pursuing public-private partnerships as well as cooperation on regional level in terms of spatial management in order to avoid competition with nearby cities.

In case the overall spatial development of the city is more controlled, the administration would need to be able to actively manage and intervene within the urban space within the city limits (this setting has been observed in Leipzig). This may be challenging in case the administration does not have the necessary capacity to do so. If this is the case, further efforts need to be put prior to embracing this role in order to develop the said capacity for the local planning authorities. Particular instruments in this case may include proactive allocation of developable land which can be facilitated through well-maintained databases of such available land, including with cadastral data (approach observed in Leipzig). Furthermore, local administration can engage in public-led and public funded regeneration projects, but this will again be dependent on the capacity of the administration to deliver such projects. This may require assistance from upper levels of the planning system. Flexible planning instruments such as temporary use and reuse can also be explored in such setting (such instruments have been utilized in Leipzig). The higher the involvement of the public administration is, the stronger the dependence on its expertise and good governance practices would be.

In terms of **new construction activity**, in case the planning culture is more market-driven, the local administration would need to enter into more active role in terms of controlling the investment activity, to actively manage and coordinate where it would be located (stricter regulations in this regard have been observed in both Bilbao and Leipzig). This can be delivered through stricter zoning regulations. In order to encourage mixed use development, incentives for such projects can be negotiated case by case or proactively when drafting plans. Public-private partnerships can be explored, as well as regional coordination of new construction in order to avoid competition between cities.

In case the planning culture is more plan-led and controlled by public institutions, then they would need to enter into an active role and deliver projects that fulfill the desired mixed use development or to engage in larger regeneration initiatives. The risks and responsibility of the public administration become higher in this case and the necessary capacity has to be ensured.

In terms of **land use**, the main factor is the ownership of the land. In case of private land, local planners can explore public-private partnerships as well as flexible planning instruments in order to enable coordination and partnering with private owners (such approaches

have been observed in Bilbao). In case incentive measures do not prove fruitful, local administration may explore sanctioning mechanisms as well as compensation mechanisms in case expropriation is required.

In case of public land, the local administration or the public owner should take responsibility for its land and ensure its actions do not impede the desired planning direction. This may require coordination with upper levels of the planning system as well as consolidation of ownership in order to deliver publicly funded and coordinated regeneration projects (such efforts have been observed in both Bilbao and Leipzig). Additional flexible instruments may be explored such as temporary use or reuse. In this case the risks for public owners would be lower as they, presumably, should not pursue commercial interest. Furthermore, proactive allocation of land can be explored through active investment policy or land banks and allocation of backup development lots. Transfer of ownership between public owners may also be a suitable instrument. In any case, instruments under this hypothesis will again be dependent on the capacity and expertise of public actors.

In terms of **existing building stock**, for buildings with private ownership, local administration ought to encourage reuse and maintenance and impose stricter control on the condition of buildings, in-line with the non-expansion objectives. Various instruments and stimuli such as specific programmes or instruments can be developed, aiming at rehabilitation, energy efficiency, reuse and better maintenance. Cultural heritage preservation instruments are recommended as they can also contribute to the image of the city.

In case the buildings are publicly owned, particular programmes and initiatives in the same domains can be developed, financed with public funds.

The proposed instruments in this section are not exhaustive and further options can be explored in a specific setting. In addition, the implementation of any of the above instruments may also require legal amendments to existing regulations.

8.4.7 “SHRINKING SMART” – IMPLICATIONS ON HOUSING AND ENVIRONMENTAL PROTECTION AND ADAPTATION

The following two planning and policy domains were identified in the course of the research as relevant for shrinking cities and regions. Due to their inconsistent nature across countries, however, the recommendations for them are not included in the proposed formulations of the concept. The main conclusions in those domains are as follows:

- Housing efforts should be focused on existing housing, better control of housing investment activity and rehabilitation.
- Environmental protection and adaptation should be addressed also under shrinking conditions.

Housing

One policy domain that was identified across the three cases is housing. Due to the identified differences in housing markets and the lack of in-depth focus on this domain, however, the recommendations in this area are not included in the proposed concept. Still, this topic is important for shrinking cities and regions, especially in planning settings where housing policy and housing market regulation are more active. Three particular factors can influence the approach to housing. Firstly, the ownership of the respective units. Different approaches can be utilized for private and public (social) housing. Secondly, depending on

the characteristics of the market, ownership may be more consolidated or highly dispersed (e.g. large housing companies owning many units or many separate private owners). In addition, different types of ownership exist across countries (e.g. community-based models). With that said, these factors need to be taken into account when choosing specific policy or planning instruments. The instruments themselves are also strongly dependent on the context as in some settings the housing policy may not be led by the local administration but on national or state level.

In Scenario 1 (accepting and managing shrinkage), the expected population stagnation or decline should discourage the building of new housing as a rule. Respective regulations on further expansion of housing can be imposed. Efforts should focus on rehabilitation of the existing housing stock. In case it is predominantly privately owned, specific programmes can be developed to support private owners, including financially. In case it is publicly owned or more consolidated in a few different owners (e.g. housing companies), then specific instruments can be developed for them. Resizing of housing may be too costly or too risky in the long-term, therefore it should be approached with caution, if even considered.

In Scenario 2 (managing but not accepting shrinkage), measures should be taken to control the housing market in order to avoid speculation or housing price bubble. This is especially valid in case the market is not subject to strict control from public agencies. The risk for this to occur is high if the aspirations for regrowth precede actual regrowth of the population. In case this is paired with low quality of existing housing stock, new housing may be seen as an easy solution that can trigger increased prices and ultimately lead to housing inaccessibility. In particular areas this may also lead to gentrification. Although the city may be ready to expand, new housing projects should be approved only when there is some level of certainty of expected population regrowth. Efforts should be focused on rehabilitation and maintenance of the existing housing stock.

In Scenario 3 (only manage shrinkage), cities should attempt to focus on rehabilitation and maintenance only and also discourage any possible expansion of the housing stock.

For all three scenarios regional coordination in terms of housing provisioning may be suitable in order to avoid speculative investment to affect the region as a whole. Particular technical details on the rehabilitation can align with the recommendations provided for existing building stock, namely energy efficiency, reuse and cultural heritage preservation.

Environmental protection and adaptation

All three investigated cases have incorporated efforts in handling specific environmental issues. In light of the global challenges in terms of climate change and phasing out of coal, especially in light of their adoption as part of the EU agenda, this topic remains central not only for shrinking cities and regions. For them it can be particularly important but also difficult to incorporate such efforts. In any case, shrinking cities and regions should attempt to address existing environmental challenges such as pollution or contamination. Such efforts would ultimately contribute to better quality of life for both existing and potentially new citizens. Furthermore, proactive measures for environmental protection and resilience can be incorporated, depending on the existing risks for the city or region. In the assessment phase presented above, ideally the actors can reach a conclusion on priority issues in this regard and attempt to address them as part of the efforts under shrinkage conditions. Depending on their readiness and capacity, public and private actors can also embrace newer perspectives in this regard such as new energy production mechanisms, reuse of materials and alternative means of food production.

8.4.8 “SHRINKING SMART” – POSSIBLE INTERSECTIONS BETWEEN PLANNING AND POLICY DOMAINS

In light of the recommendation for integrated objective setting and integrated planning, shrinking cities and regions can explore intersections between some planning and policy domains. These intersections can be delivered through specific policy and planning instruments, depending on the planning system. The following section proposes some instruments but they are not exhaustive and further options can be explored in practice.

Economy, space and building stock – regeneration projects

In case the shrinking city is aiming for regrowth, it may want to develop its economic potential. This may be pursued in the context of industrial vacancy and obsolete spatial structures in specific areas. In case these areas are concentrated in one part of the city, their regeneration can lead to further attractiveness of the city and improvements in spatial qualities. Large scale regeneration projects, oriented towards specific industry or towards a mixed use development can be a suitable approach for obsolete industrial areas. They can provide the necessary impetus to regrow the city through targeted investment and to improve its image. Regeneration projects can also be applicable for non-industrial zones where they can facilitate a mixed-use approach to a declining area. Such projects may deliver better public and green spaces for citizens.

Regeneration projects have to be approached with caution as they usually require high investment. This is especially valid in case they are delivered by public institutions. Cities should assess the need for such projects and their suitability for the specific case. Ideally, these projects are not a quick fix and although they can become a driver for regrowth, they can also result in absorbing a large financial investment without necessarily providing the expected results. Cities attempting to regrow should opt for such projects when there is some level of certainty of potential population regrowth. Another risk for such projects is gentrification. Measures to avoid displacement and to encourage adoption by and inclusion of local citizens are crucial in the planning phase. Particular requirements for the needs of the remaining population in the project area can also be included in the planning. In addition, such projects may require cooperation between public and private actors which needs to be strongly regulated in order to avoid speculative or corrupt practices hidden behind the facade of a certain regeneration project.

Housing and building stock – housing renovation programmes

Depending on the approach to the housing market in a specific shrinkage setting, housing renovation programmes can contribute to improved housing conditions and long-term use of existing housing stock. Such programmes have to be adapted to the specifics of the local market, particularly the ownership type. It may be difficult for local administrations to deliver such programmes without the assistance of upper levels of the planning system. Similar to the example of the Stadtumbau Ost programme in Germany, national funding and renovation programmes can help shrinking cities improve their existing housing stock. Further rehabilitation measures for residential areas can also be incorporated in such programmes.

Housing renovation programmes can be costly, therefore they have to be developed with particular objectives in mind and with embedded mechanisms for quality management in order to avoid misuse of funds. In addition, citizens have to be actively involved in such programmes in order to ensure wider adoption, especially if individual owners are expected to

contribute also financially. Dispersed ownership can represent a particular challenge in this regard, especially in large-scale housing units (e.g. residential blocks). From contemporary perspective, housing renovation programmes can also include energy efficiency measures as well as explore alternative solutions for own energy production through photovoltaic or other technologies.

Social issues and space – targeted neighbourhood support programmes

Social challenges in shrinking cities may be particularly severe in specific neighbourhoods or communities. Targeted neighbourhood support programmes can help address some particularly acute challenges in those areas. Such programmes can combine both spatial regeneration efforts as well as social and economic activation measures such as entrepreneurial support, reskilling programmes or community building initiatives. Measures on overcoming inequalities, social segregation or marginalization can also be incorporated in such projects. These initiatives need to encompass a wider planning and policy view in order to ensure that the correct instruments are chosen for the specific issues.

8.5 APPLICABILITY OF THE CONCEPT: NORMATIVE SHIFTS, SEQUENCE OF STEPS, CAPACITY DEVELOPMENT

As outlined in previous chapters, the consequences of shrinkage or population decline can be interpreted as a crisis of a specific nature, triggered by a particularly severe problem in a certain policy or planning domain. In the case of Leipzig this has been the housing vacancy, for instance. This type of problem formulation is related to the way shrinkage is conceptualized in practice, in a particular political, social and economic setting. As a result of this interpretation, a certain normative orientation can become dominant in the approach to shrinkage. A clear example of this is Bilbao where the interpretation as a mainly economic crisis has shaped the approach. This particular cognitive step in a broader planning and policy setting determines the dominant normative orientation in the case of approaching shrinkage or depopulation. Therefore, the above presented scenarios and the provided normative stances of the proposed “Shrinking Smart” planning concept can be triggered or guided by an emphasis on a particular planning and policy domain, deemed as most important or most critical in a given time. The application of the proposed concept depends on this normative leap. A crisis of a specific area or sector can be used as a lever in order to determine a broader approach to the consequences of shrinkage and population decline. Otherwise, the narrow focus only on a specific sector would not prove fruitful for the application of the concept and would ultimately not constitute an effort under the “Shrinking Smart” framework.

This process can also occur in terms of spatial planning. A certain area, experiencing severe vacancy or blight, the condition of existing building stock or obsolete technical infrastructure, such as railway, can also be viewed either as a particularly severe problem in a specific shrinkage setting or as an opportunity to trigger broader improvement of a certain city. The specific constellation of currently important issues or key points in the broader policy agenda cannot be determined as part of this research as this question goes beyond its scope.

The proposed approach based on the benchmarking framework, however, can serve as a reference and as a guide for the application of the proposed concept as long as it takes

into account these local contextual specifics. The normative orientation of the proposed concept is critical to its application, however, it also has to accommodate normative shifts, that are determined by locally specific factors. This can happen in the course of an iterative process of designing the necessary responses to shrinkage or depopulation, either as part of the proposed “Shrinking Smart” planning concept or as part of a broader policy effort on different levels. The following proposal (Table 8.3.) outlines a sequence of steps that can support this effort. Since it is based on the proposed variations of the “Shrinking Smart” concept and is methodologically related to the benchmarking framework, outlined in a previous chapter, it can also be used as a learning mechanism for exchange between cities or as a guiding structure for the application of the proposed concept. Secondly, the proposed sequence can also support the development of the necessary capacity in administrations to facilitate such a process by providing support to the decision making and by outlining the critical points in the sequence that need to be taken into account in terms of capacity building. In addition, possible methods are also recommended for each of the steps.

The first column of the proposed table outlines which variant of the „Shrinking Smart“ concept corresponds to each stage. Only the „Shrinking Smart“ planning process is presented vertically in column 3 as its stages and characteristics can complement the application of the concept. In step 1 („Shrinking Smart“ assessment and decision making mechanism) either through separate data gathering, assessments and studies or through the inquiry-oriented planning process an assessment of the demographic, economic and quality of life considerations can be performed. As a result of this assessment, critical contextual characteristics and factors need to be determined. In addition, this step also applies to the planning system where the various public actors involved are also identified. This step should ideally delineate the boundary between policy making and planning. In case the concept should be applied also to spatial planning, a spatial assessment can also be performed at this stage. Possible methods that can support this are scope definition, perception analysis and qualitative systems mapping (from systems thinking) as well as sensemaking (from design thinking). In parallel to this step, the inclusion of citizens and stakeholders can also begin and accompany the process from the early stages. As a result, all stakeholders should reach a common understanding of the consequences of shrinkage and depopulation.

In the second step („Shrinking Smart“ preliminary normative stances) stakeholders, and particularly public stakeholders, need to commit to manage shrinkage and adjust their expectations in order to form the dominant normative orientation. The possibilities proposed are the three scenarios, however, since they are ideal types, this may change in practice. In any case, the normative decision on the balance between managing shrinkage and accepting it needs to be cleared out at this stage.

In the third step („Shrinking Smart“ as a broader policy and planning framework) the factors outlined in the first step are to be mapped and the relations between them need to be determined. This can happen in the course of integrated planning or through other practices. The result of this step is the determination of scope of the approaches and the precise objectives. Similarly, in case the concept should also be applied as a spatial planning concept („Shrinking Smart“ as a spatial planning concept), the spatial factors determined in step 1 should also be mapped and the feedback loops between them determined.

In both variants, the formulation of the scope and the particular objectives should facilitate the selection of instruments. Methods that can support this step are scenario building, feedback loops (from systems thinking), backcasting and mapping (from design thinking).

Concept	Proposed sequence steps		"Shrinking Smart" as a planning process driver	Possible methods
"Shrinking Smart" assessment and decision making mechanism	Topic	Output	<i>Inquiry, data gathering, evidence-based orientation</i>	Scope definition (systems thinking) Perception analysis (systems thinking) Qualitative systems mapping (systems thinking)
	Demographic assessment	Define context		
	Economic assessment	Define factors		
	Quality of life considerations	Define planning system levels involvement		
	Spatial assessment	Determine scope of planning		
	Common understanding on the consequences of shrinkage or depopulation			
"Shrinking Smart" preliminary normative stances	Commitment to manage shrinkage	Manage and accept (Citadel)	<i>Participatory and stakeholder engagement practices</i>	Sensemaking (design thinking)
		Manage but not accept (Aspiring phoenix)		
		Only manage (Lifeboat)		
"Shrinking Smart" as a broader policy and planning framework	Outline of possible factors	Formulation of scope and objectives	Selection of instruments	<i>Integrated planning</i>
	Demographic factors (ageing, structure, migration tendencies)			
	Economic factors (endogenous potential, industry dependency, structural issues)			
	Quality of life factors (services, infrastructure)			
"Shrinking Smart" as a spatial planning concept	Spatial development (market driven vs. controlled)	Formulation of scope and objectives	Selection of instruments	<i>Integrated planning</i>
	New construction (market driven vs controlled)			
	Land use (private vs. public)			
	Existing building stock (private vs. public)			

Table 8.3: "Shrinking Smart" concept variants and potential applicability steps.

9

DISCUSSION, IMPLICATIONS OF THE RESULTS OF THE STUDY AND RECOMMENDATIONS FOR FURTHER RESEARCH

This chapter provides a summary of the results of the study and outlines how some of the aspects of the main results relate to previous research in the urban shrinkage field, planning science as well as to the broader planning, institutional and economic context of the European Union that is the premise of the study.

9.1 SUMMARY OF RESULTS

The starting point of this research and the research questions and objectives that it attempted to address were related to the idea of “Shrinking Smart” as a label for a new planning concept. The central question of the research focused on the formulation of the new planning concept, its scope and normative orientation and was defined as follows:

How can the concept of “Shrinking Smart” be formulated, based on existing research on urban shrinkage and based on the way that urban shrinkage has been addressed within the European Union? Secondly, what can the new planning concept of “Shrinking Smart” encompass, what would be its scope and direction?

The main conclusion in regards to the first aspect of the central question is that the new planning concept of “Shrinking Smart” can be formulated by introducing a broader methodological framework to investigating responses to urban shrinkage and population decline in three distinctively different contexts in the European Union. These contexts are representative of three different settings in which shrinkage or population decline has occurred or expected to occur – a predominantly post-industrial setting of urban shrinkage with stabilized population after addressing the consequences (Bilbao); a post-socialist setting of urban shrinkage with regrowing population after addressing the consequences (Leipzig); an anticipatory approach to expected population decline on regional level (Zeeland).

By applying a methodological approach that focuses on a broader institutional setting that encompasses both planning and policy responses, the planning concept of “Shrinking Smart” can be formulated by distinguishing particular characteristics of the planning process in some of the cases and by investigating the scope and normative orientation of policies and plans. The differentiation between the thematic scope, the normative orientation and the administrative capacity perspectives allows for the identification of critical factors and characteristics of the proposed approaches. This differentiation was supported through the introduction of a theoretical reflection on the structure of the new

planning concept and its conceptual coherence. By analyzing the normative, thematic and administrative scope of the identified responses in the three case studies in a comparative mode through the creation of a benchmarking framework, the conceptual model is verified in empirical data and the concept is formulated, following the differentiation between planning process, planning and policy instruments and their normative orientation. As a result, the new planning concept of “Shrinking Smart” is underpinned by a commitment to manage the consequences of urban shrinkage or population decline in a given setting. It is also supported by a decision or normative stance by planners and policy makers to accept, not accept or be indifferent to growth in economic and demographic terms. Consequently, the new planning concept of “Shrinking Smart” can encompass the planning process of a shrinking city by following particular characteristics of this practice. “Shrinking Smart” can also be utilized as an assessment and decision making mechanism for planning and policy instruments that are contextually sensitive to the effects of urban shrinkage or population decline. The assessment and decision making mechanism can be utilized to evaluate and identify approaches from demographic, economic, quality of life and spatial management perspectives, supported by a common understanding of the effects of the respective phenomenon. “Shrinking Smart” can be utilized as a broader policy and planning framework in order to create a common vision with image implications; to identify economic and demographic orientation; to identify measures and efforts required in the area of quality of life; to address challenges in the areas of social cohesion, service provisioning and infrastructure, defined by the needs of the population in the respective locale. “Shrinking Smart” can also be utilized as a spatial planning concept, providing guidance on the spatial management of a certain shrinking city by addressing questions of density, spatial pattern, land use, building stock and infrastructure.

The central question was supported by three sub-questions that were also addressed in this study. The first question investigated the added meanings and understanding of the label and its potential adaptability to different contexts:

Given the lack of clear boundaries and conceptual coherence of the “Shrinking Smart” label until now, what should be the structure of the new planning concept and how would it correspond to the variety of planning systems and approaches in the European Union and the variety of shrinkage contexts?

The main conclusion in this regard relates to the need to investigate urban shrinkage and population decline responses in a broader institutional context by taking into account practices of planning and policy making on urban, regional and national level. By introducing a post-positivist methodology, thus overcoming the limitations of rationalist tradition in planning science, and broader view on the structure of the planning systems and their role in the formulation of policy and planning responses, the research concluded that the planning concept should encompass the creation of meanings and the decision making of measures and normative stances in a given planning and policy setting. The distinction between these two aspects and the closer attention to the cognitive processes that underpin planning and policy making practice will allow for a more solid embeddedness of the new planning concept in the variety of planning systems and the variety of shrinkage contexts. In addition, the consistency between the theoretical structure and the analysis of policy and planning practices in the three investigated cases enables the applicability of the concept.

The second sub-question of the research paid closer attention to the problem formulation and framing of the effects of urban shrinkage and population decline and their influence on the selection of approaches:

How has the perception of urban shrinkage shaped the policy and planning approaches and solutions in specific shrinkage contexts in the European Union and how can this knowledge feed into the new planning concept?

The research concluded that the interpretations of the phenomena vary in different contexts and settings and depend on local factors in the specific planning or policy setting. The research managed to identify a link between the causality attributed to urban shrinkage or population decline effects and the normative leaps in the formation of planning and policy responses. Depending on the importance and (perceived) severity of the effects, aspects pertaining to economic effects, spatial effects or social effects may take precedence over other factors. This prioritization depends on the framing of the shrinkage phenomenon and the understanding of planners and policy makers which may differ from established scientific definitions. Additional factors are the importance of particular policy domains that may become a lever for addressing shrinkage (e.g. industrial vacancy and deterioration in Bilbao, housing vacancy in Leipzig and anticipated threats to liveability in Zeeland). The framing and particular emphasis on specific domains depends on the overall policy and planning setting across the levels of the planning system. These considerations can be integrated in the planning concept of “Shrinking Smart” by including an assessment stage in its decision making variant which may support planners and policy makers in reaching a common understanding of the effects of the phenomenon and in defining common future objectives.

The third sub-question focused on the applicability of the proposed planning concept of “Shrinking Smart” in future perspective in the European Union.

What are the applicable alternatives to implement “Shrinking Smart” in the future in the context of European Union?

The research concluded that the growth orientation in economic and demographic terms is pervasive, based on the empirical data, therefore, explicitly or implicitly, it remains the preferred planning and policy orientation. This normative orientation can be balanced with other considerations, such as quality of life and overcoming social challenges, environmental protection, depending on the severity and importance of these aspects in a given policy setting. These considerations, combined with the commitment to manage shrinkage and to respond to its effects, result in the formulation of variants of the proposed concept of “Shrinking Smart”.

As a broader policy and planning framework “Shrinking Smart” may focus on managing shrinkage and accepting the prospect of stable or declining population. In this scenario, planners and policy makers may still prefer the growth perspective by attempting to preserve existing economic profile or not pursue growth actively and explore alternative economic models on a smaller scale. These efforts can be combined with efforts to improve quality of life, optimize infrastructure and services and overcome social challenges.

In the scenario of managing and not accepting the prospect of stable or declining population, planners and policy makers may pursue growth by actively trying to attract new investment

and develop endogenous economic potential, thus increasing the prospects of population regrowth. They may attempt to focus on stabilization of the existing economic structure. These efforts can be combined with optimization of services for existing population and focusing on their needs, but with the risk of tradeoffs between those needs and the needs of expected future population.

In the scenario of managing shrinkage but being indifferent to growth, planners and policy makers may attempt to sustain the existing economic profile, thus implicitly aim for stable population. They may explore options for alternative economic models on a smaller scale. They may attempt to preserve decent quality of life and availability of services and infrastructure.

As a spatial planning concept “Shrinking Smart” will focus on compact development and further densification in a given urban setting under preconditions of population decline. With these main objectives, the city should be able to encourage the reutilization of vacant lots and buildings, thus handling vacancy and obsolete space, and to thus increase the efficiency of land use planning. In particular regeneration areas, planning will focus on mixed use developments, including development of public and green spaces. The implementation of these approaches will need to be adapted to the specific planning setting, depending on the amount of private and public property through the development of specific planning instruments. In case of a more market-driven setting, the public institutions will need to have the capacity to enter into a more controlling role and to thus regulate market activity, spatially and otherwise. In case of a more controlled spatial development, public institutions need to have the capacity, including administrative and financial, and expertise to actively manage the urban space.

The formulated alternatives are in-line with the evolution of the overall policy and urban agendas of the European Union by encompassing economic, social, environmental and spatial aspects. They provide a general outline of the overall direction for future shrinking cities (and partially regions) while at the same time account for differences in political, administrative and planning settings.

9.2 CONCEPT CREATION BEYOND THE RATIONAL PLANNING TRADITION

The first research question required investigating the hypothetical process of concept formulation based on empirical investigation of the way shrinkage has been approached in existing academic studies and in planning and policy practice. In order to address this aspect, the research introduced a specific methodological approach that enabled a critical standpoint towards the conceptualization of the urban shrinkage phenomenon. As a second aspect, the methodological approach enabled a broader view on the process of formulation of responses to urban shrinkage as well as wide contextual sensitivity of the research. As a result of the latter, the scope of the research became broader, allowing the identification of conclusions across different contexts and beyond the boundaries of urban shrinkage, namely viewing population decline processes as a broader phenomenon.

The conclusions of the research indicate that in order to identify the conceptual coherence and to investigate the processes of formulation of responses to urban shrinkage and population decline, a more contextually sensitive approach is required. By embedding the formulation of responses to urban shrinkage and population decline in a broader social

and institutional framework, it is recognized that planning is a socially influenced activity, formed and impacted by the institutional structure of the country in which it is being applied. Respectively, the possible ways to address shrinkage will vary, depending on the social and institutional context. Consequently, a new planning concept that ought to be applied in shrinkage conditions will need to be adapted to the specific context or to integrate elements of the particular institutional structure, political, social and economic setting in order to be relevant and applicable for the concrete case. These observations align with existing research on urban shrinkage that calls for further contextual sensitivity and the overlap of factors in the development of responses to shrinkage (Haase et al. 2016). From a broader perspective, this conclusion aligns with the call for planning (and planning science) to move away from rationalistic and positivist tradition and to embrace its inherent social nature (Batty 2018). The institutionalist perspective, viewing planning as a constellation of spatial planning, economic planning and policy making, provides a useful lever to create broader and more applicable alternatives for addressing shrinkage and population decline (Healey 2006). At the same time, given the particular challenges that shrinking cities face in practical terms, the pragmatic perspective can balance the relativism of social constructivism. By recognizing that planning also concerns practices that deal with concrete challenges that ought to be addressed by “acting in the world” (Healey 2009, 287), addressing shrinkage through the new planning concept of “Shrinking Smart” ought to also be applicable in practical terms.

At the centre of this intersection between social embeddedness of planning and its pragmatic dimension lies the interpretation of shrinkage in practical settings and the process of problem definition in shrinkage or population decline context. This research explored how shrinkage and population decline have been perceived across different contexts and in different settings and how this interpretation has shaped the policy and planning responses. The results indicated that the above mentioned particular contextual specifics, manifested through the structure of the planning system and certain social, economic and political settings. This constellation of factors has influence on both the interpretation of the phenomenon of shrinkage or population decline and on its effects on urban and regional scale. Planning concepts for urban shrinkage and population decline need to consider not only the physical dimension, thus to be strictly tied to the urban-spatial dimension of planning, but also to incorporate elements of the processes of problem definition as politically and institutionally related practices. This observation aligns with previous research in the field highlighting how shrinkage finds its place in the political agenda (Bernt et al. 2014). From methodological perspective, these conclusions are indicative of the need to incorporate more interpretivist approaches in shrinkage research, exploring further the formation of discourses, narratives, stories and normative formulations as cognitive and socially embedded processes (Hajer 2005). This interpretivist perspective can shed light on the processes of meaning creation in the context of shrinkage and thus enable a more critical point of view for scientists on the utilization of labels, while at the same time to allow the creation of concepts that have mobilizing capacity and are found relevant by multiple actors in the planning and policy making practices (van Duinen 2013). Viewing planning for shrinkage in a broader interpretivist perspective can bring it closer to the argumentative turn in planning and respectively contribute to its social relevance and applicability (Fischer and Forester 1996; Fischer 2003). Achieving this stronger social embeddedness of planning for shrinkage would align with the definition of the phenomenon by Martinez-Fernandez et.al (2012a) and the observations by Haase et.al. (2014) on viewing shrinkage as a dynamic phenomenon that is both under the influence of local factors and influences the context on its own through the creation of theories, plans, concepts and ideas, applied in practice.

The observations on the practices of addressing shrinkage and population decline in Bilbao, Leipzig and Zeeland illustrated that the above mentioned interpretations of the phenomena and their effects have manifested in practice through the formulation of specific objectives that are influenced by a shared understanding between policy and planning actors in the respective planning systems. This shared understanding is reminiscent of the meta-context, referred to by Rein and Schön (1996). This meta-context operates in the background of policy making practices and shapes the perception of reality of actors in these settings. From the perspective of shrinkage and population decline investigated in this research, this background manifests in the latent normative orientation that has shaped the planning and policy responses. One of the main findings in this regard is that the conceptualization of responses to shrinkage in practice results in the formulation of a dominant normative orientation in a given planning context. Abstract ideas on the future of the city, such as the desired global embeddedness of Bilbao, have the capacity to mobilize and engage various stakeholders and to create a common language for the development of strategies and responses to shrinkage. In parallel, certain normative orientations become more influential in the practices of planning and policy making. The focus on improving quality of life in shrinkage or population decline setting is one of those orientations. As observed in Leipzig, quality of life can be placed at the intersection of various spatial and economic considerations and to serve as an integrating idea. The meaning of such normative orientation, however, is not uniform across contexts. The example of Zeeland and the existing Dutch concept of “leefbaarheid”/liveability which is embedded in the cross-cutting responses to population decline illustrates that further scrutiny on its meaning is required when quality of life ideas are considered for shrinkage contexts. Its importance and its meaning will depend on the existing weight of quality of life in the specific national and political context as well as in its role in the envisioned future of a given shrinking city. Quality of life can be used as a lever to improve service availability or to justify specific spatial approaches, but it can also be more politically appealing when embedded in strategies for attracting population or image creation (such as in Bilbao and Zeeland) and respectively overshadowed by other priority areas, such as economic growth. This conclusion relates to the need of incorporating a more critical stance on the normative orientation of shrinkage-oriented planning and further investigate the formation of normative positions and their meanings, role and influence in a given planning context. This would mean developing the necessary tools to evaluate planning in shrinkage context beyond criteria focusing on plan conformance (Shahab, Clinch, and O’Neill 2019). Shrinkage-oriented planning and research may benefit from developing measurements, indicators and methods for planning evaluation in order to achieve more specific outcomes and more nuanced understanding of the effects of shrinkage and planning interventions (Hartt 2019, 2021)

9.3 DEFINING STRUCTURE SCOPE AND NORMATIVE ORIENTATION OF THE NEW PLANNING CONCEPT

CONCEPT APPLICABILITY, PLANNING SYSTEMS AND PLANNING CULTURES

The second aspect of the creation of the new concept of “Shrinking Smart” is related to its structure. From methodological perspective, the critical reflection on the concept structure outlined the need to move beyond the strictly spatial fixation of the concept structure. The presented methodological approach which encompassed both theoretical coherence and planning relevance through the utilization of abduction and retroduction methods for theoretical concept structuring (Hagen 2017) enabled the identification of multiple variants

of conceptual scope. From the perspective of the outlined contextual differences, especially in terms of planning systems, this broader conceptual scope corresponds to the necessity to view planning as embedded in institutional and social contexts. The formulation of concepts and their capacity to trigger action moves away from the spatial fixation and encompasses the overall process of planning and policy making.

The results of this research indicate that the concept of “Shrinking Smart” can address the planning process of shrinking cities, the normative orientation of broader set of policies and plans in urban shrinkage and population decline as well as the spatial dimension. These multiple perspectives towards the new concept correspond to the distinction on planning theories and theories in planning, introduced by Faludi (1978). In that sense, the proposed conceptual structure is theoretically sound and its variants encompass both the planning process (as a theory of planning) and the substance of plans and policy (thus being a theory in planning), effectively combining this main planning distinction with the intersection of policy making, spatial planning and economic planning traditions, introduced by Healey (Healey 2006). The introduction of specific criteria, robust structure and scope of concepts enables a clearer focus on their meaning and well defined normative orientation. By also incorporating an increased consideration towards the processes of meaning creation, outlined in the previous section, planning concepts under shrinking conditions may be beneficial and applicable for planners and policy makers alike.

The further theoretical scrutiny on the structure of the concept and its scope, however, is a prerequisite in order to avoid the pitfalls of existing concepts, especially such associated with the label “smart”. The label “smart” continues to be problematic as it can be used interchangeably due to its presumed positive connotation. This self-congratulatory tendency, outlined by Hollands (2008) remains a risk for both planners in shrinking cities and shrinkage scientists who may be tempted to utilize the label blindly and without scrutiny, thus relying on its positive image implications. The label of “smart” in shrinking conditions should either be used in reference to proposals already established in the field (e.g. this work and (Hollander and Németh 2011)) or it should be outlined in reference to particular criteria introduced prior to its utilization in order to avoid its replication as a wishful self-congratulatory concept or a replication of particularly established practices (Carter 2017). The “smart” label is at risk of becoming a hegemonic discourse in the ongoing processes of added meanings, especially in planning practice, to latch onto other ideas, thus to replicate existing (neoliberal) planning approaches or to be used as a lever for power replication and dominance (Leitheiser and Follmann 2019). From scientific perspective, the attribution of meanings to new planning practices, especially with the label “smart”, ought to also incorporate a greater sensitivity to meaning creation and thus to distinguish between generalizing conclusions based on scientific research and actual paradigm shifts in planning practice. In that sense, pairing a newly introduced and unclear meaning of a certain label (e.g. “smart”) with limited strictly rationalistic observations of planning practice may be risky and result in further conceptual incoherence in the shrinkage field (Bernt 2016). With that said, to ensure the conceptual coherence of new planning concepts for urban shrinkage, future research ought to incorporate a distinction between the processes of planning (Hollander and Németh 2011), the processes of meaning creation in planning and policy making practice (Hajer 1995), the scope of the planning concept and its intended application across scales (Hollander 2018) and its normative orientation. Only by clearly outlining these boundaries of conceptual relevance, can new planning concepts have the potential to trigger possible shifts, generate new ideas and potentially lead to, if not a paradigm shift, at least a discursive shift (Hajer and Dassen 2014) or to lead to the creation of concepts, including spatial ones,

with capacity to disrupt and lead to innovations (Dembski and Salet 2010; van Duinen 2015).

The other aspect of the conceptual coherence of the planning concept of “Shrinking Smart” concerns its applicability to different planning systems and planning cultures. The empirical results have demonstrated that the differences in planning cultures influence the decisions and approaches to shrinkage and population decline at different scales. Shrinkage can be used also as a period of learning and development of planning practices and advancements in planning cultures (as observed in Bilbao) or it can benefit from well-established planning cultures, either spatially centered (as observed in Leipzig) or coherent across the levels of the planning system (as in the Netherlands). From methodological perspective, these conclusions indicate that comparative frameworks, such as the introduced benchmarking methodology, can be beneficial for shrinking cities in order to identify points of leverage and critical factors (Room 2005; Thomas and Bertolini 2014) to address shrinkage and to acquire knowledge to further improve the handling of urban shrinkage or population decline. The latter aspect can be supported by knowledge transfer initiatives that encompass also the learning element of policy benchmarking, not only the comparative one (Papaioannou, Rush, and Bessant 2006; Paasi 2005). However, comparative cross-national benchmarking of urban shrinkage should also be approached with caution, especially in European context, due to the overemphasis on measurements and indicators in its traditional application (Sisson, Arrowsmith, and Marginson 2003). The over-fixation on simplifying and measuring certain points of shrinkage effects or approaches can lead to insufficient consideration of contextual factors and planning culture specifics and thus again result in dead-end in terms of identifying opportunities for shrinking cities. The challenge for planning cultures, outlined by Pallagst (Pallagst 2010), can be overcome when planners and policy makers are willing to expand and challenge their established way of thinking, especially in shrinkage context, in order to advance further and identify new avenues of planning. With that said, the conceptual approach to new planning concept should be positioned at the meso-level, referred to by Haase et al. (2014), between theory and practice. By incorporating questions of scale and considerations on governance dependence (Rhodes and Russo 2013), approaches to urban shrinkage can be designed in a tailor-made way that allows for a better alignment with existing institutional and planning practices.

A particularly relevant element in this regard is the regional perspective which has been observed as applicable in all three cases. The regional planning level can support local planners and act as a safety net for potential issues that arise on local level. At the same time, it can be of assistance for implementing national programmes or instruments, as well as a coordinating mechanism for cooperation between neighbouring municipalities, experiencing shrinkage. Regional coordination and agreements can be a useful mechanism for shrinking cities, thus approaches that also incorporate regional considerations can enable more successful responses to shrinkage or population decline. With that said, the shrinkage field can benefit from incorporating regional planning considerations, as also recommended by Hollander (2018) including from economic perspective, on par with planning cultures and planning systems perspectives (Othengrafen and Reimer 2013).

“SHRINKING SMART”: SCOPE AND DIMENSIONS OF NORMATIVITY IN EUROPEAN CONTEXT

Taking into account the conceptual considerations outlined in the previous section, the second part of the main research question concerned the scope of the new planning concept of “Shrinking Smart” as well as its direction or normative orientation.

The empirical results from the three cases indicate that the growth orientation in shrinkage or population decline context remains pervasive and is either explicitly (Bilbao) or implicitly

(Leipzig) pursued. A highly desired option is stabilization (Zeeland). This conclusion encompasses both the economic aspect of growth and the demographic aspect of it. That is, the logical link between economic growth, or at least stable economic performance, and population stabilization or attraction is firmly embedded in practices of planning and policy making. At the same time, the complementary observation in this normative perspective is that quality of life can be pursued in parallel to economic and demographic growth or stabilization so the two objectives are not mutually exclusive. They can, however, receive different weight in the planning and policy making under shrinking conditions, depending on the context and importance of each topic as well as the interpretation of shrinkage (as outlined in the previous section). These empirical conclusions do not fully support the notion of a possible paradigm shift away from growth (Wiechmann and Pallagst 2012). This conclusion can be attributed to the insufficient political economic considerations of shrinkage research (Berglund 2020a) and the presumed exclusivity of growth and quality of life considerations. These conclusions indicate the need to balance the predetermined criteria and measurements of shrinking cities and ensure that normative stances (such as growth or quality of life) are clearly defined and traced properly. A possibility for this may be supporting normative criteria such as prosperity (Hartt 2019; Hartt et al. 2021; Hollander 2011). In any case, the growth imperative appears to be firmly embedded in planning practice and shrinkage research may benefit from further exploring how, if and in what direction (demographic, spatial, economic) it can be challenged (Fernandez and Hartt 2021).

The economic argument and the persistence of growth orientation is indicative of the adaptability of capitalism to different contexts (Berglund 2020b). The growth-orientation of planning, especially in the European Union, is reinforced through the dominance and adaptability of the existing economic order and thus it is difficult to imagine a radical change away from this notion. These conclusions are indicative of the effects of the already mentioned meta-context, shared between planners and policy makers (Rein and Schön 1996). In the European Union, the urban and territorial development agenda has been strongly linked to economic growth throughout its formation since the late 1990s. Respectively, the agenda further advances and reproduces the meta-context of growth and thus solidifies its importance on European level, both nationally and locally. Instruments such as the Cohesion funds advance this further. As a result, the growth orientation becomes embedded in hegemonic discourses of the territorial planning agenda (Servillo 2010) on par with the growth-orientation that is also difficult to overcome on national level, as previous studies of managed decline have shown (Schatz 2017; Haase et al. 2021). This solidification of growth orientation, and to a certain extent neoliberal tendencies, is reminiscent of the reproduction of the existing economic order through favoured labels, such as “smart” (Leitheiser and Follmann 2019).

In recent years, however, the EU urban agenda has evolved in order to incorporate other considerations such as environmental protection and overcoming social challenges. These additional topics have been paired with economic growth under the sustainable development narrative. The pinnacle of this transformation of the broader EU policy was the European Green Deal, announced at the end of 2019, aiming at transitioning the continent’s economy to a more environmentally protective state by also ensuring a policy, focused on the social consequences of the transition away from coal-dependence by “leaving no one behind” (European Commission 2019). The incorporation of environmental and social considerations on par with economic growth results in the idea of a “green and just growth” at European level. As recent studies have shown, this sustainability narrative effectively reproduces the existing growth and neoliberal orientation and aims at transforming the generation of growth to a more environmentally friendly practice but by no means does it attempt to

overcome the existing market dominance (Eckert and Kovalevska 2021). Other studies have also shown that the social orientation of the new instruments may be insufficient (Pianta and Lucchese 2020). Even with the considerations for environmental protection, the economic growth orientation remains the main argument of the European Green Deal (Samper, Schockling, and Islar 2021), thus further justifying growth as a main normative orientation in European context. From the perspective of the urban agenda of the EU the incorporation of economic growth, social and environmental considerations can also be observed in the recently updated Leipzig Charter for Sustainable European Cities through the adoption of three dimensions of European cities – the productive city, the just city and the green city (German Presidency of the Council of the EU 2020). These changes on European level, both as an overall agenda and its urban dimension, continue to evolve as a result of the severe consequences of the Covid-19 pandemic (Böhme and Besana 2020). Respectively, addressing urban shrinkage or population decline in the context of pandemic recovery, transition away from fossil fuels and further effects of newly emerging geopolitical issues ¹ will inevitably need to address economic recovery along with social and environmental considerations. At the same time, as observed in the case studies of this research, particularly Zeeland, environmental considerations are already making their way to shrinking cities and regions through the adoption of new environmental standards as well as small-scale initiatives that challenge the traditional economic logic. Small-scale efforts and development of models in the area of circular economy hubs (Cuomo et al. 2020) or circular construction (López Ruiz, Roca Ramón, and Gassó Domingo 2020) may be particularly relevant for future shrinking cities and may offer an opportunity for addressing both environmental and economic considerations. In the outlined changing European context major paradigm shifts in terms of moving away from growth dominance continue to seem unlikely, but they may allow for the incorporation of other normative aspects, such as well-being and justice (Banerjee and Duflo 2020). In the context of the recovery and the multiple crises, however, it is likely that state governments may need to step in a more active role and ensure the necessary conditions for well-functioning economy (Mazzucato 2018). These changes on international and national level will inevitably affect future shrinking cities and regions in light of dynamic migration patterns, environmental and economic challenges.

Taking into account the normative considerations, outlined in the previous section, the proposed variants for the new planning concept of “Shrinking Smart” take as a starting point the assumption that shrinking cities and regions would not be left to chance as a result of the major changes and the context that they operate in, but will actively acknowledge and manage the shrinkage consequences and attempt to address the challenges that they face. This conclusion aligns with the views of Rhodes and Russo (2013) on the possibility to actively manage urban shrinkage. Respectively, this can happen with the proposed variants of the concept.

“Shrinking Smart” as a planning process with its dimensions of evidence-based planning, extensive participatory and stakeholder engagement activities and focus on integrated planning enables a robust and inclusive planning process for shrinking cities. The recommendation aligns with the theory of smart decline by Hollander and Nemeth (2011) and the research by Rhodes and Russo (2013) on the need to incorporate more considerations for local communities as well as to overcome the presumed “blank state” (Hollander and Németh 2011, 351) of operation in shrinking cities. The conclusions from Leipzig and Bilbao illustrate that active involvement practices, preferably from an early stage, can only benefit shrinking

¹ In February 2022, the Russian Federation initiated a military invasion of Ukraine which disrupted the security landscape of Europe and the world and will affect markets, prices and migration patterns in the long-term on European level as well as globally.

cities. Deliberative and transparent planning can contribute to further improvement in democratic practices. The planning process perspective also brings forward the role of planners in the context of addressing shrinkage. As outlined, shrinking cities operate in a broader context, strongly influenced by political, social and economic factors that go well beyond the local scale. Thus, the role of planners in urban context becomes crucial in ensuring the integrity of the process and its delivery. Planners (and planning practice) may fall victim to ideological dominance and to reproduce existing paradigms (Davoudi, Galland, and Stead 2020). Planners, however, may also enter in a more active and disruptive role, as “re-makers” of space (Adams and Tiesdell 2010, 202) and thus to contest existing practices or political ideologies. This view is reminiscent of the pragmatic idea of planners as ironists towards existing practices as well as guardians of liberal democratic values (Allmendinger 2017).

“Shrinking Smart” as a broader policy and planning framework recognizes three main dimensions that need to be addressed – the demographic perspective, the economic perspective and quality of life factors, underpinned by the commitment to manage shrinkage, aligning with previous research (Rhodes and Russo 2013). Recognizing the pervasiveness of growth orientation, outlined previously, the concept may enable shrinking cities to pursue economic and demographic stabilization or growth through exploring different economic approaches while at the same time addressing quality of life factors. These conclusions are in-line with recommendations and observations from previous research and the possibility to explore alternatives for addressing urban shrinkage from a broader policy perspective, taking into account preliminary normative stances and particular areas of action (Stryjakiewicz and Jaroszewska 2016).

In terms of applying “Shrinking Smart” as a spatial planning concept, the approaches to containing sprawl and pursuing compact development and further densification along with limitations to new construction and reuse and renovation of existing buildings and vacant lots brings the proposed spatial planning concept close to the idea of smart growth. This is especially valid if a shrinking city attempts to pursue a policy of economic growth in shrinking conditions. Thus the conclusions in this regard align with the suggested parallels between smart growth and “Shrinking Smart” (Wiechmann and Pallagst 2012) but in terms of normative orientation do not provide sufficient indications of a paradigm shift away from growth centrality, as outlined in the previous sections. It can be concluded that a perspective of complementarity between economic and demographic growth aspirations and other balancing normative perspectives such as liveability and quality of life is more likely. Future research ought to scrutinize further the dimensions of quality of life and liveability and their particular scope as well as particular planning instruments that may differ in their applicability in market driven or more controlled spatial planning settings. In terms of conceptual coherence, the proposed spatial perspective of “Shrinking Smart” illustrates that the concept aligns well with other mixed use and compact land use concepts such as new urbanism, smart growth, compact city and multifunctional land use (Vreeker, Groot, and Verhoef 2004). The proposed concept focuses on urban revitalization; pays moderate attention to density; encompasses buildings, neighbourhoods and cities scope (and can be combined with the regional dimension if applied together with the broader policy framework of “Shrinking Smart”); integrates efficiency considerations in terms of the attempts to save space and preserve resources. Future research can explore the intersections of the proposed concept with other planning concepts (such as sustainability or “smart” as well as the above listed ones) and the possibility of their complementarity under the conditions of population decline on urban level as well as in reference to population decline on regional scale. The particular attention to preliminary normative stances is necessary and should be

approached with caution in order to ensure that the proposed concept does not become a scapegoat for the reproduction of hegemonic normative orientations. As observed in previous research, broader concepts tend to fall victim to political processes and their interpretation in practice may become subordinated to existing agendas (Hatuka et al. 2018). These interpretations in practice may not necessarily compromise the proposed concept as they may be signs of adaptability but future research ought to investigate how the proposal is applied in practice and thus to further examine the bridge between theory and practice. Experimental approaches and learning and exchange mechanisms between cities, as outlined in a previous section, can provide a fruitful empirical setting for such research.

REFERENCES

- Abel, Günter. 2012. "Knowledge Research: Extending and Revising Epistemology." In *Rethinking epistemology: Volume 1*, edited by Günter Abel and James Conant, 1–52. Berlin studies in knowledge research Volume 1–2.
- Abel, Günter, and James Conant, eds. 2012. *Rethinking epistemology: Volume 1*. Berlin studies in knowledge research Volume 1–2.
- Adams, David, and Steven Tiesdell. 2010. "Planners as Market Actors: Rethinking State–Market Relations in Land and Property." *Planning Theory & Practice* 11(2): 187–207. doi:10.1080/14649351003759631.
- Allmendinger, Phillip. 2017. *Planning theory, 3rd edition*. London: Palgrave Macmillan.
- Allmendinger, Philip. 2002. "Towards a Post-Positivist Typology of Planning Theory." *Planning Theory* 1(1): 77–99. doi:10.1177/147309520200100105.
- Altshuler, Alan, and David Luberoff. 2009. "Mega-Projects: The Changing Politics of Urban Public Investment." In *Birch* 2009.
- Andersson, Jenny. 2018. *The future of the world: Futurology, futurists, and the struggle for the post cold war imagination*. New York NY: Oxford University Press.
- Andrews, Jonathan. 2019. "How Katrina drove New Orleans to be a pioneer in data management." Accessed April 10, 2020. <https://cities-today.com/how-katrina-drove-new-orleans-to-be-a-pioneer-in-data-management/>.
- Audirac, Ivonne. 2018. "Introduction: Shrinking Cities from marginal to mainstream: Views from North America and Europe." *Cities* 75: 1–5. doi:10.1016/j.cities.2017.10.012.
- Azcárate, Alvaro A. J., and Nicola Schüller. 2009. *Urban reports: Urban strategies and visions in mid-sized cities in a local and global context*. Zurich: GTA-Verl.
- Banerjee, Abhijit V., and Esther Duflo. 2020. *Good economics for hard times: Better answers to our biggest problems*.
- Batty, Michael. 2018. "Science in Planning: Theory, Methods and Models." In *Planning knowledge and research*, edited by Thomas W. Sanchez. First published 2018, 241–54. New York: Routledge.
- Benito, Bernardino, Francisco Bastida, and María-Dolores Guillamón. 2010. "Urban Sprawl and the Cost of Public Services: An Evaluation of Spanish Local Governments." *LEX* 8(3): 245–64. doi:10.4335/8.3.245-264(2010).
- Berglund, Lisa. 2020a. "Critiques of the Shrinking Cities Literature from an Urban Political Economy Framework." *Journal of Planning Literature* 58(387): 1–17. doi:10.1177/0885412220928507.
- Berglund, Lisa. 2020b. "The Shrinking City as a Growth Machine: Detroit's Reinvention of Growth through Triage, Foundation Work and Talent Attraction." *Int. J. Urban Reg. Res.* 75(2): 12. doi:10.1111/1468-2427.12858.
- Bernt, Matthias. 2016. "The Limits of Shrinkage: Conceptual Pitfalls and Alternatives in the Discussion of Urban Population Loss." *Int J Urban Regional* 40(2): 441–50. doi:10.1111/1468-2427.12289.

- Bernt, Matthias, Annegret Haase, Katrin Großmann, Matthew Cocks, Chris Couch, Caterina Cortese, and Robert Krzysztofik. 2014. "How does(n't) Urban Shrinkage get onto the Agenda? Experiences from Leipzig, Liverpool, Genoa and Bytom." *Int J Urban Reg Res* 38 (5): 1749–66. doi:10.1111/1468-2427.12101.
- Beunen, Raoul, Marlies Meijer, and Jasper de Vries. 2019. "Planning strategies for dealing with population decline: Experiences from the Netherlands." *Land Use Policy*, 104–7. doi:10.1016/j.landusepol.2019.104107.
- Birch, Eugénie L., ed. 2009. *The urban and regional planning reader*. The Routledge urban reader series. London: Routledge.
- Blanco, Hilda, Marina Alberti, Robert Olshansky, Stephanie Chang, Stephen M. Wheeler, John Randolph, James B. London et al. 2009. "Shaken, shrinking, hot, impoverished and informal: Emerging research agendas in planning." *Progress in Planning* 72 (4): 195–250. doi:10.1016/j.progress.2009.09.001.
- Böhme, K., and B. Waterhout. 2008. "The Europeanisation of Planning." In *European spatial research and planning*, edited by Andreas Faludi, 225–48. Cambridge MA: Lincoln Institute of Land Policy.
- Böhme, Kai, and Flavio Besana. 2020. "Understanding the territorially diverse implications of Covid-19 policy responses." Accessed 07-Apr-22. https://www.spatialforesight.eu/files/spatial_theme/spatial/publications/Brief_2020-13_200513.pdf.
- Bontje, Marco. 2004. "Facing the challenge of shrinking cities in East Germany: The case of Leipzig." *GeoJournal* 61 (1): 13–21.
- Bontje, Marco, and Sako Musterd. 2012. "Understanding Shrinkage in European Regions." *built environ* 38 (2): 153–61. doi:10.2148/benv.38.2.153.
- Booth, Philip. 2011. "Culture, planning and path dependence: some reflections on the problems of comparison." *Town Planning Review* 82 (1): 13–28. doi:10.3828/tp.2011.4.
- Boxwell, Robert J. 1994. *Benchmarking for competitive advantage*. New York: McGraw-Hill.
- Brown, Adam, and Sara C. Justin O'Connor. 2000. "Local music policies within a global music industry: cultural quarters in Manchester and Sheffield." *Geoforum* 31: 437–51.
- Bruneckienė, Jurgita, and Jolita Sinkienė. 2015. "The Economic Competitiveness of Lithuanian Polish Border Region's Cities: the Specific of Urban Shrinkage." *Equilibrium - Quarterly Journal of Economic Policy* 10 (4): 133–49. Accessed 07-Nov-19.
- Buček, Ján, and Branislav Bleha. 2013. "Urban Shrinkage as a Challenge to Local Development Planning in Slovakia." *Moravian Geographical Reports* 21(1): 2–15. doi:10.2478/mgr-2013-0001.
- Buonanno, Laurie, and Neill Nugent. 2013. *Policies and policy processes of the European Union*. The European Union series. Basingstoke: Palgrave Macmillan.
- Buzar, Stefan, Philip Ogden, Ray Hall, Annegret Haase, Sigrun Kabisch, and Annett Steinführer. 2007. "Splintering Urban Populations: Emergent Landscapes of Reurbanisation in Four European Cities." *Urban Studies* 44 (4): 651–677.
- Camarda, Domenico, Francesco Rotondo, and Francesco Selicato. 2015. "Strategies for Dealing with Urban Shrinkage: Issues and Scenarios in Taranto." *European Planning Studies* 23 (1): 126–46. doi:10.1080/09654313.2013.820099.

- Campbell, Tim S. 2012. *Beyond smart cities: How cities network learn and innovate*. First published. London: Earthscan.
- Caragliu, Andrea, Chiara Del Bo, and Peter Nijkamp. 2011. "Smart Cities in Europe." *Journal of Urban Technology* 18 (2): 65–82. doi:10.1080/10630732.2011.601117.
- Cardullo, Paolo, and Rob Kitchin. 2019. "Being a 'citizen' in the smart city: up and down the scaffold of smart citizen participation in Dublin, Ireland." *GeoJournal* 84 (1): 1–13. doi:10.1007/s10708-018-9845-8.
- Carter, David. 2017. "Smart cities: terrain for 'epic struggle' or new urban utopias?" *Town Planning Review* 88 (1): 1–7. doi:10.3828/tpr.2017.2.
- Castells, Manuel. 2000. "European Cities, the Informational Society and the Global Economy." In *The city reader*, edited by Richard T. Legates. 2. ed. London: Routledge.
- Castells, Manuel. 2010. *The rise of the network society*. 2. ed., with a new preface. The information age: economy, society and culture / [Manuel Castells] 1. Chichester: Wiley-Blackwell.
- Charnock, Greig, Hug March, and Ramon Ribera-Fumaz. 2019. "From smart to rebel city? Worlding, provincialising and the Barcelona Model." *Urban Studies* 21: 004209801987211. doi:10.1177/0042098019872119.
- Cooke, Phil, and Lisa de Propris. 2011. "A policy agenda for EU smart growth: the role of creative and cultural industries." *Policy Studies* 32 (4): 365–75. doi:10.1080/01442872.2011.571852.
- Couch, Chris, Jay Karecha, Henning Nuisl, and Dieter Rink. 2005. "Decline and sprawl: an evolving type of urban development – observed in Liverpool and Leipzig." *European Planning Studies* 13 (1): 117–36. doi:10.1080/0965431042000312433.
- Couch, Chris, Olivier Sykes, and Wolfgang Börstinghaus. 2011. "Thirty years of urban regeneration in Britain, Germany and France: The importance of context and path dependency." *Progress in Planning* 75 (1): 1–52. doi:10.1016/j.progress.2010.12.001.
- Council of the EU. 2007. "Leipzig Charter on Sustainable European Cities." Accessed 19-Mar-20.
- Cunningham-Sabot, Emmanuelle, and H el ene Roth. 2014. "Growth Paradigm Against Urban Shrinkage: A Standardized Fight? The Cases of Glasgow (UK) and Saint-Etienne (France)." In *Shrinking cities: International perspectives and policy implications*, edited by Karina M. Pallagst, Thorsten Wiechmann, and Christina Martinez-Fernandez, 99–124. Routledge advances in geography 8. New York, NY: Routledge.
- Cuomo, Federico, Stefania Ravazzi, Federico Savini, and Luca Bertolini. 2020. "Transformative Urban Living Labs: Towards a Circular Economy in Amsterdam and Turin." *Sustainability* 12 (18): 7651. doi:10.3390/su12187651.
- Daly, Gavin, and Rob Kitchin. 2013. "Shrink smarter? Planning for spatial selectivity in population growth in Ireland." *Administration* 60 (3): 159–86. Accessed 07-Nov-19.
- Davidoff, Paul. 2009. "Advocacy and pluralism in planning." In Birch 2009.
- Davidoff, Paul, and Thomas Reiner. 1978. "A Choice Theory of Planning." In Faludi 1978.

- Davoudi, Simin, Daniel Galland, and Dominic Stead. 2020. "Reinventing planning and planners: Ideological decontestations and rhetorical appeals." *Planning Theory* 19 (1): 17–37. Accessed 18-Feb-21.
- Dembski, Sebastian, and Willem Salet. 2010. "The Transformative Potential of Institutions: How Symbolic Markers Can Institute New Social Meaning in Changing Cities." *Environ Plan A* 42 (3): 611–25. doi:10.1068/a42184.
- Dominique, K. C., A. A. Malik, and V. Remoquillo–Jenni. 2013. "International benchmarking: Politics and policy." *Science and Public Policy* 40 (4): 504–13. doi:10.1093/scipol/scs128.
- Downs, Anthony. 2001. "What Does 'Smart Growth' Really Mean? – Everyone agrees it's a good idea, but everyone has a different definition. Anthony Downs investigates the different opinions, and finds common ground." *Planning : the magazine of the American Planning Association* 67 (4): 20–25.
- Dubeaux, Sarah. 2017. *Les utilisations intermédiaires des espaces vacants dans les villes en décroissance : transferts et transférabilité entre l'Allemagne et la France. Architecture, aménagement de l'espace*: Université Paris sciences et lettres. <https://tel.archives-ouvertes.fr/tel-03376513/>.
- Eckert, Eva, and Oleksandra Kovalevska. 2021. "Sustainability in the European Union: Analyzing the Discourse of the European Green Deal." *JRFM* 14 (2): 80. doi:10.3390/jrfm14020080.
- Edwards, Mary M., and Anna Haines. 2007. "Evaluating Smart Growth." *Journal of Planning Education and Research* 27 (1): 49–64. doi:10.1177/0739456X07305792.
- Elliott, David. 2019. "Portugal wants its emigrants back – so it's paying them to return." Accessed December 05, 2019. <https://www.weforum.org/agenda/2019/08/portugal-emigration-incentives-population/>.
- Elzerman, Koen, and Marco Bontje. 2015. "Urban Shrinkage in Parkstad Limburg." *European Planning Studies* 23 (1): 87–103. doi:10.1080/09654313.2013.820095.
- Erasmus Happiness Economic Research Organization. 2019. "Circle Economy – The role of municipal policy in the circular economy."
- ESPON. 2020. "Reuse of spaces and buildings." <https://www.espon.eu/reuse-spaces-and-buildings#:~:text=Reusing%20spaces%20and%20buildings%20can,or%20using%20non%2Dsealed%20soil>. Accessed March 30, 2022
- European Commission. 2019. "The European Green Deal: Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions." COM(2019)640 final. Accessed March 18, 2020.
- European Commission. 2020. "Handbook of Sustainable Urban Development Strategies." Accessed 28-Feb-20.
- Fainstein, Susan. 2009. "New Directions in Planning Theory." In Birch 2009.
- Fainstein, Susan S. 2001. *The city builders: Property development in New York and London 1980 - 2000*. 2. ed., rev. Studies in government and public policy. Lawrence: Univ. Press of Kansas.

- Faludi, Andreas, ed. 1978. *A reader in planning theory*. Repr. Urban and regional planning series 5. Oxford: Pergamon Pr.
- Farthing, Stuart M. 2015. *Research design in urban planning: A student's guide / Stuart Farthing*. London: SAGE Publications Ltd.
- Fay, Brian. 1975. *Social theory and political practice*. (Controversies in sociology: 1.). London: Allen and Unwin.
- Fay, Brian. 1996. *Contemporary philosophy of social science: A multicultural approach / Brian Fay*. Contemporary philosophy. Oxford: Blackwell.
- Fernandez, Beatriz, and Maxwell Hartt. 2021. "Growing shrinking cities." *Regional Studies*, 1–12. doi:10.1080/00343404.2021.1975032.
- Fernández Agueda, Beatriz, and Emmanuelle Cunningham-Sabot. 2018. "Del declive al decrecimiento urbano: un debate en construcción." *Anales de Geografía de la Universidad Complutense* 38 (2): 341–56.
- Fischer, Frank. 2003. *Reframing public policy: Discursive politics and deliberative practices / Frank Fischer*. Oxford: Oxford University Press.
- Fischer, Frank, and John Forester, eds. 1996. *The argumentative turn in policy analysis and planning*. 2. print. Durham: Duke Univ. Press.
- Florentin, Daniel. 2011. "The "Perforated City:" Leipzig's Model of Urban Shrinkage Management." *Planning Journal* 23 (1). doi:10.5070/BP323111432.
- Florida, Richard. 2014. "The Creative Class and Economic Development." *Economic Development Quarterly* 28 (3): 196–205. doi:10.1177/0891242414541693.
- Flyvbjerg, Bent. 2006. "Five Misunderstandings About Case-Study Research." *Qualitative Inquiry* 12 (2): 219–45. doi:10.1177/1077800405284363.
- Freeman, R. E., Kirsten Martin, and Bidhan Parmar. 2007. "Stakeholder Capitalism." *J Bus Ethics* 74 (4): 303–14. doi:10.1007/s10551-007-9517-y.
- Gee, James P. 2014. *How to do discourse analysis: A toolkit*. Second Edition. London: Routledge.
- Geissdoerfer, Martin, Paulo Savaget, Nancy M. Bocken, and Erik J. Hultink. 2017. "The Circular Economy – A new sustainability paradigm?" *Journal of Cleaner Production* 143: 757–68. doi:10.1016/j.jclepro.2016.12.048.
- German Presidency of the Council of the EU. 2020. "The new Leipzig Charter: The transformative power of cities for the common good." Accessed February 10, 2022. https://ec.europa.eu/regional_policy/sources/docgener/brochure/new_leipzig_charter/new_leipzig_charter_en.pdf.
- Gestring, Norbert, Herbert Glasauer, Christine Hannemann, Werner Petrowsky, and Jörg Pohlan, eds. 2005. *Jahrbuch StadtRegion 2004/05ö Schwerpunkt: Schrumpfende Städte*. Jahrbuch Stadtregion.
- Glynos, Jason, David Howarth, Aletta Norval, and Ewen Speed. 2009. "Discourse Analysis: Varieties and Methods." *ESRC National Centre for Research* 14. Accessed 20-Jul-20.
- Gómez Uranga, Mikel, and Goio Etxebarria. 2000. "Panorama of the Basque Country and its Competence for Self-Government." *European Planning Studies* 8 (4): 521–35. doi:10.1080/713666417.

- Gonzalez, Sara. 2006. "Scalar Narratives in Bilbao: A Cultural Politics of Scales Approach to the Study of Urban Policy." *Int J Urban & Regional Res* 30 (4): 836–57. doi:10.1111/j.1468-2427.2006.00693.x.
- Gonzalez, Sara. 2011. "Bilbao and Barcelona 'in Motion'. How Urban Regeneration 'Models' Travel and Mutate in the Global Flows of Policy Tourism." *Urban Studies* 48 (7): 1397–1418. Accessed October 30, 2019.
- Gospodini, Aspa, ed. 2012. *Economic Crisis and the Shrinking Greek Cities*. Tirana. Accessed 07-Nov-19.
- Haartsen, Tialda, and Viktor Venhorst. 2010. "Planning for Decline: Anticipating on Population Decline in the Netherlands." *Tijdschrift voor Economische en Sociale Geografie* 101 (2): 218–27. doi:10.1111/j.1467-9663.2010.00597.x.
- Haase, Annegret, Matthias Bernt, Katrin Großmann, Vlad Mykhnenko, and Dieter Rink. 2016. "Varieties of shrinkage in European cities." *European Urban and Regional Studies* 23 (1): 86–102. doi:10.1177/0969776413481985.
- Haase, Annegret, Marco Bontje, Chris Couch, Szymon Marcinczak, Dieter Rink, Petr Rumpel, and Manuel Wolff. 2021. "Factors driving the regrowth of European cities and the role of local and contextual impacts: A contrasting analysis of regrowing and shrinking cities." *Cities* 108: 102942. doi:10.1016/j.cities.2020.102942.
- Haase, Annegret, Dieter Rink, Katrin Grossmann, Matthias Bernt, and Vlad Mykhnenko. 2014. "Conceptualizing Urban Shrinkage." *Environ Plan A* 46 (7): 1519–34. doi:10.1068/a46269.
- Hagen, Roar. 2017. "Abduction - Assessing Fruitfulness and the Construction of Scientific Concepts." In *Theory in action: Theoretical constructionism / edited by Peter Sohlberg, Hakon Leifsrud*, edited by Peter Sohlberg and Hakon Leifsrud, 126–45. *Studies in critical social sciences* Volume 91. Leiden: Brill.
- Hajer, Maarten A. 1995. *The politics of environmental discourse: Ecological modernization and the policy process*. Oxford: Clarendon Press; Oxford University Press.
- Hajer, Maarten A. 2005. "Rebuilding Ground Zero. The Politics of Performance." *Planning Theory & Practice* 6 (4): 445–64. Accessed 20-Jul-20.
- Hajer, Maarten A. 2006. "Doing discourse analysis: coalitions, practices, meaning." In *Words matter in policy and planning*, edited by Margo van den Brink and Tamara Metze, 65–74. Utrecht: Netherlands Graduate School of Urban and Regional Research.
- Hajer, Maarten A., and Ton Dassen. 2014. *Smart about cities: Visualising the challenge for 21st century urbanism ; "we need a globally networked urbanism"*. Rotterdam: nai010 publishers u.a.
- Hartt, Maxwell. 2019. "The Prevalence of Prosperous Shrinking Cities." *Annals of the American Association of Geographers* 109 (5): 1651–70. doi:10.1080/24694452.2019.1580132.
- Hartt, Maxwell. 2021. "The Elasticity of Shrinking Cities: An Analysis of Indicators." *The Professional Geographer* 73 (2): 230–39. doi:10.1080/00330124.2021.1871764.
- Hartt, Maxwell, Justin B. Hollander, Frank J. Popper, and Matthew Ellis. 2021. "Intraregional Spatial Dynamics of Quality of Life in Shrinking Cities and Their Suburbs." *Planning Practice and Research* 36 (5): 514–29. doi:10.1080/02697459.2021.1965735.

- Hartt, Maxwell, and Joshua Warkentin. 2017. "The development and revitalisation of shrinking cities: a twin city comparison." *Town Planning Review* 88 (1): 29–41. doi:10.3828/tpr.2017.4.
- Hartt, Maxwell D. 2018. "How cities shrink: Complex pathways to population decline." *Cities* 75: 38–49. doi:10.1016/j.cities.2016.12.005.
- Harvey, David. 2009. *Social justice and the city*. rev. ed., digit. print. Geographies of justice and social transformation 1. Athens, Ga. Univ. of Georgia Press.
- Hatuka, Tali, Issachar Rosen-Zvi, Michael Birnhack, Eran Toch, and Hadas Zur. 2018. "The Political Premises of Contemporary Urban Concepts: The Global City, the Sustainable City, the Resilient City, the Creative City, and the Smart City." *Planning Theory & Practice* 19 (2): 160–79. doi:10.1080/14649357.2018.1455216.
- Healey, Patsy. 2006. *Collaborative planning: Shaping places in fragmented societies*. 2. ed. Planning, environment, cities. Basingstoke: Palgrave Macmillan.
- Healey, Patsy. 2009. "The Pragmatic Tradition in Planning Thought." *Journal of Planning Education and Research* 28 (3): 277–92. doi:10.1177/0739456X08325175.
- Hirt, Sonia, and Robert Beauregard. 2019. "Must shrinking cities be distressed cities? A historical and conceptual critique." *International Planning Studies* 75 (911): 1–13. doi:10.1080/13563475.2019.1661226.
- Hollander, Justin, Karina Pallagst, Terry Schwarz, and Frank Popper. 2009. "Planning shrinking cities." *Progress in Planning* 72 (4): 223–32.
- Hollander, Justin B. 2011. "Can a City Successfully Shrink? Evidence from Survey Data on Neighborhood Quality." *Urban Affairs Review* 47 (1): 129–41. doi:10.1177/1078087410379099.
- Hollander, Justin B. 2018. *A research agenda for shrinking cities*. Elgar research agendas.
- Hollander, Justin B., and Jeremy Németh. 2011. "The bounds of smart decline: a foundational theory for planning shrinking cities." *Housing Policy Debate* 21 (3): 349–67. doi:10.1080/10511482.2011.585164.
- Hollands, Robert G. 2008. "Will the real smart city please stand up?" *City* 12 (3): 303–20. doi:10.1080/13604810802479126.
- Hospers, Gert-Jan. 2013. "Coping with shrinkage in Europe's cities and towns." *Urban Design International* 18 (1): 78–89. Accessed 07-Nov-19.
- Hospers, Gert-Jan. 2014. "Policy Responses to Urban Shrinkage: From Growth Thinking to Civic Engagement." *European Planning Studies* 22 (7): 1507–23. doi:10.1080/09654313.2013.793655.
- International Institute for Applied Systems Analysis. 2019. "Navigating through deep waters of uncertainty Systems analysis approach to strategic planning of water resources and water infrastructure under high uncertainties and conflicting interests." Accessed 15-Mar-22. <http://pure.iiasa.ac.at/id/eprint/15998/>.
- Ivanov, Bozhidar. 2021. "Narratives of Crisis: How Framing Urban Shrinkage and Depopulation Shapes Policy and Planning Responses in Spain, Germany and The Netherlands." *Sustainability* 13 (19): 11045. doi:10.3390/su131911045.

- Ivanov, Bozhidar. 2021; Forthcoming. "Shrinking Smart from theory to practice: An epistemological approach to constructing a new planning concept." In *Handbook on Shrinking Cities*, edited by Karina Pallagst, Marco Bontje, Emmanuelle Cunningham-Sabot, and René Fleschurz: Edward Elgar Publishing.
- Jackson, Tim. 2017. *Prosperity without growth: Foundations for the economy of tomorrow*. Second edition.
- Jacobs, Jane. 2009. "Downtown is for people." In Birch 2009.
- Jacobs, Keith. 2006. "Discourse Analysis and its Utility for Urban Policy Research." *Urban Policy and Research* 24 (1): 39–52. doi:10.1080/08111140600590817.
- Jasanoff, Sheila, and Sang-Hyun Kim. 2015. *Dreamscapes of Modernity*: University of Chicago Press. Accessed 09-Jul-21.
- Jensen, Jesper O., ed. 2017. *Vacant houses in Denmark: Problems, localization and initiatives*. Accessed 07-Nov-19.
- John Friedmann. 1978. "A conceptual model for the analysis of planning behavior." In Faludi 1978, 345–71.
- K6. 2020. "Helemaal Nederland: Te Klein voor Grote Verschillen." <https://www.kennisvoorkrimp.nl/publicaties-over-krimp>.
- Kitchin, Rob, Tracey P. Lauriault, and Gavin McArdle. 2015. "Knowing and governing cities through urban indicators, city benchmarking and real-time dashboards." *Regional Studies, Regional Science* 2 (1): 6–28. doi:10.1080/21681376.2014.983149.
- Knaap, Gerrit, and Emily Talen. 2005. "New Urbanism and Smart Growth: A Few Words from the Academy." *International Regional Science Review* 28 (2): 107–18. doi:10.1177/0160017604273621.
- Kotkin, Joel. 2009. "Suburbia: Homeland of the American future." In Birch 2009, 41–47.
- Kourtit, Karima, Peter Nijkamp, and Daniel Arribas. 2012. "Smart cities in perspective – a comparative European study by means of self-organizing maps." *Innovation: The European Journal of Social Science Research* 25 (2): 229–46. doi:10.1080/13511610.2012.660330.
- Koziol, Matthias. 2004. "The consequences of demographic change for municipal infrastructure." *German Journal of Urban Studies* 44 (1): 69–83.
- Leetmaa, Kadri, Agnes Kriszan, Mari Nuga, and Joachim Burdack. 2015. "Strategies to Cope with Shrinkage in the Lower End of the Urban Hierarchy in Estonia and Central Germany." *European Planning Studies* 23 (1): 147–65. doi:10.1080/09654313.2013.820100.
- Leitheiser, Stephen, and Alexander Follmann. 2019. "The social innovation-(re) politicisation nexus: Unlocking the political in actually existing smart city campaigns? The case of SmartCity Cologne, Germany." *Urban Studies* 69 (3): 004209801986982. doi:10.1177/0042098019869820.
- Lindblom, Charles. 1978. "The Science of "Muddling Through"." In Faludi 1978, 151–71.
- Lombardi, Patrizia, Silvia Giordano, Hend Farouh, and Wael Yousef. 2012. "Modelling the smart city performance." *Innovation: The European Journal of Social Science Research* 25 (2): 137–49. doi:10.1080/13511610.2012.660325.

- López Ruiz, Luis A., Xavier Roca Ramón, and Santiago Gassó Domingo. 2020. "The circular economy in the construction and demolition waste sector – A review and an integrative model approach." *Journal of Cleaner Production* 248: 119238. doi:10.1016/j.jclepro.2019.119238.
- LSE Centre for Analysis and Social Exclusion. 2016. "Leipzig City Story." Accessed 28-Oct-20. <http://eprints.lse.ac.uk/67845/1/casereport107.pdf>.
- Lucy, William, and David Phillips. 2009. "Sprawl and the tyranny of easy development decisions." In Birch 2009.
- Luque-Martínez, Teodoro, and Francisco Muñoz-Leiva. 2005. "City benchmarking: A methodological proposal referring specifically to Granada." *Cities* 22 (6): 411–23. doi:10.1016/j.cities.2005.07.008.
- Majone, Giandomenico. 1989. *Evidence, argument and persuasion in the policy process*. New Haven: Yale University Press.
- Markusen, Ann. 1999. "Fuzzy Concepts, Scanty Evidence, Policy Distance: The Case for Rigour and Policy Relevance in Critical Regional Studies." *Regional Studies* 33 (9): 869–84. doi:10.1080/00343409950075506.
- Martínez-Fernández, C., Ivonne Audirac, Emmanuelle Cunningham-Sabot, and Sylvie. Fol. 2012a. "Shrinking Cities: Urban Challenges of Globalization." *International Journal of Urban and Regional Research* 36 (2): 213–25. doi:10.1111/j.1468-2427.2011.01092.x.
- Martínez-Fernández, Christina, Antonella Noya, Naoko Kubo, and Tamara Weyman. 2012b. "Demographic change and local development: shrinkage, regeneration and social dynamics."
- Matoga, Agnes. 2019. "Governance of temporary use." *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* 172 (4): 159–68. doi:10.1680/jurdp.18.00052.
- Mazzucato, Mariana. 2018. *The Entrepreneurial State: Debunking public vs. private sector myths*. Great Britain: Penguin.
- McCann, Philip. 2016. *The regional and urban policy of the European Union: Cohesion results-orientation and smart specialisation*. Paperback edition. New horizons in regional science.
- Meadows, Donella H. 1972. *The limits to growth: A report for the Club of Rome's project on the predicament of mankind / Donella H. Meadows ... [et al.]*. New York: Universe Books.
- Meijer, Albert, and Manuel P. R. Bolívar. 2016. "Governing the smart city: a review of the literature on smart urban governance." *International Review of Administrative Sciences* 82 (2): 392–408. doi:10.1177/0020852314564308.
- Mintrom, Michael, and Joannah Luetjens. 2016. "Design Thinking in Policymaking Processes: Opportunities and Challenges." *Australian Journal of Public Administration* 75 (3): 391–402. Accessed 18-Feb-21.
- Molotch, Harvey. 1976. "The City as a Growth Machine: Toward a Political Economy of Place." *American Journal of Sociology* 82 (2): 309–32.
- Morgan, David L. 2007. "Paradigms Lost and Pragmatism Regained." *Journal of Mixed Methods Research* 1(1): 48–76. doi:10.1177/2345678906292462.

- Moss, Timothy. 2008. "Cold spots' of Urban Infrastructure: 'Shrinking' Processes in Eastern Germany and the Modern Infrastructural Ideal." *International Journal of Urban and Regional Research* 32 (2): 436–51. doi:10.1111/j.1468-2427.2008.00790.x.
- N. D. Kondratieff and W. F. Stolper. 1935. "The long waves in economic life." *The Review of Economics and Statistics* 17 (6): 105–15.
- Nelle, Anja, Katrin Großmann, Dagmar Haase, Sigrun Kabisch, Dieter Rink, and Manuel Wolff. 2017. "Urban shrinkage in Germany: An entangled web of conditions, debates and policies." *Cities* 69: 116–23. doi:10.1016/j.cities.2017.02.006.
- Newman, Peter, and Andy Thornley. 1996. *Urban planning in Europe: International competition, national systems, and planning projects*. London: Routledge.
- OECD. 2013. "Innovation-driven Growth in Regions: The Role of Smart Specialisation." Accessed 28-Feb-20.
- Olsen, Aksel K. 2013. "Shrinking Cities: Fuzzy Concept or Useful Framework?" *Berkeley Planning Journal* 26 (1): 107–32. Accessed October 02, 2019.
- Ortiz-Moya, Fernando. 2015. "Coping with shrinkage: Rebranding post-industrial Manchester." *Sustainable Cities and Society* 15: 33–41. doi:10.1016/j.scs.2014.11.004.
- Oswalt, Philipp, and Henning Schirmel. 2006. *Atlas of shrinking cities: ... eine Arbeit des Projektbüros Philipp Oswalt im Rahmen des Projekts "Schrumpfende Städte" e. Initiativprojekts der Kulturstiftung des Bundes in Kooperation mit d. Projektbüro Oswalt der Galerie für zeitgenössische Kunst Leipzig der Stiftung Bauhaus Dessau und der Zeitschrift archplus*. Ostfildern: Hatje Cantz.
- Othengrafen, Frank, and Mario Reimer. 2013. "The Embeddedness of Planning in Cultural Contexts: Theoretical Foundations for the Analysis of Dynamic Planning Cultures." *Environ Plan A* 45 (6): 1269–84. doi:10.1068/a45131.
- Paasi, Marianne. 2005. "Collective benchmarking of policies: an instrument for policy learning in adaptive research and innovation policy." *Science and Public Policy* 32 (1): 17–27. Accessed 18-Nov-19.
- Palermo, Pier C., and Davide Ponzini. 2014. "Inquiry and design in spatial planning: three approaches to planning research in late modern cities." In *The Routledge handbook of planning research methods*, edited by Elisabete A. Silva, Patsy Healey, Neil Harris, and Pieter van den Broeck, 121–33. RSM career handbooks. Place of publication not identified: Routledge.
- Pallagst, Karina. 2007. *Growth management in the US: Between theory and practice*. Urban planning and environment. Aldershot: Ashgate.
- Pallagst, Karina. 2010. "Viewpoint: The planning research agenda: shrinking cities – a challenge for planning cultures." *The Town Planning Review* 81 (5): 1–6.
- Pallagst, Karina, René Fleschurz, and Siba Said. 2017. "What drives planning in a shrinking city? Tales from two German and two American cases." *Town Planning Review* 88 (1): 15–28. doi:10.3828/tpr.2017.3.
- Pallagst, Karina, René Fleschurz, and Franziska Trapp. 2017. "Greening the shrinking city—policies and planning approaches in the USA with the example of Flint, Michigan." *Landscape Research* 42 (7): 716–27. doi:10.1080/01426397.2017.1372398.

- Pallagst, Karina, Helen Mulligan, Emmanuelle Cunningham-Sabot, and Sylvie. Fol. 2017. "The shrinking city awakens: perceptions and strategies on the way to revitalisation?" *Town Planning Review* 88 (1): 9–13. doi:10.3828/tpr.2017.1.
- Panagopoulos, Thomas, and Paula Barreira. 2012. "Shrinkage Perceptions and Smart Growth Strategies for the Municipalities of Portugal." *BUILT ENVIRONMENT* 38 (2). Accessed October 03, 2019.
- Papaioannou, Theodoros, Howard Rush, and John Bessant. 2006. "Benchmarking as a policy-making tool: from the private to the public sector." *Science and Public Policy* 33 (2): 91–102. Accessed 19-Dec-19.
- Pianta, Mario, and Matteo Lucchese. 2020. "Rethinking the European Green Deal." *Review of Radical Political Economics* 52 (4). Accessed 07-Apr-22.
- Ploeger, Joerg. 2007. "Bilbao City Report." Accessed October 30, 2019.
- Ploeger, Joerg. 2012. "Learning from abroad – Lessons from European Shrinking Cities." In *Rebuilding America's legacy cities: New Directions for the Industrial Heartland*, edited by Alan Mallach, 295–321. New York: The American Assembly, Columbia University. Accessed October 30, 2019.
- Popper, Deborah, and Frank Popper. 2002. "Small Can Be Beautiful." *Planning* (20).
- Popper, Deborah, and Frank Popper. 2017. "American Shrinking Cities May Not Need to Grow." Accessed October 01, 2019. <https://www.metropolitiques.eu/American-Shrinking-Cities-May-Not.html>.
- Radzimski, Adam. 2016. "Changing policy responses to shrinkage: The case of dealing with housing vacancies in Eastern Germany." *Cities* 50: 197–205. doi:10.1016/j.cities.2015.10.005.
- Rall, Emily L., and Dagmar Haase. 2011. "Creative intervention in a dynamic city: A sustainability assessment of an interim use strategy for brownfields in Leipzig, Germany." *Landscape and Urban Planning* 100 (3): 189–201. doi:10.1016/j.landurbplan.2010.12.004.
- Raworth, Kate. 2012. "A Safe and Just Space for Humanity: Can we live within the doughnut?" Accessed 28-Feb-20.
- Reimer, Mario. 2014. *Spatial planning systems and practices in Europe: A comparative perspective on continuity and changes*. 1. ed. London: Routledge.
- Rein, Martin, and Donald Schön. 1996. "Reframing Policy Discourse." In *The argumentative turn in policy analysis and planning*, edited by Frank Fischer and John Forester. 2. print, 145–67. Durham: Duke Univ. Press.
- Rhodes, James, and John Russo. 2013. "Shrinking 'Smart'? Urban Redevelopment and Shrinkage in Youngstown, Ohio." *Urban Geography* 34 (3): 305–26. doi:10.1080/02723638.2013.778672.
- Richard S. Bolan. 1978. "Community Decision Behavior: The Culture of Planning." In Faludi 1978.
- Rink, Dieter, Chris Couch, Annegret Haase, Robert Krzysztofik, Bogdan Nadolu, and Petr Rumpel. 2014. "The governance of urban shrinkage in cities of post-socialist Europe: policies, strategies and actors." *Urban Research & Practice* 7 (3): 258–77. doi:10.1080/17535069.2014.966511.

- Rink, Dieter, Annegret Haase, and Matthias Bernt. 2009. "Specification of Working Model. Work package 1 of Shrink Smart: Governance of Shrinkage in a European Context."
- Rink, Dieter, Annegret Haase, Katrin Grossmann, Chris Couch, and Matthew Cocks. 2012. "From Long-Term Shrinkage to Re-Growth? The Urban Development Trajectories of Liverpool and Leipzig." *BUILT ENVIRONMENT* 38 (2): 162–78.
- Rodriguez, Arantxa, and Elena Martinez. 2001. "Del declive a la revitalización: Oportunidades y límites de las nuevas políticas urbanas en Bilbao." *CIUDAD Y TERRITORIO, Estudios Territoriales XXXIII* (129): 441–59. Accessed 01-Dec-20.
- Rodríguez Suárez, Iván. 2014. "Rehabilitación, regeneración y renovación urbana en Bilbao la Vieja, San Francisco y Zabala." *Ciudad y Territorio: Estudios Territoriales XLVI*: 199–206.
- Room, Graham. 2005. "Policy Benchmarking in the European Union." *Policy Studies* 26 (2): 117–32. doi:10.1080/01442870500126933.
- Rota, Miguel. 2009. "22@Barcelona: A new District for the Creative Economy." In *Birch 2009*.
- Rychtarikova, Jitka. 1999. "Is Eastern Europe Experiencing a Second Demographic Transition." *GEOGRAPHICA* 1 (1): 19–44.
- Samper, Juan A., Amanda Schockling, and Mine Islar. 2021. "Climate Politics in Green Deals: Exposing the Political Frontiers of the European Green Deal." *PaG* 9 (2): 8–16. doi:10.17645/pag.v9i2.3853.
- Sánchez Levoso, Ana, Carles M. Gasol, Julia Martínez-Blanco, Xavier G. Durany, Martin Lehmann, and Ramon F. Gaya. 2020. "Methodological framework for the implementation of circular economy in urban systems." *Journal of Cleaner Production* 248: 119227. doi:10.1016/j.jclepro.2019.119227.
- Sánchez-Moral, Simón. 2017. "The mobility of 'creative workers' and their potential contribution to the recovery of old industrial cities in Spain." *Town Planning Review* 88 (1): 93–107. doi:10.3828/tpr.2017.8.
- Sánchez-Moral, Simón, Ricardo Méndez, and José Prada-Trigo. 2015. "Resurgent Cities: Local Strategies and Institutional Networks to Counteract Shrinkage in Avilés (Spain)." *European Planning Studies* 23 (1): 33–52. doi:10.1080/09654313.2013.820084.
- Schatz, Laura. 2017. "Going for growth and managing decline: the complex mix of planning strategies in Broken Hill, NSW, Australia." *Town Planning Review* 88 (1): 43–57. doi:10.3828/tpr.2017.5.
- Schwab, Klaus. 2019. "Why we need the 'Davos Manifesto' for a better kind of capitalism." <https://www.weforum.org/agenda/2019/12/why-we-need-the-davos-manifesto-for-better-kind-of-capitalism/>.
- Servillo, Loris. 2010. "Territorial Cohesion Discourses: Hegemonic Strategic Concepts in European Spatial Planning." *Planning Theory & Practice* 11 (3): 397–416. doi:10.1080/14649357.2010.500135.
- Shahab, Sina, J. P. Clinch, and Eoin O'Neill. 2019. "Impact-based planning evaluation: Advancing normative criteria for policy analysis." *Environment and Planning B: Urban Analytics and City Science* 46 (3): 534–50. doi:10.1177/2399808317720446.

- Shaw, Robert. 2002. "The International Building Exhibition (IBA) Emscher Park, Germany: A Model for Sustainable Restructuring?" *European Planning Studies* 10 (1): 77–97. doi:10.1080/09654310120099272.
- Sisson, Keith, James Arrowsmith, and Paul Marginson. 2003. "All benchmarkers now? Benchmarking and the 'Europeanisation' of industrial relations." *Industrial Relations Journal* 34 (1): 15–31. Accessed 09-Mar-20.
- Sousa, Sílvia, and Paulo Pinho. 2015. "Planning for Shrinkage: Paradox or Paradigm." *European Planning Studies* 23 (1): 12–32. doi:10.1080/09654313.2013.820082.
- Stone, Deborah. 1989. "Causal Stories and the Formation of Policy Agendas." *Political Science Quarterly* 104 (2): 281–300. Accessed 26-Aug-20.
- Stone, Deborah A. 2002. *Policy paradox: The art of political decision making*. Rev. ed, [Nachdr.]. New York, N.Y. Norton.
- Streich, Bernd. 2018. *Subversive urban planning: Alternative forms of urban action in the knowledge society*. Wiesbaden, Germany: Springer VS Science+Business Media.
- Strelkovskii, Nikita, Nadejda Komendantova, Sergey Sizov, and Elena Rovenskaya. 2020. "Building plausible futures: Scenario-based strategic planning of industrial development of Kyrgyzstan." *Futures* 124: 102646. doi:10.1016/j.futures.2020.102646.
- Stryjakiewicz, Tadeusz, and Emilia Jaroszevska. 2016. "The process of shrinkage as a challenge to urban governance." *QUAESTIONES GEOGRAPHICAE* 35 (2): 27–37. Accessed October 01, 2019.
- Swyngedouw, Erik. 2004. "Globalisation or 'glocalisation'? Networks, territories and rescaling." *Cambridge Review of International Affairs* 17 (1): 25–48. doi:10.1080/0955757042000203632.
- Syssner, Josefina. 2016. "Planning for shrinkage? Policy implications of demographic decline in Swedish municipalities." *Ager. Revista de Estudios sobre Despoblación y Desarrollo Rural* 20: 7–31. Accessed 07-Nov-19.
- Teitz, Michael. 2009. "Reflections and research on the US experience." In Birch 2009.
- Thomas, Ren, and Luca Bertolini. 2014. "Beyond the Case Study Dilemma in Urban Planning: Using a Meta-matrix to Distil Critical Success Factors in Transit-Oriented Development." *Urban Policy and Research* 32 (2): 219–37. Accessed 18-Feb-21.
- Turok, Ivan, and Vlad Mykhnenko. 2008. "Resurgent European cities?" *Urban Research & Practice* 1 (1): 54–77. doi:10.1080/17535060701795363.
- United Nations. 2015. "Transforming our world: the 2030 Agenda for Sustainable Development." <https://sdgs.un.org/2030agenda>.
- UNPF. 2009. "The promise of urban growth." In Birch 2009.
- van Broekhoven, Saskia, and Anne Vernay. 2018. "Integrating Functions for a Sustainable Urban System: A Review of Multifunctional Land Use and Circular Urban Metabolism." *Sustainability* 10 (6): 1875. doi:10.3390/su10061875.
- van der Kerkhof, Marleen, Matthijs Hisschemöller, and Marijke Spanjersberg. 2002. "Shaping Diversity in Participatory Foresight Studies: Experiences with Interactive Backcasting in a Stakeholder Assessment on Long-Term Climate Policy in The Netherlands." *Greener Management International* 37: 85–99. <https://www.jstor.org/stable/10.2307/greemanainte.37.85>. Accessed 15-Mar-22.

- van Duinen, Lianne. 2013. "Mainport and corridor: exploring the mobilizing capacities of Dutch spatial concepts." *Planning Theory & Practice* 14 (2): 211–32. doi:10.1080/14649357.2013.782423.
- van Duinen, Lianne. 2015. "New Spatial Concepts Between Innovation and Lock-in: The Case of the Dutch Deltametropolis." *Planning Practice & Research* 30 (5): 548–69. doi:10.1080/02697459.2015.1076155.
- van Thiel, Sandra, and Frans L. Leeuw. 2002. "The Performance Paradox in the Public Sector." *Public Performance & Management Review* 25 (3): 267–81. Accessed 09-Mar-20.
- Verwest, Femke. 2011. *Demographic decline and local government strategies: A study of policy change in the Netherlands*. Delft: Eburon.
- Vreeker, Ron, Henri L. de Groot, and Erik T. Verhoef. 2004. "Urban Multifunctional Land Use: Theoretical and Empirical Insights on Economies of Scale, Scope and Diversity." *built environ* 30 (4): 289–307. doi:10.2148/benv.30.4.289.57157.
- Wiechmann, Thorsten. 2008. "Strategic Flexibility beyond Growth and Shrinkage: Lessons from Dresden, Germany." In *Cities Growing Smaller: (Urban Infill, Volume 1)*, edited by Karina Pallagst, 20–29. Cleveland: Cleveland Urban Design Collabo (2008).
- Wiechmann, Thorsten. 2009. "Conversion Strategies under Uncertainty in Post-Socialist Shrinking Cities: The example of Dresden in Eastern Germany." In *The Future of Shrinking Cities: Problems, Patterns and Strategies of Urban Transformation in a Global Context: Karina Pallagst, Jasmin Aber, Ivonne Audirac, Emmanuele Cunningham-Sabot, Sylvie Fol, Cristina Martinez-Fernandez, Sergio Moraes, Helen Mulligan, Jose Vargas-Hernandez, Thorsten Wiechmann, Tong Wu (Editors) and Jessica Rich (Contributing Editor)*, edited by Karina Pallagst et.al. California.
- Wiechmann, Thorsten, and Karina Pallagst. 2012. "Urban shrinkage in Germany and the USA: A Comparison of Transformation Patterns and Local Strategies." *International Journal of Urban and Regional Research* 36 (2): 261–80. doi:10.1111/j.1468-2427.2011.01095.x.
- Wolff, Manuel, and Thorsten Wiechmann. 2018. "Urban growth and decline: Europe's shrinking cities in a comparative perspective 1990–2010." *European Urban and Regional Studies* 25 (2): 122–39. doi:10.1177/0969776417694680.
- World Economic Forum. 2019. "Davos Manifesto 2020: The Universal Purpose of a Company in the Fourth Industrial Revolution." <https://www.weforum.org/agenda/2019/12/davos-manifesto-2020-the-universal-purpose-of-a-company-in-the-fourth-industrial-revolution/>.
- World Economic Forum. 2020. "Taking the Pulse of the New Economy Chief Economists Outlook." Accessed 28-Feb-20.
- Yehezkel Dror. 1978. "The Planning Process : a Facet Design." In Faludi 1978, 323–45.
- Yin, Robert K. 2018. *Case study research and applications: Design and methods*. Sixth edition.
- Zimmermann, Horst. 2007. "What is a "Leitbild"? Some Reflections on the Origin and Use of the German Expression." In *German annual of spatial research and policy*, edited by Wendelin Stubelt, 3–11. Berlin: Springer.
- Zonneveld, Wil. 2005. "In search of conceptual modernization: The new Dutch 'national spatial strategy'." *J Housing Built Environ* 20 (4): 425–43. doi:10.1007/s10901-005-9024-3.

APPENDIX 1: CODE SYSTEM

CODE SYSTEM	FREQUENCY
Code System	5722
Planning relevance	0
Process	207
Substance	407
Concept features	0
Planning centrality	78
Participatory	57
Inquiry	67
Applicability/Contextuality	38
Integration	98
Visionary/Future orientation	121
Generative/Inventive	65
Know-how	15
Efficiency	64
Collaboration	50
Causal strand	0
Nested context	129
Frame	168
Story/Storyline	103
Normative strand	0
Normative leap (Politics building)	957
Causal story	202
Metaphor	32

CODE SYSTEM	FREQUENCY
Code System	5722
Scope topics (Inductive)	4
Shrinkage conceptualization	63
Demography	118
Inmigration	24
Social services	73
Agriculture	2
Quality of life	133
Social cohesion/Solidarity	31
Social integration/ Segregation	54
Education	50
Housing	294
Infrastructure-Internet	16
Infrastructure-overall	19
Security	7
Territorial planning	15
Administrative capacity	5
Hypothesis 5	0
Economy and labour market	487
Culture (+)	24
City image	104
Human capital	14
Non-growth	35
Sustainability	83
Circularity	15
Land use	215
Compactness	126
Mixed use	74
Greening	66
Vacancy	109
Building conversion	87
Renovation	114
Demolition	43
Cultural heritage (built)	36
Mobility	107
Finance	93

APPENDIX 2: INTERVIEW GUIDES

The interview guides followed a consistent structure, but were adapted to the respective institution that was being interviewed as well as with details on the specific case study. The presented interview guides below are the generic version in English. For the interviews in Spanish and German, the interview guide was translated and adapted.

POLICY LEVEL INTERVIEW GUIDE

“SHRINKING SMART”: COMPARATIVE EUROPEAN PERSPECTIVES AND APPLICABILITY

Italic – guiding conversation, conversation filler

Italic and underscore – clarification for interviewer

1. INTRODUCTION OF THE RESPONDENT

- Could you introduce yourself, the organization that you are working for and your position and role?

2. UNDERSTANDING OF SHRINKAGE (A)

Population decline is (ice breaker with contextual information)

- How would you describe what is happening or expected to happen in the regions which are currently losing population or expecting to lose in the long-term?
- What are the consequences of population decline in *(case study)*?

3. SCOPE OF RESPONSES (B)

- How did the you decide to approach those challenges? What was the approach on national/regional/local level?
- Why was this approach chosen? How did you decide that this is the most suitable way to address population decline and its consequences? What was important for you to choose this approach? How did you balance between those different considerations? (*refer to the outlined consequences/measures in the previous responses*)

4. CONCEPT LEVEL (C)

- How are you working/ How did you start working on those measures? What is/was necessary to achieve them? Which are/were the responsible institutions to deliver? What needs/needed to be done? (*If planning effort does not come up, introduce planning directly: what is/was the role of planning in all this?*)
- How did you structure the process of identification of measures? Did you employ any studies or additional research before deciding on the approach?

- If yes: Why did you decide that additional data was necessary? How did you decide the scope of the research? What were the results, what additional information you gained from this and how did it help you form the next steps?
- What were/are you trying to achieve with those steps? How do you imagine the future of regions with decreasing population? How will they change?
 - If an objective/goal is defined: Was this goal formulated as part of the policies? Why did you decide to aim for this? Was there a consensus in this direction? Were other alternatives considered?

You mentioned that population decline has resulted in XXX and XXX (references to previous answers).

- How did you decide to handle those? Did you use measures to address multiple issues at once?
 - If yes: Could you tell me more about this?
- Why were those measures suitable for (*case study*)? Why not something else? What considerations for the specific character of the country/province did you take into account?
- What resources are/were necessary to achieve those measures? Were those available in (*case study*)? How did you obtain those? Did you have to optimize what you had available or your budget to acquire those? (references to previous answers)
 - Depending on the measures and approaches already suggested, refer to available land, materials after demolition, available resources already referenced and ask if they used them for something, how/why? Possibly finance will come up on its own.

5. GROWTH AND ECONOMY (D)

- If economy has not come up yet: What are the implications of population decline on the economic development of the country OR of (case study)?
- What is going to be the role of the areas with population decline in the economic development of the country? (not directly asking for growth, expecting to appear)
 - How were the measures you decided to adopt (examples from answers in previous questions) suitable for *the economic context (reference to the answer on growth and economy)*? Were those economic considerations (reference to the answer on growth and economy) taken into account when deciding on which measures to implement?

There are some additional perspectives or considerations in terms of economy which are currently gaining momentum. Have you considered:

- Sustainability and sustainable development (if it has not appeared): Have you taken into account sustainable development/sustainability considerations?
- Circularity, reuse, circular economy (if it has not appeared in the efficiency question): Have you considered measures towards circular economy? Did you try to reuse or utilize what you already have?

- *Post-growth*: What is the role of economy in the areas with population decline? / Can economy in the areas with population decline serve other functions than growth? (*might have already been answered in the general growth/economy question*)
- *Stakeholder capitalism*: What is the role of business and private actors/capital in the above efforts (*references to previous answers*) towards population decline and consequences?

6. EXISTING IDEAS (E)

- *If they have not been mentioned already*:
 - Have you considered how those measures could improve the quality of life of the citizens living in the affected areas? What do you consider as important for quality of life?
 - Have you identified any policies/measures, related to expanding green and recreational areas?
 - Have you identified any challenges with infrastructure provisioning/maintenance in the areas with population decline?
 - *If yes*: What are they? How are you intending to address them?
 - Has demolition been employed as an approach in the policies for areas with population decline? How is this facilitated (*e.g. private vs. public property*)?

7. OTHER ASPECTS (F)

- What is the role of citizens in the whole process? (*for policy level: very broad*)
- *If it has not appeared yet*: What are the financial requirements and constraints for the implementation of the above measures? How are you planning to address them?

PLANNING LEVEL INTERVIEW GUIDE

“SHRINKING SMART”: COMPARATIVE EUROPEAN PERSPECTIVES AND APPLICABILITY

Italic – guiding conversation, conversation filler

Italic and underscore – clarification for interviewer

1. INTRODUCTION OF THE RESPONDENT

- Could you introduce yourself, the organization that you are working for and your position and role?

2. UNDERSTANDING OF SHRINKAGE (A)

Population decline is (ice breaker with contextual information)

- How would you describe what is happening or expected to happen in the regions which are currently losing population or expecting to lose in the long-term?
- What are the consequences of population decline in (*case study*)?

3. SCOPE OF RESPONSES (B) – *they could refer directly to planning*

- Province only: How did the (*case study*) decide to approach those challenges? What was the approach on provincial level?
- Why was this approach chosen? How did you decide that this is the most suitable way to address population decline and its consequences? What was important for you to choose this approach? How did you balance between those different considerations? (*refer to the outlined consequences/measures in the previous responses*)

4. THE PLANNING PROCESS (G) – *could overlap with some of the above in section C*

- Could you tell me more about the planning process for delivering the measures, you outlined (*refer to what was already mentioned in regards to planning*)? What was the scope of planning?
- How was the planning process structured? What were the phases, who was involved?
- Did you employ any studies or additional research before deciding on the approach?
 - If yes: What were the results, what additional information you gained from this and how did it help you form the next steps?
- How were citizens involved in the planning process?

5. CONCEPT LEVEL & PLANNING SUBSTANCE (C) + (H)

Let us now move to the implementation and what was done in practice or what you are intending to do in terms of planning.

- How is/was the outlined plan (*reference to planning process G and all that was mentioned*) implemented?
- What was the role of planning (*XXX institution*) in it? What is/was necessary to achieve them? Which are/were the responsible institutions to deliver, who was leading the process? What needs/needed to be done?
- (*If a goal or criteria/vision has not been mentioned yet*) What were/are you trying to achieve with those steps from planning perspective?
- You mentioned that population decline has resulted in XXX and XXX (*references to previous answers*).
- How did you decide to handle those? Did you use measures to address multiple issues at once?
 - If yes: Could you tell me more about this?
- Why were those measures suitable for (*case study*)? Why not something else? What considerations for the specific character of the province did you take into account?
- Did you try to establish collaboration between different working groups for the

implementation?

- From planning perspective, what resources are/were necessary to achieve those measures? Were those available in (*case study*)? How did you provision those? Did you have to optimize what you had available? (*references to previous answers*)
 - Depending on the measures and approaches already suggested, refer to available land, materials after demolition, available resources already referenced and ask if they used them for something, how/why? Possibly finance will come up on its own.
- For you as a planner, what is the future of (*case study*) in light of the population decline? How will (*case study*) change?

6. GROWTH AND ECONOMY (D)

- If economy has not come up yet: What are the implications of population decline on the economic development of (*case study*)?
- How are economic aspects considered in the planning focus (*references to what was mentioned above*)?
 - Sustainability and sustainable development (if it has not appeared): Have you taken into account sustainable development/sustainability considerations?
 - Circularity, reuse, circular economy (if it has not appeared in the efficiency question): Have you considered measures towards circular economy?
 - Post-growth: What is the role of economy in the areas with population decline? / Can economy in the areas with population decline serve other functions than growth? (might have already been answered in the general growth/economy question)
 - Stakeholder capitalism: What is the role of business and private actors/capital in the above efforts towards population decline and consequences?

7. FINANCIAL CONSIDERATIONS

- If it has not appeared yet: What are the financial requirements and constraints for the implementation of the above measures? How are you planning to address them?

Document group	Document name	Coded Segments	Name in English (own translation)	Institutional level	Type (general)	Type (specific)	Year	Spatial scope	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
Leipzig/ Germany	04_Statusbericht Stadtumbau Ost en	303	Status Report Stadtumbau Ost	Primary (national)	Policy	Report	2006	Germany	X	X		X	X
Leipzig/ Germany	12_Leipzig_10JahreStadtumbau-Ost_ASW_2012 en	78	10 years Stadtumbau Ost -Leipzig	Quaternary (City)	Policy	Report	2012	Leipzig	X	X		X	X
Leipzig/ Germany	05_Sachsen Landesentwicklungsplan 2003_ EN	255	Regional plan Saxony 2003	Secondary (Province/ State)	Policy	Country development plan	2003	Saxony	X	X		X	X
Leipzig/ Germany	32_Wirtschaft_Grundsatzpapier 2009 en	57	Economic principles Saxony 2009	Secondary (Province/ State)	Policy	Principles	2009	Saxony	X	X		X	X
Leipzig/ Germany	20_STEP_Verkehr und Öffentlicher Raum_2004 en	124	Urban Dev Plan STEP 2000 - Open space and transport	Quaternary (City)	Plan	Plan	2004	Leipzig	X		X	X	X
Leipzig/ Germany	33_STEP 2000_Gewerbliche_46 en	98	STEP 2000 Plan-Commercial building land update 2005	Quaternary (City)	Plan	Plan	2005	Leipzig	X		X	X	X
Leipzig/ Germany	07_SozialeStadt Sachsen_EN	69	Districts with special development needs - the social city, 5 y	Secondary (Province/ State)	Policy	Report	2005	Saxony	X	X		X	X
Leipzig/ Germany	13_PROGRAMMBEGLEITUNG Soziale Stadt vor Ort im Modellgebiet Lei	115	End report Social City Leipzig East	Quaternary (City)	Policy	Report	2002	Leipziger Osten	X	X		X	X
Leipzig/ Germany	08_Leipzig_SEKo_BlaueReihe_50_Web_2009 1-50_EN	240	Leipzig 2020 Integrated Concept for Urban Development 2009	Quaternary (City)	Plan	Integrated concept for urban development	2009	Leipzig	X		X	X	X

Document group	Document name	Coded Segments	Name in English (own translation)	Institutional level	Type (general)	Type (specific)	Year	Spatial scope	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
Leipzig/ Germany	08_Leipzig_SEKo_BlaueReihe_50_Web_2009 50-108_EN	245	Leipzig 2020 Integrated Concept for Urban Development 2009	Quaternary (City)	Plan	Integrated concept for urban development	2009	Leipzig	X		X	X	X
Leipzig/ Germany	22_Teilplan_Wohnen_Raumpass_Innere_Stadt_2010 en	12	Partial plan space inner city STEP 2010	Quaternary (City)	Plan	Area plan	2010	Leipzig-Innenstadt	X		X	X	X
Leipzig/ Germany	23_Teilplan_Wohnen_Raumpass_Nord_2010 en	7	Partial plan space North STEP 2010	Quaternary (City)	Plan	Area plan	2010	Leipzig-Nord	X		X	X	X
Leipzig/ Germany	24_Teilplan_Wohnen_Raumpass_Sued_Ost_2010 en	6	Partial plan space SouthEast STEP 2010	Quaternary (City)	Plan	Area plan	2010	Leipzig-SudOst	X		X	X	X
Leipzig/ Germany	25_Partial plan space West STEP 2010	6	Partial plan space West STEP 2010	Quaternary (City)	Plan	Area plan	2010	Leipzig-West	X		X	X	X
Leipzig/ Germany	28_Stadtahuser in Leipzig_Innenstadt_2010 en	82	Single family houses Centre 2010	Quaternary (City)	Plan	Area plan	2010	Leipzig-Innenstadt	X		X	X	X
Leipzig/ Germany	09_Leipzig_Umsetzungsbericht_2012_Internet 1-25_EN	79	SEKO Implementation report 2012	Quaternary (City)	Plan	Report	2012	Leipzig	X		X	X	X
Leipzig/ Germany	09_Leipzig_Umsetzungsbericht_2012_Internet 25-50 _EN	27	SEKO Implementation report 2012	Quaternary (City)	Plan	Report	2012	Leipzig	X		X	X	X

Document group	Document name	Coded Segments	Name in English (own translation)	Institutional level	Type (general)	Type (specific)	Year	Spatial scope	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
Leipzig/ Germany	11_Integriertes Stadtteilentwicklungskonzept Leipziger Osten 31	120	Integrated Concept for Urban development Leipzig East	Quaternary (City)	Plan	Area plan	2013	Leipziger Osten	X		X	X	X
Leipzig/ Germany	11_Integriertes Stadtteilentwicklungskonzept Leipziger Osten 10	43	Integrated Concept for Urban development Leipzig East	Quaternary (City)	Plan	Area plan	2013	Leipziger Osten	X		X	X	X
Leipzig/ Germany	27__26_EXCERPTS_ Westsachsen Regionalplan_Zielteil_1998	172	Regional plan Objectives West Saxony 1998	Tertiary (Metropolitan/Region)	Policy	Regional plan	1998	West Saxony	X	X		X	X
Leipzig/ Germany	Beitrag 34_2002_Housing estates_excerpts	46	STEP 2000 Plan-Large housing estates	Quaternary (City)	Plan	Plan	2002	Leipzig	X		X	X	X
Leipzig/ Germany	Beitrag 36_2002_Housing policy_excerpts	63	STEP 2000 Plan-Housing policy	Quaternary (City)	Plan	Housing policy	2002	Leipzig	X		X	X	X
Leipzig/ Germany	31_EXCERPTS_ Wirtschaft_Grundsatzpapier 2004	32	Economic principles Saxony 2004	Secondary (Province/State)	Policy	Principles	2004	Saxony	X	X		X	X
Leipzig/ Germany	14_2011_DIFU Leipziger Osten evaluierung	61	Evaluation Social City Leipzig East 2011	Quaternary (City)	Policy	Report	2011	Leipziger Osten	X	X		X	X
Leipzig/ Germany	15_2003 Stadtteilplan Leipziger Osten	136	Concept plan Leipzig East	Quaternary (City)	Plan	Area plan	2003	Leipziger Osten	X		X	X	X
Leipzig/ Germany	21_Housing policy concept 2010	32	Partial plan housing STEP 2010	Quaternary (City)	Plan	Planning concept	2010	Leipzig	X		X	X	X
Leipzig/ Germany	Beitrag 28_STEP 2000 Plan-Centres	32	STEP 2000 Plan-Centres	Quaternary (City)	Plan	Plan	2000	Leipzig	X		X	X	X

Document group	Document name	Coded Segments	Name in English (own translation)	Institutional level	Type (general)	Type (specific)	Year	Spatial scope	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
Leipzig/ Germany	Beitrag 25 STEP 2000 Plan-Commercial building land	53	STEP 2000 Plan-Commercial building land	Quaternary (City)	Plan	Plan	1999	Leipzig	X		X	X	X
Leipzig/ Germany	Beitrag 39_2000_Railway areas as potential	15	STEP 2000 Plan-Railway areas as potential	Quaternary (City)	Plan	Plan	2003	Leipzig	X		X	X	X
Leipzig/ Germany	Beitrag 30 excerpts_ STEP 2000 housing and urban renewal	64	STEP 2000 Housing and urban renewal	Quaternary (City)	Plan	Plan	2000	Leipzig	X		X	X	X
Bilbao/ Spain	00_DOT 1997 Merged	406	Directives for territorial ordinance	Primary (national)	Policy	Directives	1997	Basque Country	X	X		X	X
Bilbao/ Spain	01_PTS Economic 2005 Merged	70	Sectoral territorial plan - Economy	Primary (national)	Plan	Sectoral plan	2005	Basque Country	X		X	X	X
Bilbao/ Spain	35_PTP Bilbao 2006	474	Partial Territorial Plan Bilbao Metropolitan	Tertiary (Metropolitan/Region)	Plan	Territorial plan	2006	Metropolitan Bilbao	X		X	X	X
Bilbao/ Spain	40_PTP_Programa de Actuación y Estudio Económico Financiero_200	40	Implementation programme PTP Bilbao Metropolitan	Tertiary (Metropolitan/Region)	Plan	Territorial plan	2006	Metropolitan Bilbao	X		X	X	X
Bilbao/ Spain	06_Bilbao2010-LaEstrategia_Metropolitana_2001	179	Bilbao 2010 Metropolitan Strategy	Tertiary (Metropolitan/Region)	Policy	Strategy	2001	Metropolitan Bilbao	X	X		X	X
Bilbao/ Spain	05_Bilbao2010_Reflex-Estrategia_Metropolitana_1999	143	Bilbao 2010 Reflection	Tertiary (Metropolitan/Region)	Policy	Strategy	1999	Metropolitan Bilbao	X	X		X	X
Bilbao/ Spain	01_Vision_Metropolitana_2005	40	Metropolitan Vision	Tertiary (Metropolitan/Region)	Policy	Strategy	2005	Metropolitan Bilbao	X	X		X	X

Document group	Document name	Coded Segments	Name in English (own translation)	Institutional level	Type (general)	Type (specific)	Year	Spatial scope	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
Bilbao/ Spain	04_ReflexionEstrategica_Bilbao Metropolitano 2030_2010	114	Bilbao 2030 Reflection	Tertiary (Metropolitan/ Region)	Policy	Strategy	2010	Metropolitan Bilbao	X	X		X	X
Bilbao/ Spain	20_PLAN especial ABANDO_1999	30	Special plan Abandoibarra	Quaternary (City)	Plan	Area plan	1999	Abandoibarra	X		X	X	X
Bilbao/ Spain	11_Zorrotzaurre justificacion_2012	153	Zorrotzaurre regeneration justification	Quaternary (City)	Plan	Area plan	2012	Zorrotzaurre	X		X	X	X
Zeeland/ Netherlands	01_Actieplan Bevolkingsdaling 2016 EN	178	Action Plan Depopulation	Primary (national)	Policy	Action plan	2016	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	02_Kamerbrief inzake eerste voortgangsrapportage	12	Letter to first progress report	Primary (national)	Policy	Progress report	2017	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	02_Eerste voortgangsrapportage bevolkingsdaling EN	105	First progress report on Depopulation Action plan	Primary (national)	Policy	Progress report	2017	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	03_Kamerbrief inzake tweede voortgangsrapportage	46	Letter to second progress report	Primary (national)	Policy	Progress report	2018	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	03_Tweede voortgangsrapportage bevolkingsdaling EN	196	Second progress report on Depopulation Action plan	Primary (national)	Policy	Progress report	2018	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	04_Derde voortgangsrapportage Actieplan Bevolkingsdaling EN	61	Third progress report on the Depopulation Action plan	Primary (national)	Policy	Progress report	2019	Netherlands	N/A	X	N/A	X	X

Document group	Document name	Coded Segments	Name in English (own translation)	Institutional level	Type (general)	Type (specific)	Year	Spatial scope	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
Zeeland/ Netherlands	05_amer-brief-over-aanbieding-regio-deal-zeeland	10	Letter for the regio deal (not clear)	Primary (national)	Policy	Other	2018	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	05_kamerbrief-regio-envelop-op-gave-zeeland_fEB 2018	5	Letter regio deal 2018	Primary (national)	Policy	Other	2018	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	05_Regio_deal_Zeeland EN	29	Regio Deal Zeeland	Secondary (Province/State)	Policy	Strategy	2018	Zeeland	N/A	X	N/A	X	X
Zeeland/ Netherlands	06_Kanttelingen bij Voortgangsrapportage Bevolkingsdaling	19	Comments on Progress Report Population Drop to the Second Chamb	Secondary (Province/State)	Policy	Other	2011	Zeeland	N/A	X	N/A	X	X
Zeeland/ Netherlands	07_Zeeland Stroomversnelling 2.0. EN	55	Zeeland Accelerated - Development plan?	Secondary (Province/State)	Policy	Action plan	2018	Zeeland	N/A	X	N/A	X	X
Zeeland/ Netherlands	09_Kamerbrief-over-voortgang-actieplan-bevolkingsdaling	23	Letter to progress report BZK to Parliament	Primary (national)	Policy	Progress report	2020	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	10_samenwerkingsagenda-krimp-2015-2016	21	Cooperation Agenda for Shrinkage	Primary (national)	Policy	Agenda	2014	Netherlands	N/A	X	N/A	X	X
Zeeland/ Netherlands	12_provinciale_bevolkings_en_huishoudenprognose_zeeland_2019 E	2	Population and household forecast	Secondary (Province/State)	Policy	Forecast	2019	Zeeland	N/A	X	N/A	X	X

Document group	Document name	Coded Segments	Name in English (own translation)	Institutional level	Type (general)	Type (specific)	Year	Spatial scope	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
Zeeland/Netherlands	16_Quality and distinctiveness - Economic agenda 2017-2021 EN	76	Quality and distinctiveness - Economic agenda 2017-2021	Secondary (Province/State)	Policy	Action plan	2017	Zeeland	N/A	X	N/A	X	X
Zeeland/Netherlands	17_helemaal_nederland_te_klein_voor_grote_verschillen_-_k6 EN	128	Netherlands - Too small for big differences	Primary (national)	Policy	Evaluation	2020	Zeeland	N/A	X	N/A	X	X
Zeeland/Netherlands	19_onverkennde paden gedrukt EN	94	Unexplored Paths Challenges for the province of Zeeland due to	Secondary (Province/State)	Policy	Vision	2008	Zeeland	N/A	X	N/A	X	X
Zeeland/Netherlands	20_Plan van aanpak voor de gevolgen van de demografische verand	142	Action plan for the consequences of the demographic changes in	Secondary (Province/State)	Policy	Action plan	2009	Zeeland	N/A	X	N/A	X	X
Zeeland/Netherlands	21_Nieuwe Wegen Nota Leefbaarheid_EN	69	New Roads Policy Document on Quality of Life & Population 2014-	Secondary (Province/State)	Policy	Vision	2013	Zeeland	N/A	X	N/A	X	X
Zeeland/Netherlands	28_The path ahead - Zeeland	102	The path ahead - Zeeland	Secondary (Province/State)	Policy	Strategy	2007	Zeeland	N/A	X	N/A	X	X

Interview date	Institutional level	Respondent type	Location	Country	Language	Code	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5
8.06.2020	Provincial	Expert	Middelburg	NL	English	001_ExPro		X		X	
8.06.2020	Provincial	Expert	Middelburg	NL	English	002_ExPro		X		X	
9.06.2020	Provincial	Expert	Middelburg	NL	English	003_ExPro		X		X	
22.06.2020	Provincial	Politician	Virtual (Zoom)	NL	English	004_PoPro		X		X	
24.06.2020	National	Expert	The Hague	NL	English	005_ExNat		X		X	
22.06.2021	Local	Expert	Leipzig	DE	English and German	006_ExLoc	X	X	X	X	X
23.06.2021	Regional	Expert	Leipzig	DE	German	007_ExReg	X	X	X	X	X
25.06.2021	State/Provincial	Expert	Dresden	DE	German	008_ExPro	X	X	X	X	X
29.06.2021	Local	Expert	Virtual (Zoom)	ES	Spanish	009_ExLoc	X	X	X	X	X
12.07.2021	Local	Expert	Bilbao	ES	Spanish	010_ExLoc	X	X	X	X	X
14.07.2021	Local	Expert (2 respondents, 3 topics)	Bilbao	ES	Spanish	011_ExLoc_P1	X	X	X	X	X
					Spanish	011_ExLoc_P2	X	X	X	X	X
					Spanish	011_ExLoc_P3	X	X	X	X	X
16.07.2021	Local	Expert	Bilbao	ES	Spanish	012_ExLoc	X	X	X	X	X

CURRICULUM VITAE



ORCID: 0000-0001-9470-5789

LinkedIn: <https://www.linkedin.com/in/bivanov13/>

Twitter: ivanov_bozhidar

Scientific and professional career

04/2019 – 05/2022 – Dr. rer.pol (rerum politicarum) / PhD Candidate in urban planning and policy making – Marie Skłodowska-Curie Fellow in [RE-CITY ITN: Reviving shrinking cities project](#); Department “International Planning Systems” at Technische Universität Kaiserslautern

Research stays in Bertelsmann Foundation (March–April 2021) and University of Amsterdam, AISSR (March–June 2020, September–October 2021)

2015–2018 – Freelance Social and Urban Researcher and Coordinator in research projects focused on urban studies, labour markets, inequalities at Sofia University “St. Kliment Ohridski”, NGOs and institutions

2013–2015 – Master of Sociology – Urban Studies at Sofia University “St. Kliment Ohridski”

2008–2013 – Bachelor of Sociology at Sofia University “St. Kliment Ohridski”

Other professional experience: project management, operations management, strategic planning, marketing and communications

Publications

- Ivanov, B. Narratives of Crisis: How Framing Urban Shrinkage and Depopulation Shapes Policy and Planning Responses in Spain, Germany and The Netherlands. *Sustainability* 2021, 13, 11045. <https://doi.org/10.3390/su131911045>
- “Shrinking Smart from theory to practice: An epistemological approach to constructing a new planning concept” in “Shrinking Cities Handbook” (in print)
- Изоставени индустриални зони в постсоциалистическа София: случаят Зона Б-5-4 в „Предизвикателства на докторанти по социология“ (2018) *published in Bulgarian // (Abandoned industrial zones in post-socialist Sofia: the case of Zone B-5-4 in “Challenges before PhD students in sociology” (2018)

Participation in conferences

- RE-City ITN Final Conference “Shrinking Cities Revived!”, Kaiserslautern, Germany, March 2022 [“Shrinking Smart as new planning concept: Benchmarking planning and policy responses to urban shrinkage and depopulation”](#)
- 34th International Geographical Congress 2021, Istanbul, Turkey (virtual), August 2021 [“Urban shrinkage as a challenge for policy making and planning – comparative perspective on approaches from the European Union”](#)
- Interpretive Policy Analysis Conference 2021, Virtual, June 2021 [“Interpretive policy analysis of responses to urban shrinkage and depopulation: tracing change beyond the rational planning tradition”](#)
- American Association of Geographers Annual Meeting 2021, Seattle, USA (virtual), March 2021 [“Framing urban shrinkage in policy and planning responses – examples from the European Union”](#)
- CITTA Conference 2019, Porto, Portugal, September 2019: poster presentation
- 29.06–2.07.2017 – Moving cities – Contested views on urban life – Interdisciplinary conference of the European Sociological Association in Krakow, Poland: “Abandoned industrial zones in post-socialist Sofia”

Teaching

- Presentation as part of Bachelor’s course in TU Kaiserslautern, May 2021 *“Dutch planning system, national shrinkage policy, government and shrinking regions”*
- Presentation and interactive workshop as part of Master’s course “Transforming shrinking cities towards sustainability” in TU Dortmund, January 2021 *“Urban shrinkage, economy and the EU: what’s next on the policy agenda?”*