

DEALING WITH URBAN SHRINKAGE — THE CASE OF CHEMNITZ

A THEORETICAL AND EMPIRICAL CONTRIBUTION TO THE DEBATE ON SHRINKING CITIES BY CHARLOTTE PUSCH

Synopsis

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Although the global paradigm of growth characterizes urban and economic development since the industrialization, more and more cities in the world are shrinking. Shrinking cities are characterized by a decreasing population, economic changes, high vacancy, decreasing investments and a decreasing city budget. Consequently, shrinking cities suffer from decreasing attractiveness and a negative image, which is problematic. Above shrinking cities are less competitive and for that reason, the losers in global city competition. A variety of causes increased the number of shrinking cities in eastern Germany. Without external funding, these cities are not capable to overcome the conditions of shrinkage. The city of Chemnitz lost about 23 % of its population since 1990. Although the economy in the city is stable, Chemnitz is shrinking and suffering from high vacancy, a sprawl pattern, a negative image and less attractiveness due to shrinkage. The city identified problems caused by shrinkage and is strategically challenging shrinkage. Chemnitz follows the goal to become a 'creative city' but for realizing that goal, external subsidies have significance. This thesis will elaborate on how the city of Chemnitz is dealing with problems of shrinkage in particular and how strategic goals of becoming an attractive and competitive city are construed concerning the global trend in urban development.

Preface

This master thesis "Dealing with urban shrinkage- The case of Chemnitz" is written as a single project of the fourth master semester of the study program "Urban Management and Planning" at Aalborg University. The research and writing of the master thesis was completed in the period from the 16th of February 2013 until the 3th of June 2013.

The style of references in the thesis is the APA method of referencing; therefore the references are included in the written text by the last name of the author followed by year of publication such as (City of Chemnitz, 2010). If authors published more than one publication within the same year, additionally a letter follows the year such as (City of Chemnitz, 2010a). If a reference has three or more authors, the reference in the text will name the first author and is followed by "et al." such as (Haase, et al., 2012). Publication without a year, the year is complemented by "n.d." which stands for "no date of publication". In case of direct quotes from a publication, the page number is added such as (City of Chemnitz, 2010, p. 1). Are the reference placed before a full stop, the source is refereeing to the previous sentence, whereas the reference after the full stop if referring to the previous paragraph. In the reference list the source is listed chronologically with the last name of the author(s), followed by the year of publication and gives information about the place of publication and the publisher.

One interview has been conducted for this thesis and I would like to thank the interview partner Dr. Urs Luczak, Brühl-Manager of the neighborhood Brühl-Boulevard and employee of the city of Chemnitz. The Interview was held in German and the memory minutes of the interview are translated to English and attached in the appendix.

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1 Introduction

World-wide more and more cities shrink and become so-called shrinking cities (Oswalt, 2004). That means that these cities suffer from declining population, economy and infrastructure influenced by structural changes (Haase et al., 2012). Causes and effects of shrinking cities are complex and eventually problematic. In times of globalization, shrinking cities are the loser in the competition of cities, since the process of shrinkage makes the cities unattractive and hence less competitive (Rink et al., 2010). Moreover, shrinking cities stand in the very reverse to growing cities that are internationally competitive. Since globalization, factors such as a good image, quality of life and creative milieus attract residents and further businesses and create growth (Merkel, 2012; Müller, 2004). But shrinking cities are exactly losing those so-called soft locational factors. Nonetheless, shrinking cities are faced by the contemporary global paradigm of growth in urban development (Oswalt, 2004). In order to remain globally competitive, shrinking cities must approach urban development differently than growing cities. Independently, shrinking cities struggle to increase their competitiveness and are hence often depend on external support (Rink, 2009).

Especially eastern Germany suffers from an accumulation and increasing number of shrinking cities (Pallgast et al., 2009). Whereas shrinkage of cities is not a particular German phenomenon, the historical context of shrinking cities in eastern Germany is unique. With the accession of the German Democratic Republic to the Federal Republic of Germany in 1989/90, the conditions of urban development in eastern Germany changed fundamentally (Hannemann, 2003). Shrinking cities in eastern Germany are results of the post-socialist transformation (Haller, 2012). Cities suffered from system problems that origin in the socialist time and which determine shrinking processes in eastern German cities (Hannemann, 2003). After the German reunification almost every city in the East suffered from population losses, economic decline, decreasing attractiveness and consequently less competitiveness driven by the post-socialist transformation, de-industrialization, suburbanization and the demographic change (Kress, 2008). Therefore, cities in eastern Germany have to deal with shrinkage in particular to adjust their urban development to these conditions, which required the development of new strategies for eastern Germany.

To understand the complexity of shrinkage and the challenges of urban development in eastern Germany, this master thesis will analyze the case of Chemnitz. The process of shrinkage brings along a range of complex problems for cities with complex causalities; therefore, the case is chosen to exemplify the complexity of the process of shrinkage. Chemnitz has a great history of producing industry and functioned as an administrative capital of the former German Democratic Republic (GDR) (Kassner, 2009). Between 1950 and 1989 the borough of Chemnitz was the largest and most

dense agglomeration area in the GDR (Kress, 2008). Nevertheless, the city lost about 23 % of its population after the German reunification and shrank demographically, physically, economically and socio-culturally (City of Chemnitz, 2010a). Additionally, Chemnitz has a negative image (Grossmann, 2007). The city can be characterized as a special case of shrinking cities in eastern Germany: While the economic dimension re-stabilized again in the 2000s, the city still has problems to keep or attract people, although jobs are available. Although the economy has been growing since the 2000s, the population of Chemnitz has been shrinking since 1990 (City of Chemnitz, 2009). Therefore, economic growth seems to have a subordinated role in city shrinkage. Because shrinking cities are dependent on external support, the question is what role subsidies play in Chemnitz since especially the economy has been stable. Therefore, the thesis aims to answer the research question:

How is Chemnitz dealing with shrinkage and what role do subsidy programs play?

In order to answer the research question, five sub-questions have been formulated:

- 1. How are shrinking cities conceptualized?
- 2. How did cities shrink in the eastern German context and what was the political reaction to shrinkage?
- 3. How did Chemnitz become a shrinking city and in what dimensions is the city shrinking?
- 4. How does Chemnitz adjust urban development to problems of shrinkage?
- 5. How are the strategic goals translated to the neighborhood level in the Brühl-Boulevard?

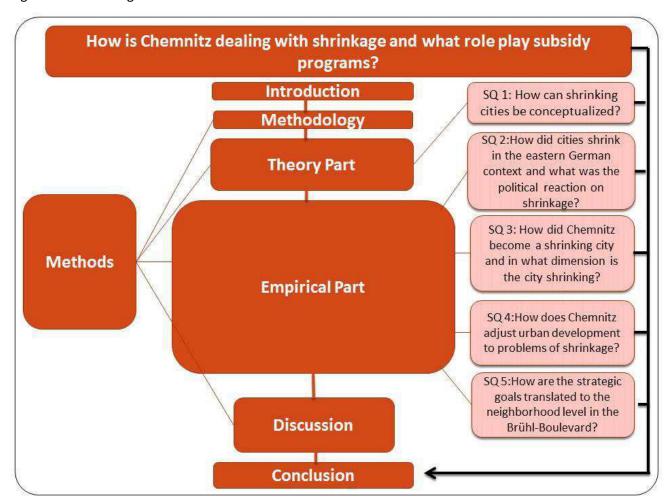
2 Methodology

This chapter will introduce the research design, the structure of the thesis, the analytical procedure and the applied methods. Additionally, a literature review on shrinking city literature will be presented.

2.1 Research design

The thesis is divided into a theoretical and an empirical part and will be structured along the subquestions, which include individual analyses and conclusions after each sub-question. Hereunder, figure 1 depicts the research design employed for this thesis including the relationship between the different elements of the latter.

Fig. 1 Research design



Structure of the report

The first chapter introduces the thesis and presents the research question as well as the subquestions which will be answered during the thesis. Chapter two contributes the methodology for this thesis. Thereafter, chapter three provides the theoretical framework to the subject of shrinking cities. The purpose of the theory chapter is to define what a shrinking city is, why and how cities shrink. Therefore, four causes and four dimensions, including indicators as well as problems of shrinkage are classified to answer the first sub-question. The fourth chapter describes and classifies the development of shrinking cities in eastern Germany and introduces the German state program "Stadtumbau Ost". Hence, chapter four is understood as a transition chapter to give a better access to the case study and answers the second sub-question. Chapter five introduces and analyses the case of Chemnitz concerning shrinkage, urban development and strategic goals to approach subquestions 3, 4 and 5. The findings of the previous chapters are discussed in chapter six and linked to the global urban tendency of the 'creative city'. The thesis is concluded by chapter seven, which answers the research question.

Analytical procedure and applied methods

The thesis is divided into smaller analyses along the thesis to answer the sub-questions and to finally approach the research question of the thesis: "How is Chemnitz dealing with shrinkage and what role do subsidy programs play?"

Within the theory chapter, shrinking cities are conceptualized and an analytical framework is created to measure if, why and how a city is shrinking. Moreover, the conceptualization of shrinking cities helps to understand the complex phenomena that characterize a shrinking city and will help to clarify what challenges a shrinking city faces. As a starting point, a detailed analysis of characteristics, problems, causes, dimensions and indicators of shrinkage is needed. In order to get knowledge on shrinking cities and to access the debate of shrinking cities, the method of a literature study is used. The first step in conceptualizing shrinking cities is to work out definitions of shrinking cities from literature. Further, characteristics and problems of shrinkage are classified. Since shrinking city literature provides no general-purpose model to apply on cities to analyze shrinkage, the main aim of the theory chapter is the creation of an analytical framework to operationalize shrinkage. On one hand, four different causes of shrinkage (suburbanization, de-industrialization, post-socialist transformation and demographic change) have been classified on the base of shrinking city literature. On the other hand, four different dimensions of shrinkage (demographic, physical, economic and socio-cultural) and indicators for each dimension (decreasing population; increase in vacant buildings and decrease in urban density; decrease in economic activities; decrease of soft location factors) have been worked out from shrinking city literature in order to analyze how a city is shrinking. The indicators measure in which of the four dimensions a city is shrinking. If a city suffers from decreasing population, it is an indicator for the demographic dimension of a city. It needs to be stressed, that the causes and dimensions give no statements on the degree of shrinkage but are used qualitatively. Only one cause, such as de-industrialization, can cause shrinkage. Also, all causes of shrinkage can, for instance, cause only shrinkage in the economic dimension. Furthermore, the indicators of shrinkage are used in the case to classify counterstrategies reacting on the four dimensions of shrinkage in Chemnitz. The analytical framework acts as a shrinking city model and provides a theoretical contribution to shrinking city literature. Likewise, it will determine the analytical procedure for each chapter through the thesis.

The analytical framework of shrinking cities is applied in chapter 4, to answer the second subquestion "How did cities shrink in the eastern German context and what was the political reaction on shrinkage". The method of a literature study is used in order to get knowledge of the urban development in the former German Democratic Republic (GDR). Further, literature on shrinking cities in an eastern German context was studied; as well as literature on the state program "Stadtumbau Ost"¹. Moreover, general causes and effects of shrinkage in eastern Germany are classified.

Most research on shrinking cities in eastern Germany draws attention on large cities such as Dresden, Leipzig or former East Berlin published during the past decade. Intensive research focused on those cities, although other eastern German cities are experiencing shrinkage as well. Therefore, this thesis will present and analyze the case of Chemnitz as an empirical contribution to shrinking city research in the common debate. Thus, the method of a single case study is used in chapter 5. The method is justified, since "[...] a "how" or "why" question is being asked about a contemporary set of events, over which the investigator has little or no control." (Yin, 2009, p. 13) The research question is asking "How" Chemnitz is dealing with shrinkage. Furthermore, the method of a single case study enables the application of theoretical knowledge to the empirical level, which provides a better understanding of real-life occurrence and significant case-based findings. Concerning Chemnitz, a single case study is chosen to show why and how the city is shrinking and further how the city deals with shrinkage.

Therefore, chapter 5.1 answers the sub-question "How did Chemnitz become a shrinking city and in what dimension is the city shrinking?" The method of a literature study is used to get knowledge of the urban and economic development of Chemnitz from the industrialization until today. Additionally, a data analysis helped to describe the development of statistic actualities, such as demographic and socio-economic data, over time. With the help of the analytical framework, Chemnitz is classified as a shrinking city affected by all four causes of shrinkage and classified as

¹ In 2002, the federal state of Germany introduced the funding program "Stadtumbau Ost" (Urban Restructuring East) to support the redevelopment of eastern German cities suffering from high vacancy caused by the demographic and economic structural changes after the reunification of Germany in 1990 (Deutscher Bundestag, 2012).

shrinking in the demographic, physical and socio-cultural dimensions. As part of the analysis, problems of shrinkage in the case of Chemnitz are lined out. Several field trips to Chemnitz have been done to document for instance the physical impacts of shrinkage, such as building vacancy.

Chapter 5.2 analyzes the strategic goals of Chemnitz to answer sub-question 4 "How does Chemnitz adjust urban development to problems of shrinkage?" The method of a document analysis is used to work out the strategic goals of the city. Two documents have been studied in order to give statements of the urban development adjusting the problems of shrinkage; the integrated urban development program "Integriertes Stadtentwicklungsprogramm" from 2002 and the actual urban development concept "Städtebauliches Entwicklungskonzept — Chemnitz 2020" (SEKo). Strategic goals of the latter concept have been identified. With means of the analytical framework, the strategic goals are opposed with the indicators of shrinkage and structured along the dimensions starting with the demographic, then physical, economic and finally the socio-cultural. Therefore, the strategic goals are classified as counteractions for shrinkage and subordinated to each dimension of shrinkage. Furthermore, the two concepts are analyzed concerning the approach to shrinkage which changed from 2002 until 2009.

Chapter 5.3 analyzes the case on the neighborhood level Brühl-Boulevard to answer the last subquestion "How are the strategic goals translated to the neighborhood level in the Brühl-Boulevard". On one hand, the method of a document analysis identifies strategic goals for the neighborhood level. The studied documents are the "development area SOP Brühl-Boulevard"; "development concept of the inner-city campus of the Technical University Chemnitz"; and the "urban planning survey for the development of the area Brühl-Boulevard in Chemnitz" commissioned by the city of Chemnitz and complied by the architect's and planning office "AS&P - Albert Speer & Partner GmbH", since the inner-city campus development is well connected with the Brühl-Boulevard development. The development in the Brühl-Boulevard first started in the end of 2012 and the documents provide mainly information on the future goals but not on actual activities in the neighborhood. Therefore, the method of an expert interview is conducted to gain a deeper understanding of the development in the neighborhood. By interviewing Dr. Urs Luczak, urban planner and neighborhood manager in the Brühl-Boulevard, more insights in the particular challenges of the Brühl-Boulevard are provided. The interview form was qualitative as well as informal and semi-structured following an interview guide and held in German. Since the Dictaphone broke during the interview, the interview is not transcribed but memory minutes have been drawn up. Strategic goals for the neighborhood level are also classified as counteractions on the shrinking indicators in all four dimensions of shrinkage by means of the analytical framework. Furthermore, each classified strategic goal is subdivided into a concrete activity and the tools that enable the activity. The strategic goal to counteract on demographic shrinkage, for instance, is to attract students with the concrete activity of providing student housing and the tool of the inner-city campus.

All findings from the small analyses are discussed in a discussion chapter, which also brings in new knowledge of the paradigm of 'creativity' in global urban development. Therefore, the method of a literature study on contemporary urban development trends is used. Finally, the small analyses and the discussion enable to answer the research question in the conclusion.

2.2 Literature Review on shrinking city literature

Since the turn of the 21st century, publications about shrinking cities increase and become rooted in the urban research agenda, although, the paradigm of growth predominates urbanism literature since the industrialization (Hannemann et al., 2002; Oswalt, 2004; Prigge, 2004). According to Grossmann (2007) the discourse of the German shrinking city debate can be subdivided into three periods: Very few academic and almost no political discussions on shrinking cities characterized the period from the industrialization until 2000 - in few words 'the period of tabooing shrinkage'. In the 1980s, the German sociologists Häußermann & Siebel (1985) tried to bring the discourse of urban shrinkage to the academic debate, but the publication were not resumed before the 21st century (Grossmann, 2007). Häußermann & Siebel (1985) initialized the academic discussion with the book Neue Urbanität, which addresses and elaborates on the relations between growing, stagnating and shrinking cities in a German context (1987). In their article Die schrumpfende Stadt und die Stadtsoziologie the researchers go deeper in the shrinking city debate by outlining causes of shrinkage in west German industrial cities due to structural changes of the 1960s and 1970s (Häußermann & Siebel, 1988). The researchers claim alternative urban politics and perceive chances of shrinkage as new forms of urbanism; however, they emphasize that the actual problem of the shrinkage development is the politics focus on growth in urban planning (Häußermann & Siebel, 1987, 1988).

Shrinking city research in the early 2000s primary exposed the problems and causes of the phenomenon of shrinkage in eastern Germany (e.g. Glock, 2002, 2006; Hannemann et al., 2002; Hannemann, 2003; Herfert, 2003; Weiske et al., 2005; Weiske & Schmitt, 2000). In 2002, the journal *Berliner Debatte Initial* devoted attention to the shrinking city debate by publishing a special issue 'Shrinking Cities' with articles about shrinkage in eastern Germany (Glock, 2002). Other articles further analyzed the effects of the housing market, governance in shrinking cities and evaluated the implementation of the federal state funded concept *Stadtumbau Ost* (e.g. Altrock et al., 2005; Altrock et al., 2010; Hunger, 2001; Kil, 2001, 2002; Oswalt & Kähler, 2004). Since 2004, the shrinking city debate centered its attention on the distinction of shrinking cities in a less normative but analytical way (Bernt, 2009; Grossmann, 2007; Pallgast et al., 2009). The reader by Lampen & Owzar

(2008) discusses the phenomenon of shrinking cities between the period of the antique and modernity from a historical perspective. In addition to this, the demographic change plays an important role in the German shrinking city debate. On this, the monograph by Kaufmann (2005a) outlines demographic change and population decline as central problems. Siebel (2009) elaborated on Kaufmann's ideas by analyzing future scenarios and giving prognoses.

The German research project *Schrumpfende Städte* (shrinking cities) carried forward the discussion from Häußermann and Siebel with a cultural focus (Oswalt, 2004). The project's point of departure has been changes after the German reunification and new challenges of eastern German cities. The first volume *Schrumpfende Städte - Internationale Untersuchung* provides a large variety of articles, essays and case studies in an international shrinkage context. As mentioned, the anthology's focus is on cultural aspects of shrinkage and draws international parallels; further, the reader works out reasons for shrinkage, such as de-industrialization, suburbanization and post-socialist transformation exemplified on Leipzig/Halle (Germany), Liverpool/Manchester (Great Britain), Detroit (USA), Ivanovo (Russia). Nevertheless, it can be criticized that the variety of articles is rather providing an overview and new access to the shrinking city debate but lacks on conceptualizing and theorizing the shrinking city. The second volume *Handlungskonzepte* identifies and reflects on strategies for shrinking cities and focusses more on the planning practice (Oswalt, 2005). The detailed "Atlas of Shrinking City" by Oswalt and Rieniets (2006) is mapping shrinking cities world-wide (Oswalt & Rieniets, 2006).

Anglo-Saxon shrinking city literature is focused on the decline of cities in the Rust-Belt (USA), shrinkage of old industrial cities in the UK such as Liverpool and Manchester, and on cases in eastern German (e.g. Bernt, 2009; Bontje, 2004; Glock & Häußermann, 2004; Nuissl & Rink, 2005; Pallgast et al., 2009; Rybczynski & Linneman, 1999). Beauregard (2009) gives a comprehensive historical overview of urban shrinkage in the USA. Rybczynski & Linneman (1999) have a debate about shrinkage of large cities in the USA due to suburbanization and de-industrialization and point out that the debate should not be about "how shrinking cities can grow again" but rather, "how can we prosper and have a wonderful, smaller city" (Rybczynski & Linneman, 1999, p. 40). Hence, the scholars advocate for regarding shrinkage as a challenge that requires different strategies as growing cities. Exemplary for latest Anglo-Saxon publications addressing challenges of urban shrinkage and shrinking cities are articles by Haase et al. (2012), Kabisch & Grossmann (2013), Pallagst (2010) and Pallgast et al. (2009). Bernt (2009) gives a contribution to "neoliberal urbanism" and "growth mechanisms" in the macro-spatial context in shrinking cities.

The accumulation of shrinking city research in the 21st century line out that there is an end of the growth era (e.g. Bernt, 2009; Haase et al., 2012; Hannemann, Kabisch, & Weiske, 2002; Oswalt, 2004). Nevertheless, research focuses strongly on countries of the 'western world' such as Germany,

England and the USA, although an increasing number of cases of shrinking cities appear in an African or Asian context during the past decade (Oswalt & Rieniets, 2006; Oswalt, 2004).

Whereas shrinkage of cities has been described and widely discussed in former urban research, there are still lacks of theorizing shrinking cities, as the term is used randomly. Further, literature on shrinking cities is strongly context-loaded but shows gaps in adapting overall concepts. For instance, the literature on eastern German cases focuses mainly on the cities of Dresden, Leipzig and eastern Berlin. Chemnitz, as the third biggest city in eastern Germany, has experienced little academic attention although the city is shrinking since the German reunification dramatically. This thesis is understood as an empirical contribution to the shrinking cities debate in an eastern German context.

3 Theory

This chapter aims at conceptualizing the complex phenomenon of shrinking cities. Therefore, the theory chapter will be introduced with a brief overview of shrinking cities in history. Thereafter, characteristics and problems of shrinkage will be defined. Additionally, causes and dimensions of shrinkage are presented as well as indicators for each dimension of shrinkage to further create an analytical framework for shrinking cities for this thesis.

"'Shrinking cities' - a problematic term. It initially describes merely a phenomenon: the loss of urban population and economic activity. But it is based on most different causes, processes and impacts the term alone gives no indication of. [...] And yet the term shrinkage indicates something essential: the end of the growth period." (Oswalt, 2004, p. 12) (Own translation)

"Every fourth city in the world was a so called shrinking city between 1990 and 2000" (Rieniets, 2004, p. 28). (Own translation)

3.1 Shrinkage in history and the start of the debate

Shrinking cities are no new phenomenon in urban development. On the contrary, looking back in history, there have always been shrinking cities that declined due to external factors such as epidemics, wars or natural disasters as well as internal factors like political, economic and social changes (Rieniets, 2004, 2006). A historical example of urban shrinkage is the Roman Empire which shrank from about a million inhabitants down to 100,000 people by the middle age (Gliemann, 2004). However, since the industrialization urban development is characterized by growth. Whereas urban development during the industrialization was equivalent to the increase of employment, the postindustrial era was shaped by the omnipresent phenomenon of shrinking cities. The development of shrinking cities started in the old European industrial areas after the industry declined (Haase et al., 2012). The great industrial metropolises of northern Britain, Liverpool and Manchester lost one third of their population in the second half of the 21st century (Häußermann & Siebel, 1985; Rybczynski & Linneman, 1999). The former "car-capital" Detroit in the US lost half of its population between 1950 and 2003 (Oswalt, 2004). After the reunification of Germany in 1989/1990 the eastern part of the country lost 1.5 million inhabitants within 10 years, affected by political and economic transformations (Gliemann, 2004). Although the world population is growing steadily and more than half of the world population is living in cities, shrinking cities are current emergences of urban development and in urbanism (Oswalt, 2004).

During the industrialization a rapid urbanization and city-growth occurred in Europe, led by England and spilling out to the USA and Japan. Increasing wealth and population, as well as economic growth were prevalent paradigms of cities in the industrial era (Häußermann & Siebel, 1987). Hence, urban development can be characterized by implicit urbanization since the industrialization and the paradigm of urban development is about population and economic growth (Eisinger, 2006). The city represented increasing employment, density and town life and the secondary sector was the driving force in urban development. Characteristics are dense inner-city working class districts. An accumulation of shrinking cities took place simultaneous to transformation processes such as deindustrialization and the growing importance of globalization since the 1980s (Oswalt, 2004). Globalization presents a new political and economic geography of growth and shrinkage, since industrial centers declined and new centers of the world economy developed (Prigge, 2004). The geographic dissolution of market boundaries supports the growth of peripheral areas but supports the shrinkage of cities (Müller, 2004). The technical revolution of transport and communication costs or the international labor division decrease the importance of hard location factors such as transportation cost and propinquity to supply firms as a competitive advantage. At the same time soft location factors, such as an innovative social environment and the image of a location grow in importance as competitive advantages (Müller, 2004). Structural changes such as de-industrialization and globalization created a worldwide repositioning of cities competitiveness and yield an accumulation of declining cities. Every sixth city between 1960 and 1990 was declared as a shrinking city (Rieniets, 2004). Hence, shrinking cities have their origin in the post-industrial era.

3.2 Conceptualizing shrinking cities

This section aims at conceptualizing the complex phenomenon of shrinking cities. Therefore, definitions of shrinking cities from literature will be presented and challenged. Additionally, four causes of shrinkage will be identified to classify why cities are shrinking. Furthermore, four dimensions of shrinkage will be presented and indicators of shrinkage classified to discuss how a city is shrinking. In the end, an analytical framework for shrinking cities will be created that can be applied to study shrinking cities.

3.2.1 Definitions of shrinking cities from literature

The term "shrinking cities" can be ascribed to early studies from the German sociologists Häußermann & Siebel (1987 and 1988), who introduced the new object of shrinking cities to the urban sociology. The researchers described processes of demographic decline in western German cities. They line out two criteria for a shrinking city which implies a decline of population on one hand and the process of de-industrialization influencing the decline on the other hand. Further, shrinking cities have been described as a new form of urbanism (Häußermann & Siebel, 1987).

Rybczynski & Linneman (1999) agree with Häußermann & Siebel and add the reduction of population density and high vacancy to the definition of shrinking cities. Further, they argue that "shrinkage lowers the quality of urban life" (p. 37). Since high vacancy causes a sprawl urban pattern, the researchers describe a decrease of the demographic as well as the physical density. Further, decreasing quality of urban life indicates a decrease in attractiveness. However, the authors provide no information about the causes that makes a city shrink demographically and physically.

Oswalt & Rieniets (2006) point out that urban shrinkage correlates with urbanization and they emphasize that shrinking cities does not appear suddenly but is a result of structural and economic changes. The researchers describe the process of growing cities becoming shrinking cities in the post-industrial era.

Following up on the process of shrinkage the "Shrinking Cities International Research Network" (SCIRN) claims, a 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". (Pallgast et al., 2009, p. 6)

The definition of a shrinking city by the SCIRN describes a process of shrinkage. A dense city becomes shrinking if the population decreases and economic changes occur. Although the definition is more detailed concerning the time frame of population losses and the size of a city, it is very broad and provides no information on the causes of shrinkage. Since structural crises are stressed as symptoms, economic transformations can be interpreted as negative. Moreover, Pallgast et al. (2009) use the definition from the SCIRN for defining shrinking cities in an international context, although they later define urban shrinkage as "[...] a widespread First World occurrence" (p. 3).

The research project "Shrink Smart" elaborates on a shrinking city in more detail and argue that:

"Shrinking cities struggle with underused infrastructure, housing vacancies, a decline in labour force, investment and jobs. Furthermore, there is frequently a decline in financial resources that are needed to cope with these consequences. Shrinkage is a result of different but strongly interconnected processes such as uneven economic development, demographic change or suburbanization." (Rink et al., 2010, p. 2)

This definition outlines which problems a shrinking city generates, such as vacancy, unused infrastructure decline in labor, economy and jobs. Causes such as uneven economic development, demographic change and suburbanization on the other hand characterize a shrinking city. It is noticeable that the definition is not particularly stressing the characteristic of population loss. Only underused infrastructure indicates that population is decreasing. Additionally, the researchers line out that the budget of shrinking cities is decreasing. "Shrink Smart" claims further that "high unemployment and decreasing investment [...] makes these cities less and less attractive for both inmigrants and developers." (Rink, 2009, p. 4)

Among others Weiske & Schmitt (2000) criticize the term 'shrinkage' because it describes a process of contraction from the outside to the inside in a way of densification. As defined, shrinking cities deal with the opposite namely less density and suffer mainly from urban sprawl and an uneven 'non-patterned shrinkage'.

As the selection of definitions from literature describe, there is a variety of characteristics and crucial factors that define a shrinking city. Further, there is not one universal definition the literature refers to. All definitions have in common that population losses characterizes a shrinking city. Additionally, high vacancy and decreasing density are characteristics of a shrinking city as well as economic

changes such as decreasing jobs and labor force. Hence, the city budget decreases. Decreasing investment, high vacancy and the out-migration of people support the city becoming less attractive. Conclusively, it needs to be emphasized that five characteristics cluster in the academic debate around the shrinking city – population loss, less density, high vacancy, economic changes and less attractiveness. Figure 2 summarizes the characteristics of shrinking cities from the definitions above, which is the first step in conceptualizing shrinking cities. Nevertheless, the following section on causes and dimensions of shrinkage will elaborate on the concept of shrinking cities further and will line out more characteristics subordinated to different themes.

decreasing decreasing city budget declining investments iobs less density high unemployment **Shrinking City** high vacancy underused infrastructure economic changes less population attractive loss

Fig.2 Characteristics of shrinking cities

3.2.2 Causes and dimensions of shrinkage

The following section will elaborate on four different causes (suburbanization, de-industrialization, post-socialistic transformation and demographic change) that make cities shrink. Moreover, the four dimensions of shrinkage will be introduced and explained. As the above discussion of the term emphasized, 'shrinkage' is used in multiple ways in literature to generally describe any kind of decline. Therefore, the four dimensions of shrinkage are presented to elaborate on more concrete processes in the shrinking city and to categorize the effects of shrinkage into the dimension of sociocultural, physical, economic and demographic shrinkage. This enables to create an own definition of the concept of shrinking cities for this thesis.

The literature about shrinking cities distinguishes between four different causes that influenced shrinkage. According to Prigge (2004) three shrinking reasons can be classified worldwide: deindustrialization, suburbanization and post-socialist transformation. Moreover, Häußermann & Siebel

(1988) argue, the phenomenon of demographic change as a cause of shrinkage cannot be left out in the discussion about shrinking cities, since the birthrates decrease and the life expectancy increases since the 1980s. This has a major impact on the future population development in the cities especially in the western hemispheres (Kaufmann, 2005b). Depending on the country and context, shrinkage is more or less influenced by de-industrialization, suburbanization, post-socialist transformation and demographic change. Because some causes effect shrinking cities differently, the following elaboration will bear references to certain cases in different countries.

Suburbanization:

According to Van den Berg (1982), urban development follows circular stages of urbanization, suburbanization, de-urbanization and re-urbanization. The period of suburbanization supersedes the period of urbanization during industrialization and includes the phenomenon of sprawling urban settlement to the periphery caused by the migration of population to the outskirts, as well as the relocation of industry, business and services to the urban fringe (Hesse, 2006; Van den Berg, 1982). In the context of shrinking cities, suburbanization influences the process of demographic shrinkage, because population is migrating out of the city to the suburbs. Shrinkage in that case is integrated in a larger mean of urban growth, because population is not declining but relocated in a greater suburban agglomeration. The result is a change of the urban structure. Exemplary are several US cities that became shrinking cities due to suburbanization. Yet, it needs to be emphasized that suburbanization processes differ from country, and have different impact on shrinking cities. Suburbanization in the US context, for instance, started already in the 1930s, whereas suburbanization in western Germany started in the 1970s and in eastern Germany (former GDR) not before the 1990s (Rieniets, 2004). Facilitated by affordable cars due to the glooming car industry; the elaboration of the road infrastructure; and the low-interest loans for homesteads, people moved to the suburbs. Additionally, the core city receded in importance of central functions by the increase of new technologies and telecommunication (automobile, computer and airplane) also summarized under the term of decentralization. Detroit (USA) lost 500,000 inhabitants between 1950 and 1970 due to suburbanization with an on-going tendency (Rybczynski & Linneman, 1999). Suburbanization creates a population decrease in the core city, which can also have physical effects on the infrastructure, since it is not used in the same extent. Therefore, suburbanization creates demographic and the physical shrinkage in a city.

<u>De-industrialization:</u>

De-industrialization is a structural change of the economy from the industry sector towards the tertiary sector supported by new technologies and a change in communication patterns that took

place in the 1970s (Fishman, 2004). In general the change in the world economy can be described as globalization (Prigge, 2004). According to Holst Laursen (2008) globalization has a significant impact on the development of shrinking cities underlined with increasing neo-liberalization and the transformation of industrialized societies to information-based societies. Hannemann (2003) distinguished between two forms of de-industrialization. On one hand it means that the tertiary sector replaces the secondary sector, so the producing industry is becoming less important. On the other hand de-industrialization means a decline of the producing industry without a replacement of another type of industry (Hannemann, 2003). Either way, economic decline brings along increasing unemployment and a decreasing number of jobs. A result of the economic decline is the work-related out-migration of population, especially young and professional labor force (Herfert, 2003). After the cotton industry in Liverpool (UK) declined, the city lost one third of its population promoted by job cuts and high unemployment (Gliemann, 2004). Mainly the great industrial regions in northern Britain, western Germany (Ruhr area) and the "Rustbelt" in the US are affected by shrinkage resulting from de-industrialization (Pallgast et al., 2009). Whereas cities have been dense places with central functions until the first half of the 20th century, after the industrial crisis and the increase of the tertiary sector, cities suffered from out-migration and unemployment; therefore, de-industrialization provokes economic and demographic shrinkage in cities.

Post-socialist transformation:

Shrinkage is also caused by the transformation of post-socialist countries such as the former UDSSR or German Democratic Republic. Changes in the political and economic system proceeded rapidly. The breakdown of the state-directed economy caused economic decline, industrial regression and high unemployment which supported out-migration (Wiechmann, 2008). After the German reunification, an outstanding east-west migration occurred, which resulted in a decline of 1.5 million inhabitants in eastern Germany in the 1990s (Gliemann, 2004). Post-socialist transformations created shrinking cities characterized by demographic and economic decline.

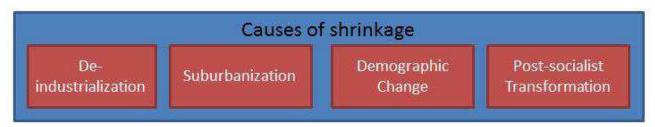
Demographic change:

Demographic change is a prevalent phenomenon related to globalization. It can be fielded into a general decrease of the total population, the decrease of the fertility rate and the aging of the population (Naegele, 2010; Siebel, 2009). Whereas the 1970s were characterized by a baby boom, the fertility rate has decreased dramatically ever since and influenced the population structure and further development of the cities of the 'western world' (Kaufmann, 2005a; Siebel, 2009). In general, the population in Europe is decreasing and not contributing to the increasing world population; whereby the population in other parts in the world, such as Asia, increasing outstandingly (Oswalt &

Rieniets, 2006). The demographic change has impacts on the shrinkage of cities, since the population is decreasing naturally due to low birth rates in Europe.

The second step in conceptualizing shrinking cities is to outline the causes of shrinkage as summarized in figure 4.

Fig. 3 Causes of shrinkage



As mentioned, the term shrinkage is blurry for describing the decline and transformation of cities. Further, shrinking cities are described by a variety of characteristics. Based on the research of Holst Laursen (2008) the <u>demographic, physical, economic and socio-cultural</u> dimension of shrinkage are classified for shrinking cities. The researcher stresses that either one or more dimensions of shrinkage can play a role for shrinking cities (Holst Laursen, 2008). The dimensions of shrinkage address problems shrinkage causes. Therefore, the shrinking characteristics from the literature will be subordinated to each dimension of shrinkage. Moreover, the dimensions aim to structure how cities shrink. Also, the dimensions influence each other, since economic shrinkage can influence demographic shrinkage and backwards.

Demographic dimension:

The dimension of demographic shrinkage describes the decline of the population. On one hand, people move out of the city influenced by de-industrialization, high unemployment and decreasing jobs. Especially young and professional people move to other places and mainly old, unemployed and poor people stay in the city. On the other hand, general demographic transformations such as a decreasing birth rate create demographic shrinkage. Declining population causes problems, such as a decrease of the city budget since the tax income decreases and the social needs of the city increase.

Physical dimension:

The dimension of physical shrinkage describes the decline of the physical infrastructure of a city. Roads, buildings or the sewer system are not used in the same extent, influenced by the decreasing population in shrinking cities. That generates an oversupply of the build structure such as a surplus of housing. Consequently, the number of vacant buildings increases which has impacts on the urban

density that is subsequently decreasing. Physical shrinkage is controversial to the development paradigm of the 'European City' which initiates a dense, compact city (Siebel, 2012). Moreover, shrinkage in the physical dimension can be seen as problematic, since high vacancy, decreasing density and decreasing investments lower the attractiveness of the city.

Economic dimension:

The dimension of economic shrinkage describes the decline of the economic activities and the decrease of work places and labor force. Influenced by de-industrialization, the economy recedes. This generates high unemployment. Economic shrinkage evokes different problems for the city. "The local market and its ability to create new investments are strongly influential on urban development, and the market is reluctant to invest in these shrinking territories" (Holst Laursen, 2008, p. 82). On one hand, the tax revenue of the city decreases (Rink et al., 2010). Social problems increase due to an increasing unemployment in the city. Consequently, the expenses for social transfer rise dramatically, so the city's expenses exceed the income which consequently decreases the budget of the city. Shotdown businesses and closed factories create vacancy. Further, decreasing economic activities, high unemployment and decreasing jobs can have negative effects on the image of a city, since the economy is one driving force to attract new businesses or population to cities.

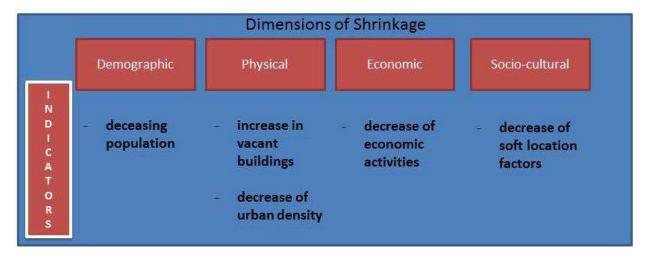
Socio-cultural dimension:

The socio-cultural dimension addresses on one hand the human side of the problem of shrinkage and on the other hand the problems for the living environment. A city is shrinking in a socio-cultural dimension, when the social and creative infrastructure declines due to decreasing population. Social infrastructure means public amenities in a city such as education, health, cultural, sport and recreation facilities, and a creative environment. They are elementary for the development of urban neighborhoods because they increase the quality of life and living; which again can influence the choice of location positively (Hagemeister & Liebmann, 2010). Nevertheless, the demand of such public facilities is dependent on the demographic parameter, individual life style habits of residents and their socio-economic background. Since the population in a shrinking city decreases, the demand of public facilities decreases. Since the budget of the city is decreasing, public facilities suffer from disinvestment and high unemployment harms the feasibility of expenses for public amenities. Consequently, kindergartens, theaters, music schools, sport clubs and youth centers are not used to the same extent and are closed down. Furthermore, the creative infrastructure declines due to the out-migration of young, professional and creative people. Creative infrastructure means the creative environment which gathers creative milieus, creative industry and creative people (Merkel, 2012). The researcher Florida (2005) claims that "with the decline of physical constraints on cities [...], creativity has become **the** principle driving force in growth and development of cities" (p. 1). Furthermore, Dziembowska-Kowalska & Funck (2000) argue that a creative environment is growing in importance as a competitive advantage of a city. The decline of social and creative infrastructures generate a problem for the city because soft location factors are decreasing such as the quality of live and living, cultural and educational offers and the image of a city. Soft location factors are growing in importance to attract businesses and residents, since globalization lowered the importance of hart locations factors for locational choices such as transportation costs (Dziembowska-Kowalska & Funck, 2000); hence, socio-cultural shrinkage causes less competitiveness.

Summarized, a shrinking city suffers mainly from population losses that have impacts in all dimensions of shrinkage. Especially, young and professional people move out of the city which increases the number of old and socially deprived people that stays in the city. Main driving force for the out-migration of young and professional people is economic shrinkage which has mayor impacts on the labor market, so jobs decrease and unemployment increases. This demographic and economic shrinkage has impacts on the income of the city. Fewer taxes from economy and residents combined with increasing social transfers decrease the city's budget. Therefore, shrinking cities are dependent on external subsidies. A decreasing population has also impacts on the physical dimension of the shrinking city, characterized by high vacancy rates and a decreasing urban density, especially in the inner-city. High vacancy consequently has negative impacts on the urban image of the shrinking city underlined by de-investments of the city. Moreover, decreasing population and economic activities influence shrinkage of the socio-cultural dimension, which influences the attractiveness and the image of the city negatively, since the creative environment is decreasing and educational, cultural and recreation facilities close down. Consequently, a shrinking city can be classified as less attractive due to physical and socio-cultural decrease. Moreover, the socio-cultural shrinkage has a significant impact on a city's attractiveness concerning competitive advantages.

As the third step of conceptualizing shrinking cities, the four dimensions of shrinkage have been classified with the problems shrinkage brings along in each dimension. The fourth step is to subordinate indicators of shrinkage to each dimension. If the population in a city is decreasing, it is an indicator for demographic shrinkage. Is a city characterized by high vacancy and a decreasing urban density; these are indicators for physical shrinkage. If economic activities in a city decrease, it is an indicator for economic shrinkage and finally if a city suffers from a decrease of soft location factors, that is an indicator for socio-cultural shrinkage.

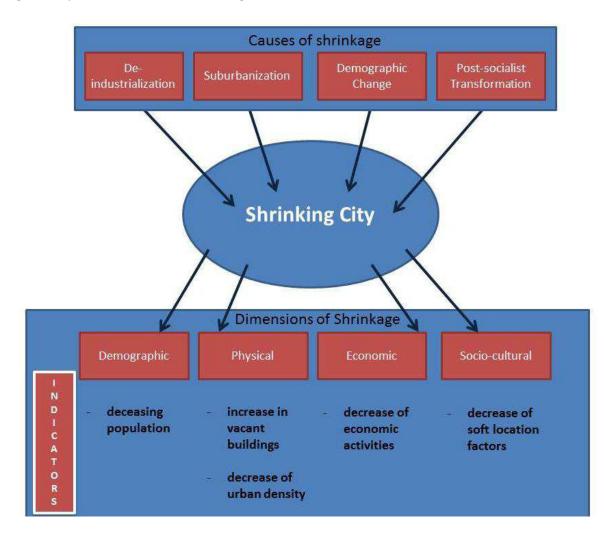
Fig. 4: Dimensions of shrinkage and their indicators



3.2.3 The analytical framework for shrinking cities

The former elaboration stresses that shrinking cities deal with complex causes and effects. Further, the causalities in shrinking cities are complex rather than simple. The creation of an analytical framework helps to evaluate cities that shrink. On one hand, it can be classified why cities shrink by analyzing if causes such as de-industrialization, suburbanization, political and demographic changes apply for the city. On the other hand, it can be classified how a city is shrinking by analyzing the demographic, physical, economic and socio-cultural dimension of a city concerning the indicators of shrinkage for each dimension. When a city can be classified as shrinking in one more dimensions, the next step is to analyze how cities react on shrinkage, since shrinkage is defined as problematic. Therefore, the indicators of shrinkage in each dimension help to evaluate, if shrinking cities formulate strategic goals to counteract to shrinkage.

Fig. 5 Analytical framework for shrinking cities



The increase of vacant buildings and the decrease of urban density are indicators for physical shrinkage. An indicator for economic shrinkage is the decrease of economic activities. The indicator for demographic shrinkage is the decrease of population. On the creation of the indicator of the socio-cultural dimension of shrinkage it needs to be elaborated more since the effects of socio-cultural dimension are more qualitative than the quantitative indicators of the other three dimensions. It is classified that socio-cultural shrinkage lowers the attractiveness of a neighborhood and the image of the city decreases the quality of the living environment and decline cultural, creative and educational offers, which can be pooled under soft location factors. Moreover, soft location factors grow in importance concerning city competition, since a positive image, cultural and educational offers and the creative or living environment influence the locational decision making of businesses and creative people (Dziembowska-Kowalska & Funck, 2000). Therefore decreasing soft location factors are indicators for socio-cultural shrinkage. The analytical framework, which includes the four causes of shrinkage, the four dimensions of shrinkage and its indicators, can be applied to shrinking cities.

3.3 Conclusion

The theory chapter unraveled the complex concept of shrinking cities. Since the post-industrial age de-industrialization, suburbanization, post-socialist transformations and demographic changes caused an augmentation of shrinking cities in the world. Nevertheless, the academic and political debate of shrinking cities started not before the 2000s, since growth is the paradigm since the industrialization. Since shrinkage causes problems for cities, there is a need to challenge shrinkage and to deal with shrinkage strategically. One key problem underlines the demand of challenging shrinkage. Shrinking cities are less attractive and competitive, which forecasts a continuous development towards shrinkage. Since the city's budget decreases, expenses for activities to enhance the city's attractiveness are harmed. Therefore, shrinking cities are dependent on external funding to bring them back to competition. Independently, shrinking cities will not be able to develop towards an attractive city since the financial resources are incapable to challenge the variety of problems shrinkage causes in the demographic, physical, economic and socio-cultural dimension. Therefore, the question is what shrinking cities are doing in practice concerning their further development. Exemplary, the next chapter will introduce the development of shrinking cities in eastern German and the governmental reaction to shrinking cities.

4 Shrinking cities in an eastern German context

This chapter is understood as a thematic approach to the eastern German context of shrinking cities as this thesis will analyze the case of Chemnitz, an eastern German city. With few exceptions all eastern Germany can be regarded as a shrinking area (Kress, 2008). By introducing the urban development during the former German Democratic Republic (GDR) and the urban development after the German reunification, the causes and dimensions for shrinkage in eastern Germany will be analyzed. Furthermore, the political program "Stadtumbau Ost" (urban restructuring east) will be introduced as a state funding program and planning object for shrinking cities in eastern German. The chapter will further answer sub-question 2.

4.1 Urban development in the German Democratic Republic

During the German Democratic Republic (1949-1990) the social and economic system was characterized by socialism and command economy. Land became state property, public administration and planning was centralized. The country was divided into 15 agglomeration areas (Kress, 2008). Many cities were bombed in the Second World War and whole city centers had been destroyed, such as Dresden or Chemnitz. About five million apartments were counted after the war, whereof 40 % had been damaged or even destroyed entirely (Schretzenmayr, 2011). Through the war destruction a lack of housing emerged in all Germany. Whereas the western part of Germany started with the reconstruction straight after the war with refurbishment of inner-city neighborhoods, the eastern part of Germany was barely reconstructed (Heineberg, 2006).

The ideology of the GDR focused on the paradigm of functionality in architecture and urban development, which was considered as progressive and politically unencumbered (Schretzenmayr, 2011). The reconstruction of old inner-city neighborhoods from the founding period was not on the urban planning agenda; the reconstruction rather centered on the ideal of the socialist city. The city center was the venue for politics, administration and culture. Wide roads for parades, central places for demonstrations and significant buildings to represent the power of the state symbolized the city center and its central meaning (Heineberg, 2006). Offices and retail were located in the city center and the inner-city pattern was scattered.

Industrialized apartment stocks (Plattenbau) predominated in the GDR's architecture starting in the 1950s and revised in the 1970s. Whereas the neighborhoods of the founding period have been disregarded from refurbishment and redevelopment, large industrialized building stocks have been constructed new, preferential with a green field approach at the edge of the city to cope with the demand of housing (Kress, 2008). Admittedly, there have been new building stocks in the city center but about 80 % of the new apartments have been realized as development areas in the outskirts,

because there was enough space to realize the mass estates of industrialized houses (Schretzenmayr, 2011).

Market mechanisms for property and real estates were repealed in the GDR. Additionally, the land law 'socialist land reallocation' allowed the state to oust buildings for state purpose (Heineberg, 2006). Dispossession especially occurred in central neighborhoods from the founding period (Franz, 2000). Partially, old neighborhoods have been demolished to build new high-rise apartments in the inner-city. Strict requirements for the acquisition of ownership increased rental housing and apartments have been allocated to residents centrally (Franz, 2000). Due to the control mechanisms of the urban development policies of the GDR, suburbanization did not occur and urban development in the city planned centrally. Although the supply of housing was the core of social politics, the housing situation in the GDR was dissatisfying due to the qualitative deficit in the housing stock. Refurbishment of housing stocks failed to appear much due to the economy of scarcity. After the German reunification almost 90 % of the buildings in the former GDR have been classified as 'in need of redevelopment' (Schretzenmayr, 2011).

Whereas western Germany grew between 1945 and 1989 about 26.6 %, eastern Germany shrank about 12.5 % within the same timeframe (Hoscislawski, 2004). Mainly peripheral areas and small cities lost population in the GDR influenced by the concentration of house building in central areas supported by industry and administration. Certain population groups such as major landlords or court employees have been forced to leave the country. First, minor population loss in the 1950s was interpreted as a relief of the strain on the bad supply situation by the GDR regime; nevertheless, more people migrated out to western Germany than appreciated by the GDR regime, so the migration was attenuated by the establishment of the wall (Kress, 2008).

4.2 Shrinking cities in eastern German after the German reunification

A structural change in eastern Germany followed the German reunification in 1989/90. The development of the eastern German cities is characterized by functional and economical loss (Hannemann, 2003). The amount of shrinking cities increased dramatically in the former GDR and the building policy left behind perforated cities (Hoscislawski, 2004).

With the adaption of the market economy whole branches of economy broke down in eastern Germany which caused high unemployment. "Between 1989 and 1995, some 70 - 90 % of industrial jobs vanished" (Nuissl & Rink, 2005, p. 125), which evoked, besides social side-effects of unemployment, structural side-effects of brown fields in the cities. Instead of reusing these inner-city areas, large "suburban enterprise zones" were built on the green fields at the edges of the cities (Nuissl & Rink, 2005, p. 125). Additionally, western German investors accomplished shopping malls at

the edges of the cities (Heineberg, 2006). Consequently, many city centers lost in function and importance. De-industrialization in eastern Germany caused an economic shrinkage which could not been re-stabilized since the German reunification (Hannemann, 2003). The unemployment increased further due to de-collectivization, de-administration and de-militarization (Bernt, 2009; Hannemann, 2003). That means that job reductions occurred as a result of the closure of state institutions such as the military.

Demographic shrinkage in eastern Germany was strongly influenced by migration to western Germany, mainly by professional and young people; moreover, the birth rate in eastern Germany decreased about 60 % between 1989 and 1994 (Schröer, Vogel, & Lang, 2003). Socio-spatial migration such as suburbanization eventuated in the early 1990s due to an accumulated demand of homestead in form of single and multi-family housing in the greenbelts. Unsolved ownership situations of dispossessed property and real estate additionally influenced suburbanization. Often large parts of an inner-city district have been subject of restitution claims (Nuissl & Rink, 2005). Such building stocks experienced little investments during that period although the demand of modernization and reconstruction of old neighborhoods in the city center was high (Heineberg, 2006). The demographic development created a general population loss in eastern Germany but also and moreover primary in the city center. Furthermore, the residual population of the cities was mainly old and hit by unemployment. Eastern Germany lost more than 1.7 Mio inhabitants between 1990 and 2010 (Haller, 2012).

The process of population decline was fostered by political mismanagement in the long term. State funding programs and short-term tax concessions supported for instance the refurbishment of former GDR mass estates and new home construction in the outskirts of the cities without previous analyses of the housing demand (Hannemann, 2003; Heineberg, 2004). A lack of spatial development plans in the early 1990s and the strong interests of private investors launched an arbitrary urban development. The result of the development was among others high vacancy in the inner cities. In 2000, about 1,000,000 apartments were vacant in eastern Germany (Deutscher Bundestag, 2012).

Political, economic and demographic reasons have caused a high number of shrinking cities in eastern Germany with multilayered side effects of shrinkage, such as decreasing jobs, high unemployment or underused infrastructures. Hannemann (2003) suggests describing the processes in eastern Germany as "de-economization" rather than de-industrialization, because the economy has not recovered since the reunification, high transfer payment and low tax income characterize the eastern German cities. So shrinking cities in eastern Germany are caused by the demographic change, suburbanization, de-industrialization and post-socialist transformations, so all four causes of shrinkage classify eastern German cities. Further, eastern German cities shrink in the physical,

economic and demographic dimension. Since primary young and professional people move out of eastern German cities it can be derived, that eastern German cities shrink also in the socio-cultural dimension, as the demand for cultural and educational infrastructures is decreasing (Hagemeister & Liebmann, 2010).

4.3 "Stadtumbau Ost" (urban restructuring east)

In order to cope with the shrinkage of eastern German cities, the federal state established a funding program to operationalize shrinking processes in 2001. The announcement of the program "Stadtumbau Ost" (urban restructuring east) meant at the same time the start of the public debate of shrinking cities in politics.

When in 2000 the number of vacant apartments in eastern Germany reached one million, the politics declared the situation in eastern Germany as urgent and in need of development (BMVBS, 2012). As a reaction to shrinking cities in eastern Germany, "Stadtumbau Ost" (urban restructuring east) – for livable cities and attractive living, was established in 2001 by the German state as a planning object for cities.

"The objective of the Urban Restructuring program is to respond to the economic and demographic changes that caused urban functional losses in the East German cities. In terms of sustainable urban development the inner-city will be revitalized and urban sprawl will be counteracted." (Deutscher Bundestag, 2012, p. 7)

The state and counties anted up 2.7 billion Euros for the program to subsidize the demolition of vacant building stocks and the upgrade of the city centers and inner-city neighborhoods, focusing on building stocks from the founding period (Deutscher Bundestag, 2012). For the first time in the German history, the demolition of housing stocks is state-subsidized in order to overcome the oversupply of apartments. Demolition measures should stabilize the housing market. The emphasis of the funding program is subdivided into four areas (Deutscher Bundestag, 2012, p. 9):

- Upgrading (since 2002)
- Demolition (since 2002)
- Refurbishment and protection of old building stocks of the founding period (since 2005) and the acquisition of old building stocks through the cities and municipalities (since 2010)
- Return of urban infrastructure (since 2006)

In order to make use of the "Stadtumbau Ost" program, the cities needed to enter a contest with the development of an integrated urban development concept focusing on the problems of shrinkage

(Deutscher Bundestag, 2012). Since the start of the program in 2001 about 440 cities and municipalities received financial support for the urban reconstruction. Between 2002 and 2009 about 350,000 apartments have been demolished in eastern Germany. The program will continue until 2016.

4.4 Conclusion

Eastern German cities suffered from shrinkage in all four dimensions of shrinkage classified in the theory chapter. Furthermore, the augmentation of shrinking cities in eastern Germany was influenced by all causes of shrinkage such as the post-socialist transformation which affect all other causes such as de-industrialization, suburbanization and demographic change. Moreover, the postsocialist transformation can be characterized as a major driver for the development toward shrinkage in eastern Germany, since disinvestments and socialist ideologies in urban planning brought up poor requirements for a development in a globalized world. As defined in the theory chapter, shrinking cities are characterized by decreasing financial resources, so external subsidies take on greater significance for the urban development. Hence, eastern German cities depend on funding programs to adjust the urban development to the consequences of shrinkage in a demographic, physical, economic and socio-cultural dimension of the past 20 years. The state program "Stadtumbau Ost" is a strategic planning object for shrinking cities in eastern Germany to approach the problems of shrinkage. On the one hand, "Stadtumbau Ost" is the main driving force in eastern German cities, since the cities had to adjust an integrated urban development concept to receive funding for specific parameters of the "Stadtumbau Ost" program. On the other hand, "Stadtumbau Ost" is also used synonymous to urban development in eastern Germany, since urban strategies center around the framework of "Stadtumbau Ost" to receive subsidies for development. Consequently, "Stadtumbau Ost" is the key instrument for the urban development of shrinking cities in eastern Germany to deal with the problems of shrinkage strategically by supporting subsidies to upgrade the city, refurbish and demolish vacant buildings and to return to the urban infrastructure.

5 The Case of Chemnitz

Whereas the previous chapter introduced the general development of shrinking cities in eastern Germany, this chapter aims to introduce and analyze the city of Chemnitz as the case of this thesis. This chapter will answer the sub-questions 3, 4 and 5 and is structured along them.



Source: Own picture

5.1 How became Chemnitz a shrinking city and in what dimensions is the city shrinking?

The City of Chemnitz is located in the eastern part of Germany in the federal state of Saxony and at the base of the Erz Mountains. In 2012, Chemnitz had a population of 241,705 inhabitants with a population density of 1,094 people per km² (City of Chemnitz, 2013a). Chemnitz belongs to the 30 biggest cities in Germany and is the third biggest city in eastern Germany. The city is located close to the Czech Republic boarder and forms the southern peak of a triangle with the biggest eastern German cities Dresden and Leipzig (City of Chemnitz, 2009). Chemnitz is divided into 39 districts (City of Chemnitz, 2010a). The industry in Chemnitz is stable and characterized by the Technical University, as well as the more than 100 mid-sized businesses (City of Chemnitz, 2009). Besides, Chemnitz is characterized by a decreasing population, high vacancy rates and a negative image.

ESWIG-HOLSTEIN MECKLENBURG-VORPOMMERN Schwerin HAMBURG BREMEN BRANDENBURG NIEDERSACHSEN BERLIN Mandeburg SACHSEN-ANHALT NORDRHEIM-WESTFALEN SACHSEN Dusseldert Erfort HESSEN THÜRINGEN Chemnitz RHEINLAND-PFALZ ALAND Saarbrücken BAYERN Stuttgart BADEN-WÜRTTEMBERG Czech Republic

Figure 6: Germany and Saxony

Source: MyGermanCity.com, 2013; TU Chemnitz, 2013 (changes by the author)

5.1.1 Chemnitz during the industrialization

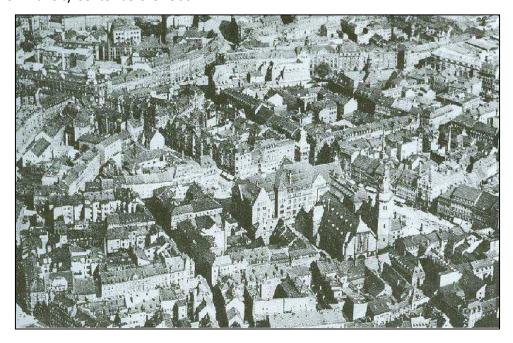
Chemnitz has a great history of industry. Already in 1798 the first cotton spinning mill was established in Chemnitz and symbolizes the beginning of the industrial revolution. The industrialization started earlier than in other regions in Saxony. Chemnitz was one of the industrial pioneers in Germany. The region developed during the industrialization to an important industrial location (Kassner, 2009). In 1801, the city grew up to 11,000 inhabitants. The first part of the 19th century was characterized by the foundation of industrial factories such as the "Saxon loom factory", the "Chemnitz Spinning factory stock" or the mechanical engineering company "Richard Hartmann". Steam engines made the factories independent from water power. In 1883, Chemnitz was declared a large city with a population of 103,000. The growth of the city went simultaneously to the industrial growth. In the early 20th century the progressive industrial increase was underlined by the augmentation of engineering factories and the automobile industry with the "Wanderer factory"² (CWE, 2012). The city reached 200,000 inhabitants in the year 1900 and grew up to the biggest population within the city's history with 360,000 inhabitants in 1930 and became the 13th biggest city in Germany (Kassner, 2009). The strong industry, especially in machine tools, the automobile industry and in the small firm sector has driven the growth of the city economically. Due to the strong industrial economy Chemnitz was called the 'Manchester of Saxony' (Grossmann, 2007; Kassner, 2009). In the end of the 19th century Chemnitz's industrial success and role towards the other two big Saxon cities Dresden and Leipzig was translated in colloquial speech: "In Chemnitz the money was earned, in Leipzig the money was administrated and in Dresden the money was spent" (Grossmann, 2007).

The urban development of Chemnitz during the industrialization was driven by the stark increasing population, due to labor migration mainly from the region of the Erz Mountains. Only about 5 % of the work-related migration came from longer-distance (Kassner, 2009). The growth of the city was associated with the creation of different districts. At the turn of the 19th century, the old city center, characterized by dense mediaeval architecture, was turned into a commercial center and transport hub. The old urban structure had to make way for architecture of modernity, driven by the wealth of the city (Grossmann, 2007). Hence, the city center lost population compared to the overall population of Chemnitz. In 1870, the creation of the inner-city district "Kaßberg" started. The "Kaßberg" still counts to one of the biggest *Gründerzeit* and *Jugendstil* districts of Germany and primary accommodated affluent population from the middle class (CWE, 2012). As opposed to the middle class districts, working class districts such as "Sonnenberg" and "Brühl" were created in the inner-city.

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² In 1932, the regional companies Audi (Zwickau), DKW (Zschopau), Horch (Zwickau) and Wanderer (Chemnitz) merged to "Auto Union AG", a German automobile concern based in Chemnitz (CWE, 2012).

Fig. 7 Chemnitz City Center before 1900



Source: Lindner, 2005

Fig. 8 Chemnitz City Center after 1945



Source: Kassner, 2009

During the Second World War large parts of Chemnitz have been bombed and in 1945 about 80% of the city center has been destroyed (CWE, 2012; Grossmann, 2007). During the war about 3,700 people died and almost 25 % of the apartments were destroyed and another 14 % of the apartments were heavily damaged (Kassner, 2009).

5.1.2 Karl-Marx-Stadt

After the Second World War, Chemnitz became part of the Soviet occupation zone. The reconstruction of war destruction after the Second World War focused barely on damaged building stocks and mainly on the damaged industries. In 1949, the German Democratic Republic was founded and Chemnitz counted 293,373 inhabitants in 1950 (Kress, 2008). In 1953, Chemnitz was renamed to "Karl-Marx-Stadt" (Karl-Marx-City) and became the biggest of the 14 boroughs of the GDR with an agglomeration of about 2 Mio inhabitants. The ruined city center of Karl-Marx-Stadt was not reconstructed. A new city center was built with the ideology of the socialist city. Large streets, such as the "Straße der Nationen" characterize the city center combined with a large square in front of administrative and political buildings. In the second half of the 1950s, the city center was further developed with industrialized residential and commercial blocks and later with the cultural and conference center in 1969. In 1971, the second biggest portrait monument, dedicated to and portraying Karl Marx, was in front of the political and administrative buildings of the district government. (Kassner, 2009; Lindner, 2005)



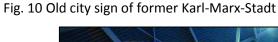
Fig. 9 Chemnitz City Center in the beginning of the 1990s

Source: Lindner, 2005

In general, a lack of housing dominated the post-war period in Karl-Marx-Stadt. Not before 1950 new housing was created but only on a smaller scale. In the 1970s, the housing shortage aggravated. In 1975 only 130,700 apartments, partly in need of redevelopment, were available for 305,000 inhabitants (Lindner, 2005). In the first half of the 1970s the politicians decided to realize new

residential areas in the outskirts of Karl-Marx-Stadt, such as in other cities of the GDR. Exemplary for that realignment in urban development is the "Fritz-Heckert colony" with a capacity for about 85,000 residents in the south of the city. The area was one of the biggest new-built estates of prefabricated houses of the GDR. The population continuously increased in the 1970s up to 318,578 inhabitants in 1981 (Kress, 2008). Most of the population lived in new residential areas. All financial resources were allocated to the new areas such as "Fritz-Heckert colony", which had fatal impacts on the inner-city. The already tenuous reconstruction of inner-city building stocks of the founding period stopped since the financial resources focus on the "Fritz-Heckert colony" and the only financial expense in the city center was poured into the construction of the culture and congress center (Lindner, 2005). The socialist city center was characterized by less density and the new residential areas in the south of the city created urban sprawl. Since decreasing urban density is an indicator for shrinkage in the physical dimension, Karl-Marx-Stadt was shrinking physically.

The economy in Karl-Marx-Stadt concentrated around the industry, the city as well as the borough became a strong industrial region again. One third of the industrial production in the GDR came from the borough Karl-Marx-Stadt (Pollmer, 2010). In 1946, about 1860 factories and ten years later all factories in the GDR became publicly owned. As during the industrialization, Karl-Marx-Stadt was big in engineering and among other fields of engineering, the automotive sector became a mainstay. In 1962 the engineering school became the Technical College and the Technical University in 1986 (CWE, 2012).





Source: Own picture

5.1.3 Chemnitz after the German reunification 1989/90

After the reunification Karl-Marx-Stadt was given back its original name Chemnitz. The structural change challenged the economy. Due to political and economic transformations, the industry declined and Chemnitz lost in importance as an industrial center. As a result the unemployment increased in Chemnitz (Kassner, 2009). Moreover, since the 1990s the population decreased. On the one hand, mainly young people and skilled labor left the city and on the other hand, people migrated to the outskirts of Chemnitz, so suburbanization commenced. One third of the population loss between 1995 and 2001 was a consequence of migration whereof 50 % was in form of suburbanization (Grossmann, 2007). Additionally, the birth rate declined during the 1990s (City of Chemnitz, 2008). The population of Chemnitz decreased about 15,000 people between 1989 and 1995 down to 287,100 people (City of Chemnitz, 2008). Within the years 2011 and 2012, Chemnitz recorded a higher influx than departure of population (City of Chemnitz, 2013a). Nevertheless, the population forecast by the statistical office of Saxony describes an ongoing decrease of the population for Chemnitz (City of Chemnitz, 2009).

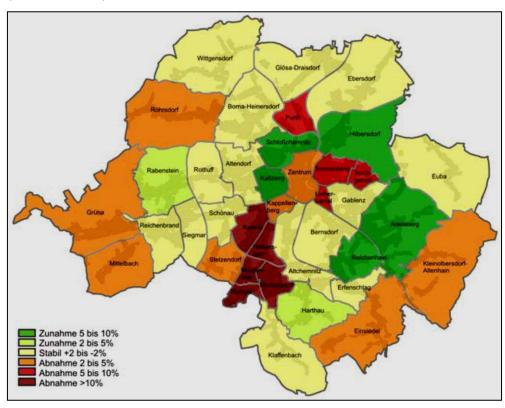


Fig. 11 Population development of Chemnitz between 2002 and 2007

Source: City of Chemnitz, 2009

Figure 11 shows the population development in the 39 districts of Chemnitz between 2002 and 2007. The dark green color describes a population increase of 5 to 10 %, the light green color an increase of

2 to 5 % and the yellow color a stable population of plus 2 to minus 2 %. The orange color means a population decrease of 2 to 5 %; the bright red color describes a decrease of 5 to 10 % and the dark red color a population decrease of 10 % and more. According to the figure, the population of fife districts is increasing between 5 and 10 %, such as in the inner-city *Gründerzeit* district "Kaßberg". Whereas the population in the city center, working class districts east of the city center and the area of the "Fritz-Heckert colony" in the south of the city center is decreasing. In general, Chemnitz lost about 23 % of its population between 1990 and 2012 (City of Chemnitz, 2009, 2010a). Chemnitz is shrinking in the demographic dimension classified by the indicator of decrease in population in the theory chapter.

After the reunification the quality of many housing stocks was deficient in the city center, due to economy of scarcity and disinvestments in the former GDR. Many building stocks were in need of redevelopment. New building activities and the refurbishment of inner-city building stocks of the founding period took place in the 1990s, so the number of apartments in Chemnitz increased although the population was decreasing (Grossmann, 2007). Between 1990 and 2004, housing companies in Chemnitz invested 1.75 billion Euros to refurbish about 58,000 apartments, extensively in prefabricated housing estates in the south of the city (Lindner, 2005). Nevertheless, the population loss had a major influence on the housing stock situation in Chemnitz and in 2001 the vacancy rate was between 23-25 %, one third of vacant apartments were in the "Fritz-Heckert-colony" (Grossmann, 2007). Since the increase in vacant buildings is an indicator for physical shrinkage, Chemnitz can be classified as shrinking in the physical dimension after the reunification.



Fig. 12 Vacant building in the district "center"

Source: Own picture

Fig. 13 Vacant prefabricated housing estate in the district "center"



Source: Own picture

Additionally, the city center was characterized by a large parking lot and open space. In the early 1990s Chemnitz had the biggest inner-city brownfields in Europe, due to urban policies of the former GDR, the disinvestment of refurbishing old building stocks and the construction of a socialistic city center (Lindner, 2005). Additionally, shopping malls were built at the edge of the city in the beginning of the 1990s and the city had minor supply functions (Kassner, 2009). Decreasing urban density is another indicator for physical shrinkage, influenced by inner-city brownfields. Chemnitz has been shrinking in the physical dimension after the reunification. The city center was not reconstructed before the late 1990s. Between 1995 and 2005 about 500 Mio Euro public and private funding have been invested into the reconstruction of the city center (City of Chemnitz, 2009). In 1998, the first ensemble of the new city center was build (Lindner, 2005). The sprawled city center was slowly turned into a commercial center with central functions, a denser cityscape, pedestrian zones and a market place in the mid-2000s (Grossmann, 2007). Although, the city center is becoming denser, Chemnitz is still characterized by an overall vacancy rate of 21 % in 2009.

Fig. 14 City Center Chemnitz 2005



Source: Lindner, 2005

Fig. 15 Chemnitz City Center in 2013



Source: Own pictures

Since the 2000s the economy in Chemnitz stabilized. The producing industry increased in the medium-sized enterprises sector as well as in the innovative industry sector increased (Kassner, 2009). Chemnitz is a location for the sectors engineering, automobile and supply industry, and information and microsystem technologies (City of Chemnitz, 2009). The Technical University of

Chemnitz is economically important for the city and is collaborating with the local businesses (City of Chemnitz, 2009, 2010b). Besides, the Technical University is with more than 10,000 students and 160 professors the second biggest Technical University in Saxony (City of Chemnitz, 2010b). Chemnitz is one of the regional centers of the metropolitan region "Mid-Germany", which is internationally competitive (City of Chemnitz, 2009). Moreover, the University and extramural research institutes, such as "Fraunhofer", characterize Chemnitz as an important innovative location (City of Chemnitz, 2009). In 2009, the average yearly income in Chemnitz amounted to 16,641 Euro per person, which was above the average income (15,881 Euro) in Saxony (Brandenburg, 2011). In 2012, more businesses registered than de-registered (City of Chemnitz, 2013a). Chemnitz was shrinking in the economic dimension in the 1990s but since economic activities are increasing since the 2000s the city stabilized the shrinking in the economic dimension. The tourism industry also realized this economic stability and innovative strength for branding purposes which is reflected in the current city slogan "Chemnitz – City of Modernity".

In the matter of high culture, Chemnitz has a theater, an opera, an art collection and several museums. Further, the city has cinemas, cultural institutions and a free cultural scene. The Technical University is also an element of the cultural development of Chemnitz (City of Chemnitz, 2009, 2013b).

Chemnitz is described as the "Cinderella" in different publications, a metaphor for the relationship of Chemnitz to the 'two bigger sisters' Leipzig and Dresden(Grossmann, 2007). This stresses the image of a dirty industrial working class town (ibid.). Finally, it needs to be mentioned that Chemnitz was on the end of Germany's city ranking in 2013. The 30th biggest German cities were compared and ranked by the means of a trend, location and demographic index. The trend-index measures the economic effectiveness; the location-index covers the sectors education, innovation, internationality and accessibility; and the demographic-index measures the future development of population and manpower as well as the fertility rate of a city until 2025 (Teuber, Puckelwald, & Timmermann, 2013).

5.1.4 Analysis of sub-question 3

Chemnitz can be classified as a shrinking city, since the city was shrinking in the demographic, physical and economic dimension over time. Nevertheless, the shrinkage of different dimensions occurred in different timeframes and was influenced by different causes. The following paragraph will summarize the causes and dimension of shrinking for Chemnitz.

The population of Chemnitz was increasing during the industrialization but since the 1980s the population of Chemnitz is decreasing. The theory chapter classified a decrease of population as an

indicator for demographic shrinkage, which applies to Chemnitz. Different causes for the demographic shrinkage can be classified in Chemnitz. On the one hand, the demographic shrinkage in the 1990s was caused by suburbanization. Further, the demographic change evoked a decrease of the population in Chemnitz. Additionally, the political-economic change from socialism to capitalism during the German reunification led to de-industrialization, which resulted in high unemployment and influenced a work-related out-migration of young and professional labor-force, primary to the western part of Germany. Both post-socialist transformation and de-industrialization caused shrinkage of the demographic dimension in Chemnitz.

Therefore, all four causes of shrinkage, which have been defined in the theory chapter, apply for the demographic shrinkage of Chemnitz. Figure 16 summarizes the demographic development from 1801 until 2012.

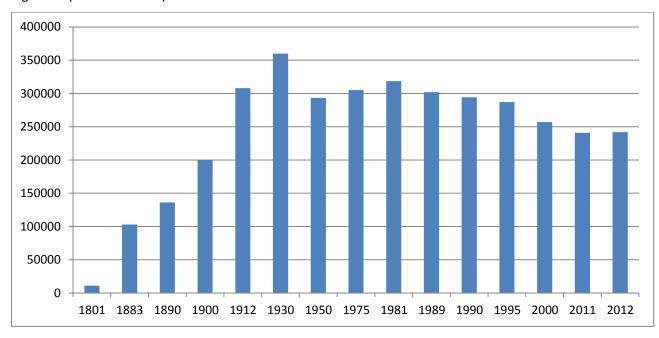


Fig. 16 Population development of Chemnitz 1801-2012

Source: City of Chemnitz, 2013; CWE, 2012; Kress, 2008 and Lindner, 2005

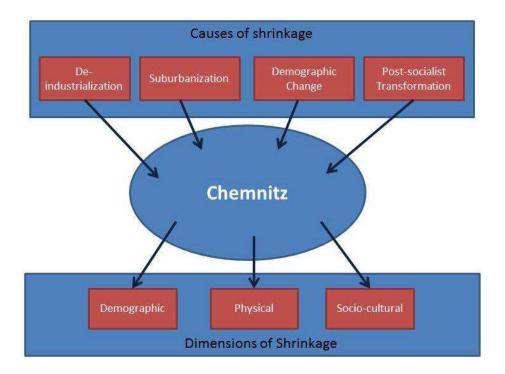
Additionally, Chemnitz is shrinking in the physical dimension, since the city is characterized by increasing vacant buildings and a decreasing urban density. Causes for the physical shrinkage are on the one hand disinvestments in the building stock of the founding period during the former GDR but further the decreasing population since the reunification, which created an oversupply of houses and high vacancy rates. Beside the high vacancy, the cityscape in Chemnitz is characterized by less density. One reason for decreasing density in Chemnitz is the reconstruction of the city center in the GDR by the ideology of socialism. Large squares, wide streets and political and administrative

buildings characterized the city center from 1950s until the early 2000s. Additionally, the city center had no functions of supply and commerce. Until the 2000s neither shops, restaurants nor bars settled in the city center; consequently, the city center was characterized by vastness and physical emptiness. Therefore, the cityscape can be classified as sprawled. High vacancy and decreasing density classify Chemnitz as a physical shrinking city.

Further, Chemnitz was shrinking in the economic dimension, since the transformation of the market system after the reunification emphasized a decrease in economic activities, which is classified as an indicator for the economic dimension of shrinkage. Post-socialist transformation and deindustrialization caused the decline of industry in the 1990s with the result of high unemployment. Causes for the economic shrinkage were the political change from Socialism to Capitalism and deindustrialization. Nevertheless, the economy in Chemnitz recovered in the early 2000s; hence, Chemnitz is not shrinking in the economic dimension any more.

As outlined in the theory chapter, demographic decline can have influences on the socio-cultural dimension, since social infrastructure is used to a smaller extent and consequently closes down. More than half of the population in Chemnitz is older than 40 years and the largest population group forms the 50-59 year olds (City of Chemnitz, 2013a). Moreover, it is presumed that the aging population has effects on the social infrastructure in Chemnitz. But only the cultural facilities experience an increasing use although the population is decreasing (City of Chemnitz, 2009). Although Chemnitz has high culture represented, the city struggles with its image. A newspaper article about Chemnitz claimed that there is no scene, not to mention a trendy neighborhood; moreover, the city is lacking attractive youth culture (Locke, 2009). Due to the low percentage of foreigners, a cultural mix is harmed. Chemnitz is shrinking in the socio-cultural dimension, since the indicator of soft location factors are decreasing, classified as the image.

Fig. 17 Chemnitz a shrinking city



Summarized in figure 17 Chemnitz became a shrinking city due to post-socialistic transformation, deindustrialization, suburbanization and demographic change. Moreover, the city is shrinking in the demographic, physical and socio-cultural dimension.

5.1.5 Conclusion

Chemnitz can be classified as a city that is shrinking in the demographical, physical and socio-cultural dimension. Reasons for the process of shrinkage are all four causes. In general, the development of Chemnitz towards a shrinking city is similar to the development of all eastern German shrinking cities, since all causes affected almost all eastern German cities to shrink. Therefore, the development of Chemnitz towards a shrinking city can be understood as consequences of a wider phenomenon in the eastern German context. Nevertheless, the economy in Chemnitz is strong. Since the dimension of economic shrinkage has effects on the other dimension of shrinkage, the question is why Chemnitz is still shrinking, since the economy is stable and the city budget is not suffering as much as in shrinking cities that shrink also in the economic dimension. Therefore, the factor of the lack of the city center has to be mentioned concerning the impact on shrinkage in Chemnitz.

The lack of the city center is a specific characteristic for Chemnitz, since it was reconstructed by the ideology of socialism. In other words, the city center was barred from urban life, which had consequences on the image of the city. The "heart of the city" was an unattractive sprawled area without quality of life and characterized by parking lots (Lindner, 2005). Not before the reconstruction of the city center started in the 2000s and the recreation of a commercial and urban

center came to an end in the late 2000s, the "hart of the city" is slowly getting filled with urban life, cafés, restaurants and quality of life. The lacking city center had further influence for the city, since it affected the image of the city, created an unattractive city center and decreased the quality of urban life and living. Moreover, this is reflected by ongoing decrease of population although economy is increasing. This elaboration underlines, that the soft location factors in a city are important to attract residents and it is not enough to have a strong industry in a shrinking city and Chemnitz's core problem is the image. By recreating a dense and functional city center the first step in counteracting on the image is done. What further strategic goals the city of Chemnitz adjusts on will be elaborated in the following chapters.

5.2 How does Chemnitz adjust urban development to problems of shrinkage?

As analyzed in the previous section, Chemnitz can be classified as a shrinking city that experienced a dramatic population loss within the past three decades. This section will scrutinize the strategic goals for the urban development of Chemnitz concerning the problem of shrinkage. Therefore, the goals for the urban development will be worked out and compared with the indicators from the shrinkage dimensions classified in the theory chapter. It will be analyzed what measures Chemnitz plans to focus on and how the city is dealing with the problem of shrinkage. First of all, the implementation of the state funding program "Stadtumbau Ost" in Chemnitz in the 2000s will be presented. The focus of the chapter is however on the latest urban development concept "Städtebauliches Entwicklungskonzept – Chemnitz 2020" (SEKo) of 2009, which formulates long term goals for the development of Chemnitz until 2020. By identifying strategic goals within the shrinkage indicators this will provide an overview of how Chemnitz seeks to adjust its urban development in a context of shrinkage to answer the sub-question.

5.2.1 "Integriertes Stadtentwicklungsprogramm 2002"

Although the population decreased dramatically in the 1990s and the number of vacant buildings increased, the city of Chemnitz did not start the public discourse of shrinkage before 2000. Starting point of the public discourse was a newspaper article about vacancy and demolition in Chemnitz, published by the local press "Freie Presse" in June 2000 (Grossmann, 2007). As stressed in the theory chapter, the debate about shrinking cities was tabooed, although prevalent, by the politics during the 1990s. The city of Chemnitz addressed the problems of shrinkage and vacancy along the national debate about "Stadtumbau Ost". In 2002, Chemnitz adopted an integrated urban development program "Integriertes Stadtentwicklungsprogramm" (InSEP) with the special section of "habitation". That document was the basis for receiving funding for urban reconstruction of the state program "Stadtumbau Ost" (City of Chemnitz, 2009). The integrated urban development program highlighted the necessity to plan shrinkage and integrated the debate of the upcoming new task in urban planning due to the phenomenon of shrinking cities (Grossmann, 2007). Shrinkage caused problems for the future development of Chemnitz, since Chemnitz was shrinking in all of the four dimensions of shrinkage and all indicators for shrinkage have been ascertained in Chemnitz in the beginning of the 2000s. The "InSEP" focused on the physical shrinkage. In the center of the urban restructuring was the "Fritz-Heckert colony", where already 4,200 apartments have been demolished in 2005 (Lindner, 2005). In total, 6,600 apartments have been demolished in Chemnitz until the same year (City of Chemnitz, 2010a).

Fig. 18 Fritz-Heckert colony in the 1990s and after "Stadtumbau Ost" in the 2000s





Source: Lindner, 2005

Initiated by the City Councilor for Building and Construction of Chemnitz, the service company "Stadtumbau GmbH" was found by local housing associations of Chemnitz (and later the municipal utilities) in 2001 to manage demolition activities in Chemnitz. Further, the company acts as the commissioner for the city of Chemnitz to prepare, conduct, account and document the restructuring processes since 2002 (Stillger, 2005). Between 2000 and 2007 about 14,150 apartments have been demolished, whereof about 9,000 were it in the "Fritz-Heckert colony" (City of Chemnitz, 2009).

The early approach of Chemnitz of shrinkage manage was focused on decreasing the high vacancy of buildings, i.e. the physical shrinkage. They used the strategy to create an integrated urban development program to profit from the state funding program "Stadtumbau Ost", finance and kick start the approach to the problem of shrinkage. Before the debate about shrinking cities came to the political level, shrinkage was rather a condition than a problem (Kingdon, 2011). Only with the political dispute the condition became a problem that needed to be solved. Concerning the shrinkage indicator of high vacancy the state politics answered with a demolishing policy of vacant buildings. Primary, the idea behind demolition is to decrease the oversupply of housing for the housing market and has market-driven attempts. Furthermore, until 2005, the program "Stadtumbau Ost" supports beside demolition also the measure of refurbishment. Since the state allocated funding for dealing with the problems of shrinkage, cities are able to counteract on the indicator of high vacancy with financial support. Eastern Germany cities adjusted their urban development to the state funding program by creating the integrated development programs with the special section of "habitation". The city of Chemnitz as well applied for the state funding and centered their urban development on the measures of "Stadtumbau Ost". Since shrinking cities in general deal with a complexity of problems (see chapter 1) and the demolition and refurbishment of buildings is only counteracting on problems of the physical dimension of shrinkage, the "InSEP" was insufficient to adjust all problems of shrinkage in Chemnitz; hence, a new urban development concept was developed based on the "InSEP" (City of Chemnitz, 2009).

5.2.2 "SEKo" Chemnitz 2020

Between 2007 and 2009 the urban development program was revised, since it mainly focused on habitation and Chemnitz challenges multilayered problems (City of Chemnitz, 2009). The motive for the new urban development concept is outlined as followed:

Chemnitz has "[...] good conditions for future city competition. Chemnitz must however be prepared to cope with future processes of change that will be heavily influenced by demographic change and globalization of the economy and society. Urban redevelopment as a synonym for these processes of change means for Chemnitz to face the process of shrinkage and change actively to obtain or rather sharpen the citywide identity and to develop a sustainable urban structure." (City of Chemnitz, 2009, p. 6) (Own translation)

The city of Chemnitz adopted the long-term urban development concept "Städtebauliches Entwicklungskonzept – Chemnitz 2020" (SEKo) in 2009 that formulates overall strategies for the long-term development of the whole city and thematic priorities for sub-regions of the city until 2020. The urban development concept is an update of the integrated urban development program from 2002 and can be understood as a citywide guiding principle that sets strategic goals for the future development of the city. By creating an urban development concept, Chemnitz fulfills the requirements for state and federal state funding. Besides different core themes such as population development, habitation, economy, culture and image the concept defines sub-regions in need of development within the "SEKo" action field. However, concrete planning measures for sub-regions or individual areas in the city of Chemnitz are formulated in so called sub-regional development concepts "teilräumliche Stadtentwicklungskonzepte" which are subsequently established based on the "SEKo" (City of Chemnitz, 2009). The next chapter will expand on the sub-regional development concept of the inner-city neighborhood Brühl-Boulevard.

5.2.3 Analysis of sub-question 4

The "SEKo" formulates strategic goals and principles for the future spatial development of Chemnitz. The urban development concept and core themes will be examined on the basis of the indicators of shrinkage. Further, measures for the urban development will be worked out and resumed in a table to answer how Chemnitz adjusts the urban development to problems of shrinkage. The following paragraphs will examine the strategic goals along the shrinkage indicators "decreasing population", "increase in vacant buildings & decrease of urban density", "decrease of economic activities" and "decrease of soft location factors" of the four dimensions of demographic, physical, economic and

socio-cultural. Although Chemnitz is not shrinking in the economic dimension, the strategic goals concerning that dimension will be analyzed.

Demographic dimension

Indicator: <u>Decreasing population</u>

Chemnitz is dealing and reacting to the decreasing population with measures such as the adjustment of the housing market to the demand. Since the Technical University is in the center of the urban development and is extending to the city center it can be assumed that Chemnitz is building on an influx of students as new population; hence, the number of students increased slowly between 2011 and 2012 about 1,05 % (City of Chemnitz, 2013a). Chemnitz's strategic goal is to attract professionals and students by advertising the location advantages actively (City of Chemnitz, 2009).

Tab.1 Demographic dimension Chemnitz

Indicator	Strategic goal
Decreasing population	- Attract students and professionals

Physical shrinkage

Indicators: Increase in vacant buildings & decrease in urban density

The vacancy rate in Chemnitz remains problematic and characterizes the cityscape. Although about 14,000 apartments or 7.9 % of the housing stock have been demolished between 2000 and 2007 the urban development concept still involves the core theme of decreasing the number of vacant buildings. The city of Chemnitz forecasts a vacancy rate of 13 % to 18 % for the year 2020 if no measures are implemented (City of Chemnitz, 2009). Since the economic acceptable ascertained vacancy rate is 10 % the city sees a need in continuing the urban restructuring measures of demolition to decrease the high vacancy. Further, the vacancy rates vary between districts. As figure 19 illustrates, the "SEKo" devised a demand of action for 17 districts.

Ebersdorf 1 2 Hilbersdorf 3 Zentrum Sonnenberg 2 11 Schloßchemnitz Yorckgebiet 12 Altendorf 12 Lutherviertel 13 Kappel \ Gablenz 14 Helbersdorf 15 Morgenleite 10 Kapellenberg 16 Markersdorf Altchemnitz 17 Hutholz 10 Bernsdorf

Fig. 19 Fields of action for the "SEKo" concerning "Stadtumbau Ost"

Source: City of Chemnitz, 2009

Among others the districts "City" (3), "Sonnenberg" (4) and "Kappel" (13) have a priority requirement concerning the adaption of housing stocks to the demand. The demolition proposals are tailored to the parameters of the state funding program "Stadtumbau Ost". The "SEKo" selected eight districts that imply potentials for urban reconstruction for "Stadtumbau Ost" measures. Besides the pillar of demolition measures the program is also funding upgrading measures; the refurbishment of old building stocks; a return to the urban infrastructure; and since 2012 "active city a neighborhood centers". (City of Chemnitz, 2009, 2012a) The urban restructuring program builds a common thread through the whole urban development concept and can be therefore characterized as a fundamental strategy to counteract the increasing vacancy.

Due to high vacancy rates and the history of socialist urban planning, Chemnitz is partly characterized by a sprawled cityscape. A superior goal of the "SEKo" is to densify the urban pattern, especially the city center. The concept refers to the model of the European city which implies in general "short distances", "density and diverse utilization", "quality of public space", "continuity of space and development" and that "the city is a result of a societal discourse" (City of Chemnitz, 2009, p. 50). For Chemnitz it means a focus on the core city, to refurbish building stocks, support inner-city living and to upgrade public space in the inner-city (City of Chemnitz, 2009). "The citywide structural model of Chemnitz is to maintain and strengthen the advantages of a compact, mixed-use city with priority of the inner-city and the surrounding dense residential areas." (City of Chemnitz, 2009, p. 127) (Own translation) Since a shrinking city is characterized by a sprawl urban pattern, Chemnitz responds to

the indicator of decreasing density by the strategy to densify the city. The settlement of the University to the city center, the revitalization of inner-city neighborhoods and the redevelopment of inner-city districts exemplify and underline the strategy to densify the city to counteract on the physical shrinkage indicator of decrease of urban density.

Tab. 2 Physical dimension Chemnitz

Indicators	Strategic goals
Increase in vacant buildings	- Demolishing vacant buildings
Decrease of urban density	- "Stadtumbau Ost"
	- Focus on the inner-city
	- Densifying inner-city neighborhoods
	- Inner-city campus

Economic shrinkage

Indicators: <u>Decreasing economic activities</u>

Although, Chemnitz is classified as stable in the economic dimension since the 2000s, the city formulated strategic goals to strengthen the economic dimension by improving the work environment to attract more businesses. Moreover, Chemnitz builds on the Technical University and the environment of the University concerning research activities. Chemnitz is economically stabile and the University is an important pillar. Chemnitz aims at strengthening its location of science. The strategic goal is to make Chemnitz an attractive and technological industrial location with a stable employment situation. Further, Chemnitz wants to attract businesses and offers an adequate supply of industrial sites. Since the city is not shrinking economically, the "SEKo" formulates no concrete strategies to counteract on the indicator of decreasing economic activity. Moreover, the strategy is to increase the attractiveness of Chemnitz to pull more businesses and professionals as well as to create quality of life in the city. So the major role to strengthen the economy in Chemnitz is to create an attractive environment for working and living.

Tab. 3 Economic dimension Chemnitz

Indicator	Strategic goals
Decreasing economic activities	- Improve the work environment
	- Location for science

Socio-cultural shrinkage

Indicators: <u>Decreasing soft location factors</u>, such as cultural and educational offers, image, living environment

Since 2007 the city of Chemnitz and the Technical University Chemnitz signed a cooperation contract to develop and support Chemnitz as a location for science, economy and culture. The cooperation will support the identification of the people with the University and the city; furthermore, it aspires to support the urban life in the city (TU Chemnitz & City of Chemnitz, 2007). The Technical University is involved in the urban plans and functions as *"the engine of the urban development"* of Chemnitz (Steinebach, 2010, p. 1).

One field of action of Chemnitz's urban development concept is the Technical University of Chemnitz. The strategic goal is the expansion of the University in the city center at the "Straße der Nationen" and close to the main station as well as to create an inner-city campus. Originally, the University was in the city center, where the administrative buildings and some faculties are still located. Contemporary, the University is distributed to four locations in Chemnitz, three large destinations in the south of the city and one in the city center. Bringing a large part of the University back to the city center and creating an inner-city campus will bring along synergy effects between University and city. The number of students and employees in the city center will increase about 60 % and influence the neighboring urban areas (City of Chemnitz, 2010b). Besides the educational and scientific functions, the concept of the inner-city campus will be composed of a University with a main station, a park, a cultural and a living quarter (City of Chemnitz, 2010b). Additionally, the historical building of the former spinning factory stock of the 19th century, located in the area of the future campus, will be converted into the central university library (Steinebach, 2013).

Although the Technical University Chemnitz is a hard location factor it brings along even more important soft location factors for the city, such as the student environment. "The students and employees as well as the Technical University as an educational institution are contributing to the cultural life of Chemnitz by their numerous events". (City of Chemnitz, 2009, p. 67) The city of Chemnitz uses the strategy of strengthening the University as a landmark and to redefine the city center as a location of culture, creativity and science. Besides the attractiveness of the educational institution, soft location factors such as cultural and leisure facilities, the attractiveness of the city or the quality of living become more important for cities. Hence, the University implies an environment for soft location factors that attract students and creative people. The cooperation helps to make the University a key function in the actual urban development plans and to strengthen the soft location factors of Chemnitz. Since decreasing soft location factors are an indicator of a shrinking city,

Chemnitz is counteracting on the indicator by using the University to strengthening the soft location factors. Since 2004 Chemnitz brands itself as "Chemnitz – City of Modernity" which also functions as the guiding principle to improve the image of the city. The guiding principle points out that "[...] the city is not only place for living and working, trade and social activities, but also for communication and experiences. Thereby, art and culture can contribute significantly to creating a quality of life that is experienced by the citizens. The city itself should therefore become distinctive habitat and place for creativity." (City of Chemnitz, 2009, p. 13) The factor of culture becomes pivotal and Chemnitz's goal is to become an attractive city known beyond the borders of Saxony. Since the image of a city is a soft location factor, rebranding Chemnitz with the new slogan can be seen as strategically improving the image of Chemnitz. In general, Chemnitz wants to become an attractive place to live. Since the attractiveness of neighborhoods and districts differs in the city, the strategic goal is to focus on the development on a smaller scale by increasing the quality of inner-city quarters. Upgrading and strengthening the neighborhood level can increase the quality of live and a livable city, which again can be a soft factor for the choice of location.

Tab. 4 Socio-cultural dimension Chemnitz

Indicator	Strategic goals	
Decreasing soft location factors	 Sharpen the image of the city "City of Modernity" Create an student environment Inner-city campus as a cultural, urban and scientific milieu Redefining the city center to a location of culture, creativity and science Create attractive inner-city quarters Make Chemnitz an attractive city for working and living 	

Summarizing, the city of Chemnitz is counteracting on the indicators of shrinkage in every dimension. All strategic goals imply the overall goal to turn Chemnitz into an attractive city, since the creation of an attractive city will attract residents and more businesses which consequently could stabilize all four dimensions of shrinkage.

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³ Own translation

Tab. 5 Summary of strategic goals counteracting on shrinkage indicators

Indicator	Strategic goals
Demographic dimension - Decreasing population	- Attract students and professionals
Physical dimension - Increase in vacant buildings - Decrease of urban density	 Demolishing vacant houses Focus on the inner-city Densifying inner-city neighborhoods Inner-city campus "Stadtumbau Ost"
Economic dimension - Decreasing economic activities	 Improve the work environment Location for science
Socio-cultural dimension - Decreasing soft location factors	 Sharpen the image of the city Create an student environment Inner-city campus as a cultural, urban and scientific milieu Redefining the city center as a location of culture, creativity and science Create attractive inner-city quarters Make Chemnitz an attractive city for working and living

In general, it is becoming clear that Chemnitz wants to increase its attractiveness as a location for living and working and the image by branding themself the "City of Modernity". As classified in the theory chapter, these soft location factors play an important role for the competition between cities. The Technical University plays a prominent role in the urban, cultural and economic development of Chemnitz. Since the University is described as the engine of the urban development it can be claimed that Chemnitz is banking on the University to strengthen soft location factors to attract people. Additionally, Chemnitz aims at being a place for creativity. Furthermore, the focus on specific areas of the inner-city helps to develop qualitatively on the neighborhood level by creating urban and creative milieus. Chemnitz continues to implement the program "Stadtumbau Ost" to decrease the vacancy rate and to adjust the housing market to the housing demand is therefore strategically using the subsidy program to counteract on the physical dimension on shrinkage. Further, the state funding is also used to refurbish building stocks, which again supports the attractiveness of inner-city neighborhoods. Chemnitz works against the sprawl urban pattern by densifying the city and guided by the model of the European city. A dense inner-city and compact living quarters support the creation of urban quality.

5.2.4 Conclusion

Whereas Chemnitz's strategy in 2001 was to apply directly to the state funding program "Stadtumbau Ost" and centered on shrinkage, the actual strategy is more comprehensive and reacts on the holistic picture of shrinkage indicators to make Chemnitz an attractive city for living and working. Moreover, the actual strategy can be interpreted as a strategy to enhance Chemnitz's competitiveness, since the attractiveness of a city is classified as the important competitive advantage for a city to attract businesses and residents (Dziembowska-Kowalska & Funck, 2000).

The term 'shrinkage' is only mentioned as "a process to face actively" in the introduction of the urban development concept (City of Chemnitz, 2009, p. 6). Admittedly, shrinkage only appears three times within the 167 pages of the "SEKo"; moreover, the term "shrinking city" is not mentioned at all. That underlines the different approach in the urban development between the "InSEP" from 2002 and the "SEKo" from 2009. The "InSEP" addresses the problems of shrinkage and the necessity to plan shrinkage, Chemnitz identified itself as a shrinking city. The "SEKo" is mentioning to face the processes of shrinkage, but shrinkage is not identified as a problem. Although strategic goals as reactions on the indicators of shrinkage are analyzed, the problem of shrinkage is moreover detached by new processes of change such as demographic change and globalization are mentioned as challenges for the urban development. Since globalization and the demographic change are mentioned in the introduction as new challenges of urban development, shrinkage becomes rather a natural part of planning than the point of departure. The future development of Chemnitz places special emphasis on the increase of quality of life and the creation of an attractive city to live and to work in. Chemnitz focusses mainly on the increase of soft location factors to become competitive. The state program "Stadtumbau Ost" can be characterized as a kick-start tool for development (in 2002 as well as in 2009), because the city is financially supported to upgrade the city center and to reduce vacancy.

Whereas the problem of shrinkage in 2002 was the driving force of urban development in eastern Germany and especially the catalyst to apply for state funding; ten years after the political debate of shrinking cities, the focus in planning changed in Chemnitz and shrinking is rather approached as a chance for development than a problem. The problem of shrinkage in the case of Chemnitz is replaced by the challenges of demographic change, globalization of the economy and employment to become competitive. Therefore, the 'problem' of shrinkage in the case of Chemnitz can be interpreted as a chance, since the development is subsidized with state funding and Chemnitz can focus on the 'potentials' of the city. Chemnitz adjusts its urban development to the problems of shrinkage, but the approach to shrinkage changed since new phenomena such as globalization are

dominating. Chemnitz focuses in its urban development on the preparation to become competitive, supported by external funding, since the "SEKo" highlights:

"Today Chemnitz has a recognized economic base and thus in cooperation with the Technical University of Chemnitz and the integration into a powerful regional environment, good conditions for future cities competition." (City of Chemnitz, 2009, p. 6) (Own translation)

5.3 How are the strategic goals translated to the neighborhood level in the Brühl-Boulevard?

This chapter will analyze the strategic goals of Chemnitz on the neighborhood level for the Brühl-Boulevard, an inner-city neighborhood that is defined as a location in need of development in the urban development concept "SEKo". Further, the Brühl-Boulevard is declared as "highly valued for the citywide identity" (City of Chemnitz, 2009, p. 3). This chapter answers the last sub-question. Structured as in the previous chapter, the strategic goals for the neighborhood level will be identified, contrasted with the indicators and examined with the four dimensions of shrinkage.



Source: Own picture

5.3.1 The Brühl-Boulevard and the concept "Development area SOP Brühl-Boulevard"

The Brühl-Boulevard is an inner-city working class neighborhood from the 19th century and administratively allocated to the central district. Since 2012 the neighborhood is in the focus of the urban development of Chemnitz and defined as an area with thematically priority in the "SEKo". The Brühl-Boulevard area is circumscribed by the streets "Georgstraße" in the south, "Mühlenstraße" in the east, "Zöllnerstraße" in the north and "Karl-Liebknecht Straße" in the west. The Brühl-Boulevard is located in close vicinity to the main station, the Technical University in the "Starße der Nationen", the park "Schillerplatz", the theater in the east and the city center in the south. West of the area flows the river Chemnitz. (AS&P, 2012; City of Chemnitz, 2010a, 2012b)

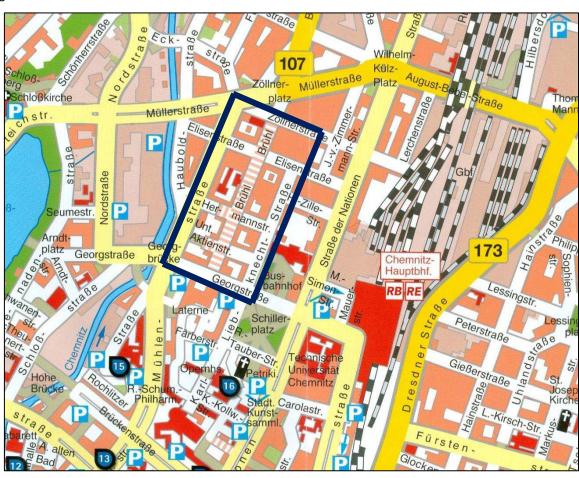


Fig. 20 Brühl-Boulevard

Source: City of Chemnitz, n.d.

During the GDR regime, the area around the neighborhood Brühl-Boulevard was restructured in the 1970s (Lindner, 2005). Whole streets and public spaces have been transformed into prefabricated housing estates. The Brühl-Boulevard was turned into a pedestrian street with shops and restaurants in the ground-floor within the restructuring processes of the 1970s (Kassner, 2009). Until 1990 the Brühl-Boulevard had functions of a city center and accommodated retail of specialty and dear goods. After the reunification and influenced by the reconstruction of old city center the Boulevard lost in

importance, lost population and became vacant. Since 1999 the Brühl-Boulevard is a formally designated redevelopment area by the city of Chemnitz. Nevertheless, since 1990 all attempts to revivify the neighborhood failed. The Brühl-Boulevard counts about 133 apartments with a vacancy rate of up to 80 % (Luczak, 2013). More than the half of the building stocks are owned by the city, two schools are located in the center of the Boulevard (the "Karl-Liebknecht-School" is vacant) and about one third of the total building stock is refurbished (AS&P, 2012; City of Chemnitz, 2012b). Nevertheless, the Boulevard is characterized by high vacancy, graffiti and emptiness.

Fig. 21 Brühl-Boulevard vacancy in 2013



Source: Own picture

Fig 22 Brühl-Boulevard retail vacancy in 2013



Source: Own pictures

The urban development concept "SEKo" defines the Brühl-Boulevard as an inner-city quarter with the demand for action concerning urban development within the strategic goals to strengthen and densify attractive inner-city quarters (City of Chemnitz, 2009). The sub-regional development concept "Inner-city campus of the Technical University" from 2010 is seen as a boost for the development of the sub-regional concept Brühl-Boulevard which was established in 2012. According to the concept, the Brühl-Boulevard "[...] is to be stabilized to an attractive inner-city residential neighborhood and community center" (City of Chemnitz, 2012b, p. 3).

In January 2012 the Brühl-Boulevard was further defined as the area for the subsidy program "Active City and Neighborhood Centers" (SOP), with a budget of 4.5 Mio Euro by the state and county of Saxony until 2018.

"The aim of the program is to support the cities and municipalities in managing the functional and spatial structural change in their central supply areas. At the center are preservation and further development of these centers as locations for business and culture as well as places to live, work and life." (City of Chemnitz, 2012a, p. 10) (Own translation)

The concept "development area SOP Brühl-Boulevard" was established in order to receive the funding from the program and functions as the master plan for the neighborhood (City of Chemnitz, 2012c). To guide the development of the Brühl-Boulevard a neighborhood management was initiated by the city of Chemnitz which is responsible for the coordination and supervision of the development in the Brühl-Boulevard. On one hand the city of Chemnitz provides a project manager (Brühl-Manager) as the contact person from the city and responsible for civic participation projects as well as the allocation of the "Brühlfonds"⁴. The Brühl-Manager works close together with the representative of the urban planning department who manages the "SOP" funding program. A neighborhood office (Brühlbüro) was established on-site in 2012. (City of Chemnitz, 2012a)

Additionally, the Brühl-Boulevard belongs to the development area of "Stadtumbau Ost" and is therefore subsidized by the state and the county of Saxony in upgrading, demolishing, refurbishing and bringing back the infrastructure of the neighborhood (City of Chemnitz, 2012a). The funding programs and the strategic goals of the "SEKo" set the framework for measures in the neighborhood Brühl-Boulevard. The general aim for the Brühl-Boulevard development is to create a "livable, culturally diverse, student-filled, cross-generational and innovative" neighborhood (City of Chemnitz, 2013c). The analysis of the strategic goals and measures for the Brühl-Boulevard will unpack the general aim for the neighborhood along the shrinkage indicators to outline the goals for every dimension of shrinkage.

5.3.2 Analysis of sub-question 5

The Brühl-Boulevard is divided into three functional sections with different core themes. The southern part of the Boulevard will have functions of local supply with restaurants, cafés, retail in the ground floor and facilities for culture and science (Kiezboulevard). The center of the Boulevard is characterized by the "Rosa-Luxemburg-School" as well as the "Music & Creative Center" in the "Karl-Liebknecht-School" and will be a traffic-calmed area (Quartiersmitte). The focus of the northern part of the Boulevard is on habitation (Wohnboulevard). (AS&P, 2012; City of Chemnitz, 2012b)

This section will identify the strategic goals for the Brühl-Boulevard and will analyze them concerning the four dimensions of shrinkage. The indicators of shrinkage (increase in vacant buildings; decrease of urban density; decrease of economic activities; decreasing population; decrease of soft location factors) are used to classify the strategic goals as directed reactions for each shrinkage dimension.

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⁴ The "Brühlfonds" is a public and private fund of 20,000 Euros per year to realize small neighborhood projects in the "Brühl-Boulevard". 50 % of the fund is provided by the SOP program and the other half is provided by private investors (City of Chemnitz, 2012b).

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Fig. 23 Spatial Master Plans of the Brühl-Boulevard

Source: Baldauf (2012) and City of Chemnitz (2012a)

Demographic dimension

Indicator: **Decreasing population**

The Brühl-Boulevard is characterized by emptiness since up to 80 % of the buildings and shops in the neighborhood are vacant (AS&P, 2012). The goal is to revitalize, which intents the influx of new people. Since student accommodations are planned in block 1 and the Brühl-Boulevard is in the focus of the inner-city campus, it can be deduced that the goal is to attract students. Moreover, the inner-city campus, which has synergies to the Brühl-Boulevard development, will support the influx of students. Moreover, the "Brühl-Manager" stressed that the goal is to attract pioneers that will upgrade the neighborhood with a bottom-up approach (Luczak, 2013). In urban research pioneers can be assigned to specific lifestyles that imply an alternative consumer behavior, so in particular pioneers are associated with students, artists and creative people (Alisch & Dangschat, 1996). Hence, the neighborhood focuses on attracting students, creative people and artist. Since decreasing population is defined as an indicator for demographic shrinkage in the theory chapter, the attraction of population is strategically counteracting on the demographic shrinkage.

Tab. 6 Demographic dimension Brühl-Boulevard

Indicator	Strategic goal	Activity	Tool
Decreasing population	 Attract students, creative people and artists 	- Student housing in block 1	- Inner-city campus

Physical shrinkage

Indicators: Increase of vacant buildings and decrease of urban density

The Brühl-Boulevard is characterized by high vacancy, which the development concept strategically counteracts on. Figure 24 illustrates the strategic division of the housing stocks into eight blocks in the Brühl-Boulevard with the urban restructuring measures which are planned.

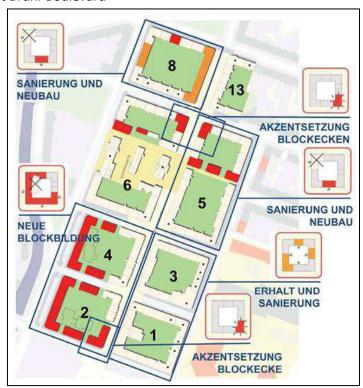


Fig. 24 Block concept Brühl-Boulevard

Source: City of Chemnitz, 2012a

The blocks 1 and 3 will be preserved and refurbished. About 70 % of the total stock in these blocks is owned by the housing association GGG⁵. Whereas block 1 will be turned mainly into student housing, block 3 is planned to be sold to private owners. In the back yards of the blocks 2 and 4 stand four prefabricated housing estates from 1970 that will be demolished and replaced by new build town houses with an adjusted block structure and retail in the ground floor. Block 5 is owned to 50 % by the GGG and to 50 % by private owners. Block 6 has a key role as the center of the neighborhood and is in a good structural condition but characterized by a vacancy rate of 76 %. Further refurbishment will be taking place of the housing stocks, the "Rosa-Luxemburg-School" and the vacant "Karl-Liebknecht-School" of block 6. The blocks 8 and 13 are almost completely vacant and in deficient

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⁵ The GGG is to 100 % a subsidiary of the city of Chemnitz (AS&P, 2012).

structural conditions. Block 8 will be refurbished and supplemented by new buildings with an expected underground parking. (AS&P, 2012; City of Chemnitz, 2012b)

Since 2012 the project "KIQ"⁶ (cooperation in the quarter) supports the side of the private property owners in the neighborhood. Several housing associations and the city of Chemnitz cooperate under the umbrella "KIQ" to activate the private property owners in the Brühl-Boulevard and to create a network. Additional tasks are consulting offers for the owners and the initiation of further refurbishment projects. A core theme is also the activation of the real estate industry by selling public buildings to investors. The project is arranged until 2014. (City of Chemnitz, 2012b)

Since the goal of the Brühl-Boulevard is to revitalize the neighborhood consequently the decrease of high vacancy is goal, as well as the strategically implementation of measures such as refurbishment, demolition or new building for the different blocks of the neighborhood to counteract on high vacancy. Selling public buildings to private investors underlines the strategy. Additionally, subsidies from the "Stadtumbau Ost" program are used to realize a physical upgrade of the Brühl-Boulevard(City of Chemnitz, 2012b). Therefore, the city strategically reacts on the dimension of physical shrinkage on the neighborhood level with urban restructuring measures for the eight blocks in the neighborhood with the aim to reduce the high vacancy. Since increasing vacancy is classified as a physical shrinkage indicator, the Brühl-Boulevard strategically counteracts to physical shrinkage by the bock concept.

The Brühl-Boulevard can be already characterized as physically dense, due to the block structure. According to Luczak (2013) there is no such dense neighborhood in Chemnitz. Therefore, the shrinkage indicator of decreasing urban density cannot be identified in the neighborhood. Nevertheless, the strategy is to develop the back yards of the blocks to common areas provides the neighborhood becoming even denser.

Tab. 7 Physical dimension Brühl-Boulevard

Indicators	Strategic goals	Activities	Tools
Increase in vacant buildings	- Upgrade the building stocks	- Selling public	- "KIQ" project
Decrease of urban density	- Dense block concept	buildings to private	- "Stadtumbau
Decrease of dibali delisity	- Back yard development	investors	Ost"
		 Refurbishing and 	
		demolishing buildings	

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⁶ KIQ- cooperation in the quarter is a funding program by Germany Ministry of Construction that funds experimental housing and urban construction (City of Chemnitz, 2012b).

Economic dimension

Indicator: <u>Decrease of economic activities</u>

In general the strategy for the Brühl-Boulevard is to create a neighborhood for living and working, since the program "SOP" is funding locations for businesses. A goal is a commercial street management that will "coordinate and mediate commercial space to bring existing facilities in use rapidly and to act on the needs of potential users flexible" (City of Chemnitz, 2012b, p. 10). The settlement of service industries and followed-up facilities of the Technical University is targeted for the southern area of the Boulevard. The "Kiezboulevard" will fulfill the function of local supply and characterized by gastronomy. Since the ground floor of the building stocks in the main street of the boulevard is characterized by retail space, the conditions of resettling industries of retail, service and creativity can be described as good. Another strategy is the provision of space for the creative industry, which combine technological, innovative and knowledge-based economic activities (Florida, 2002). Since Chemnitz is not shrinking in the economic dimension, the strategic goal on the neighborhood level is to attract new businesses of the creative industry to the Brühl-Boulevard. The strategy is supported by the aim of a commercial street management and the support of small local entrepreneurs by European funding.

Tab. 8 Economic dimension Brühl-Boulevard

Indicator	Strategic goal	Activity	Tool
Decrease of economic activities	- Space for the creative industry, gastronomy and retail in the "Kiezboulevard"	- Commercial street management	- Supporting small local entrepreneurs with European funding

Socio-cultural dimension

Indicators: Decrease of soft location factors such as cultural offers, image and living environment

The idea behind the revitalization of the Brühl-Boulevard is to create a creative community center on the neighborhood level (City of Chemnitz, 2012b). The Brühl-Boulevard is already characterized by the creative scene, since the vacant "Karl-Liebknecht-School", owned by the city of Chemnitz, was turned into a "Music & Creative Center". This thesis defines the creative scene based on the vocabulary used in the urban development concept Brühl-Boulevard by people of culture, music and art. The center accommodates rehearsal rooms, music studios, the radio station "T" and the club "Atomino". Moreover, the association "Bandbüro" (band office) that supports the local music scene is also located in the music and creative center. The band *Kraftklub*, a local but nationally known

band from Chemnitz, has their rehearsal rooms in the "Music & Creative Center". Further ateliers and office spaces as well as university space are planned. (City of Chemnitz, 2012b) According to Luczak (2013) the city let the building for cultural and creative purposes for free within the next three years but the institutions need to pay utilities. (AS&P, 2012; City of Chemnitz, 2012b)

It is targeted to introduce future projects of the creative and cultural industry, supported by public funds and the cooperation with private owner initiatives, local trader and interested parties (City of Chemnitz, 2012b). Another implemented activity is the "House of Rock", a meeting place for actors of culture, science and economy in the house "Brühl 51". The "House of Rock" is a cooperation project of the sports department of the Technical University, medical practitioners, clubs of the social sector and the "Music & Creative Center" to revitalize the Brühl-Boulevard in short term. (AS&P, 2012) The neighborhood development is well connected to the development of the inner-city campus and it is stressed that there are synergies between both concepts (City of Chemnitz, 2010b). "With the planned strengthening of the central location of the Technical University on the "Straße der Nationen" a positive influence on the environment as well as a boost of development for the adjacent Brühl neighborhood is expected." (City of Chemnitz, 2012b, p. 3)

The creation of an attractive environment to live, study and work is targeted, since the neighborhood concept outlines that the goal is to turn the Brühl-Boulevard into an attractive, inner-city residential neighborhood and community center. Further, it is stressed that the neighborhood has potentials for creative life concepts (City of Chemnitz, 2012b, p. 3). Since the living environment is defined as a soft location factor in the theory chapter and the decrease of soft location factors is classified as an indicator of socio-cultural shrinkage the city of Chemnitz is counteracting on this dimension by strengthening the attractiveness of the neighborhood. The "Brühl-Manager" outlined in the interview that the creation of a cultural milieu has priority since it is a soft location factor (Luczak, 2013). Moreover, the "SOP" program is supporting the development of locations for culture as well as places to live, work and life, another strategic goal for the Brühl-Boulevard is an urban and lively neighborhood, characterized by the creative scene and students. The image of a city or a neighborhood is also a defined soft location factor. The endeavors to strengthen the cultural milieu in the Brühl-Boulevard by supporting creative activities can be examined as a goal to strengthen the image of a neighborhood. Since the creative scene is highlighted and frequently mentioned, the targeted image can be classified as creative. This assumption is underlined by the measure of supporting the "Music & Creative Center" as a creative hub by rent benefits and the appreciation of further projects of the creative scene such as art activities in the "Kiezboulevard". Additionally, the "Music & Creative Center" hosts facilities that can be classified as cultural offers, which are also

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⁷ Own translation

defined as soft location factors in the theory chapter. Therefore the strategic goal on the neighborhood level is to response to the shrinkage indicator of decreasing soft location factors.

Tab. 9 Socio-cultural dimension Brühl-Boulevard

Indicator	Strategic goals	Activities	Tools
Decreasing soft	-Attractive environment for	- "Music and Creative	- free rent in the
location factors	living, working and studying	Center" -"House of Rock"	"Music and Creative Center"
	- Sustaining a creative image	- supporting creative projects	- "Brühl-Fonds"

It can be summarized that the goals for the Brühl-Boulevard on the neighborhood level are strategically counteracting to the four dimension of shrinkage with concrete tools to realize activities.

Tab. 10 Summary of strategic goals counteracting on shrinkage indicators Brühl-Boulevard

Indicators	Strategic goals	
Demographic dimension - Decreasing population	- Attract students, creative people and artists	
Physical dimension	- Dense block concept	
 Increase in vacant buildings 	 Back yard development 	
- Decrease in urban density		
Economic dimension	 Space for the creative industry 	
- Decrease in economic activities	gastronomy and retail in the	
	"Kiezboulevard"	
Socio-cultural dimension	 Attractive environment for living, 	
 Decreasing soft location factors 	working and studying	
	 Sustaining a creative image 	

5.3.3 Conclusion

It can be examined that the main focus of the Brühl-Boulevard development is to create an attractive living and working environment and to create a creative image for the neighborhood. 'Creativity' became a core theme of global urban agendas and is understood as a competitive advantage in times of globalization (Merkel, 2012). Moreover, soft location factors such as cultural offers and the attractive environment for living working and studying are identified as strategic goals in the Brühl-Boulevard. Although, strategic goals counteracting on all dimensions of shrinkage have been classified, all strategies seems to underline the socio-cultural dimension in the long term. Moreover, all strategic goals build on the soft location factors. An attractive living environment hence influences the attraction of people which consequently influences the increases of population. The physical measures of decreasing vacancy and refurbishing building stocks influence the physical attractiveness of the neighborhood positively.

As defined in the theory chapter, shrinking cities suffer from decreasing tax income, which makes them dependent on external funding for urban development activities. Therefore, the strategic allocation and implementation of funding programs on the neighborhood level Brühl-Boulevard play an important role concerning the creation of an attractive and creative neighborhood. The funding program "Active City and Neighborhood Centers" (SOP) can be classified as a strategic instrument to turn the strategic goals for the Brühl-Boulevard into practice. Since the program allocates funds to "support the cities and municipalities in managing the functional and spatial structural change in their central supply areas" it allocates funds to realize the revitalization of the Brühl-Boulevard. Additionally, a variety of subsidy programs such as the "Brühlfonds", the "KIQ" project or the European funds for local businesses support different activities in the Brühl-Boulevard.

It needs to be emphasized that the distribution of different responsibilities and the allocation of a variety of major and small funding programs can be classified as strategically to develop and revitalize the Brühl-Boulevard with a special focus on the strengthening of soft location factors. Furthermore, the Technical University plays an important role for the neighborhood development, since it will attract creative people and will help to sharp the Brühl-Boulevard by culturally and creative activities. Therefore, the strategic goals from Chemnitz are translated to the neighborhood level to create an attractive and creative inner-city neighborhood that will sharp the image of Chemnitz positively and consequently supports the competitiveness of the city.

6 Discussion

Shrinking cities can be described as new forms of urbanism that are in contrast to the global paradigm of growth. Because shrinkage is a global phenomenon, cities will have to rethink the way they approach urban planning and take action to counteract problems related to shrinkage. This is underlined by subsidy programs that support the development towards independence. Germany developed a funding program especially for eastern German cities to support the adaption of the cities towards conditions of shrinkage. It needs to be stressed, that the literature is not talking about turning shrinking cities into growing cities but it is frequently mentioned that the problems of shrinkage needs to be challenged. Further, since subsidies are available for shrinking cities, shrinkage can be interpreted as a change to challenge problems in urban development. The German government reacted to the problems of shrinkage in eastern Germany with a funding program to adjust urban development to the conditions of shrinkage. The program "Stadtumbau Ost" can be characterized as a planning object for eastern German cities that deal in particular with the problems of shrinkage. The theory chapter lined out, that shrinking cities are struggling with problems such as less attractiveness, high vacancy, decreasing budgets and - most important - less competitiveness. The attractiveness of a city is crucial in times of globalization, since hard location factors lose in importance as competitive advantages (Dziembowska-Kowalska & Funck, 2000; Merkel, 2012). Moreover, in globalization the competition of cities increase and businesses as well as workforce are attracted by soft location factors (Müller, 2004). Moreover, Bontje (2004) lines out, that "in the more recent debate on urban growth and decline, the key concepts are 'human capital', 'creativity', [...] and most of all 'competitiveness' in a globalizing world" (p. 13).

This aspect becomes even clearer by studying the case of Chemnitz. The city is shrinking although the economy is stable and jobs are available in the producing as well as in the tertiary sector. Compared to other shrinking cities in eastern Germany, Chemnitz has different requirements to challenge shrinkage. Chemnitz's core problem is a negative image and the low attractiveness of the city. The subsidized upgrade of the physical conditions of Chemnitz can be seen as the frame for further development in the socio-cultural dimension, such as creating an attractive environment. Chemnitz has recognized the importance of soft location factors for a city and focuses on the potentials the city has to increase the attractiveness and to upgrade the image of the city; moreover, Chemnitz considers the aim of a "creative city".

Theorists and practitioners such as Richard Florida or Charles Landry identified the significant global paradigm of the "creative city" in urban planning since the 1990s, characterised by a shift towards the creative class and the creative industry (Freestone & Gibson, 2006). The theories by the US-

American economist Richard Florida in particular experienced a high level of response from the urban development policy in recent years on a global scale – today, cities compete for the creative class (Florida, 2002, 2005). The elaboration on the "theory of the creative class" will demonstrate that the strategic goals of Chemnitz can be classed with global goals in urban planning.

The theory of the "creative class" originates in the residential location decision of creative people, he calls the creative class. By his definition the creative class is divided into two main groups of people, the "super-creative core" and the "creative professionals", that shape the economic development of a city as well as the image and quality of a neighborhood. Likewise, this influences the influx of more creative people in the city (Florida, 2005, p. 34). The former group is characterized by people, such as scientists, engineers, designer or architects but also artists, musicians or journalists that produce new creative output. The latter group is characterized by people with jobs in knowledge-intensive industries and the service sector, i.e. the high-tech or medical segment, financial services, business management or law. The sector, the creative people work in, is defined as the creative industry and the people from the creative class are characterized by a "high degree of formal education, and thus a high level of human capital" (Florida, 2005, p. 34).

The creative class is beneficial for cities, since they add human capital and shape the economic development of a city. Florida represents the hypothesis, that jobs follow people. Furthermore, he lines out that the creative class is not attracted by hard location factors such as a job but are rather "[...] drawn to places that were inclusive and diverse", which implies soft location factors such an urban milieu or a positive image (Florida, 2005, p. 33). Therefore, soft location factors of a city attract the creative class. According to Florida's theory, the creative class is a successful paradigm for a city's economic growth and elementary for its competitiveness. Urban development world-wide builds more and more on the creative class, as a global trend. Even Chemnitz, a city that is shrinking and struggling with its image and competitiveness, builds on the creative class, which needs to be attracted by creative milieus such as the Brühl-Boulevard. All attention of the city goes into the support of creative activities in the neighbourhood, the strengthening of the creative image and the creative environment.

Furthermore, Florida defines three characteristics of a city that are important to attract the creative class: technology, talent and tolerance or the "3 T's" (Florida, 2005, p. 37). According to Florida, talent and technology is measured by the concentration of high technology as well as innovation, employment and residents with a higher education; whereas tolerance is defined as openness, inclusiveness and diversity in a city, which create a cultural, social and urban environment (ibid.). The

latter is measured by the number of foreign and gay people (melting pot index and gay index) and the number of people working in artistic jobs (bohemian index) in a city (ibid.). The economic and societal transformations of globalization enhance the importance of the factors of knowledge-production and creativity in cities. Moreover, innovation and creative potentials of cities create competitive advantages and, as elaborated in this thesis, soft location factors replace hard location factors to attract businesses and people (Florida, 2005).

In the case of Chemnitz, the creative class is targeted due to the strategic goals on the neighborhood level. Additionally, Chemnitz is characterized as an important innovative location, which is focused to be strengthened. The core potential Chemnitz builds on to create a creative city is clearly the Technical University as the engine of urban development to launch a creative environment in the Brühl-Boulevard. The Technical University brings along talent and technology which attract the creative class according to Florida. The neighborhood development in the Brühl-Boulevard focuses more concrete on the creation of a creative image of the city and important an attractive environment for living and working. As elaborated, an attractive and creative environment is a core competitive advantage for cities. The Brühl-Boulevard development can be interpreted as a flagship project for creating an environment for the "right" people in Chemnitz, the creative class. The Brühl-manager emphasized that the Brühl-Boulevard is seen as a pilot project (Luczak, 2013). Implemented activities, such as the "creative and music center" in the Brühl-Boulevard, target to improve the image and support the attraction of creative people as well as the creative industry.

Chemnitz is shrinking but the planning approach can be classed with the global planning approach of the creative city. Although the future development of Chemnitz forecasts an on-going decrease of population, the city aims at attracting a specific group of people, the creative class, which is beneficial for the city and further shape the image of the city. On the neighbourhood level, the target group of people can be clearly categorized as the creative class. The Technical University plays an important role for the development of Chemnitz, since the University is a strong economic pillar that will contribute to the cultural and creative life of Chemnitz. Likewise, the city builds on the location for innovation and science. Although Chemnitz is a shrinking city, they challenge shrinkage with global strategies. The resource of creativity is on the planning agenda of cities world-wide, as well as on Chemnitz's agenda for the future development (Merkel, 2012).

Nevertheless, the promotion for creative people in shrinking cities acquires resources to implement major strategies to become attractive again, since Chemnitz already suffers from decreasing attractiveness and decreasing resources to overcome that issue. The development of the Brühl-Boulevard, the upcoming relocation of the University in the city center and the recreation of the city center generates high costs, Chemnitz could not ante up without external help. Hence, the funding

aspect in shrinking cities as well as in Chemnitz is immense. Therefore, shrinking cities, as well as Chemnitz, are dependent on external aids to become competitive. Instead, competitive cities are independent from external funding. In the case of Chemnitz it is hence important to stress shrinkage in order to get access to the financial support the city is dependent on. Chemnitz uses the funding strategically to get in line with the global trend of attracting the creative class, since it has been proven to be an established strategy all over the world. The city of Hamburg, for instance, follows the goal to "[...] set international standards as a growing metropolitan of talents" and the Hamburg supports creative potentials center in the key project "creative Hamburg" (City of Hamburg, 2010, p. 2). Thus, growing cities as well as Chemnitz as a shrinking city build on global strategies and on attracting the creative class as an established trend in urban development on a global scale.

In conclusion, Chemnitz attempts to become competitive by means of the global trend in building on the key resource of 'creativity', since the strategy of the creative city has been proven reliable for competitiveness in times of globalization (Merkel, 2012). It can be highlighted from the case of Chemnitz that economic stability is not synonymous to a city growth in demographic, physical, and socio-cultural dimensions. The focus on the global planning paradigm seems rather to be promising. Nevertheless, the measures during the 2000s concerning the adaption of the physical development to the demand can be seen as a fundament for the future development plans. The recreation of the city center is a key element to make the city more attractive. But the Brühl-Boulevard development and the inner-city campus will be further key elements of making Chemnitz more attractive. The creative class is targeted to be attracted by the environment which will be created. If the focus on the creative class and the creative industry will be beneficial can be answered in a few years, when constructions are finished. Furthermore, the question is what will happen if subsidy programs run out. The Brühl-Boulevard will be subsidized until 2018 by the "SOP" program and the major subsidy program "Stadtumbau Ost" for Chemnitz will end even earlier in 2016. The demographic change will have strong effect on cities, those which are shrinking but also those which are growing. Therefore, Chemnitz has major challenges to become competitive, since the population is decreasing in Germany in general (Naegele, 2010). After all, the urban development concept "SEKo" is scheduled until 2020. It would be interesting to focus future research on Chemnitz some years from now. One focus could be to scrutinize whether the strategic allocation of the subsidy programs kick-started an independent development towards competitiveness after programs run out or if Chemnitz will always be dependent on external funding, since the process of shrinkage causes too much "damage" that Chemnitz will never be competitive against cities such as the two bigger sisters Dresden and Leipzig.

7 Conclusion

The city of Chemnitz is affected by shrinkage in the demographic, physical and socio-cultural dimension. Different from other eastern German cases, Chemnitz is not shrinking in the economic dimension. Therefore, the city suffers from decreasing population, increasing vacancy, decreasing urban density and declining soft location factors. Reasons for the development towards shrinkage are in line with the causes for shrinkage in all eastern German cities, such as post-socialist transformation, de-industrialization, suburbanization and demographic change. Nevertheless, the city identified the crucial problems of shrinkage such as less attractiveness and less competitiveness shrinkage causes and adjusts the urban development to the conditions of shrinkage. Moreover, the city is strategically using subsidies to adapt the physical infrastructure to the decreasing demand and to upgrade the soft location factors and competitive advantages, such as the image and the creative environment of the city. Chemnitz deals with shrinkage by counteracting on problems of shrinkage in the demographic, physical and socio-cultural dimension and strengthens the economic dimension by focusing on its innovative industry. On one hand, Chemnitz deals with physical problems of shrinkage in short term by demolishing vacant buildings and refurbishing inner-city neighborhoods since the early 2000s by means of "Stadtumbau Ost". Subsequent to the counteraction on the physical problems of shrinkage, Chemnitz has been focusing on upgrading the soft locational advantages since the late 2000s by means of additional funding programs. Therefore, Chemnitz targets to increase the attractiveness of the city in a sustained manner in order to increase competitiveness. The planning approach in Chemnitz is in line with the global planning approach for competitiveness using the paradigm of the "creative city". Although the future development of Chemnitz forecasts an on-going decrease of population, the city aims at attracting a specific group of people that shape the image of the city positively. On the neighbourhood level, the target group is the creative class. The Technical University plays an important role for the development of Chemnitz, since the University is a strong economic pillar that contributes to the cultural and creative life of Chemnitz.

Since the problems of shrinkage are complex, subsidy programs play a major role in the urban development of Chemnitz. Nevertheless, funding programs are only one step in dealing with shrinkage strategically. Moreover, the strategic allocation of subsidies is more important. In the 1990s subsidies for refurbishment and urban development of eastern German cities have been provided by the German state, but since subsidies have been used arbitrary, cities did not profit from development measures. That became different with the introduction of "Stadtumbau Ost" and the requirement of an integrated urban development concept. Chemnitz is using subsidies strategically to strengthen the competitive advantages in form of soft location factors. Therefore, shrinkage in Chemnitz can be characterized as an accepted condition to deal with strategically. Moreover,

shrinkage is an elementary basis for the urban development concepts in Chemnitz, since it enables external or governmental funding, which brings in competition. Regaining competitiveness for shrinking cities is important, since state funding means financial strains for the federal state and the counties of Germany. Therefore, a foreseeable end of subsidies is in the interest of the state of Germany.

It can be learned from the case of Chemnitz, that economic growth is not a guaranty for population growth in a city. In addition to that, the stable economy in Chemnitz did not help to provide the city from shrinkage. Moreover, the case showed that economic activities are not simultaneously increasing the soft location factors. Therefore, Chemnitz strategically improves the image of the city with measures of creating a creative image and environment. Nevertheless, the economic stability of Chemnitz plays an important role to deal with shrinkage. The Technical University as an economic pillar is an advantage for fighting shrinkage in the physical, socio-cultural and demographic dimension; but economic stability is not a formula for success for growth. Chemnitz deals with that advantage strategically by building on the potential. The University brings along potentials to attract the creative class. Chemnitz can be described as a good example of dealing with shrinkage. The city accepted the condition of shrinkage and is dealing with it constructively to return to competitiveness by defining competitive advantages such as the Technical University. Therefore, Chemnitz follows the global trend in urban development of the creative city although the city is shrinking. Subsidy programs enable the development. If Chemnitz brings itself successfully back to independent competition has to be evaluated after subsidy programs will have run out. But the focus on global trends holds promise to the future development of Chemnitz.

8 References

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9 Appendix

Interview with Dr. Urs Luczak on Tuesday, April 2nd 2013

Interview guide:

- 1. What is happening in the Brühl-Boulevard?
- 2. What meaning has the neighborhood for all Chemnitz?
- 3. How competitive is Chemnitz?
- 4. What potentials have Chemnitz and what role does the neighborhood play?
- 5. Why is the Brühl development targeting creative people and students?
- 6. Where will Chemnitz be in five, ten and 15 years?
- 7. What soft locational factors have Chemnitz?
- 8. Which soft location factors are targeted in the Brühl development?
- 9. What does Chemnitz hopes for the future?

Memory minutes:

- Brühl development as a cause of urban development projects such as 'Chemnitzer Modell' (transport concept), the inner-city campus of the Technical University and the central library in the historic spinning mill next to the Brühl-Boulevard
- Cheap student housing
- But also better apartments (luxury)
- Cooperative with young families
- Variety of apartments
- Pioneers: students and creative
- Settlement of employees of the University
- 50% is owned by the GGG
- 50% is privately owned
- Goal is to sell more buildings form the GGG to private investors
- No social housing in the neighborhood and not a focus on a social development project
- Because a large supply of cheap apartments in all Chemnitz is provided, the program 'Soziale Stadt' (social city) and deprived area reduction have no priority in the Brühl-Boulevard
- Not many foreigners in Chemnitz and the bad image of a Nazi-city should be changed by the Technical University, since the University has an international focus
- No socially deprived areas beside the "Fritz-Heckert" colony with prefabricated real estates ("Stadtumbau Ost" was implemented stark)
- The city wants to become denser and create agglomeration areas within the city, which are not existent yet

Two strands

- Real estate industry
- Projects
 - o Rehearsal rooms in the old school: Bandbüro e.V.

- o Kraftklub and other artists are creative people
- o Building is leased for 3 years and only the utilities have to be paid by the users
- o Concert hall and club "Atomino" in the Brühl-Boulevard

Demand for inner city living and especially in the metropolitan city

- Brühl an instrument
- Brühl a model project
- Milestone
- Cultural milieu

Image

- Reputation is bad
- Population carries the Image
- Nazi City
- People from Chemnitz are not so proud
- Marketing from the inside
- It is not about printing flyers to do marketing

Urban planning versus urban flair

- Lively neighborhood and attractive financing for investment
- SOP is pushing the development towards a lively and attractive neighborhood, but also otherwise development, but much slower

Urban development normally selected

- Brühl 80% empty so no possible displacement of people concerning gentrification
- Market economy
- Market capitalism must be stimulated

Economically competitive

- Mid-size economy strong
- Chemnitz is not dependent on a large company, but on the broad industry in the German mid-sized companies

Luczak: Chemnitz should further identify and use its many potentials. The city has rough edges, socialist buildings, founder period neighborhoods and many new projects. The city is not 'finished' and offers room for further development that creates niches.