

DISSERTATION:

Toward the Healthy Neighborhood: Urban Regeneration of Deprived Neighborhoods in Metropolitan Regions

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SUMMARY

The purpose of urban regeneration is to improve physical and social environment that has direct influence on health. Planning and delivery of urban regeneration requires an integrated approach to create healthy and safe neighborhoods, as important characteristics of lively and sustainable cities. It is well-known that people living in deprived neighborhoods have a lower life-expectancy compared to people living in affluent neighborhoods. Therefore, improving the physical and social environment in deprived neighborhoods contributes not only to improving health of their residents, but also to reducing inequalities within a city. Recently, significant contributions in the urban regeneration research have been made in the course of sustainable development approach. However, research has not focused on the outcomes of urban regeneration that assure improvements of the health of urban dwellers.

Based on the overarching concept of sustainable urban development and the setting approach for health promotion, the main aims of this thesis are to understand how urban regeneration can contribute to a conversion of deprived neighborhoods into health-promoting neighborhoods and to develop evidence based recommendation. The thesis provides a new lens on knowledge about urban regeneration by analyzing connection between urban regeneration and health. Moreover, it is argued that urban regeneration as a means to improve health in deprived neighborhoods can reduce inequalities on the city level in the course of a sustainable urban development.

This research is built up of a literature review and a comparative case study as a base for the development of recommendations. The comprehensive analysis of the literature enabled to describe approaches to urban regeneration, to identify limitations as well as to determine factors necessary to create health-promoting neighborhoods. Principles of healthy urban planning and the concept of 'just city' are explored. For the selection and evaluation of the case studies carried out in this thesis, four urban planning and policy areas - housing, local facilities, movement and public open spaces - were identified as important issues influencing human health. A comparative study of two most-similar cases of urban regeneration of deprived neighborhoods is conducted to identify and understand context and mechanisms that lead to an improved physical and social environment. The selected neighborhoods, Bulmke-Hüllen in Gelsenkirchen in the Ruhr Metropolitan Region, Germany and Broughton in Salford in Greater Manchester, Great Britain, are analyzed in a wider context of metropolitan regions. Moreover, their strategies of urban regeneration are observed and described in a wider German and British policy context. Data collection is framed with theoretical prepositions and includes secondary data from documents and archival records as well as qualitative data from direct observations and semi-structured interviews with experts and local residents. Results reveal the level of improvements in selected case studies, which were compared in an evaluation matrix.

Recommendations for urban regeneration that contributes to a development of health-promoting neighborhoods are based on lessons learned from the case studies and theoretical framework from the literature. They are aimed at supporting urban planners and policy makers to focus more on health issues in the course of sustainable urban planning and development approach. Ultimately, this thesis reveals that creating equal opportunities and developing health-promoting neighborhoods in the process of urban regeneration can be achieved and provides a theoretical framework for planning and implementing healthy urban regeneration.



ZUSAMMENFASSUNG

Der Zweck der Stadterneuerung besteht in der Verbesserung der physischen und sozialen Umwelt, die direkten Einfluss auf die Gesundheit hat. Die Planung und Durchführung von Stadterneuerung erfordert einen integrierten Ansatz zur Schaffung gesunder und sicherer Viertel als wichtige Merkmale lebhafter und nachhaltiger Städte. Es ist bekannt, dass Menschen, die in benachteiligten Vierteln leben, eine geringere Lebenserwartung haben als Menschen in wohlhabenden Stadtteilen. Daher trägt die Verbesserung des physischen und sozialen Umfelds in benachteiligten Vierteln nicht nur zur Verbesserung der Gesundheit ihrer Bewohner und Bewohnerinnen bei, sondern auch zur Reduzierung von Ungleichheiten innerhalb einer Stadt. In letzter Zeit wurden bedeutende Beiträge zur Stadterneuerungsforschung im Zuge des Ansatzes der nachhaltigen Entwicklung geleistet. Die Forschung hat sich jedoch nicht auf die Ergebnisse der Stadterneuerung konzentriert, die Verbesserungen der Gesundheit der Stadtbewohner gewährleisten.

Basierend auf dem übergreifenden Konzept der nachhaltigen Stadtentwicklung und dem Setting-Ansatz für die Gesundheitsförderung, sind die Hauptziele dieser Arbeit, zu verstehen, wie Stadterneuerung zu einer Umwandlung benachteiligter Stadtteile in gesundheitsfördernde Quartiere beitragen und evidenzbasierte Empfehlungen entwickeln kann. Die Arbeit liefert eine neue Sicht auf das Wissen über Stadterneuerung durch die Analyse des Zusammenhangs zwischen Stadterneuerung und Gesundheit. Darüber hinaus wird argumentiert, dass Stadterneuerung als Mittel zur Verbesserung der Gesundheit in benachteiligten Stadtteilen Ungleichheiten im Zuge eines nachhaltigen Stadtentwicklungsansatzes verringern kann.

Diese Forschung besteht aus einer Literaturrecherche und einer vergleichenden Fallstudie als Grundlage für die Entwicklung von Empfehlungen. Die umfassende Analyse der Literatur ermöglichte es, Ansätze zur Stadterneuerung zu beschreiben, Grenzen zu identifizieren sowie Faktoren zu ermitteln, die zur Schaffung gesundheitsfördernder Wohngegenden notwendig sind. Prinzipien einer gesunden Stadtplanung und das Konzept der "gerechten Stadt" werden erforscht. Für die Auswahl und Bewertung, der in dieser Arbeit durchgeführten Fallstudien, werden vier städtebauliche und stadtentwicklungspolitische Bereiche - Wohnen, lokale Einrichtungen, Bewegung und öffentliche Freiflächen - als wichtige Themen identifiziert, die die menschliche Gesundheit beeinflussen. Eine Vergleichsstudie von zwei ähnlichsten Fällen von Stadterneuerung benachteiligter Stadtviertel wird durchgeführt, um Kontext und Mechanismen zu identifizieren und zu verstehen, die zu einer verbesserten physischen und sozialen Umgebung führen. Die ausgewählten Quartiere, Bulmke-Hüllen in Gelsenkirchen in der Metropolregion Ruhr, Deutschland, und Broughton in Salford in Greater Manchester, Großbritannien, werden in einem größeren Kontext von Metropolregionen analysiert. Darüber hinaus werden ihre Strategien der Stadterneuerung in einem breiteren stadtentwicklungspolitischen Kontext in Deutschland und Großbritannien beobachtet und beschrieben. Die Datensammlung ist theoriegeleitet und umfasst Sekundärdaten aus Dokumenten und Archivalien sowie qualitative Daten aus direkten Beobachtungen und halbstrukturierten Interviews mit Experten und Anwohnern. Die Ergebnisse zeigen das Ausmaß der Verbesserungen in ausgewählten Fallstudien, die in einer Bewertungsmatrix verglichen werden.

Empfehlungen für die Stadterneuerung, die zur Entwicklung gesundheitsfördernder Quartiere beitragen, basieren auf den Erfahrungen aus den Fallstudien und dem theoretischen

Rahmen der Literatur. Sie sollen Stadtplaner und stadtentwicklungspolitische Entscheidungsträger dabei unterstützen, sich im Rahmen eines nachhaltigen Stadtentwicklungsansatzes stärker auf Gesundheitsfragen zu konzentrieren. Letztendlich zeigt diese Studie, dass Chancengleichheit und die Entwicklung gesundheitsfördernder Quartieren im Prozess der Stadterneuerung erreicht werden können. Die Arbeit bietet einen theoretischen Rahmen für die Planung und Umsetzung einer gesunden Stadterneuerung.

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ABBREVIATIONS

AWO	Arbeiterwohlfahrt
BMVBS	Federal Ministry of Transport, Building and Urban Affairs
CEC	Commission of European Communities
CSD	Committee of Spatial Development
CUE	Center for Urban Epidemiology
DFH	Design for Health
EIB	European Investment Bank
EIP	European Innovation Partnership
ERDF	European Regional Development Fund
ESDP	European Spatial Development Perspective
ESF	European Social Fund
EU	European Union
EUKN	European Urban Knowledge Network
ExWoSt	Experimental Housing and Urban Design
GGW	Gelsenkirchener gemeinnützige Wohnungsbaugesellschaft
GIS	Geographic Information System
HERS	Heritage Economic Regeneration Scheme
HIA	Health Impact Assessment
HiAP	Health in All Policies
HUP	Healthy Urban Planning
IBA	International Building Exhibition
ICT	Information and Communications Technology
KVR	Kommunalverband Ruhr
MWEBWV	Ministry for Economic Affairs, Energy, Building, Housing and Transport
NDC	New Deal for Communities
NDVI	Normalized Difference Vegetation Index
NRW	North Rhine-Westphalia
NSW	New South Wales

NWDA	Northwest Regional Development Agency
ODPM	Office of the Deputy Prime Minister
RVR	Regional Association Ruhr
S106	Section 106
SCC	Salford City Council
SDGs	Sustainable Development Goals
SEA	Single European Act
SIP	Strategic Implementation Plan
SPD	Supplementary Planning Document
SRB	Single Regeneration Budget
SVR	Siedlungsverband Ruhrkohlenbezirk
UK	United Kingdom
UN	United Nations
URC	Urban Regeneration Company

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CHAPTER 1 | Introduction

1.1 Background

If cities are built for people, then how cities perform in terms of the health of their citizens is an important indicator. In recent years there have been calls for a change of perspective in order to transform our cities into sustainable, healthy and just places for global urban population (UN 2012, UN 2015, WBGU 2016). Visions of sustainable urban development were put forward in the last century with an aim to guide urban policy and urban development strategy. Sustainable “development” is not concerned only with economic success but also health, social inclusion, quality of life, quality of environment’ (Barton et al. 2010, p.6). After decades of being in the shadow, health is again high on the urban agenda (UN 2015, UN 2016). However, there is a mismatch between rhetoric and reality, because in practice urban competitiveness and economic growth are priority (UN-DESA 2012). This mismatch is reflected in all urban policies including urban regeneration policies.

Although urban regeneration comprises improvements in physical and/or social environment (Leary and McCarthy 2013b) that have direct influence on health (Marmot and Wilkinson 1999), health is not an explicit goal of urban planning and regeneration efforts. The Athens Charter (CIAM 1933) recognized the influence of physical, social and economic environment on health; however, it was a misleading step in planning and redeveloping cities that influenced post-war reconstructions. Current broad approaches to urban regeneration are in tension (Couch et al. 2013) between improving the competitiveness of the city with emphasis on development opportunities and neighborhood renewal as a mean for curing urban problems (Leary 2013).

However, urban problems are not equally distributed in the city, nor are the opportunities. Areas with accumulated urban problems and lack of opportunities are characterized as deprived neighborhoods. The level of deprivation of the neighborhood is reflected in the health status of the population (WHO 2011). People living in deprived neighborhoods have lower life-expectancy compared to people living in other

neighborhoods (Wilkinson and Marmot 2003, WHO 2011). Although, the level of deprivation is a main indicator for local governments to initiate urban regeneration, their explicit goal is not related to health improvement of the population.

As argued by Roberts (2000, 2017) and Tallon (2013), urban regeneration focuses on solving urban problems by improving various physical and non-physical symptoms of decline and dysfunction as a necessary part of a wider process of urban change or transformation striving to reach the goals of sustainable development. Focus on sustainable development is important; however, in practice sustainability is mostly narrowed down to economic and environmental aspects, while social justice (Campbell 1996, Soja 2010) and human dimension (Gehl 2010) are mostly neglected. However, if an aim is to create healthy and attractive cities and neighborhoods focus should be on people (Barton and Tsourou 2000, Gehl 2010) rather than on buildings and developments that are traditionally main objects of planning for architects and urban planners.

The main aim of this thesis is to understand how urban regeneration can contribute to a conversion of deprived neighborhoods into neighborhoods that promote health, so that urban planners and policy-makers might focus on people in order to improve health and the quality of life in deprived neighborhoods and reduce inequalities on the city level in the course of a sustainable urban development. Better understanding of these aspects may contribute to reaching the three United Nations (UN 2015) Sustainable Developments Goals (SDGs): 3. Good health and well-being, 10. Reduced inequalities and 11. Sustainable cities and communities.

This research begins with the theoretical groundings of urban regeneration, urban health and environmental justice in their wider context of sustainable development. Moreover, urban regeneration is explored in two case studies of deprived neighborhoods in the city of Gelsenkirchen in the Ruhr Metropolitan Region in Germany and Salford in Greater Manchester in Great Britain. Ultimately, the thesis concludes with the recommendations for urban regeneration that results in health-promoting neighborhoods and an outlook for further research based on the case studies and theoretical groundings.

1.2 Research background and problem statement

Cities as centers of cultural, economic and political life can bring lots of benefits for health. Good opportunities for education, employment and health care, as well as good access to cultural facilities and political institutions are beneficial to health (CSDH 2008). As defined by the World Health Organization (WHO) in 1946 “health is not merely the absence of disease” but includes social, environmental and economic well-being and quality of life. Furthermore, good access to opportunities and the possibility to participate in political activities enables ‘people to increase control over, and to improve, their health’ (WHO 1986a). Thus, good health is not only related to balanced diet, physical activity and healthy life-style advised by medical experts, but also to ‘daily conditions in which people live’ (CSDH 2008, p.4).

However, daily conditions are not equal in all parts of the city as they are influenced by the quality of housing and retail, opportunities for quality employment and education as well as active transport and safety of the environment (CSDH 2008). Urban governance and planning determine daily conditions in different parts of the city that influence equal opportunities for health (CSDH 2008). In the case when ‘[u]rban planning, for example,...produces sprawling neighbourhoods with little affordable housing, few local amenities, and irregular unaffordable public transport [then it] does little to promote good health for all’ (CSDH 2008, p.10).

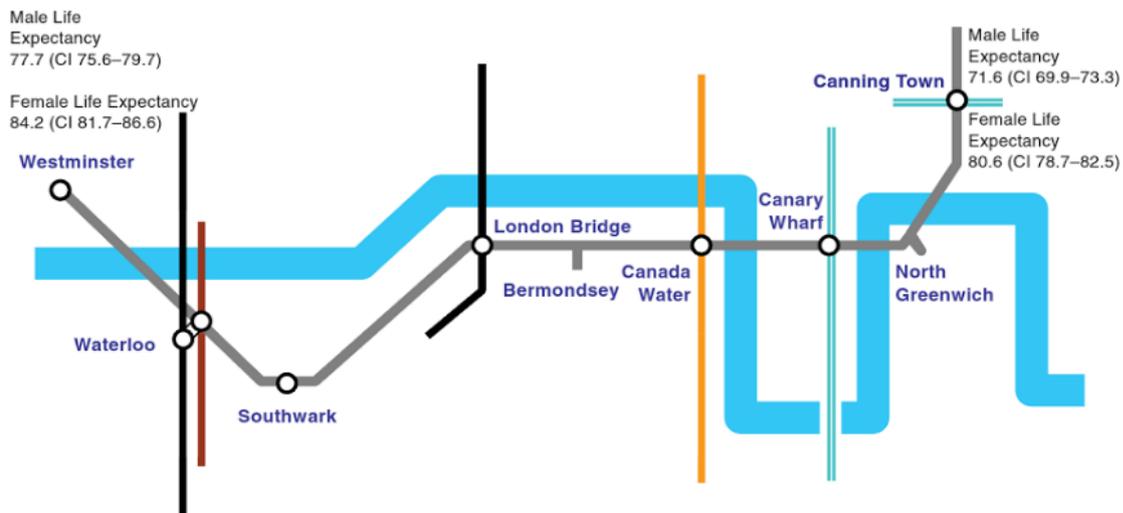
In that sense, the way cities are planned and managed can have great impact on the distribution of opportunities and urban problems. In deprived neighborhoods, lack of opportunities is compounded by other urban problems, which is reflected in poorer health and lower life-expectancy compared to other neighborhoods in the city. In that sense, ‘where you live in a city and how that city is governed can determine who gets sick early, suffers unnecessarily and dies early’ (Corburn 2013, p.vii). Although, there is a general trend of increase in the overall life-expectancy, strong differences – inequalities - between the life-expectancy in deprived neighborhoods and other parts of the city still remain a challenge.

In all European countries, most disadvantaged groups have worse health and higher mortality. This manifests itself in large differences in life expectancy between the extremes of the social scale. In Scotland, for instance, a baby born in the most disadvantaged neighborhood... can expect to live 10 fewer years than a baby living in the most affluent neighborhood.

Whitehead and Dahlgren 2007, pp.5, 6

Figure 1 shows differences in the life-expectancy along the Jubilee Underground Line in London with a shorter life span of six years for man and almost four years for women between the Westminster stop in a well-off area and the Canning Town stop in a deprived area of London (HC 2008).

Figure 1: Differences in life-expectancy along the Jubilee Underground Line in London



Source: HC 2008, p. Ev. 298

Since the urban environment, both physical and social, determines health to a great extent (Lalonde 1974, Marmot and Wilkinson 1999, Whitehead and Dahlgren 1991, Marmot 2015, Barton 2005), improving the urban environment would advance the health of urban dwellers and reduce inequalities. Planning and implementing improvements would require the involvement of different experts, including public health experts, urban planners and urban managers, as well as policy-makers and citizens (Barton and Tsourou 2000, Barton et al. 2010, Corburn 2009, Corburn 2013). However, although local governments initiate urban regeneration in areas where there is a high level of deprivation and low life-expectancy with the aim of improving the urban environment, their explicit goal is not related to the health improvement of the resident population. Thus, public health experts are not involved in the process of urban regeneration.

Urban regeneration as a part of a broader urban policy and the most action-oriented part of urban planning (Roberts 2000, 2017) is guided by local urban planning and a development agenda that is not related to public health despite its historic roots. At the time when two disciplines, urban planning and public health were initiated, they acted together in order to make cities healthier places to live (Barton and Tsourou 2000, Corburn 2009, Lopez

2012, Frumkin et al. 2011). Initially, focus was on sanitary measures to combat epidemics by improving the living conditions of the deprived workers. Although these sanitary measures and the focus on disease were very important, a significant improvement in life-expectancy was related to various public policies in other sectors. Reduced working hours and increased income as well as enabling children to go to school instead of working, influenced health to a great extent (Corburn 2009). The joint action of different sectors was crucial for health improvement because '[w]hen city planners, public health workers and public policy-makers acted together in the nineteenth and sometimes in the twentieth century, they often viewed a city as a field site, or an intricate, nuanced place needing in-depth study, often with urban poor residents, to understand how best to improve health and prevent, not just treat illness' (Corburn 2013, p.vii).

In contrary, nowadays joint action of urban planners, public health experts and policy-makers are rare. Although urban regeneration requires joint action to create a strategy that would bring sustainable solutions (Roberts et al. 2017) to urban problems, these sustainable solutions do not include health explicitly. Furthermore, although international documents emphasize the importance of good health, by reducing inequalities and creating sustainable cities and communities (SDGs, UN 2015), these concepts are often too general to be applied on the field in the local context (Barton 2017). As argued by Corburn (2009) '[a] new set of political frames are necessary for moving toward a new practice of healthy city planning' (p.12).

Obviously, improving deprived neighborhoods would advance the health of their residents and reduce inequalities in the city; however, it is related to different challenges. These challenges are arranged in three groups: challenges of deprived neighborhoods, challenges of urban regeneration and challenges of healthy urban planning.

Challenges of deprived neighborhoods

Challenges of deprived neighborhoods are related to poverty, accumulated urban problems and fewer opportunities to improve living conditions that influence life-expectancy and health of urban dwellers in deprived neighborhoods. Different dimensions of urban problems are reflected in:

- economic conditions – overall poverty: e.g. unemployment, low income; neighborhood poverty: lack of financial means to improve physical conditions, support community facilities and services (Granger 2017)
- social conditions – personal isolation, social exclusion, social disorder, vandalism, crime (Granger 2017)
- physical conditions - disorder, dysfunction, low quality of housing and open spaces, environmental degradation (Roberts 2017)

In addition, urban problems are coupled with limited opportunities to improve the living conditions that reinforce poverty and hinder the full development of individuals (Granger 2017) because of the:

- lack of opportunities – quality jobs and education, limited access to quality housing and retail, public transport (CSDH 2008)
- limited access to public resources – information, participation, decision-making (CSDH 2008, WBGU 2016)

The high proportion of people suffering from chronic diseases in deprived neighborhoods is associated with lower levels of education and income (WHO 2011), a high level of unemployment, as well as limited accessibility to and the quality of housing and services (Lopez 2012; Dannenberg, Frumpkin and Jackson 2011). In deprived neighborhoods, a deteriorated, dysfunctional living environment and difficult socio-economic conditions are mostly coupled with environmental degradation. These conditions contribute to the development of vandalism and crime, which result in social isolation and ‘unhealthy coping behaviors’ (Corburn 2009, p.73).

These complex challenges that combine environmental with socio-economic aspects and health were recognized in the early 1980s when the environmental justice movement was initiated (Bryant and Mohai 1992). Traditional scholarly work on environmental justice is focused on environmental hazards that influence the health of socially disadvantaged population groups, more specifically minorities and low-income groups, which live in the deprived areas (Bryant and Mohai 1992, Bryant 1995, Bullard 1990). Living in proximity to brownfields and heavily traveled highways likely degrades the quality of life and increases health risks due to high levels of pollution and noise (Dannenberg, Frumpkin and Jackson 2011). However, the community survey of residents organized for environmental justice in a neighborhood in San Francisco showed that although exposed to air pollution and toxics

from neighboring facilities, the residents main “environmental” concerns were ‘crime, unemployment, access to healthy food, and housing conditions’ (Corburn 2009, p.105).

Although exposed to perceived and non-perceived environmental and health risks socially disadvantaged people often live in deprived areas (WHO 2011) due to affordable housing. Unlike other population groups, they have fewer opportunities to move away from their deprived living environment, although it may have negative influence on their health (Grant et al. 2012). Moreover, these neighborhoods are in most cases underserved by retail and services, as well as by public transport. That reinforces the negative loop because, while having lower mobility, they have to travel longer distances to cover daily needs, causing additional impact on their budget. In addition, the low connectivity of deprived neighborhoods with other parts of the city makes them more isolated (Grant et al. 2012) and contributes to a further social exclusion and segregation.

Köckler and Hornberg (2012) argue that people in certain areas are considered vulnerable due to a lack of individual and collective skills to cope adequately with certain challenges or to mitigate them (p. 84). Limited political power and access to decision-making prevent these disadvantaged groups from influencing policies and plans that could improve their living conditions (CSDH 2008) and provide access to better education and employment opportunities. As a result, these vulnerable population groups have to bear a greater environmental burden of disease than the total population (Köckler and Hornberg 2012).

These unfavorable conditions increase the gap between different population groups on the city and metropolitan level, and contribute to the isolation of deprived neighborhoods and their possible further decline. Regeneration efforts, although crucial for vulnerable population groups, are highly dependent on financial means, which in the wake of economic slowdown in 2008 presented a challenging issue. This is especially emphasized in those deprived neighborhoods, which still carry the burden of exploitation by industrial development.

Challenges of urban regeneration

Urban regeneration in general assumes improvements in urban environment on a well-defined area of intervention (Tallon 2013, Roberts 2017, Leary and McCarthy 2013b). Although limited to specific area, urban regeneration is, or should be, a part of an overall

urban change or transformation. Urban transformation assumes ‘fundamental modifications and system changes’ that enable urban change towards sustainability (WBGU 2016, p.2). In that sense, urban regeneration contributes to a wider urban change by solving multi-dimensional urban problems on the local, neighborhood level (Roberts 2017).

Since urban problems have a multi-dimensional character, solutions in the form of improvements may range from solely physical to more comprehensive improvements. In that sense, urban regeneration is not a single term that refers to improvements in the urban environment. Different terms, renewal, reconstruction and renaissance may mean that focus is solely on physical improvements, or that there are other aspects and sectors involved (various definitions are elaborated in the theoretical section 2.2.2.). Here, urban regeneration refers to improvements in the physical, social and environmental conditions of an area as a part of an overall urban transformation. In that sense urban regeneration of deprived neighborhoods is related to different challenges:

- global forces – globalization, structural change, competitiveness (Harvey 1989, Cochrane 2007, Couch *et al.* 2013)
- economic – lack of financial means to improve deprived neighborhoods, the logic of capital circulation and accumulation (Harvey 1989), gentrification (Jeffrey and Pounder 2000, Lees 2008)
- structural - lack of capacity for solving complex urban problems, limited horizontal cooperation
- urban governance - level of public participation, public-private partnerships costs and benefits share (Harvey 2000)

The challenges of urban regeneration of deprived neighborhoods range in economic terms from insufficient resources for initiating urban regeneration to the gentrification of improved areas. Aiken *et al.* (1987) argue that in urban systems central locations are of interest for different groups and thus well taxed and supplied with services. Contrary, deprived areas, outside city centers are not in that privileged position. They mostly lack in the financial means for urban regeneration because the private sector sees no opportunity for profit (Adair *et al.* 2003).

On the one hand, local and national governments, which were struggling with austerity measures due to economic crisis in 2008, had limited sources to support improvements in the urban fabric in the neighborhoods outside city centers. That is especially emphasized in the secondary cities due to their less important role in the national and global economy.

On the other hand, when there are resources for regeneration and an area has been improved, it can attract other population groups, change its socio-economic structure and cause gentrification. As argued by Leeds (2008) urban renaissance and other similar terms are conveniently used by policy makers to mask gentrification. Social mix, which is widely used when talking about improvements of deprived neighborhoods (ibid.), could also be considered as an initial phase of a gentrification process. Although it may have been intended to improve the socio-economic situation of the neighborhood in order to assure better access to goods and services, as well as to prevent social segregation (ibid.), it can also result in the increase of properties' values and unaffordable housing for the existing low-income population groups. Furthermore, effects of social mix are hard to measure and it is not clear what kind of social mix can assure benefits for the existing population (ibid.).

Since urban regeneration involves different actors, stakeholders and decision-makers, as well as different disciplines it is challenging to harmonize various goals and aspirations (Leary and McCarthy 2013b). Urban regeneration is also closely related to urban planning, which itself is facing different challenges in both theory and practice (ibid.).

Challenges of healthy urban planning

Healthy urban planning includes broad scope of planning in addition to the sustainable urban development approach, which is related to following challenges:

- broad scope not easy to grasp – should include different disciplines while local governments are working sectorally
- abstract concepts involved – health – not easily related to urban planning practices due to too technical approach to urban planning
- conflicting aspects – growth vs. equity and health
- too general aspects of international documents and national policies – difficult to apply to local problems

Urban planning and public health policies were developed during the rise of industrial cities as measures which aimed at improving the health of workers and urban dwellers (Freestone and Wheeler 2015). Within the course of time these two disciplines, urban planning and public health, have taken different directions and in the current urban planning practice, public health issues related to contemporary living styles and conditions are to a great extent neglected.

However, the Ottawa Charter (WHO 1986a) introduces health promotion as an important process aimed at ‘enabling people to increase control over, and to improve, their health’ (p.1). Furthermore, the Charter links factors influencing health with environment and emphasizes the importance of the *setting*:

Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love.

WHO 1986a, p.4

This setting approach for health promotion provides strong linkage between health and urban planning. In the framework of the WHO Healthy City project Barton and Tsourou (2000) have examined the extent to which healthy city principles like equity, intersectoral cooperation and community were incorporated into urban planning practices. The results of their survey show that “in general terms, people’s understanding of the extent to which health and urban planning are linked is limited, and this had led to fragmented theoretical and practical interpretations of healthy urban planning” (Barton and Tsourou, 2000, p. 78). Thus, health and urban planning are linked in practice, but “this link is implicit, not explicit, lacking a systematic or comprehensive approach” (Barton et al. 2009, p.195).

Furthermore, although there are different documents (the latest is the UN’s New Urban Agenda 2016) pointing out the planning direction and describing *cities we want*, it is not clear how this can be incorporated into the planning process due to lack of applicable theory *for* healthy urban planning (Barton 2005). Additionally, the crisis of planning theory is reflected in the education of planning professionals (Klostermann 2011). It prevents progress in both theory and practice and results in day-to-day problem-solving practices (*ibid.*). Fulfilling the interests of (some) stakeholders and purely mediating the planning process is insufficient (Barton 2005) for effective planning practice that inhibits environmental inequalities and reinforces urban regeneration from deprived neighborhood to neighborhoods that promote health.

The Leipzig Charter on Sustainable European Cities (EU Ministers for Urban Development 2007) with special attention to deprived neighborhoods emphasizes the importance of integrated urban development, economic stabilization and education. Focus is also on upgrading the physical environment, improvement of public open spaces, compact structure for energy-efficiency and improved urban transport in and between cities. In

addition, the report *Cities of Tomorrow* (EC 2011) highlights the importance of compact urban form and the quality of urban environments as well as flexible urban governance and strong metropolitan regions that enable good accessibility to services.

1.2.1 Research gap

When it comes to initiating urban regeneration, the starting point in many cases is the level of deprivation that includes life-expectancy, a health indicator. However, explicit goals are not health improvement, although quality of life is widely used in a project's description. Thus, strategies for improving deprived neighborhoods in order to create health-promoting neighborhoods are still missing. Leary and McCarthy (2013a) specify nine broad categories important for future urban regeneration research, after an overview of different findings in contemporary urban regeneration practice. These categories are identified in this thesis as the main gaps in urban regeneration research and the starting point for a developing framework that encompasses urban regeneration and health.

It is already recognized that environment influences health and that urban planning plays a significant role in designing (un)healthy neighborhoods. It is also recognized that planning neighborhoods that promote health requires a holistic, integrated approach and the involvement of different sectors and stakeholders (Barton and Grant 2013). However, although providing a good quality of life in cities is high on the urban planners' agenda, urban planning theory and practice are mostly disconnected from exploring health and well-being determinants (Barton 2005). The emphasis during planning process is mostly on issues like physical improvements, design, climate change adaptation/mitigation etc. that all influence health, but there is neither an explicit relation to health nor an aim in creating neighborhoods that promote health in an urban planners' daily practice. The emphasis is so far on sustainability.

The recently adopted UN's document, New Urban Agenda (2016) has direct links to health and focuses on people instead of environment. However, a theory for transformation planning and implementation strategies that would enable transformation to healthy cities is still in development in a form of the WHO's Healthy Urban Planning (HUP) initiatives (Baron *et al.* 2009) and Healthy Cities Program (Baron and Tsourou 2000, Barton and Grant 2013). A review of the progress of the European Healthy Cities Program (Barton and Grant 2013)

coordinated by the WHO Regional office for Europe, shows that in the cities participating in this program there are significant advancements in the understanding of relations between urban planning and health. However, teams in many cities participating in this program, which in 2013 was in phase IV, have struggled to relate the influence of built environment on health and more specifically the influence of spatial planning on health equity (Barton and Grant 2013, p. 139). It may be assumed that awareness about those influences in cities not participating in this program may be even on the lower level. Furthermore, urban health is one of the transformative action fields that are not given necessary attention internationally (WBGU 2016).

In that sense, a framework for urban regeneration of deprived neighborhoods that would result in ones that promote health as well as recommendations for urban planners and policy makers involved in the urban regeneration process would fill in a significant gap.

1.3 Research aim, objectives and hypothesis

The main aim of this thesis is to understand how urban regeneration can contribute to a conversion of deprived neighborhoods into neighborhoods that promote health. The goal is to create an urban regeneration framework for urban planners and policy-makers, which would enable them to focus on people in order to improve health and quality of life in deprived neighborhoods and reduce inequalities in the course of a sustainable urban development approach.

Broader contexts of sustainable urban development with emphasis on social justice as well as urban planning and urban health would enable us to formulate a theoretical basis for healthy urban regeneration theory. Although, urban regeneration is regarded mostly as the practical part of spatial planning, '[t]heory is not a peripheral issue, even in a discipline dedicated to problem-solving and action, because effective action depends on the mature understanding of the underlying premises on which action is based' (Booth 2011, p.27). Based on the setting approach for health promotion, which provides link between health and urban planning/regeneration main hypothesis here is that:

'urban regeneration can contribute to converting deprived neighborhoods in the metropolitan regions into neighborhoods that promote health in the course of sustainable urban development approach'

Topics like sustainable urban development, environmental and social justice as well as health are very broad general topics. In order to conduct research and contribute to existing knowledge, the complexity of the real-world is broken down into more manageable subjects. However, while narrowing down the topic and focusing on a specific area, the complexity of urban systems was preserved as a larger context in order to avoid the danger of oversimplifying. Thus, although focus here is on deprived neighborhoods, they are observed as a part of metropolitan regions.

Main research question is:

How can urban regeneration be planned and implemented in order to improve the physical and social environment of deprived neighborhoods that would support the health of existing and new residents?

After exploring urban planning policies that influence health and inequalities, housing, local facilities, movement and public open spaces (Section 2.4.3), are selected as aspects that can be improved in the process of urban regeneration and explored in the sub-question:

- How can urban regeneration improve housing, movement, access to local facilities and quality open spaces?

In order to answer the main research question, it is necessary to understand how urban regeneration is defined, what is the process of urban regeneration and how is it governed. Furthermore, it is important to identify challenges of deprived neighborhoods and reasons for decline. Finally, defining healthy neighborhoods would also determine the aspects that should be improved in the process of urban regeneration of deprived neighborhoods that would bring better results in terms of health.

1.4 Research significance

Although there are significant recent contributions in the urban regeneration research (Roberts *et. al* 2017, Leary and McCarthy 2013, Tallon 2013) scholars have not focused on the outcomes of urban regeneration that would, according to literature on setting-approach, assure improvements of the health of urban dwellers. Furthermore, although there are significant recent contributions in the theory of planning (Healey 2010, Friedmann 2011, Fainstein 2011) and social justice (Soja 2010, Harvey 2012), scholars have not used these

theoretical groundings to develop “the conceptual and theoretical underpinning for urban regeneration” (Leary and McCarthy 2013a, p.581).

...the delivery of successful aspirational regeneration has been hampered by the lack of credible theoretical underpinnings that would bring a measure of stability to policy and practice.

Leary and McCarthy 2013a, p.581

Through this thesis both issues are addressed: urban planning strategies that would enable the development of neighborhoods that promote health and formulate a theory of planning and social justice related to urban regeneration. They are used as a framework for exploring case studies and as a grounding to develop recommendations for successful aspirational (community-oriented) regeneration. Further significance is based on Leary and McCarthy (2013a) nine broad categories. All categories were examined and used as an overall guidance in the research design as well as a starting point and base for developing theory from practice.

Also under investigation is how existing urban planning and regeneration approaches guide conversion of deprived neighborhoods and to what extent health aspects are tackled. This research provides a new lens on urban regeneration knowledge by analyzing an emerging interconnection between urban regeneration, inequalities and health. It explores what kind of strategies, governance and community engagement are necessary to improve neighborhoods for existing residents (Leary and McCarthy 2013a, p.582), in order to decrease inequalities and to contribute to better health of their residents.

In addition, it is analyzed how the planning and governance of regeneration process have contributed to the implementation and regeneration outcomes in order to explore “the potential for new governance and partnership arrangements” (Leary and McCarthy 2013a, p.582). Furthermore, a framework for the evaluation of regeneration outcomes is developed to enable planners, policy and decision-makers to make visible lessons-learned and to apply them to future projects. Larger contexts of *sustainable city*, *just city* and *healthy city* in relation to urban regeneration are also examined.

CHAPTER 2 | Theoretical groundings

Scholarly work on cities and urban development progresses in various directions in order to find solutions to many of our present-day challenges. In order to cope with the current challenges it is necessary to understand the wider context, past decisions and ways of planning that have paved the way to the current approaches. Visions of sustainable urban development and recent calls to transform our cities to sustainable, healthy and just places (UN 2012, UN 2015, WBGU 2016) are important impetus for urban transformation towards healthy and sustainable cities and neighborhoods.

Since urban governance and planning determine the daily conditions in different parts of the city that influence equal opportunities for health (CSDH 2008) the wider context of sustainable urban development in relation to health is elaborated in the short introduction. Theoretical approaches are contrasted to the mainstream approach to urban policy that shapes cities and determines the urban regeneration framework.

In order to understand how urban regeneration can contribute to improving deprived neighborhoods resulting in health-promoting neighborhoods, definitions of urban regeneration as well as its purpose and limitations are described in following sections. Furthermore, since urban regeneration is a part of an overall urban transformation, it is important to determine how cities were defined through history and which urban planning approaches were in use in the past that have contributed to present-day challenges. In addition, considering that urban regeneration can contribute to improvements in urban environment that would advance health and reduce inequalities, the concept of a 'just city' is explored to determine which approaches to urban regeneration are necessary to achieve more just outcomes. Finally, healthy urban planning and the characteristics of health-promoting neighborhoods are described in order to determine how urban regeneration can enable improvements towards healthy neighborhoods.

Ultimately, theoretical approaches and concepts are described and used to create the theoretical framework for defining urban regeneration that would result in health-promoting neighborhoods and establish benchmarks for the evaluation of the outcome of urban regeneration.

2.1 Sustainability as an overarching theoretical concept

In recent years our understanding of cities is being radically changed along with the tools we use to plan and design them. In the twenty-first century part of the academic discussion is on sustainable development and the challenge to balance its three pillars on all levels: global, national, regional and local (Wheeler 2004). Although the concept of sustainability was introduced in the 1970s, it took twenty years to be applied to cities and urban regeneration policies (Tallon 2013). Agenda21 was a UN's action program for sustainable urban development for the 21st century adopted in the 1992. However, even twenty-five years later, sustainable urban development is still not a mainstream approach (UN-DESA 2012).

Sustainable development aims 'to connect environmental, economic and social welfare by thinking and managing for the longer term' (Blair and Evans 2004, p.1). However, balancing these three pillars is a challenging task due to a conflict of interests (Campbell 1996), making sustainable development 'politically highly contested' (Blair and Evans 2004, p.1). Theoretically, to achieve sustainable development it would be necessary to "grow" the economy, distribute this growth fairly, and in the process not degrade the ecosystem' (Campbell 1996, p.297). However, in practice it is reduced to a dualism and conflict between economic growth and environmental protection (Campbell 1996, p.297) due to a neo-liberal agenda and an emphasis on environmental aspects (Campbell 1996). Thus, the main impression is that sustainability is about protecting the environment.

Barton et al. (2010) emphasize, however, that at the core of the Brundtland definition¹ of sustainable development is not environment but rather people and equity between present and future generations. Furthermore, the Brundtland's Report, Our Common Future (WCED 1987), emphasizes that:

...sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.'

WCED 1987, p.45

¹ Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987).

In that sense focus is on people and human needs, meaning that “development” is not concerned only with economic success but also health, social inclusion, quality of life, quality of environment’ (Barton *et al.* 2010, p.6). As argued by Campbell (1996) sustainable development is not only about “growing cities” and “green cities” but also about “just cities” (p.297) and equal opportunities for all (WCED 1987, p.44). In 2015 United Nations (UN 2015) has announced a set of seventeen Sustainable Development Goals (SDGs) and targets (see Appendix 2) with three of them explicitly focusing on the improvement of health and well-being (SDG 3), the reduction of inequalities (SDG 10) and the support of sustainable cities and communities (SDG 11).

Equal opportunities for all are the basis for the reduction of inequalities and, considering their complexity due to the necessity of involving different sectors, require an integrated approach. Recently there have emerged new tendencies towards the integration of regeneration policies and sustainable urban development by focusing on an integrated approach in the planning and implementation phase. The Leipzig Charter on Sustainable European Cities (EU Ministers for Urban Development 2007) with special attention to deprived neighborhoods emphasizes the importance of integrated urban development, economic stabilization and education. Focus is also on upgrading the physical environment, improvement of public open spaces, compact structure for energy-efficiency and improved urban transport in and between cities. In addition, the report Cities of Tomorrow (European Commission 2011) highlights the importance of compact urban form and the quality of urban environments as well as flexible urban governance and strong metropolitan regions that enable good accessibility to services.

In the following section urban regeneration is defined and related to a wider urban context, as well as to a broader urban planning and policy approaches that frame it.

2.2 Urban regeneration

Urban regeneration is a multi-dimensional (Cochrane 2007, Tallon 2013, Roberts 2000 and 2017) and multi-disciplinary endeavor (Leary and McCarthy 2013b, Roberts 2000 and 2017), which can assume different approaches in different contexts. Even in the same context people from different disciplines or sectors may have a different understanding of urban regeneration. Although a global phenomenon (Leary and McCarthy 2013b), it is

framed with specific urban policies, which differ in growing and stagnating or shrinking cities.

Urban regeneration may be seen as one of the remedies for specific urban problems that can be solved within urban policy. 'Urban policy is a course of action adopted and pursued by government; it is an approach, method, practice and code of conduct' (Tallon 2013, p. 4). The term *policy* is primarily 'conceptualized in a particular way in Anglophone countries, which until very recently was largely absent in the rest of Europe' (Booth 2011, p.25). Heidenheimer (1986) tracks the development of the word *policy* since the 16th century in English and continental languages and emphasizes the differences between the initial meanings of policy related to politics and police in the English and German context.

In that sense, although different countries are facing similar urban problems, approaches to defining urban problems and developing policy responses differ since they are related to 'different socio-economic, institutional and cultural context of each country' (Couch et al. 2011, p.2). Thus, general aspects of urban policy will be briefly described in this Chapter while country-specific aspects based on case studies will be further explored and compared in the Chapter 4.

Before examining in detail different characteristics of urban regeneration, it is important first to define the expression *urban regeneration*. Obviously, it involves two terms *urban* and *regeneration*. The definition of *the urban* in this thesis is related to the European context and it is framed from the perspective of an architect and urban planner/manager. Although, *the urban* encompasses different dimensions and trends that all define it to a certain extent, only part of its complexity is elaborated here.

2.2.1 Defining *the urban* – from city to metropolitan regions

In general, *the urban* is in direct contrast to *the rural* where agricultural activities are predominant. Although both terms are highly contested, *the urban* may be defined as 'relating to cities and towns' (Tallon 2013, p.4). Whilst it is impossible in the limited space of this thesis to provide a comprehensive overview of definitions of cities and towns through history, the most important contribution of this section is to present different perspectives on cities and *urban* of selected scholars after the industrial revolution and convey them in the following sections together with the concepts of regeneration, health and equality.

Since the industrial revolution there have been different approaches in defining cities and towns. Max Weber (1921) compares the modern city of his time with the antique and medieval cities worldwide, and draws conclusions about important aspects when defining cities. He emphasizes that size alone is insufficient to define the city, because there had been, for example, large villages in Russia, which had more citizens than some cities in the West. His economic-political definition of 'modern' city is characterized by the existence of a local market (city is a market "settlement" – *Marktansiedlung*, p.623), of an own jurisdiction, of an urban "community" of citizens and their political autonomy (Max Weber 1921).

Urban sociologists at the University of Chicago, whose work was predominantly influential, have explored different dimensions of the rapidly growing City of Chicago, emphasizing that the city is a product of human nature (Park 1967 [1925]):

The city is not, in other words, merely a physical mechanism and an artificial construction. It is involved in the vital processes of the people who compose it; it is a product of nature, and particularly of human nature.

Park 1967 [1925], p.1

Burgess (1967 [1925]) has developed a model of an industrial city in a form of concentric zones with a central business district at the core of his model (pp.51, 52). He has selected a radial form as ideal for further expansion of the city. Social organization and disorganization were named as normal processes of the urban metabolism stimulated by movement or mobility, which was regarded 'as the pulse of the community' (Burgess 1967 [1925], p.61).

In a key overview of the state of urban geography, Dörries (1969[1930]) as a geographer, focuses on physical characteristics of the city, its location and layout², naming the townscape (*Stadtbild*) as a main differentiating factor separating the city from its surrounding rural landscape.

Christaller's (1933) 'central places theory' emphasizes functional aspects such as centrality of the city within an urban system and the relation of the city to its hinterland. He describes the spatial distribution of goods and services according to centrality and accessibility. Accessibility was explored not only in geographic but also in economic terms,

² *Siedlung von mehr oder weniger planvoller, geschlossener und um einen meist deutlich erkennbaren Kern gruppierter Ortsform und sehr mannigfaltigem, aus den verschiedensten Formelementen zusammengesetzten Ortsbilde. Dörries 1969[1930], p.13*

such as supply and demand influencing availability, as well as transport costs to reach goods and services, which were however simplified.

Louis Wirth (1938) stresses that 'census definitions are unduly influenced by the fact that the city, statistically speaking, is always an administrative concept in that the corporate limits play a decisive role in delineating the urban area'... 'As long as we identify urbanism with the physical entity of the city, viewing it merely as rigidly delimited in space, and proceed as if urban attributes abruptly ceased to be manifested beyond an arbitrary boundary line, we are not likely to arrive at any adequate conception of urbanism as a mode of life' (p.4).

Wirth (1938) further emphasizes the importance of social and cultural aspects of the city in contrast to solely geographic characteristics because 'unless density is correlated with significant social characteristics it can furnish only an arbitrary basis for differentiating urban from rural communities' (p.5). Although density is important, 'these criteria must be seen as relative to the general cultural context in which cities arise and exist and are sociologically relevant only in so far as they operate as conditioning factors in social life' (p.6). According to Wirth (1938) '[t]he question is not whether cities in our civilization or in others do exhibit these distinctive traits, but how potent they are in molding the character of social life into its specifically urban form' (p.6). However, although Wirth (1938) specifies cultural context and social life as important aspect, he suggests rather a minimal definition of city for sociological purposes that could apply to any city irrespective of its historical background, functionality, or current growing, stagnating or shrinking trend. Thus, Wirth defines city 'as a relatively large, dense, and permanent settlement of socially heterogeneous individuals' (p.8).

Mumford (1970[1938]) also focuses on people and stresses that a public education is a mean for a better political society (p.475). He further describes a city as a theater where social drama is preformed and where '[t]he physical organization of the city may deflate this drama or make it frustrate; or it may, through the deliberate efforts of art, politics, and education, make the drama more richly significant, as a stage-set, well-designed, intensifies and underlines the gestures of the actors and the action of the play' (pp.480-481).

For Castells (*The Urban Question* 1977) defining urban solely on a base of dichotomy with rural is excessively simplistic. Due to the lack of empirical criterion for defining the term

urbanization it is theoretically imprecise (Castells 1977). Thus, he avoids the term urbanization and refers instead to *'the social production of spatial forms'* [emphasis by author] (p.17). Similarly, in recent studies urban-rural dualism is questioned by Brenner and Schmid (2014) because of vague methodology for defining and measuring urban population and areas.

After some historical remarks on city development starting with the first urban settlements at the end of the Neolithic Age, Castells (1977) stresses that '[t]he development of industrial capitalism, contrary to an all too widespread naïve view, did not bring about a strengthening of the city, but its virtual disappearance as an institutional and relatively autonomous social system, organized around specific objectives' (Castells 1977, p.14). Similarly, Robert (2014) emphasizes the negative impact of industrial development on the cities and argues that '[i]t is not really a coincidence that cities that have retained a unique character and atmosphere are precisely those which remained away from the stream of industrialization, such as Venice, Bruges, Sarlat or Nördlingen' (Robert 2014, p.48).

It is these cities that managed to preserve their unique character and contain quality places which make them 'urban'³ (Hassenpflug 2010). Places are defined as spaces that offer quality of experience⁴ related to meeting and communicating with other people with three dimensions of urbanity: 'social dimension, functional dimension and aesthetics of space' (pp. 134-135). In that sense, different dimensions of the city should all be related to people.

However, with the rise of the private car use, cities faced deconcentration and suburbanization, especially during the post-war period when the central city was not expanding as fast as the residential outer rings (Pacione 2009). Deurbanisation of cities was a result of rationalistic, Fordist space production (Hassenpflug 2010, p.136-137) with a main motto 'form follows function' established by Modernist architects. "The Functional City" was a theme of the *IV International Congress of Modern Architecture*. The resulting document Athens Charter (CIAM 1933) included health as one of the important aspects, but it was a misleading document that influenced the post-war reconstructions.

³ Eine Stadt, die über Ortsqualitäten verfügt, ist „urban“.

⁴ Orte...sind Räume...mit Erlebnisqualitäten.

The post-modern city – metropolis - was characterized with the chaotic and fragmented structure of urban and suburban areas (Hall and Barret 2010). The importance of metropolitan areas in planning was emphasized at that time, although it was Geddes (1915) who first named conurbations and city regions. While Geddes describes conurbations and city regions solely as a physical phenomenon (Hall 2011) Mumford 1970[1938] names additional important aspects that characterize city regions including health and quality of services

*Before the metropolis can achieve a **healthy**, orderly life, it must boldly re-build its own internal structure as well as its outlying areas on similar lines. And for any particular function, the largest city in the group will often be subordinate to a smaller unit: what is significant is not the quantity of inhabitants but the quality of service. [emphasis added]*

Mumford 1970[1938], p.491

The quality of services and accessibility in relation to urban regeneration, health and inequalities will be described further in the coming sections. While considering different definitions of *urban* described above, in this thesis the *urban* encompasses not only the physical aspects like population density, townscape, etc. but also the social, economic and political aspects that differentiate urban from rural areas. Furthermore, these aspects are related to defining urban regeneration, which will be described in the following section.

2.2.2 Urban regeneration definition and goals

Throughout the last century urban regeneration has undergone different phases, from the post-war reconstruction to ‘holistic’ approaches and urban renaissance at the end of the 20th century (Leary and McCarthy 2013b). Most of these terms, from renewal to renaissance and regeneration, characterize similar process that in general assumes improvements in physical environment on a well-defined area of intervention. Different terms may mean that in addition to physical improvements there are other aspects that are the focus of improvement or there are specific sectors involved.

Although there are different expressions in use, the term *regeneration* ‘remains the most widely recognized and used term by professionals and academics alike’ (Tallon 2013, p.5). Similar to other terms that refer to ‘rebirth, revival and reconstruction’ (*ibid.*), *to regenerate* means ‘to improve a place or system, especially by making it more active or

successful' (Cambridge Dictionary 2014). Its more specific meaning, in biology for example, is 'to grow again' (*ibid.*).

Various definitions or concepts of urban regeneration have developed during the time, emphasizing different aspects according to the author's background, current trends or political goals. Couch (1990) emphasizes the economic side and names the state or local community as an initiator of the improvement of an urban area by 'seeking to bring back investment, employment and consumption and enhance the quality of life within an urban area' (pp.2-3).

Furbey (1999) sees the term *regeneration* as a metaphor. He argues that although it has its roots in religion and refers to 'rebirth', its focus within urban policy in Great Britain was initially predominately individualistic lacking expected commitment to social justice and liberation. Unlike urban renewal, which has a focus primarily on physical improvements (Couch 1990), urban regeneration as defined by Roberts (2000) encompasses, in addition to physical improvements, economic, social and environmental advances in a strategic long-term approach:

a comprehensive and integrated vision and action which leads to resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental conditions of an area that has been a subject of change.

Roberts 2000, p.17

Furthermore Roberts (2000) names urban problems as a focus of urban regeneration. Since urban policy is used to solve urban problems and to manage 'disorderly' places, it 'is about dealing here and now, "the practical"' (Cochrane 2007, p.68), not a visionary thinking, but rather a reaction to it (Cochrane 2007). This practical thinking had as a result short-term, disjointed interventions (Hausner 1993 in Roberts 2000, p.17) in the past. The long-term strategic approach to urban regeneration suggested by Roberts (2000) was an important advancement based on Hausner's (1993 in Roberts 2000) critics of the weaknesses of urban regeneration.

Leary and McCarthy (2013b) argue that urban regeneration requires 'definitional rethinking' (p.2) due to the interchangeable use of the term of urban renewal and urban regeneration for solely physical interventions and more holistic approaches. They further argue that what is crucial for these local-level interventions is political motivation, or

aspiration (Leary and McCarthy 2013b). Thus it is not a one-size-fit-all tool that should be provided but rather an ‘ideal type definition that inspires, enthuses and legitimates’ (Leary and McCarthy 2013b, p. 9) politicians, practitioners and academics.

In addition to Roberts’s (2000) definition, ‘aspirational regeneration’ (Leary and McCarthy 2013b, p. 9) refers to a public sector as an initiator of significant improvements that are aimed at people and communities, as well as places struggling with deprivation:

urban regeneration is area-based intervention which is public sector initiated, funded, supported, or inspired, aimed at producing significant sustainable improvements in the conditions of local people, communities and places suffering from aspects of deprivation, often multiple in nature.

Leary and McCarthy 2013b, p.9

Although they recognize the importance of partnerships, Leary and McCarthy (2013b) assign the main role to the public sector as a leader of the regeneration process providing among others strategic vision and legal frameworks for significant sustainable improvements, which ‘would be stated explicitly in the aims of regeneration strategies’ (p.10). Deliberately undetermined aspects like: ‘the nature of the problems and their causes, precise intervention objectives, governance arrangements, community participation, the role of the private sector, funding mechanisms, outputs and outcomes’ allow for greater flexibility and applicability of aspirational definition to different contexts globally (Leary and McCarthy 2013b).

Tallon (2013) adopts Turok’s (2005, in Tallon 2013) categorization of ‘people’, ‘businesses’ and ‘place’ in order to describe main aims of urban regeneration. He lists ‘economic, social and cultural, physical and environmental, and governance-related’ (p.5) dimensions of urban regeneration, which are all mutually interconnected. The degree to which different dimensions in a given context are mutually interconnected determines the success of urban regeneration (Tallon 2013). According to Carter (2000) ‘successful urban regeneration requires a strategically designed, locally based, multi-sector, multi-agency partnership approach’ (p.37).

Leary and McCarthy (2013b) argue that the success of urban regeneration is determined by the social responsibility of the public sector, which should be shared by the private sector. ‘[S]ensitivity to local needs, civic duty, the public interest and taking the long

view' (p.9) are all essential for a positive outcome of urban regeneration. 'It is important therefore that local government regulates land development for urban regeneration, ensuring reserved urban land for low-income housing' (WHO 2008, p.64). Hambleton (2015) emphasizes the importance of inspirational place-based leadership in bringing about successful urban regeneration.

However, Furbey (1999) stresses the discrepancy between the rhetoric of inclusiveness and the actual practice more oriented towards state and powerful stakeholders' interests (p.432). Mitchell (2003 in Cochrane 2007) argues that cities are protecting businesses to assure further investments. However, Flybjerg's (1998) case study of rationality and power in a Danish town of Aalborg shows rather that businesses are influencing cities to do so.

In that sense developer-led regeneration with a high degree of freedom may have negative consequences for people affected by the intervention (Lees *et al.* 2011). Lees *et al.* (2011) emphasize the importance of including local community in the regeneration process. However, they also stress that even if the low-income community is involved beyond participatory tokenism, it is still hard that it gains the key role due to lack of 'education, networks or finances' (Lees *et al.* 2011, p.xxiv).

Robert (2014) warns that one-sided urban regeneration policies may have high social costs and may additionally increase social disparities, because '[u]rban regeneration carried out too liberally matches the short-term interests of investors, but results in the medium and long term in the displacing and accentuation of social problems' (Robert 2014, p.53). Displacing of social problems however cannot be considered a solution (Häußermann and Siebel 1987). In order to overcome social issues, meaningful involvement of the community is recommended by many authors (Tallon 2013, Turok 2005, Roberts 2000, Roberts 2017, Cochrane 2007, Leary and McCarthy 2013b).

Meaningful involvement of the community is essential in deprived neighborhoods. Friedmann (2011 [1987]) stresses that '...getting more adequate housing involves, for poor people at least, a collaborative effort. Attempted self-empowerment by households, acting on their own behalf, would lead to suboptimal results for all' (p.68). However, an important precondition for quality affordable housing is 'that local government regulates land

development for urban regeneration, ensuring reserved urban land for low-income housing' (CSDH 2008, p.64).

In that sense it is essential how local government defines urban problems, because the purpose of urban regeneration is not always to improve areas in decline for the existing residents. Lees *et al.* (2011) argue that the expression *urban regeneration* was used as a very convenient term, while its actual meaning was gentrification. Under the neo-liberal trends it has spread globally using the 'narratives of decline and death' (Lees *et al.* 2011, p.xvii).

Although narratives of decline and death were used explicitly to emphasize the high necessity of improving areas in decline, their response in a form of urban regeneration was not designed for the health improvement of existing residents, nor for reducing inequalities, but rather for profit production (Lees *et al.* 2011). As Roberts (2000) stresses '[r]egeneration is a constant challenge, and the approach adopted at a particular point in time represents the outcome of a complex system of social, economic and political choice (Roberts 2000, p. 34).

In order to include different choices and reach intended outcomes it is necessary to grasp all the complexity of urban regeneration which cannot be covered by sectoral initiatives (Roberts 2000) because '...an isolated property-led solution cannot be expected to address the full range of economic, social and environmental problems that are encountered in urban areas. Generating and delivering an integrated and comprehensive solution to the challenges of urban regeneration is a difficult task, but it is well worth the effort involved' (Roberts 2000, p.22).

Thus, it is crucial to take a strategical approach for cross-sectoral cooperation with well-defined outcomes, frameworks for planning and implementation as well as 'establishing and maintaining links between the policy systems involved, identifying the roles and responsibilities of the actors and organisations involved in regeneration, and generating a sense of common purpose and co-operation' (Roberts 2000, p.23). Further aspects of a strategical approach to urban regeneration will be elaborated in the context of selected case studies in the Chapter 4.

2.2.2.1 Purpose of urban regeneration

Improving a place or an urban system may have different purposes. Couch et al. (2013) distinguish between two approaches, one being the improvement of competitiveness of the city and another one being neighborhood renewal. Although they may overlap at many points there is also a tension between these two approaches due to neo-liberal agenda (Couch et al. 2013). Since the physical appearance of inner-cities and neighborhoods creates the overall city image, they are important for its regional, national or global competitiveness. Dilapidated building stock and inappropriate infrastructure as visible physical symptoms of decline or inefficiency in adapting to new trends require intervention in the urban fabric (Jeffrey and Pounder 2000, p.86).

Urban regeneration is a response to various physical and non-physical symptoms of decline and dysfunction and a necessary part of a wider process of urban change (Roberts 2000, 2017 and Tallon 2013) or transformation. Urban change is necessary to transform the cities into livable and sustainable living environments (WBGU 2016). Urban regeneration should contribute to overall 'great transformation' (WBGU 2016).

In terms of healthy urban development urban regeneration is required to adopt neighborhoods to the changing needs of their residents in order to reinforce wider determinates of health as a response to changed conditions. Even more, it is necessary to improve living conditions that would contribute to reducing inequalities. In order to develop sustainable and healthy cities that are on a human scale, safe and lively (Gehl 2010) urban regeneration as a part of urban change has to take place.

Broader urban change is a product of 'changing economic contexts, demographic and social changes' (Couch et al. 2013, p.38) and may have 'spatial and ecological nature' (WBGU 2016, p.48). Roberts (2000, 2017) argues that urban regeneration is necessary as a mean of solving multi-dimensional urban problems, which are a part of wider urban change – transformation – that has four major aspects: 1. economic transition and employment change; 2. social and community issues; 3. physical obsolescence and new land and property requirements; 4. environmental quality and sustainable development (Roberts 2000, p. 24).

These aspects are mutually interconnected and mutually reinforcing and although urban problems are local, they cannot be extracted and solved separately but rather as a

part of a wider economic context of the country and region (Roberts 2017). Beside economic decline that can be partly tackled by urban regeneration, population decline and population change, which have direct influence on social infrastructure, services provision and amenities, as well as on physical structure of urban areas (Couch et al. 2013), are an important background for initiating urban regeneration.

Urban regeneration is also closely related to urban planning, which itself is facing different challenges in both theory and practice (Leary and McCarthy 2013b).

2.2.2.2 Urban planning, planning theories und urban regeneration

...spatial planning is best viewed as a set of interdependent processes involving multiple actors that seek to create more livable, life-enhancing cities and regions.

Friedmann 2005, p.213

While seeking to create more livable, life-enhancing cities and regions, planners and planning practices are dependent on various aspects, such as resources (financial resources, information etc.), stakeholders, political interests, etc., which all influence the approach to planning and the role of planner.

Hall (2014) argues that it is in the fifties that city planning became legitimate, but at the same time its destruction has begun. The reason for that was a division between theory and practice (Hall 2014, p. 386). Additional to the task of solving a problem, it is important to deal with the way of planning. Fainstein (2005) argues that process, context and the object of planning are separated in contemporary urban planning practices. She emphasizes that “narrow definition of planning theory results in theoretical weakness arising from isolation of process, from context and outcome” (Fainstein 2005, p.121). Faludi (1973) differentiates between theory *in* planning dealing with the „content“ of planning and theory *of* planning focused on the form of planning – procedural theory.

In the time of industrial expansion until the 1960s, rational planning was of great importance for the future development of cities. In the context of rational planning, the plans were developed for the whole city and combined essential elements of development-planning intentions and defined themselves as large-scale regulating instruments, which should not only control the future urban development, but integrate it holistically (Hall 2014).

As a consequence of economic crisis incrementalism arises at the end of the 1950s and beginning of the 1960s. Lindblom (1959) characterizes planning as ‘muddling-through’ in order to achieve a compromise and make policies relevant, instead of creating utopian comprehensive plans that were hard to implement. Due to crisis, focus was on urban regeneration and inner development instead of expansion, which required small-scale solution-oriented approach (Lindblom 1959).

At the same time advocacy planning (Davidoff 1965) emphasizes the importance of the equal distribution of goods and the necessity to include social aspects that cannot be tackled by technical planning. Furthermore, Davidoff (1965) emphasizes the important role of the planner as an advocate that assures that low-income groups participate in planning their communities. Shifting from rational planning, with strong expert knowledge to advocacy planning with emphasis on local knowledge was a response to a top-down renewal programs with massive clearance (Feinstein 2000).

Each theory was developed under certain historical, economic and political conditions, and thus has a specific approach. Feinstein (2000) emphasizes that different planning theories focus either on planning process or on desirable outcome, although both should be a part of planning.

When it comes to communicative planning, the planner’s characteristics and role are central to the planning process in order to manage power relations, while context and outcome of planning are neglected (Feinstein 2000, p.455). However, Patsy Healey, one of the communicative theorists, recognizes a weakness of the theory and focuses more than other communicative theorists on the object of planning (1997). The collaborative approach or “planning through debate” is crucial for empowering citizens to change power relations in planning (Healey 1992) and enable more just outcomes.

Amin (2013) emphasizes that both “knowing” tradition and a “deliberative” one exist in contemporary planning. Deliberative planning recognizes the complexity of urban challenges and ‘[i]t sees knowledge as situated, problems as complex, outcomes as temporary, and interventions as catalysts rather than solutions, defining planning as the art of intermediation, working pragmatically through opposing interests and concerns, making

things visible, and intervening in relational dynamics for communal local advantage' (Amin 2013, p.632).

Although, deliberative planning is insufficient in the uncertain world due to the necessity of expert knowledge for solving different threats of hazards, terror, war, etc. (Amin 2013), expert knowledge is useless if it doesn't stand the test in communication processes (Selle 2016)

Integration is rather a process: it is to identify the relevant actors and to initiate communication processes in the intersection of their interests. This communication of the actors among one another, directed at a goal (plan, project, etc.), makes up the actual value of the processes. It is therefore less the resulting plans, but the processes preceding them and their implementation which produce effects⁵ [own translation]

Selle 2016, p. 15

The communication process, however, was not a characteristic of a "technicist" approach to planning where a planner is considered an expert who is capable of finding solutions for all issues related to a plan. Modern planning theory differentiates between three different approaches in planning - "technicist" planning, social reform planning and social justice planning – which are very often concurrently present (Marcuse 2013)

"Technicist planning" is in all its four forms ("scientific", designer, contractual and process planning) solely focused on the efficient functioning of a system or place that enables the market to function efficiently (Marcuse 2013). The planner is an expert who uses different engineering tools to build everything well for efficient functioning (Marcuse 2013, p.645). However, although this approach neglects social factors and oversimplifies the complexity and diversity of urban space as it 'seeks order in simple mappable patterns, when it is really hiding in extremely complex social organization, instead" (Webber's 1963, p.54), it was the most appropriate for planning urban growth. Marcuse (2013) argues that in the post-World War II, USA groups in power determined what was necessary for urban growth and how urban planning can enable that process. Thus, '...it was precisely the role of

⁵ *Integration ist vielmehr eine Prozessleistung: Sie besteht darin, die relevanten Akteure zu identifizieren und im Schnittbereich ihrer Interessen Verständigungsprozesse in Gang zu setzen. Diese auf ein Ziel (Plan, Projekt etc.) ausgerichtete Kommunikation der Akteure untereinander, macht den eigentlichen Wert der Prozesse aus. Es sind daher weniger die so entstehenden Pläne, die Wirkungen erzeugen, sondern die ihnen vorausgehenden und ihre Umsetzung begleitenden Prozesse*

planning to smooth out the contradictions of economic growth and urban development under advancing capitalism that required the development of planning and a planning profession' (Marcuse 2013, p.645). During that period in the USA, the real-estate market had an advantage over other interests (Marcuse 2013), which led to urban redevelopment and renewal programs with great clearances and displacements (Feinstein 2000).

Social reform planning focuses on planning of the urban environment, which would contribute to "general human welfare" (Marcuse 2013, p.648). Built upon modern urban reforms aimed at improving hygiene and preventing epidemics, contemporary approaches strive to environmental sustainability and justice (*ibid.*). Public participation is widely included in the planning process; however, as argued by Marcuse (2013) participation itself is not a power. It is a democratic process of decision-making that can make a difference, but it has not developed as far as public participation (*ibid.*).

Furthermore, social reform planning is embedded in the existing legal structures and thus cannot make radical changes, while social justice planning supports a bottom-up approach and direct involvement in decision-making and thus can bring radical changes (Marcuse 2013). Social justice planning approaches range from ethical/cultural principles planning, community-based planning, radical or critical planning to utopian planning, which has its roots in Thomas Moor's *Utopia* among others (Marcuse 2013).

Although there are differences among them, all these approaches are present and mixing to some degree, while at the same time being in tension with each other, because '[t]he interplay between what is wanted, and by whom, and what is possible, between what is just and what is realistic, creates a constant tension in city development. Clarity on the causes of that tension and the attention to the alternatives for its resolution ought to be an on-going mandate for those concerned about the future of the cities' (Marcuse 2013, p.653).

Strategic planning is an important approach when it comes to urban regeneration because '...achieving urban regeneration requires far more than traditional land-use planning; it has to encompass a broader strategy of urban management which relates 'investment, physical intervention, social action and strategic planning – to other associated policy fields' (Roberts 2000, p.28). In order to reach just outcomes and develop healthy neighborhoods, not only associated policy fields should be included, but also policies related

to wider determinants of health (section 2.4.1). Specific strategy, government and management of urban regeneration, as well as its relation to other policies is related to a city, region or national context and it will be described in the context of selected case studies in Section 4.

Developing urban regeneration strategy is related to the definition of urban problems. If, for example, local government determines that urban problems are caused by the urban poor, then their solution would include clearance as one of the measures to improve the deprived area. How defining urban problems is relevant for developing just strategies for regenerating deprived neighborhoods will be described in the following section.

2.3 Urban problems, deprived neighborhoods and the Just City

2.3.1 Urban problems and deprived neighborhoods

Deprived neighborhoods have to cope with multiple problems related to physical and environmental degradation as well as social and community issues (Roberts 2017). In deprived neighborhoods physical environment influences social aspects, because ‘when the physical environment itself becomes disordered and incoherent, the social functions that it harbors become more difficult to express’ (Mumford 1970[1938], p.481). As a consequence of physical and social disorder, inequalities rise and life-expectancy decreases.

Urban problems of deprived neighborhoods are shared by all cities regardless of their geographic location or global status. In post-industrial cities urban problems are related to globalization trends. In Western Europe the decline in industrial production resulted in economic transition and employment change (Roberts 2000). A main cause of most of urban problems in post-industrial cities and regions is structural change. As soon as a large part of the manufacturing base had disappeared, cities and their residents faced multiple challenges (Massey and Meegan 1978). Although these changes were influencing directly cities and regions, they were not responsible for this ‘failure’.

On the contrary, it must be stressed that the closures, the redundancies, and the cutbacks which occurred indicate not failure but the only possibility for ‘success’. Such action was necessary in order to increase the firms’ profitability and international competitiveness.

Massey and Meegan 1978, p.285

However, although a success in terms of profitability, these global trends have local economic as well as physical, social, and environmental consequences influencing certain urban areas to a greater extent (Roberts 2017). Economic problems in post-industrial cities have reinforced existing social problems rooted in demographic change, change in family and community structures, as well as changes in social perceptions and values (Roberts 2017, p.29).

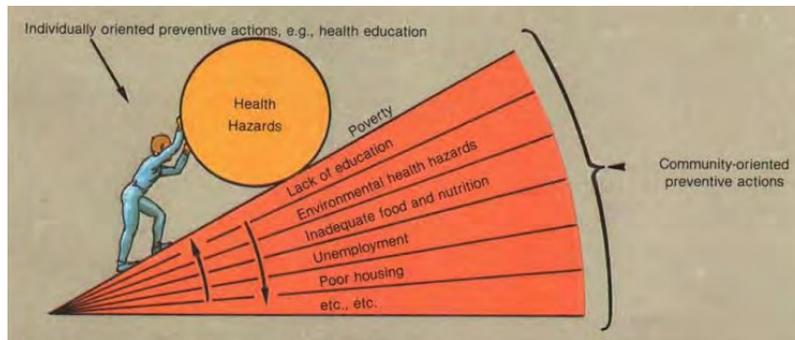
As argued by Friedmann (2011) 'social outcomes of globalization...were mostly negative and local'. Although economic restructuring has contributed to further deterioration of certain neighborhoods, they were *deprived and excluded* even before the restructuring took place (Couch *et al.* 2011, p.13). However, as a result of restructuring, the unemployment rate in those neighborhoods has raised dramatically making a greater divide between well-off and low-income communities and adding to existing social and environmental burdens that form cumulative risks in terms of health (Payne-Sturges *et al.* 2015). These contaminated urban areas with high levels of unemployed and a low-educated population were facing further deterioration due to population decline that resulted in the abandonment of building stocks, withdrawal of retail and services as well as in school closures (Couch *et al.* 2013).

In financial terms, deprived areas outside the inner city largely lack financial means because the private sectors see no opportunity for profit. Adair *et al.* (2003) argue that the deprived neighborhoods' lack of private investment is due to high uncertainty and risk. Local and national governments, which are struggling with austerity measures due to the economic crisis in 2008/09, have limited sources to support improvements in the urban fabric in the neighborhoods outside the inner city. This is especially emphasized in secondary cities due to their less important role in the national and global economy.

Urban problems in deprived neighborhoods are multifaceted, however, are not entirely without opportunities because '[e]ven in the most deprived neighborhoods, there are considerable social strengths on which [urban] policy could build. Social surveys consistently show that high proportions of residents in deprived areas speak warmly of the 'quality' of the people in their neighborhoods and argue that the problems of crime, dereliction and social disruption are caused by a small minority of residents' (Robson *et al.* 2000 in Cochrane 2007, p. 52).

However, although social contact and a feeling of community are beneficial to health (Whitehead and Dahlgren 1991, Barton 2005), there are other aspects related to poverty that present health hazards (Figure 2) for people living in deprived neighborhoods.

Figure 2: Health hazards in relation to poverty and deprived neighborhoods



Source: WHO 1986b, p.23

Whitehead (1991) emphasizes that '[w]here people have little or no choice in living and working conditions, the resulting health differences are more likely to be considered unjust than those resulting from health risks which were chosen voluntarily. The sense of injustice increases for groups where disadvantages cluster together and reinforce each other, making them very vulnerable to ill health' (Whitehead 1991, p.220).

These health hazards are further related to inequalities of access, opportunity as well as impact and outcomes as emphasized by the Australian health promotion foundation (VicHealth 2008):

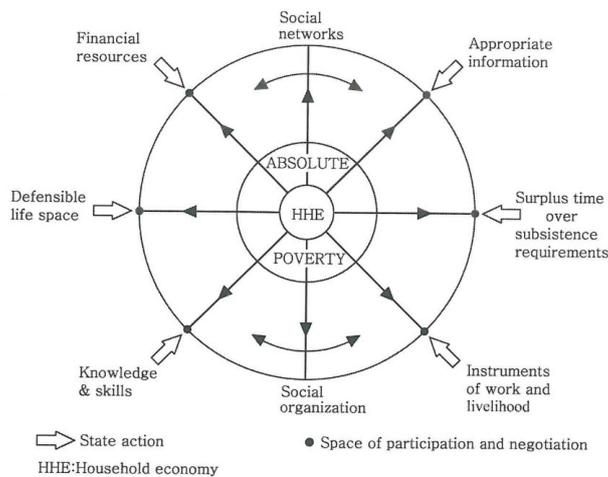
- **Inequality of access** refers to barriers to the services that support health and wellbeing. It includes barriers created through cost, through physically inaccessible services and through services not being culturally appropriate.
- **Inequality of opportunity** refers to barriers to the social, geographic and economic resources necessary to achieve and maintain good health such as education, employment, income and a safe place to live.
- **Inequality of impacts and outcomes** refers to differences in health status between groups (for example in rates of death, illness or self-reported health). It is important to measure health outcomes so that it is possible to notice who is and who is not achieving good health and wellbeing in the community

VicHealth 2008, p.6

Friedmann (2011) also relates poverty to wider aspects that go beyond low income and stresses the importance of access to *the bases of social power* (Figure 3), which is limited

by political, economic and state powers (p.100). In this conceptual model (Figure 3) access is measured from the center of the inner circle with zero value, although all households must have some access, to the outer ring presenting maximum value (Friedmann 2011). Although state action is seen as necessary for the improvement of household's access, there is also a space for participation and negotiation which should enable households to fulfil their needs (*ibid.*).

Figure 3: Household poverty in relation to the bases of social power



Source: Friedmann 2011 p.99

However, Friedmann (2011) stresses that this model has significant limitations rooted in structural conditions related to 'the system of power relations that sustains capitalist production [and] also acts to keep poor disempowered' (pp. 102,103). In that sense structural conditions sustain poverty and expand socio-economic inequalities.

Socio-economic inequalities are reflected in health inequalities (Marmot 1999, Wilkinson and Marmot 2003, Whitehead 1991). Their important characteristic is that they are avoidable and unjust and should be tackled by tailored interventions on the national priorities based on the inequality assessments (WHO 2012, p. iii). As argued by Whitehead (1991)

The aim of policy for equity and health is not to eliminate all health differences so that everyone has the same level and quality of health, but rather to reduce or eliminate those which result from factors which are considered to be both avoidable and unfair.

Whitehead 1991, p.219

Although inequalities and inequities are terms that are similar, there are also some important differences: ‘Inequality is a relative (i.e., relational) concept that contains both qualitative and quantitative elements. Inequality plays a central role in the context of philosophical discussions of justice, but primarily as a qualitative concept that involves comparisons between a group of different objects, persons, processes or circumstances (e.g., the opportunity for well-being, equality before the law). Such comparisons may also be quantitative, in which case the concept of inequality may refer specifically to the measurement of differences in the distribution of goods such as income or wealth... In contrast to the concept of inequality, the term “inequity” refers specifically to a subset of measured inequalities that are judged to be unfair or unjust. Judgments concerning inequity rely on social, political and ethical discourse about what a society believes is unfair, and are thus considerably more difficult to quantify... Determining whether, or how much of, observed inequalities are inequitable requires consideration of important issues such as whether the inequality is avoidable, unfair, or remediable. The quantification of inequality in health or exposure to environmental hazards or benefits is therefore necessary, but not sufficient, for determining whether or not such a distribution is indeed inequitable’ (Harper et al. 2013, p.4040)

Here the term inequalities is used since ‘judgments concerning inequity rely on social, political and ethical discourse about what a society believes is unfair, and are thus considerably more difficult to quantify’ (Harper et al. 2013, p.4040). Differences in the distribution of goods, such as income and wealth, are important aspects for urban regeneration and urban transformation to a just city.

2.3.2 Just city vs. environmental, spatial and social inequalities

... justice and injustice are infused into the multiscalar geographies in which we live, from the intimacies of the household to the uneven development of the global economy

Soja 2010, p.20

As Soja (2010) argues there are different scales of injustice ranging from the individual to the global level. Although, not all of them are produced by the city, like developments in global economy, they influence the city development and individuals living in the city. Economic inequality and unequal distribution, influence different aspects like *inter alia*

housing, access to education and job opportunities, quality open spaces, etc. which all influence the quality of life.

In the globalized world well-off people are highly mobile, so are their production facilities or firms (Castells 2000, Sassen 2007). Tax-paradise countries enable them to gain higher profits. Using taxes to support education for example would be beneficial for many children coming from low-income families and would provide an opportunity for better education. However, as Robert (2014) argues that ‘[i]ncreasing social polarization in [European] cities, and especially its widely publicized impacts, often hide the fact that cities are in a process of structural transformation and are, to a certain extent, the subject of a reconquest by more well-off segments of society’ (Robert 2014, p.61). Well-off people live longer and healthier than poor people, which means that economic inequality does matter because it reinforces social, environmental and spatial inequalities (Marmot 2015). Thus, Marmot (2015) relates the social gradient to the health gradient.

Furthermore, the relationship between environmental, social and health aspects are taken into the concept of environmental justice (Bolte et al. 2012). Traditional scholarly work on environmental justice is focused on environmental hazards that influence the health of disadvantaged population groups, more specifically minorities and low-income groups (Bryant and Mohai 1992, Bullard 1990).

the environmental consequences and costs of urbanization impact unevenly on different social groups, in the same way that the de-industrialization process has been spatially and socially uneven. This is because environmental problems tend to impact most severely on the most vulnerable groups in urban society.

Tallon 2013, p.164

Contemporary views on environmental justice are expanded to the equal right to access goods and services (Agyeman and Evans 2003) as well as to opportunities like education, job and engaged participation in decision-making (CSDH 2008). A broader concept of sustainability in the context of environmental justice reflects a ‘greater level of social and economic equity’ (Agyeman, Bullard and Evans, 2003, p.) as a basis for a sustainable society (Agyeman, Bullard and Evans, 2003).

Striving towards a just city and urban regeneration framed with sustainable development principles is challenging due to difficulties to provide evidence for non-

monetary values like social mix and equity (Tallon 2013, p. 169.). Burton (2000) points out the potential of the compact city for promoting social equity as ‘communities are likely to be more mixed and ... low-income groups are less likely to suffer from the added disadvantages of being spatially segregated’ (p.1975).

In that sense it is the role of the public sector to provide adequate policies to attract the investors and developers while at the same time balance social and environmental aspects in vulnerable regeneration areas (Adair *et al.* 2003). Roberts (2000) argues that ‘[t]he absence of an adequate institutional capacity to intervene in the cycle of physical decline has proved to be a major impediment to the regeneration of many urban areas’ (Roberts 2000, p.28).

It is collaborative approaches to urban planning that aimed at improving institutional capacity (Healey 1998). Other authors (Squires *et al.* 2015, Karadimitriou *et al.* 2013) emphasize that innovative financing schemes are necessary to overcome the effects of economic crisis, but also emphasize the importance of the public sector as an actor to ensure better security of investment and to enable non-market housing delivery.

Häußermann and Siebel (1987) argue that ‘[i]t does not mean that urban planning is exclusively social planning directed at men and their behavior, oriented towards the goals of social justice and a new urbanity’⁶ (p.154). However, ‘[i]s a culture of the city conceivable without to overcome the unequal distribution of social wealth?’⁷ (*ibid*, p. 243). It is in hands of political leaders to formulate and implement that kind of urban culture that is based on social justice (Häußermann and Siebel 1987).

The future of the cities is shaped by urban transformations that should encompass social aspects ‘...utopian thinking can help us choose a path into the future that we believe is justified, because its concrete imaginary is informed by values that are precious to us’ (Friedmann 2011 [2000], p. 146). Amin (2013) argues that ‘[urban] transformations ... signal a profound alteration of the world and its orderings, and necessitate new analysis of the ways in which urban life is being recomposed and the challenges of social cohesion and

⁶ Das heißt nun nicht, Stadtplanung werde ausschließlich Sozialplanung, gerichtet auf Menschen und deren Verhalten, orientiert an Zielen der sozialen Gerechtigkeit und einer neuen Urbanität. Auch Schrumpfen beinhaltet Aufgaben für Ingenieure.

⁷ Ist eine Kultur der Stadt denkbar, ohne dass die ungleiche Verteilung des gesellschaftlichen Reichtums überwunden wäre?

equity associated with these transformations. This will help to identify the issues and interests to be championed, their urgency, and their place in a comprehensive vision of urban dwelling' (Amin 2013, p.639).

In order to identify these issues and interests that are to be championed in the course of urban transformation towards the *just city*, Fainstein (2014) argues that there are three main principles: democracy, diversity and equity. She further stresses that '[i]t is assumed that the stronger the role of disadvantaged groups in policy decisions, the more redistributive will be the outcomes; thus broad participation and deliberation should produce more just outcomes' (Fainstein 2014, p.7).

Furthermore, policies should enable disadvantaged population groups to benefit from the redevelopment programs (Fainstein 2014). Striving to greater diversity should '...encompass ending discriminatory zoning, insuring that boundaries between districts remain porous, providing widely accessible and varied public space, and mixing land uses. Policies supporting democracy include the use of advocates to represent groups that do not participate directly in decision-making, consultation of target populations in areas to be redeveloped, and broad consultation for areas that are not yet developed but are under development pressure' (Fainstein 2014, p.12).

Cochrane (2007) points out on Mayer's statement that it is in the United States and Western Europe, that 'the work of civic and community organizations' (Mayer 2003, cited in Cochrane 2007, p. 55) is important basis 'for the generation of local social capital, as they increase political participation and improve the social and economic conditions in disadvantaged neighborhoods – either through capacity building and complex public-private partnerships, or by mobilizing public pressure on political representatives and administrations' (Mayer 2003, cited in Cochrane 2007 p. 55).

Ultimately, Fainstein (2014) argues 'if the aim is justice, the purpose of inclusion in decision-making is to have interests fairly represented, not to value participation in and of itself' (p.12). Friedmann (2011 [1987]) emphasizes the difference between participatory planning and the radical practice where both planning and implementation are in hands of the community, while in participatory planning the state has the main role. The role of the planner is also different and goes beyond purely mediating between state and community

towards transformative practice (Friedmann 2011 [1987], pp.70-71). In that sense ‘the essential planning mediation is between theory and practice, where both, ultimately belong to the people...small active group plays decisive role in social transformation’ (Friedmann 2011 [1987], p.71).

However, in order to achieve *just* urban transformation it is necessary that national governments support local policies ‘especially involving housing, transport, and recreation, made at the local level that differentially affect people’s quality of life’ (Fainstein 2014, p.14). Furthermore, defining the problems adequately and influencing political decisions locally is of great importance for moving from one-sided decision-making to fulfilling needs of disadvantaged groups (Fainstein 2014). Friedmann (2011 [1987]) described how urban planners can empower disadvantaged groups to achieve their objectives.

Through workshops and other means, they [radical planners] impart relevant knowledge and skills in collective housing struggles, they assist households in organizing themselves as a cooperative or tenant union... Throughout this effort, radical planners must work to expand people’s horizon of possibilities by relating pertinent experiences from other parts of the world and discovering ways to broaden collective efforts once the basic objectives of the group have been achieved. In this way, the momentum of radical practice is maintained, as social space is progressively liberated from control by the state and corporate capital

Friedmann 2011 [1987], p.69

Furthermore, he emphasizes ‘the obligations of radical planners...to ensure that thinking about transformative practice breaks through traditional boundaries of hierarchy, academic discipline, parochial viewpoint, and the theory/practice dichotomy, as they weave together a single cloth of theory *and* practice that is continuously tested for its fitness and durability in use’ (Friedmann 2011 [1987], p.70).

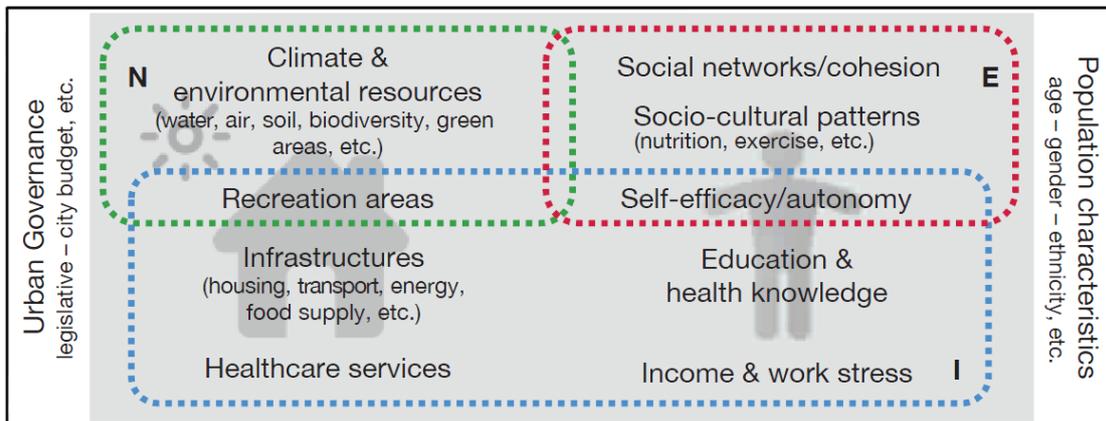
The question is to what extent the urban planner can realize these aspects if there is no political will since she or he is employed by the state or private developer.

Thus, ultimately it is again about politicians deciding between economic growth and social equality, and what remains is ‘[t]he hope underlying the discussion of the just city ... that it can change the rhetoric around urban policy from a single-minded focus on competitiveness to a discourse about justice’ (Fainstein 2014, p.14).

2.4 Urban health and healthy neighborhoods

According to the United Nations (UN) document on urbanization trends (2014) by the year 2050 over 66% of the world population will be urban dwellers. In Europe, in the year 2014, 73 per cent of population was already living in urban areas. Although, this urban-rural dualism may be questioned because of the vague methodology for defining and measuring urban population and areas (Brenner and Schmid 2014), *urban* health is gaining in importance due to an ever expanding urbanization process globally (WBGU 2016). Figure 4 illustrates urban health resources and burdens related to spatial and compositional factors as well as urban governance, which affects spatial factors and access to participation and decision-making.

Figure 4: Urban health resources and burdens



Source: WBGU 2016, p.147

Cities as centers of cultural, economic and political life can bring lots of benefits for health, but at the same time different activities can deteriorate health. How cities perform in terms of health may be measured by the health status of the population. Three main indicators named by Lalonde (1974, p.19) “life expectancy and mortality rates, causes of death and morbidity” are further expanded by WHO and comprise different indicators that belong to these three main groups. Life expectancy, as one of the main indicators, is defined as an “average number of years that a newborn is expected to live if current mortality rates continue to apply.” (WHO 2006, p.1)

Life expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups - children and adolescents, adults and the elderly.

WHO 2006, p.1

Life-expectancy is closely related to the ‘daily conditions in which people live’ (CSDH 2008, p.4) which include not only the physical environment but also socio-economic characteristics. The determinants of health and the social model of health as well as the main characteristics of healthy neighborhoods are described in the following sections.

2.4.1 Determinants of health and social model of health

As defined by the World Health Organization (WHO) in 1946 “health is not merely the absence of disease” but includes all other factors, like social, environmental, economic, etc. that influence the quality of life and well-being of the population. Before the late 1970s focus was on the cause of disease (pathogenesis), rather than on health and factors influencing and reinforcing health (salutogenesis) (Barton and Tsourou 2000). The Ottawa Charter (WHO 1986a) advances this new understanding of health with a focus on salutogenesis in the form of health promotion.

Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical mental and social wellbeing, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy lifestyles to wellbeing.

WHO 1986a, p.1

As defined in the document, beside the resources and capacities for fulfilling individual or group needs, it is necessary to change and cope with the environment. Social psychologist Kurt Lewin highlights that ‘in principle it is accepted everywhere that behavior (B) is a function of the person (P) and the environment (E), $B=f(P,E)$ and that P and E in this formula are interdependent variables’ (Lewin 1951 in Scholz, 2011, p. 150).

Factors influencing health are therefore not only heredity factors and individual constitutional factors, but rather also environmental, social and economic factors. Lalonde (1974) has grouped factors determining health into four main categories starting with Human Biology and adding Environment, Lifestyle and Health Care Organizations. There were different health models developed since that time (Whitehead and Dahlgren 1991, Laughlin and Black 1995, Barton and Grant 2006) and all of them emphasize the important influence of the living environment on health.

The social model of health (Figure 5) developed by Whitehead and Dahlgren (1991) emphasizes the importance of social and community influences on health, as well as living and working conditions. They also start with individual factors (like Lalonde’s Human Biology) in the center of the model and add lifestyle factors to the first level, which are then followed by social and community influences. This second level emphasizes the influence of social support of family and community members that can positively or negatively affect health. On the third level beside the Health Care Organizations (Lalonde 1974) they include other structural factors like housing, education, working conditions, access to services and provision of essential facilities. Overall, fourth layer includes “major structural environment” that influences a whole society.

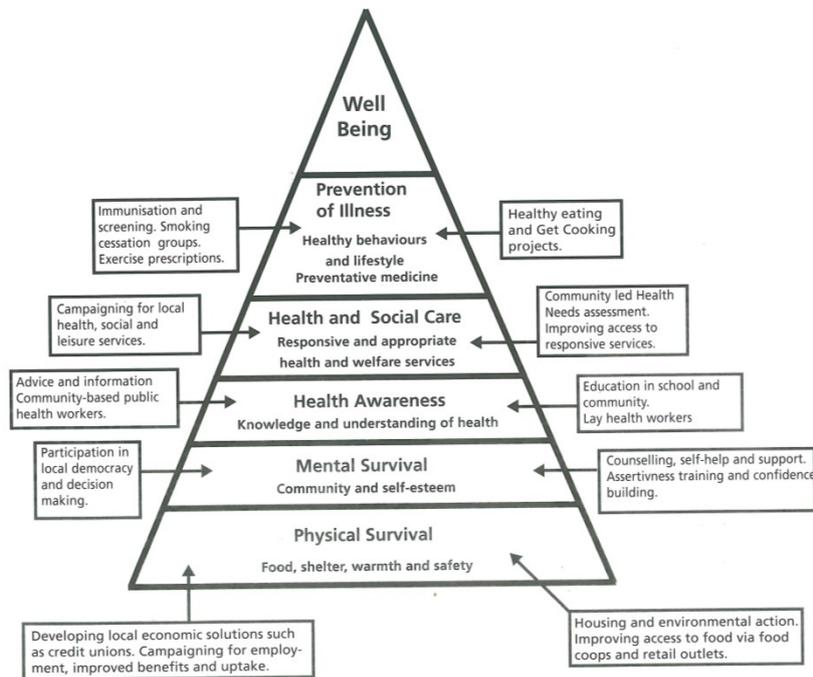
Figure 5: Social model of health



Source: Dahlgren and Whitehead 1991, p.11

Laughlin and Black (1995) have illustrated a community health in a form of a health triangle (Figure 6) showing the hierarchy of outcomes and activities that build upon each other and have as a result well-being. In order to achieve good health and well-being in the poor communities it is necessary to cover in a good balance all the stages simultaneously.

Figure 6: Hierarchy of health outcomes and activities which develop them



Source: Laughlin and Black 1995, p.43

Marmot (1999) argues that it is not that good health is related to good medical care but rather social determinants that influence health and should be further researched about: “by understanding how the social environment affects health, its specific features and pathways, it is potentially possible to affect these with consequent impact on health” (p.2).

He relates further aspects of sustainable development as an environmental approach with health as a people-centric approach through the social determinants of health. Since social environment influences health, differences in social environment cause social inequalities in health (*ibid*). It is important to emphasize that “individual differences in disease may be different from the causes of differences between populations” (Marmot 1999, p.4).

In the WHO publication about social determinants, Wilkinson and Marmot (2003) emphasize that although heredity factors are very important when it comes to individual health, it is an environment that determines population health (p.7).

But however important individual genetic susceptibilities to disease may be, the common cause of ill health that affects populations are environmental: they come and go far more quickly than the slow pace of genetic change because they reflect the changes in the way we live. This is why life expectancy has improved so dramatically over recent generations...and it

is why health differences between different social groups have widened or narrowed as social and economic conditions have changed.

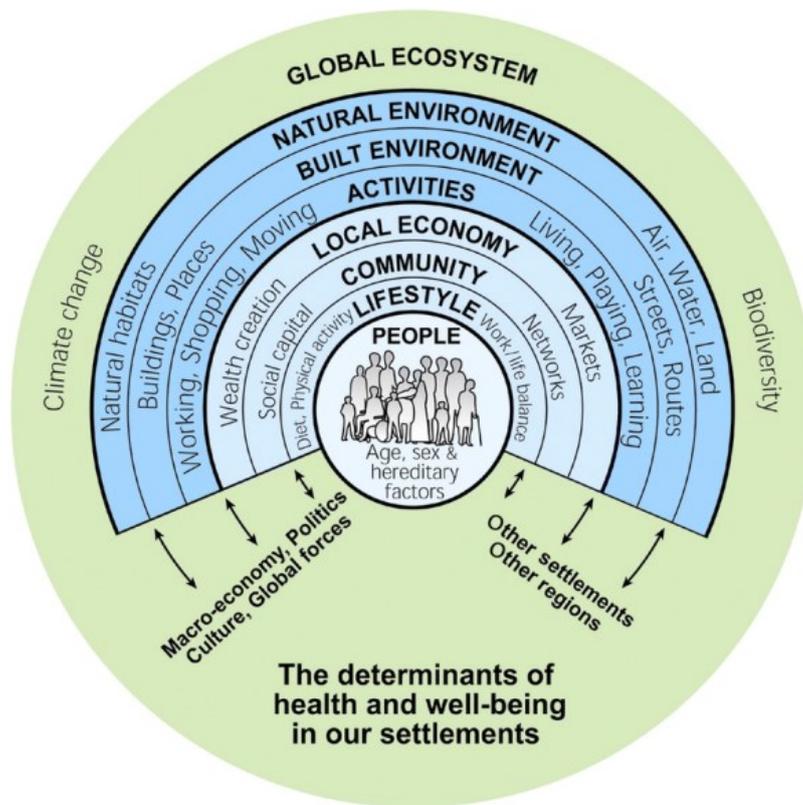
Wilkinson and Marmot 2003, p.7

Since the focus of this thesis is on urban regeneration, which influences living conditions, emphasis is on the population, rather than the individual, and the major causes of morbidity and mortality related to social environment. It is these causes that can be influenced when planning for healthier neighborhoods. Improving living conditions may influence change in behavior as ‘human groups seek to adapt their buildings to their behavioral needs or functional requirements; when the built environment ceases to accommodate behavioral requirements, people seek to correct the problem through construction, renovation, or moving to a different building. Conversely, people also change their behavior to fit the physical environment, especially when it presents limitations’ (Lawrence & Low 1990 in Scholz, 2011, p. 172).

Furthermore, Wilkinson and Marmot (2003) identify ten major social determinants of health: the social gradient, stress, early life, social exclusion, work, unemployment, social support, addiction, food and transport. These ten large categories are extended by other issues like housing (p.17) and education (p.21) that are identified as areas for policy implications.

The influence of the living environment on health is related to environmental, social and economic inequalities that result in health inequities (CSDH 2008). That means that besides the medical, the involvement of other disciplines is necessary to tackle those differences. Urban planning, for example, can be perceived as a determinant of health (Barton and Grant 2013). Barton and Grant (2006) argue that urban planning can influence health directly through built environment, but also indirectly by facilitating activities and the local economy. A health map for human settlements (Figure 7) is based on Whitehead and Dahlgren’s social model of health (Figure 5), ecosystem theories and the principle of sustainable development (Barton and Grant 2006). The health map ‘has been deliberately composed to provide a focus for collaboration across practitioner professions – such as planners, public health, service providers, ecologists, urban designers and across topics transport, air quality, community development, economic development’ (Barton and Grant 2006, p.2).

Figure 7: Health map for human settlements



Source: Barton and Grant 2006

In the center of the health map (Barton and Grant 2006) are people. Barton and Tsourou (2000) emphasize the importance of setting the focus on people rather than on buildings and developments that are traditionally the main objects of planning for architects and urban planners:

*If cities are to become healthy and attractive places to live in the future, it is vital that urban planners in every country **focus on people** and **how they use buildings** and developments, rather than simply on the buildings themselves, as has become the case in many of our cities*

Barton and Tsourou 2000, p. 1

Gehl (2010) also stresses that cities should be planned and built for people. In order to create lively and safe cities that are healthy and sustainable, planners have to change their approach from planning from the airplane to planning from the street level (Gehl 2010). Furthermore, although some policies are developed on the national level, and neighborhoods are part of a larger urban and regional context, it is essential to alter 'unhealthy trends towards the centralization and globalization of control and instead [to apply] the concept of subsidiarity – returning to or keeping at the local level the opportunities and responsibilities that can most appropriately be fulfilled at that level'

(Barton and Tsourou 2000, p.123). The Commission on Social Determinants of Health (CSDH 2008) recommends that ‘local government and civil society, backed by national government, establish local participatory governance mechanisms that enable communities and local government to partner in building healthier and safer cities’ (p.63).

2.4.2 Healthy urban planning/regeneration

Vitruvius, a Roman architect and engineer from the 1st century B.C., in his “Ten Books of Architecture” gives guidance for building an appropriate city structure that would protect residents from the harming effects of nature. Centuries later, improving health by creating settlements that combine the advantages of city and countryside life, while at the same time buffering disadvantages of both (Howard, 2010 [1898], p.7), was Howard’s answer to overcrowded industrial cities of his time where people lived in poor conditions. More than hundred years later, in the period of globalization and the information age, when industrial cities are struggling with challenges of structural change his ideas are still applicable (Hall and Ward 2014).

Howard’s *Garden City* ideal included not only a plan for developing a green and walkable ward well connected to central facilities and manufacturing jobs, but also an administration and financial plan that was focused on a fair distribution of funds and responsive to most vulnerable population groups such as ‘aged poor’ (Howard, 2010 [1898], p.141). The cooperative approach was of great importance for a fair distribution and creating a local welfare state. However, an example of Letchworth has proved that his idea of financing was not successful and not applicable as envisioned (Hall and Ward 2014).

Connecting Garden cities into a Social City, was the physical realization of Howard’s third magnet (Hall and Ward 2014, p.23) where ‘[e]ach Garden City would be an exercise in local management and self-government. Services would be provided by the municipality, or by private contractors, as proved more efficient. Others would come from citizens, in a series of what Howard called promunicipal experiments – or self-help’ (Hall and Ward 2014, pp.25,26). Although the countryside has been transformed ‘life, including access to opportunities, is too often completely dependent on the private car. And the bottom 25 per cent are as much left out as they always were.’ (Hall and Ward 2014, p.121).

The Athens Charter (CIAM 1933) reflects Le Corbusier's vision of "The Functional City" where functions of living, working, recreation and circulation are separated in order to better serve 'their ultimate purpose: to satisfy the basic biological and physiological needs of their inhabitants' (p.4). It was recognized that '[t]he irresponsibility of private enterprise has resulted in a disastrous rupture of the equilibrium between strong economic forces on one side and, on the other, weak administrative controls and powerless social interests' (CIAM 1933, p.4). Although health was one of main concerns and it was recommended that '[t]he dimensions of everything within the urban domain should relate to the human scale' (CIAM 1933, p.4), the emphasis on increasing the height of buildings in order to '[free] spaces for modern traffic circulation and for recreational purposes' (CIAM 1933, p.4) resulted in creating huge open spaces and high-rise buildings, which were not on a human scale. This approach to urban planning was later on criticized by Jane Jacobs (1961) who stresses that planning human scale cities means creating sidewalks for people for social contacts and cohesion.

Clarence Perry, the American sociologist-planner, has used Howard's idea in 1929 to create his 'neighborhood units' which was 'incorporated into British planning practice, after World War II' (Hall and Ward 2014, p.19). Although his goal was also to create order in the cities and improve the quality of life, the main criticisms were related to 'ignoring the social, economic, and political complexities of urban living and for being a plan that would ultimately promote economic residential segregation' (Corburn 2013, p.64).

Political aspects of planning are recognized by the WHO (2010), which emphasizes the need for preventive planning based on predictive forecasting and cost/benefits analysis. However, preventive planning is not common in current practice due to several, mostly political reasons:

Part of the reason why reactive rather than preventive action is favoured is due to the political aspect of the interests of central as well as local governments, which tend to seek short-term rather than long-term results. The environment and health results and benefits of urban planning are usually long-term. Thus, there exists a conflict between efforts to improve environment and health for communities and the political agenda of policy-makers.

WHO 2010 Urban planning environment and health p.7

Furthermore, on a consultation meeting in 2011 in Kobe, Japan when discussing 'challenges and opportunities to use urban planning to improve health' (WHO 2011, p.3),

urban planning was described as ‘a more limited, even static approach that often focuses only on the built environment’ (WHO 2011, p.4). Built environment is defined differently

...all manmade physical components of human settlements such as buildings, streets, open spaces, and infrastructure (Jackson, 2001, p. 5)

...comprises urban design, land use, and the transportation system, and encompasses patterns of human activity within the physical environment. (Handy, 2002, p. 65)

...expressed in physical structures (buildings, monuments, streets, parks, etc.) and also in the mappable patternings of land use, economic wealth, cultural identity, class differences, and the whole range of individual and collective attributes, relations, thoughts, and practices of urban inhabitants. (Soja, 2000, p. 8)

However, what is important to emphasize is that it is not only planning of built environment that is significant to health, but it is important to include implementation component – development, in order to ‘include recognition of people’s fundamental needs and the social, political and economic environment of the public realm’ (WHO 2011, p.4). ‘It was suggested that WHO promote the integration of urban design principles for the public realm and regional planning as healthy and sustainable development that aims to’ (WHO 2011, p.7):

- *provide compact form and mixed use to facilitate the promotion of healthy lifestyles (e.g. walkability); in contrast to urban sprawl that increases risk of pollution, physical inactivity, and alienation, and even increases social costs;*
- *ensure any higher density housing is well designed, providing a safe and healthy living environment, instead of focusing on quantity over quality in public housing;*
- *save energy and use resources efficiently;*
- *increase active transportation (walking, cycling and public transport use) and recreational physical activity (e.g. networks of parks and pedestrian infrastructure);*
- *use integrated urban and transport planning to create healthy urban development.*

WHO 2011, p.7

Healthy urban planning and development was seen as a broad concept that besides the aspects listed above incorporates good governance in order to assure ‘fair distribution of resources at territorial level’ (WHO 2011, p.4) including social justice as a prerequisite for health equity. Boamet and Takahashi (2005) convey economic development, urban design, equity and social justice as well as sustainability and governance as important aspects for

urban health. Corburn (2013) argues that ‘healthy city planning is not one thing or single end-point’ (p.ix):

Healthy city planning is an on-going process of policy experimentation, intervention, monitoring, learning, and adaptation, with an aim of constantly improving the conditions that promote health for all populations, but with a particular focus on improvements that change the inequities currently experienced by segregated, poor, racial and ethnic minority populations and their more wealthy neighbors.

Corburn 2013, p.ix

A focus on improvements that eliminate inequities (Corburn 2013) would require preventive actions. However, in practice reactive actions are common and ‘[p]art of the reason why reactive rather than preventive action is favoured is due to the political aspect of the interests of central as well as local governments, which tend to seek short-term rather than long-term results. The environment and health results and benefits of urban planning are usually long-term. Thus, there exists a conflict between efforts to improve environment and health for communities and the political agenda of policy-makers’ (WHO 2010, p.7).

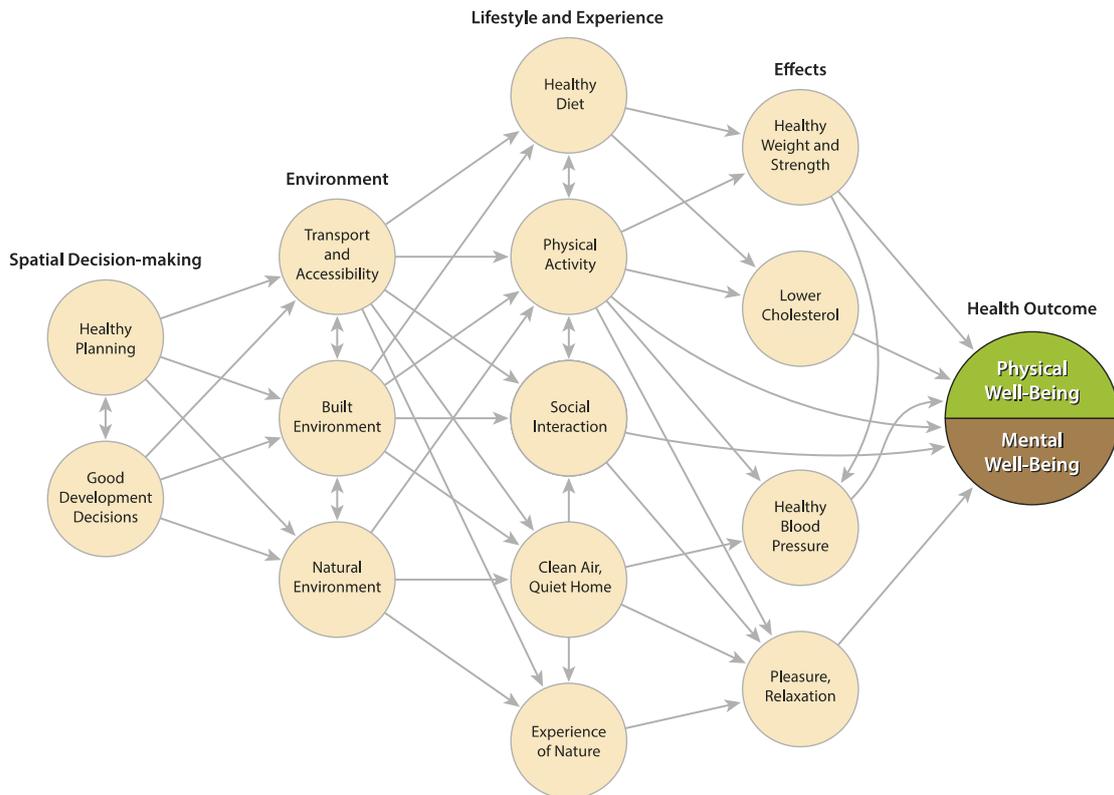
Barton (2017) concentrates on spatial decision-making with the environment, life-style experience and effects that bring specific health outcomes (Figure 8). Obviously, ‘healthy planning and development decisions do not impinge instantly on well-being’ (Barton 2017, p.106); however, they have long-term effects on health and well-being (WHO 2010).

Spatial decision-making that improves daily conditions in which people live should encompass intersectoral cooperation. Implementing Health in All Policies (HiAP) (Kickbusch and Buckett 2010) emphasizes the complexity of issues that should be tackled and structural obstacles, which involve governmental departments mostly working in “silos”, that ‘should be bridged to achieve a joined-up government’ (Kickbusch and Buckett 2010, p.5). Joined-up government should enable horizontal governance

Health in All Policies is a horizontal, complementary policy-related strategy with a high potential to contributing to population health. The core of Health in All Policies is to examine determinants of health, which can be influenced to improve health but are mainly controlled by policies of sectors other than health.

Kickbusch and Buckett 2010, p.18

Figure 8: Pathways linking planning decisions to physical and mental well-being



Source: Barton 2017, p.107

Considering that cities are undergoing a new transformation and that in the close future digital information will be a new ‘building brick’ of the city equally important as its physical environment (Claudel and Ratti 2016), a use of technology in the future city could enable an interactive background for inclusion of different sectors as well as citizens in planning and decision-making.

Smart Cities approach for healthy cities

Although new technology develops rapidly and enables better connection and networking of people, services and things, health aspects are mostly neglected or only superficially tackled in a form of health care services and digital health (Kamel Boulos und Al-Shorbei 2014). When considering the Salutogenetic concept and its three main aspects Comprehensibility/Verstehbarkeit, Meaningfulness/Bedeutsamkeit, and Manageability / Handhabbarkeit (Antonovsky 1997, S.36), individual empowerment through networking and better access to information

presents an important part for health improvement. Virtual social networks and information platforms are gaining in importance and they can be expected to have a similar impact on health as the traditional social environment based on the social model of health (Dahlgren und Whitehead 1991).

However, it is necessary to create a more profound system, which incorporates health determinants in the concept of the smart city. Similar to a HiAP approach described in the previous section, a transformation to smart cities would require a horizontal cooperation between various sectors (EIP-SCC 2013a). New technology gives new opportunities for bridging the gap between long term and short term goals due to the possibility for networking and integrative planning, which could have as a result coordinated actions that are at the same time more cost-effective.

Since smart cities are mostly coordinated and managed by Information and Communications Technology (ICT) systems, they seem to have a top-down approach. Therefore, another challenge is how to enable an interactive landscape where citizens will have an active role in planning and decision-making that would respond to citizens' needs and result in a reduction of inequalities and health improvement (CSDH 2008). Ideally there should be a two-way communication between the citizens and government in future 'smart' and healthy cities.

Smart cities and technologies can provide a networked metropolitan nervous system, but urban hackers will be the muscles that effect kinetic spatial transformations in urban space.

Dimensions of the sustainable future city will place emphasis not on smart cities but on smart citizens.

Claudel and Ratti 2016

European Innovation Partnership (EIP) on Smart Cities and Communities (EIP-SCC 2013b) emphasizes the importance of citizens' involvement in the transformation process (Figure 9), as well as integrated planning, which would enable working across different sectors and administrative boundaries (p. 5).

Figure 9: Eleven inter-dependent priority areas from the Strategic Implementation Plan (SIP) of the European Innovation Partnership on Smart Cities and Communities



Source: EIP-SCC 2013b, p.7

New technology enables cities to collect a vast amount of data from different sources that may be used for data-based integrated planning of healthy and sustainable cities. However, as argued by Schrenk *et al.* (2012) the main challenge for urban decision-makers is how 'to use and to connect data in a way that information and then knowledge can be generated, to finally reach better and more justified decisions' (p.10).

Since urban regeneration assumes improvements of daily conditions that require cooperation between different sectors (Roberts 2000) and should include citizens to assure access to decision-making and empowerment that would result in reduction of inequalities (CSDH 2008), a smart cities approach would have an important contribution to the facilitation of urban regeneration in the future. However, relying solely on the technology in creating healthy cities and neighborhoods is insufficient without a strong framework for improvements. Thus, a definition of healthy neighborhood and its main characteristics will be described in the following sections.

2.4.3 A health-promoting neighborhood

Previous sections argued that cities should be planned and built for people (Gehl 2010), sustainable and healthy with equal opportunities for all (CSDH 2008). Furthermore, it was demonstrated that urban regeneration has a potential to contribute to creating

sustainable, healthy and just cities and that new trends offer new opportunities, but there are challenges that still have to be solved. In this section focus is on healthy neighborhoods that are an integral part of cities and thus share characteristics defined in section 2.2.1. Defining healthy neighborhoods is essential for developing a framework for urban regeneration of deprived neighborhoods that would result in health-promoting neighborhoods.

In general neighborhood is a spatial unit smaller than the city itself, which usually has no defined size. However, it has its own infrastructure and own character. Similar to defining cities and *urban* (section 2.2.1), neighborhood can be defined in geographic, social, economic and other terms. The following definition is adopted here as it has a focus on people and conveys spatial with social characteristics essential for creating health-promoting neighborhoods:

Neighborhoods are places where people live. They imply a sense of belonging and of community, with some shared educational, shopping and leisure activities that provide a focus for social life. For many people, especially old and young people and less affluent and less mobile people, the neighborhood can provide a network of friendships and of mutual support. Such social networks are recognized as being important to happiness and health.

Barton and Tsourou 2000, p.121

The above definition of neighborhood incorporates a physical dimension of place and a social dimension of community. Furthermore, it relates facilities in the neighborhood to social life and emphasizes the importance of the social networks to specific population groups living in the neighborhood, as well as its influence on health (Barton and Tsourou 2000).

As argued earlier in the text (sections 2.4.1 and 2.4.2) physical, social, and environmental as well as economic and political aspects, have great influence on public health and well-being. Urban regeneration is influenced by economic and political aspects, which determine its contribution to health improvement by influencing physical, social and environmental aspects. Furthermore, procedural issues of urban planning practices (section 2.2.2.2) define the process of urban regeneration and influence its outcome. Defining health-promoting neighborhoods enables the identification of physical, social and environmental aspects that could be tackled in the process of urban regeneration.

A health-promoting neighborhood (Figure 10) is a sustainable neighborhood characterized by socially balanced population, healthy social life, diversity of use, active transport choices, human-scaled environment, ecologically responsive development, access to greenspace network, public transport and various facilities, aesthetic/collective identity, an opportunity for active participation in the planning and design of the area, as well as an opportunity for gradual renewal and adaptation to new needs (Barton *et al.* 2010).

Figure 10: Characteristics of a health-promoting neighborhood

<ul style="list-style-type: none"> ■ a socially balanced population, and varied housing opportunities which are suited to a range of incomes and types of household; 	
<ul style="list-style-type: none"> ■ diversity of use – housing, business, shopping, social, cultural and health facilities, offering easy accessibility, opportunity and choice for all; 	
<ul style="list-style-type: none"> ■ pedestrian, bicycle, public transport and road networks within the neighbourhood, linking to the wider city and region, creating a permeable and connected environment with real transport choice; 	
<ul style="list-style-type: none"> ■ a pedestrian-dominated public realm to facilitate healthy social life and provide an attractive, safe, human-scaled environment; 	
<ul style="list-style-type: none"> ■ ecologically responsive development principles consistent with social inclusion and cutting resource use and pollution; 	
<ul style="list-style-type: none"> ■ a greenspace network that provides accessible open space, with effective water, energy, wildlife and climate management; 	
<ul style="list-style-type: none"> ■ aesthetic identity that is rooted in the collective identity of the region, reflecting characteristics valued by the local community; 	
<ul style="list-style-type: none"> ■ the opportunity for active and frequent participation of all sectors of the population, commercial interests and voluntary groups in the planning and design of the area. 	
<ul style="list-style-type: none"> ■ a fine-grained neighbourhood, structured around public transport accessibility, with varied densities, providing opportunity for gradual renewal and adaptation to new needs; 	

Source: Barton *et al.* 2010, p.2, edited by author

Urban regeneration should challenge the common practice in urban planning that strives towards 'land-use zoning, comprehensive development, economies of scale and the inevitability of the motor car' (Barton and Tsourou 2000, p.122) in order to contribute to creating health-promoting neighborhoods that reflect characteristics shown on Figure 10.

Barton and Tsourou (2000) give an overview of four policy areas – **housing, local facilities, movement and open space** - and key issues for creating healthy neighborhoods (see Appendix 1). Seven out of ten key issues were selected (Table 1) for the assessment of the urban regeneration and integrated into the research design (Section 3.1).

Table 1: Overview of issues and policy objectives in healthy neighborhood planning with key policy areas: housing, local facilities, movement and open space

POLICY AREAS				
Key issues	Housing	Local facilities	Movement	Open Space
Air quality	<ul style="list-style-type: none"> Energy-efficient Non-toxic materials 	<ul style="list-style-type: none"> Localize facilities Locate for pedestrian convenience 	<ul style="list-style-type: none"> Reduce reliance on cars Reduce lorry penetration into neighborhood and reduce through traffic 	<ul style="list-style-type: none"> Good microclimate design Increase tree cover
Exercise	<ul style="list-style-type: none"> An attractive, safe residential environment 	<ul style="list-style-type: none"> Accessible local facilities to encourage walking and cycling 	<ul style="list-style-type: none"> Convenient and safe pedestrian and cycling routes 	<ul style="list-style-type: none"> Recreational greenways Playing fields and playgrounds
Safety	<ul style="list-style-type: none"> Design for effective surveillance and clarity of ownership of semi- public and private spaces 	<ul style="list-style-type: none"> Accessible local facilities to encourage people to be on the street 	<ul style="list-style-type: none"> Calmed traffic Design for natural surveillance of footpaths and pavements 	<ul style="list-style-type: none"> Good visibility across open land
Accessibility	<ul style="list-style-type: none"> Close to public transport and local services Grade densities Prohibit new housing on inaccessible sites 	<ul style="list-style-type: none"> Localize services within housing areas Locate for the convenience of pedestrians and access to public transport Design for disability 	<ul style="list-style-type: none"> Permeable pedestrian and cycling environment Plan to ensure that public transport is viable 	<ul style="list-style-type: none"> Provide accessible open spaces for all kinds of activities
Shelter	<ul style="list-style-type: none"> Good range of housing tenure, size and price Energy-efficient stock Siting to reduce heat loss 	<ul style="list-style-type: none"> Adaptable buildings for local social and commercial uses Inexpensive to operate and energy efficient Siting to reduce heat loss 	<ul style="list-style-type: none"> Bus shelters 	<ul style="list-style-type: none"> Shelter belts
Work	<ul style="list-style-type: none"> Support dwelling based working options Locate housing accessible by public transport to main work centers 	<ul style="list-style-type: none"> Foster local small-scale jobs 	<ul style="list-style-type: none"> Good public transport services to all main centers A strategic cycling network serving the locality 	<ul style="list-style-type: none"> Encourage the productive use of open land
Community	<ul style="list-style-type: none"> Support community action Design residential places Support co-housing and self-build schemes 	<ul style="list-style-type: none"> Foster local services and employment 	<ul style="list-style-type: none"> Permeable and attractive pedestrian and cycling environment Safety on the streets Design of casual gatherings 	<ul style="list-style-type: none"> Parks, play areas, playing fields and allotments as meeting places

Source: based on Barton and Tsourou 2000, p. 124

These policy areas and key issues were selected since they influence health and can be tackled by the urban regeneration in order to design health-promoting neighborhoods (Figure 10). Characteristics of selected policy areas: housing, local facilities, movement and open spaces will be further described in the relation to urban regeneration.

2.4.3.1 Housing

The development of healthier environments and communities on the neighborhood level as an approach to sustainable development (Wheeler 2004) depends on the availability of affordable housing in order to avoid segregation and an increase in poverty of low-income households (Anderson *et al.* 2003). The WHO stresses the importance of availability of and accessibility to affordable quality housing in reducing social inequalities and health inequities (CSDH 2008, p.64). If housing is not affordable then it contributes to family residential instability reflected in poor health due to living in overcrowded conditions, inadequate nutrition and limited access to medical services, since the greatest share of disposable income covers housing expenses (Anderson *et al.* 2003).

Thus, the importance of non-market housing delivery is reflected in the issues of social justice, which is closely related to deprived neighborhoods and urban regeneration. It is the role of local government to regulate 'land development for urban regeneration, ensuring reserved urban land for low-income housing. Creating more equitable housing development means reversing the effects of exclusionary zoning through regional fair-share housing programmes, inclusionary zoning, and enforcement of fair housing laws' (CSDH 2008, p.64). Furthermore, these measures would prevent undesirable effects of gentrification.

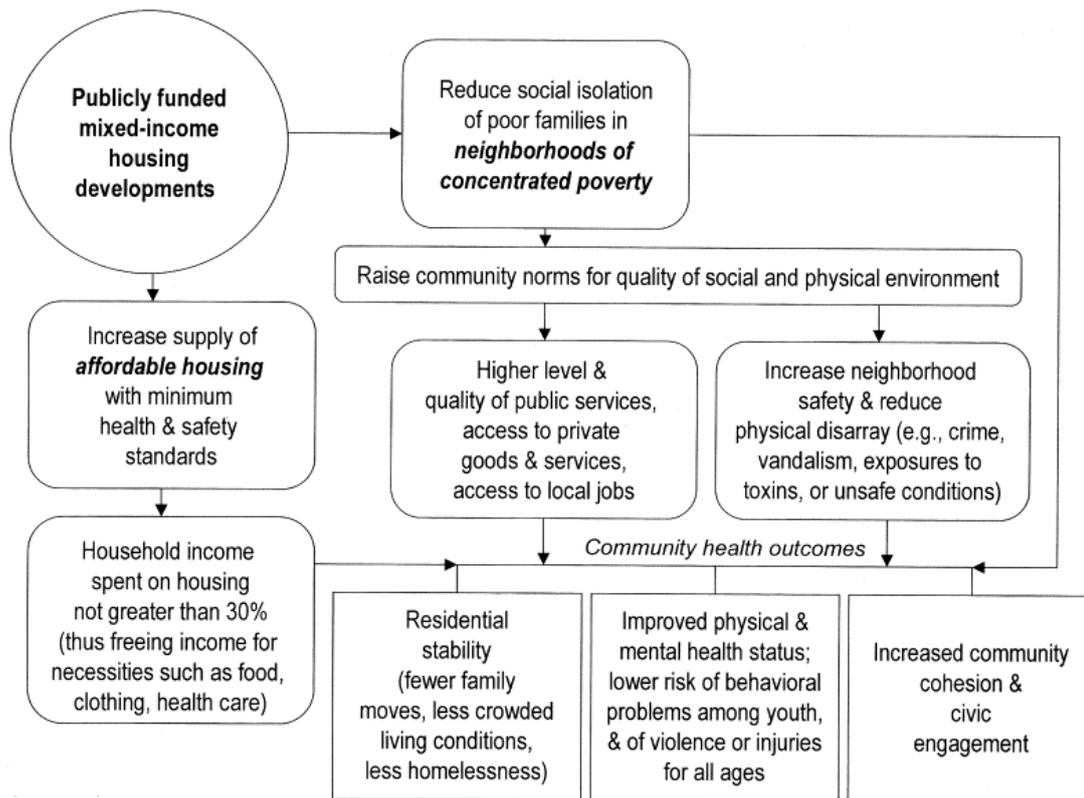
In many cases regeneration and improved neighborhoods lead to an increase of land and property values, which are considered positive from an economic perspective. However, an increase in value leads to gentrification; thus, the improvements in the built environment, which were aimed at, or should have been aimed at to improve the quality of life of vulnerable population groups, are not reached. As argued by Leeds (2008) urban renaissance and other similar terms are conveniently used by policy makers to mask gentrification.

On the contrary, mixed-income housing developments that are supported by public funds would contribute to an increase in affordable housing units and create opportunities for improvements on both individual and community level (Anderson *et al.* 2003). Figure 11

illustrates the benefits of publicly funded mixed-income housing developments, which provide affordable quality housing and reduce social isolation of poor families contributing to improved physical and mental health (Anderson *et al.* 2003, p. 51).

Figure 11: The effectiveness of publicly funded mixed-income housing developments:

Analytic framework: circle denotes intervention, rectangles with rounded corners denote intermediate outcomes, and rectangles with square corners denote community health outcomes.



Source: Anderson *et al.* 2003, p. 51

However, social mix, which is widely used when talking about improvements of deprived neighborhoods (Leeds 2008), could also be considered an initial phase of a gentrification process. Although it may have been intended to improve the socio-economic situation of the neighborhood in order to assure better access to goods and services, as well as to prevent social segregation (*ibid.*), it can also result in the increase of properties' values and unaffordable housing for the existing low-income population groups. Furthermore, the effects of social mix are hard to measure and it is not clear what kind of social mix can assure benefits for the existing population (*ibid.*)

Nevertheless, it is the role of local government to take an integrated approach and 'use criteria for distribution of affordable housing tax credits to stimulate production of new

affordable housing in proximity to transit, schools, and commercial areas...[as well as] to monitor the health and health-equity impacts of housing, building, and infrastructure standards' (CSDH 2008, p.64). The proximity of affordable housing to public transport and local facilities enables access to different population groups by using active modes of transport, which bring further benefits to health (Barton and Tsourou 2000). The concept of accessibility in relation to local facilities will be described in the following section.

2.4.3.2 Local facilities and accessibility

Access to local facilities is fundamental to the concept of a neighborhood... It needs the full range of social, retail, educational, health and recreational facilities to allow people – especially those of limited means or mobility – to carry on daily life if they so choose... Accessibility is the central concept: accessibility by foot or bike, motorized wheelchair or local bus.

Barton et al. 2010, p.116

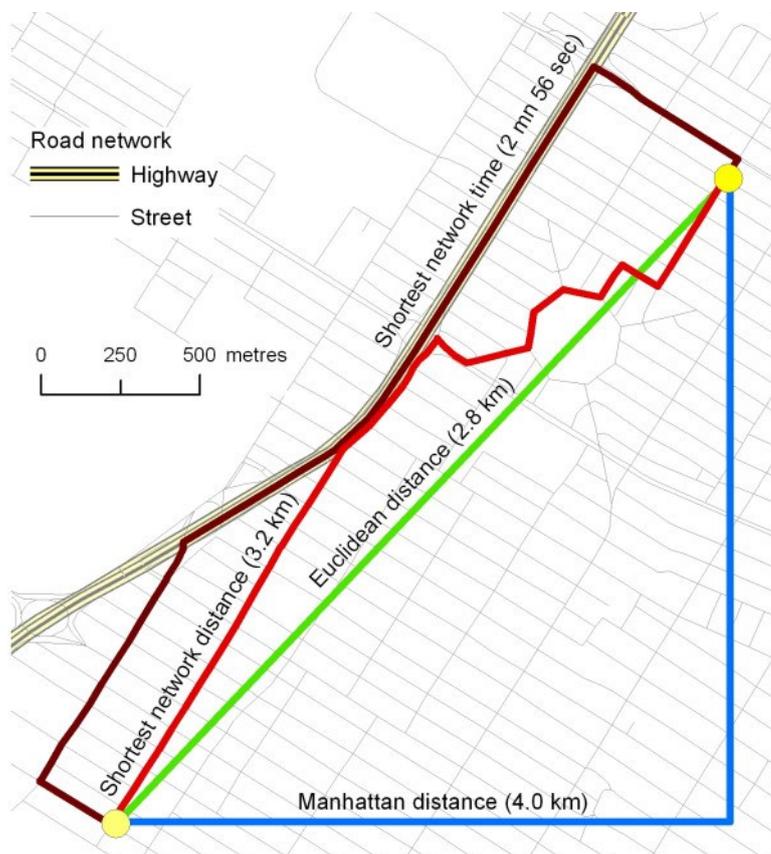
Diversity of use and good access to a range of facilities are important characteristics of the health-promoting neighborhood (Figure 10). Neighborhood facilities accessible by foot or bike enable spontaneous meetings between people, increase social cohesion and sense of community as well as a feeling of safety (Barton and Tsourou 2000). Furthermore, 'localities should be planned so as to foster the viability of local jobs and facilities, by ensuring good access by foot and bicycle and by encouraging the clustering of facilities in ways that can adapt and flourish as social and market conditions change' (Barton and Tsourou 2000, p.132). A good pedestrian access to local facilities not only contributes to physical activity and social cohesion but also minimizes car use, thus improving air quality (Barton and Tsourou 2000).

Although accessibility has different dimensions ranging from geographic to economic, as well as from reviled to perceived (Apparicio *et al.* 2008) 'evaluating geographical accessibility in residential areas offers critical information for public policy in planning and service provision as it allows for the identification of areas with lower (or higher) access to urban resources and the assessment of spatial and social inequalities in access' (Apparicio *et al.* 2008, p.2). As defined by Apparicio *et al.* (2008) '[g]eographical accessibility refers to the ease with which residents of a given area can reach services and facilities. Most common approaches for defining geographical accessibility are based on distance or travel time to a resource. These measures assume that every member of the population is a potential user of

the service; the pattern of spatial accessibility will depend on the relative location of the population and services' (Apparicio *et al.* 2008, p.2).

There are different methods to measure geographic accessibility: 'Euclidean distance (straight-line), Manhattan distance (distance along two sides of a right-angled triangle opposed to the hypotenuse), shortest network distance and shortest network time' (Apparicio *et al.* 2008, p.5). These different types of distances are illustrated on the Figure 12.

Figure 12: Four types of distance used for calculating accessibility



Source: Apparicio *et al.* 2008, p.5

When assessing accessibility for evaluating the proximity of destinations in terms of health, buffer analysis is mostly in use (NSW 2009, Barton *et al.* 2010, Corburn 2009). Buffer analysis uses Euclidian distance type and it does not take into account local topography (Corburn 2009) or a street network that may influence perceived accessibility. Important parameters that influence perceived accessibility are urban form, land use, street patterns, condition of built environment (streets, buildings...signs of maintenance or disorder,

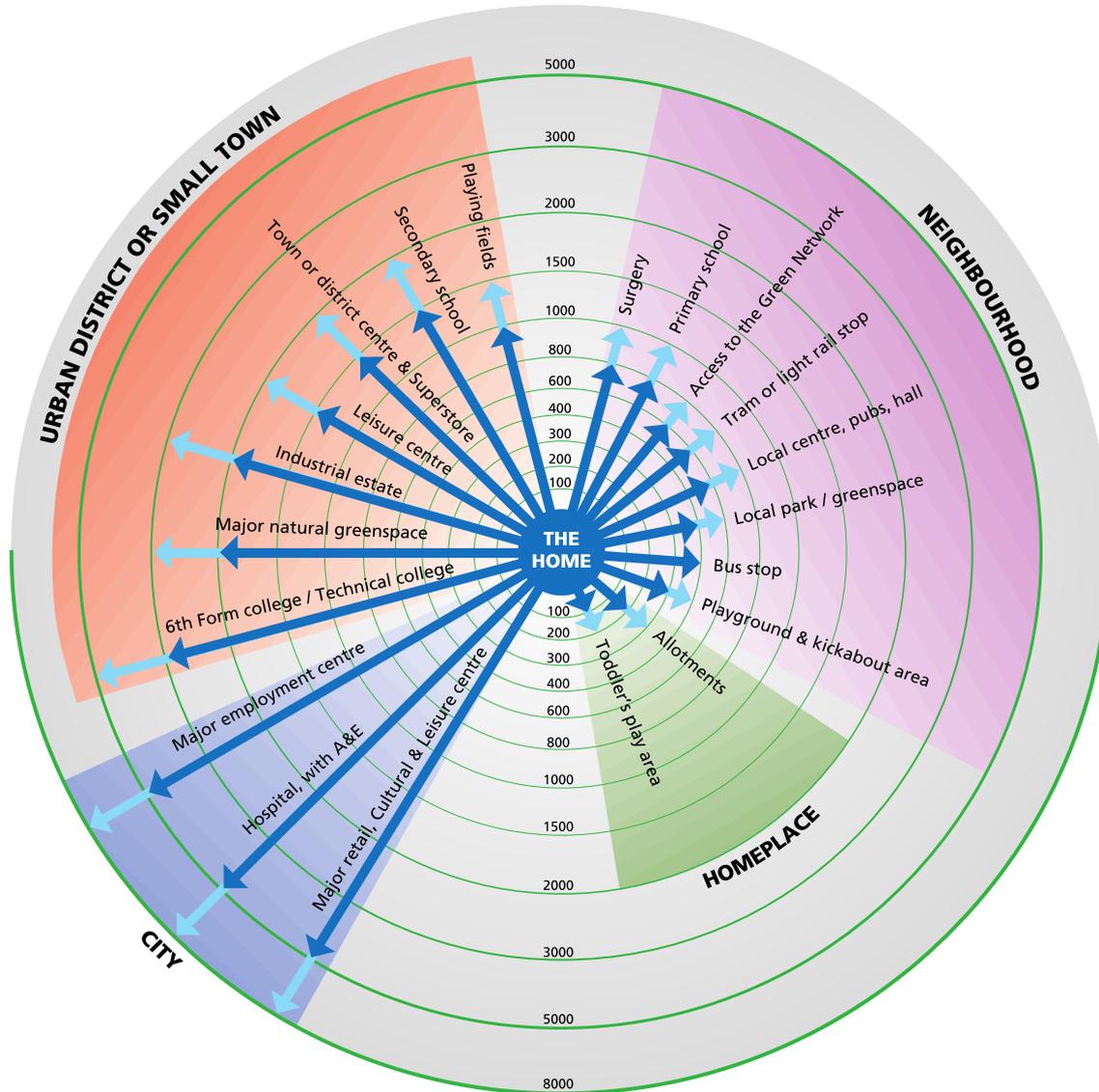
appealing for walking or not, safe), community. Perceived accessibility may be a more reliable predictor of park use behavior than geographic accessibility (Wang et al 2015).

Good geographic accessibility is related to urban form and to 'quality and proximity of destinations, with a 400-500 metre radius (considered to be a comfortable walking distance for most people) as a common basis for access to a range of daily needs including shops, open space, community facilities and public transport' (NSW Department of Health 2009, p.10).

Barton et al. (2010) provides accessibility criteria based on Euclidian distance type for planning health-promoting neighborhoods with various facilities arranged on different levels starting from the home place, through neighborhood and urban district until the city level (Figure 13).

Urban regeneration should ensure access to different facilities as well as a good range of local job opportunities on the neighborhood level and create pleasant and safe streets in order to contribute to health and well-being (Barton and Tsourou 2000, p.133). In that sense WHO recommends that 'local government and civil society plan and design urban areas to promote physical activity through investment in active transport; encourage healthy eating through retail planning to manage the availability of and access to food; and reduce violence and crime through good environmental design and regulatory controls' (CSDH 2008, p.66).

Figure 13: Evidence-based thresholds for accessibility, based on needs, typical catchment populations and medium density



Source: Barton et al. 2010, p.122

2.4.3.3 Movement and access to public transport

Good access to local facilities coupled with pleasant and safe streets provides good conditions for active transport choices – movement – in fulfilling daily activities. Transport choices impact health and well-being in various ways. Using private cars reduces the levels of physical activity and contributes to air pollution, noise and traffic-related accidents (NSW 2009). Furthermore, '[p]hysical inactivity is a common risk factor for major non-communicable diseases, yet less than one half of adults in many developed countries are

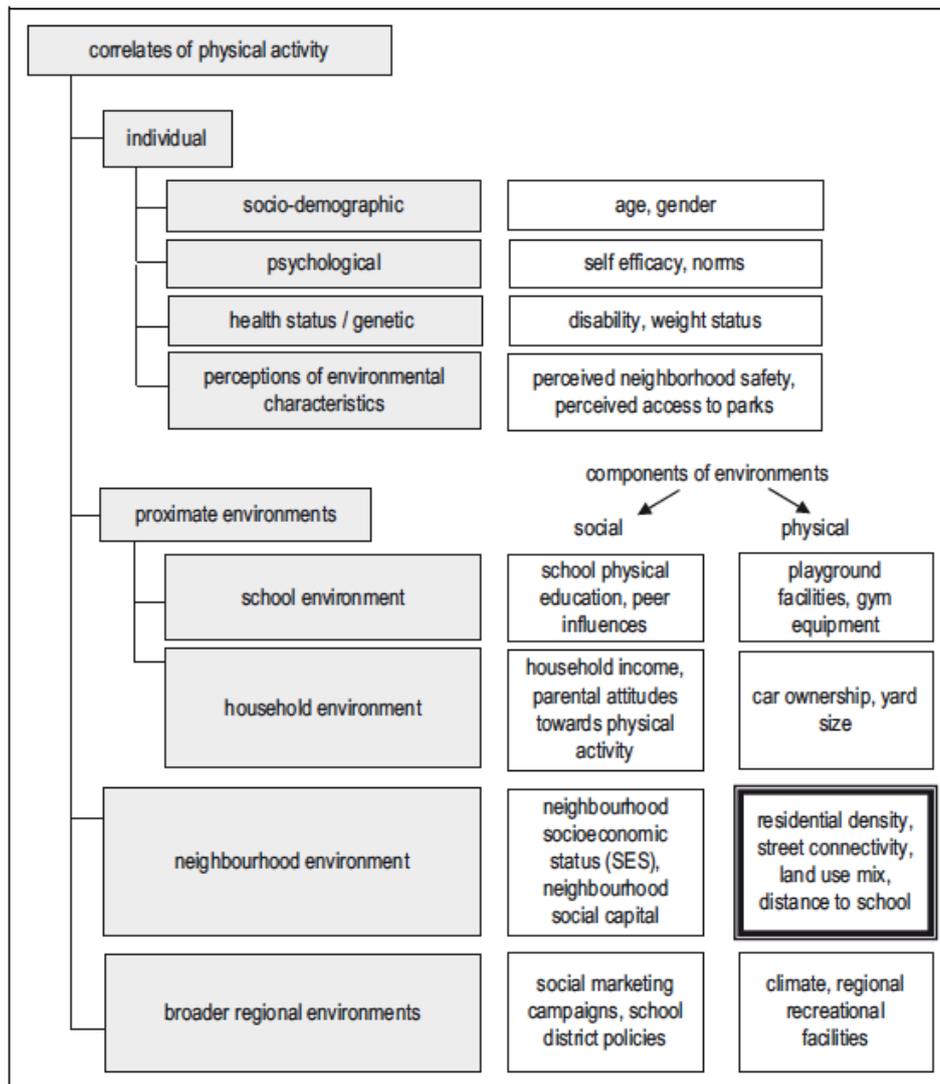
sufficiently active to protect their health' (Giles-Corti *et al.* 2013, p.21). Urban '[p]lanning, transport and urban design policies and regulations directly influence the location and proximity of activities required for daily living (e.g. shops, workplaces and school, facilities places to socialize and recreate) and the ease with which places can be reached using active forms of transport (i.e., walking, cycling and public transport)' (Giles-Corti *et al.* 2013, p.21).

The level of walkability of the neighborhood influences transport choices. Walkable neighborhoods consist of different facilities – destinations and have well connected streets (Sallis *et al.* 2009). The walkability index is used to evaluate the level of neighborhood walkability and it is based on 'residential density, mixed land use, and street connectivity' (Sallis *et al.* 2009, p.1286). Safety is also an important aspect when it comes to walking and cycling, while use of public transport is related to 'distance to stops, reliability and the speed and comfort of service as well as frequency' (Barton and Tsourou 2000, p.135).

Beside these physical characteristics of the neighborhood, van Loon and Frank (2011) argue that the social environment of the neighborhood, 'neighborhood disorder, neighborhood [socio-economic status] SES, and neighborhood social interactions or social capital' (p.284) have influence on the physical activity of children. Figure 14 illustrates the individual and environmental – social and physical – aspects of the neighborhood and region that influence physical activity.

The main principles for planning healthy neighborhoods that encourage active transport modes and physical activity are related to both physical and social aspects. In that sense, urban regeneration should improve the environment in order to encourage more walking and cycling, reduce accidents on the street, reduce the fear of crime, improve access to local facilities and to public transport services, create streets and places where people can meet and thus support social cohesion and a sense of community (Barton and Tsourou 2000, p.135).

Figure 14: Factors influencing physical activity



Source: van Loon and Frank 2011, p.285

2.4.3.4 Open space

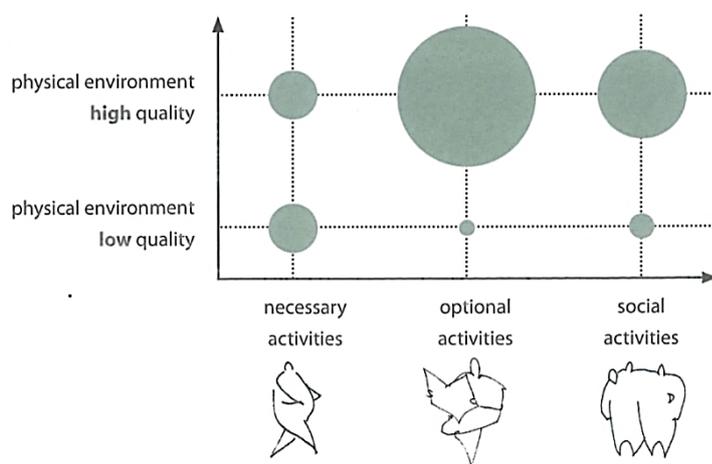
Public open space contributes to physical and mental health by enabling people 'to exercise, to meet with others, to relax and to play' (NSW 2009, p.97). Public open space includes squares, green parks, gardens, sport fields, playgrounds etc. The health benefits of public open spaces and especially of urban green spaces are widely recognized. Many research studies emphasize the influence of urban green on both physical (Giles-Corti et al. 2005, Sallis et al. 2012) and mental health (Barton and Pretty 2010, Sugiyama et al. 2008). Urban green is important for ecosystem services, recreation, sport and social contacts, which all influence health and the quality of life of urban dwellers (Hornberg et al. 2016).

Urban green includes all forms of green open spaces and green facades (BMUB 2015, p.7) and can be divided into different types according to size, accessibility, function, etc. (MBWSV NRW 2012, p.15) as well as according to responsible stakeholders and forms of urban green (MBWSV NRW 2012, s.17).

However, open spaces and urban green are not equally distributed in the city, nor are they equally maintained. Selle (2010) argues that in central areas of the city maintenance is better due to higher use of these places and its representative function that are of great significance (p.46). Furthermore, access to quality urban green spaces is often related to socio-economic characteristics of the neighborhood (Sallis et al. 2012). Urban green spaces differ in terms of size, quality, range of facilities, availability of organized recreation, or perceptions of safety among actual or potential users.

There are different challenges related to the availability and accessibility of green spaces especially in low-income neighborhoods. While in some areas insufficient number or inappropriate size of the urban green may have as a result congestion, in other areas urban green is unsuitable for ethnic groups living in the neighborhood or insufficiently maintained green spaces may go underused. Gehl (2010) argues that the quality of physical environment has significant influence on outdoor activities and social cohesion. Figure 15 illustrates an increase in outdoor activity in high quality physical environments.

Figure 15: Graphic representation of the connection between the quality of physical environment and outdoor activities

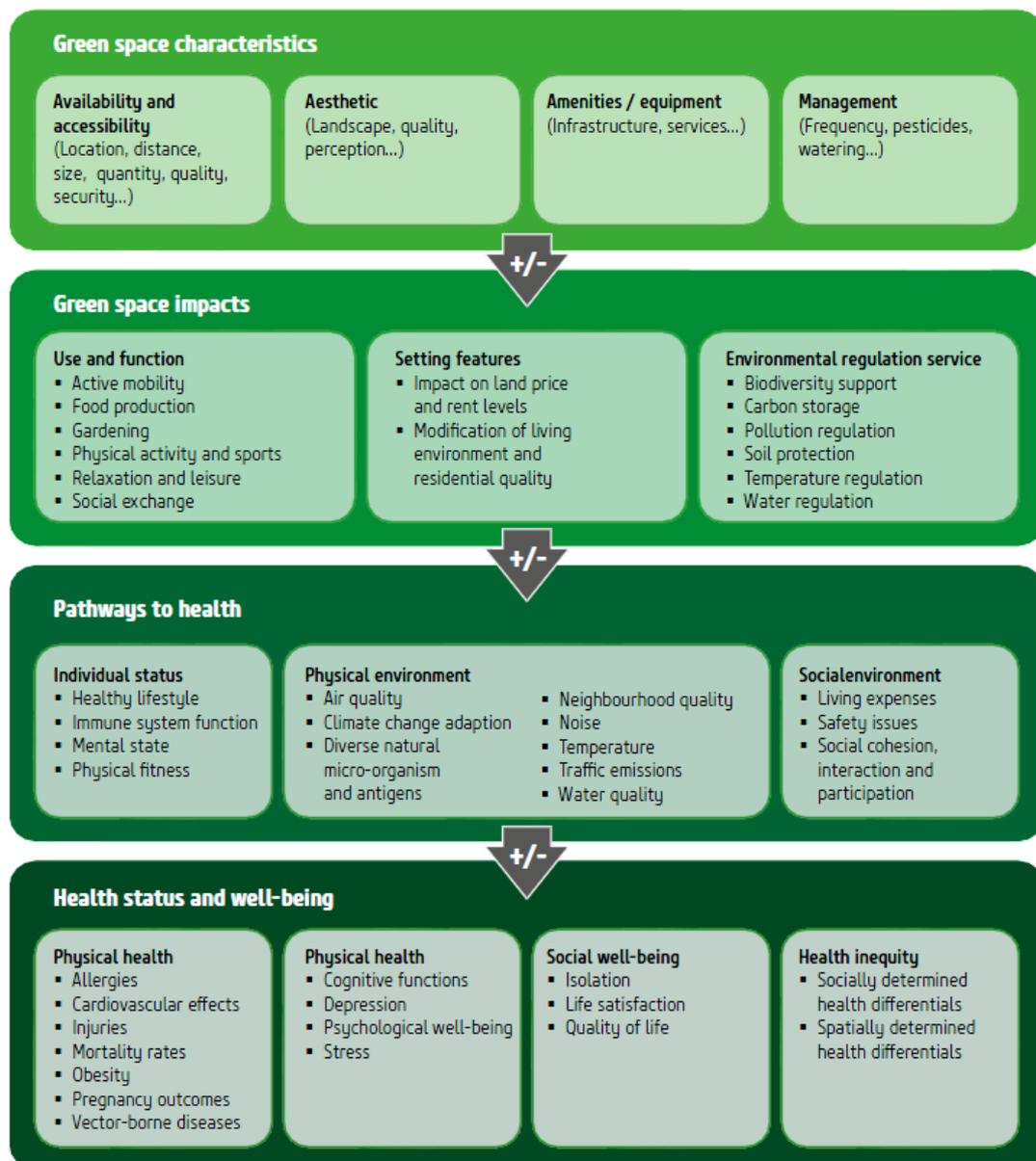


Source: Gehl 2010, p.21

Furthermore, most of the research on urban green and health although based on quantitative methods of measuring urban green (Hornberg et al. 2016) like remote sensing

methods Normalized Difference Vegetation Index (NDVI) or Geographic Information System (GIS) land use mapping, recognizes the importance of qualitative methods in further research. Only a few studies have used qualitative assessment of urban green (for example van Dillen et al. 2012, de Vries et al. 2013) and they have emphasized the important influence of the qualitative characteristics of urban green on users and their health (*ibid.*). Figure 16 illustrates the causal model of the impact of urban green spaces on health and well-being.

Figure 16: A causal model of the impact of urban green spaces on health and well-being



Source: WHO Regional Office for Europe 2017, p.8

The concept of the quality of urban green related to health benefits was elaborated by van Dillen *et al.* (2012) who differentiate between three mechanisms of beneficial influence of urban green on health. They argue that urban green, more specifically neighborhood green areas and streetscape green can enable restorative experiences, stimulate physical activity and social cohesion in the neighborhood (*ibid*). However, enabling active mobility and public transport use in accessing green areas is of great importance. In the case of neighborhood green areas, which should be located at a walkable distance of 400m (Barton *et al.* 2010, p. 122), good connectivity characterized by barrier-free sidewalks, zebra crossings and bike lanes (Hornberg *et al.* 2016, p.114) play an important role for active mobility options. It is the task of urban regeneration to improve these aspects and enable continuous maintenance of open spaces and green spaces in order to contribute to creating health-promoting neighborhoods.

2.4.4 Evaluation and Health Impact Assessment (HIA)

In improving deprived neighborhoods in the course of urban regeneration that would result in health-promoting neighborhoods important aspects as argued in previous section are: housing, local facilities, planning for movement and public open spaces. In order to assess to what extent these aspects have improved it is necessary to evaluate the outcomes of urban regeneration.

Evaluation is related to the state of the physical and social environment, as well as potential health benefits achieved in the course of urban regeneration. Although 'evaluation is often seen as a slightly threatening idea... it is usually a useful, relevant, necessary and quite ordinary part of the life of a project. The main themes of evaluation are related to the root of the word itself:- e-VALUE-ate, in other words to assess, locate and try to measure the value or worth of an activity or a way of working' (Laughlin and Black 1995, p.141). In practical terms evaluation is important in order to 'decide whether to continue, modify or axe a particular activity...[and] in order to discover, learn and implement improvements in ways of working' (Laughlin and Black 1995, p.141).

Since the aim of urban regeneration here is to create health-promoting neighborhoods, to what extent has that been achieved can be assessed by using tools and methods of the Health Impact Assessment (HIA). Definition of HIA:

HIA is a practical approach used to judge the potential health effects of a policy, programme or project on a population, particularly on vulnerable or disadvantaged groups. Recommendations are produced for decision-makers and stakeholders, with the aim of maximising the proposal's positive health effects and minimising its negative health effects.

WHO 2013

The main aim of the Health Impact Assessment (HIA) is to assure that potential health impacts of proposals are taken into account by non-health professionals in the planning process (WHO 2013). Important aspects of the HIA are that one does not only judge the potential effects of a policy on the health of population, but also the distribution of those effects within the population (WHO 2013).

Main values of HIA are democracy, equity, sustainable development and ethical use of evidence (WHO 2013):

Democracy – *allowing people to participate in the development and implementation of policies, programmes or projects that may impact on their lives.*

Equity – *HIA assesses the distribution of impacts from a proposal on the whole population, with a particular reference to how the proposal will affect vulnerable people (in terms of age, gender, ethnic background and socio-economic status).*

Sustainable development – *that both short and long term impacts are considered, along with the obvious, and less obvious impacts.*

Ethical use of evidence – *the best available quantitative and qualitative evidence must be identified and used in the assessment. A wide variety of evidence should be collected using the best possible methods.*

WHO 2013

HIA is an important tool when it comes to urban planning because '[t]he urban planning community requires straightforward yet comprehensive tools that help planners advance this cause in a manner that is also nonthreatening and easy to use' (Forsyth *et al* 2010, p. 10). Due to complexity of the HIA in recent years a checklist based on HIA is in use in some countries, for example a Healthy Urban Development Checklist (NSW 2009) developed by the Australian New South Wales (NSW) Department of Health, as more convenient and practical way of assessing health impacts.

2.5 New comprehensive approach to urban regeneration

Coming from the theoretical background elaborated previously in this Chapter *resolving urban problems and bringing about lasting improvement* (Roberts 2017) should

include health as an explicit goal of urban regeneration. In order to stress the significance of planning and creating health-promoting neighborhoods, complementing residents' needs is of great importance when it comes to health and social justice. That requires a new comprehensive approach to regenerating neighborhoods – a healthy urban regeneration.

According to WHO

To reach a state of complete physical mental and social wellbeing, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment

WHO 1986a, p.1

The new approach to urban regeneration builds upon an existing definition by Roberts (2017) and WHO (1986a)

Healthy urban regeneration is an area-based intervention which seeks to resolve urban problems and bring about a lasting improvement in the economic, physical, social and environmental conditions of an area and thus contribute to health improvement and well-being of its residents by complementing their needs as well as contributing to a comprehensive and integrated vision of city and regional development.

Furthermore, urban regeneration interventions should contribute to fulfilling an overall vision of city and regional development. Since urban areas undergoing regeneration are part of a wider city or region, their improvements should contribute to strengthening the overall image or character of the city.

In that sense, based on the various definitions of cities and towns (section 3.1.1), urban regeneration should reflect different dimensions of the envisioned city and regional development. These may include 'social dimension, functional dimension and aesthetics of space' (Hassenpflug 2010, pp.134-135), various cultural aspects related to the *human nature of the city* (Park 1967 [1925]) 'with socially heterogeneous individuals' (Wirth 1938), as well as to strengthen its inner structure and provide good quality of services as a prerequisite for a *healthy, orderly life* in the metropolis (Mumford 1970[1938], p.491).

CHAPTER 3 | Methods

Testing the hypothesis that urban regeneration can transform deprived neighborhoods in the metropolitan regions into neighborhoods that promote health requires an interdisciplinary approach. Theories from different disciplines were triangulated according to Denzin 1978 and Patton 1999 in order to strategically review the literature, create research design and guide the research. The literature review has identified the defining concepts of *urban regeneration*, *deprived neighborhood* and *healthy neighborhood* as well as creating a theoretical framework as a base for the research. Relevant indicators and benchmarks were identified from the existing literature and from concepts like sustainable urban development and healthy urban planning.

In the following sections, the methodology based on critical realism according to Maxwell (2012), as well as a comparative case study approach are described. Furthermore, the following sections encompass theoretical groundings supporting the research design as well as actual research process including the methods for the selection of case studies, data collection and data analysis. The chapter ends with research limits related to selected methods as well as practical and personal issues.

3.1 Methodology and research design

Since urban regeneration has a multi-dimensional nature, as argued earlier in the text (see Chapter 1), transforming deprived neighborhoods into ones that promote health is a complex process. Assuming the complexity of the world and interactions between different factors determining urban regeneration, it was necessary that the methodology grasps that complexity by looking at the phenomena of urban regeneration from different perspectives and in the broader context of urban policy.

In order to achieve that aim, qualitative research methodology was selected as it enables us to explore urban regeneration in an in-depth and holistic approach. Corbin and Strauss (2008) in their book about the basics of qualitative research assume that ‘there is no one “reality” out there waiting to be discovered’ (p.10), but rather many personal “realities”

that define the event. However, the approach here is related to Maxwell's (2012) critical realism which emphasizes that there is one "reality" described and experienced differently by different people and researchers. Critical realism joins "objective" ontological realism with "subjective" epistemological constructivism and relativism (Maxwell 2012), as stated below.

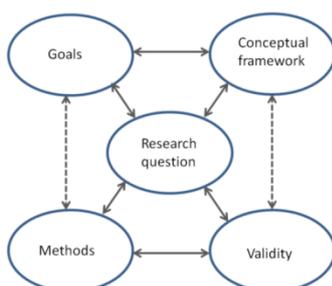
Critical realists thus retain an ontological realism (there is a real world that exists independently of our perceptions, theories, and constructions) while accepting a form of epistemological constructivism and relativism (our understanding of this world is inevitably a construction from our own perspectives and standpoint).

Maxwell 2012, p.5

The critical realism approach was adopted here as it enables the study of urban regeneration as a real-world phenomenon (Maxwell 2012) and the exploration of the causal mechanism and its context in relation to the outcome of neighborhood regeneration. An explanation of patterns and underlying mechanisms of the process of urban regeneration were central to determining the relation between the causal mechanism and outcome. The Corbin and Strauss (2008) approach was not adopted here since describing different experiences about the phenomena of urban regeneration is insufficient for exploring the mechanism and causality, which are central to the explanation about the outcome of urban regeneration.

In explanatory case studies, where it is important to illuminate causal relationship 'how and why event x led to event y' (Yin 2014, p. 47) internal validity – 'How does one construct a research design that might illuminate the causal relationship of interest?' (Gerring 2007, p.151) is of great significance. Research design here is based on the Maxwell's (2012) interactive model (Figure 17), which was adjusted several times during the research as the components were more precisely defined.

Figure 17: Interactive model for research design



Source: Maxwell 2012, p.78

Based on theoretical underpinnings from Maxwell (2012) and Booth (2011), a qualitative approach and case study method were selected in order ‘...to understand the processes, meanings, and local contextual influences involved’ (Maxwell 2012, p.94) in the process of urban regeneration. Since urban regeneration is a part of a wider urban policies field, it was necessary to better understand the culture of decision-making (Booth 2011) and discover the factors that have influenced *the path* of urban policies development (Booth 2011), including broader aspects of globalization and structural change. Thus, comparison begins with national and regional level and then focuses on the neighborhood level where urban regeneration has actually taken place.

Although in neither of the selected case studies urban regeneration had as its explicit goal the creation of health-promoting neighborhoods, theoretical prepositions from the literature were used to determine to what extent these neighborhoods could achieve that status. In that sense, the theoretical framework created from the research literature and existing policies helped in identifying criteria for defining health-promoting neighborhoods. These criteria were narrowed down to urban planning and urban policy areas such as **housing, local facilities, movement and public open spaces** (Section 2.4.3), which are important aspects influencing health and environmental inequalities that can be tackled by urban regeneration.

Based on these prepositions the positive outcome of urban regeneration was defined with several indicators related to improvements in the physical as well as in the social environment while preserving the existing community. The main indicators for evaluating the improvements of the physical environment were selected from the Leipzig Charter on Sustainable European Cities (EU Ministers for Urban Development 2007) and narrowed down to: the state of the built environment (housing, public open spaces), accessibility to retail and quality open spaces (local facilities, urban mobility, public open spaces) and connectivity to other parts of the metropolis (urban mobility). These indicators were further used to evaluate and compare case studies and to determine to what extent they could have become health-promoting neighborhoods (Section 2.4.3).

3.2 Comparative study and case study method

A comparative study was selected to understand the process of urban regeneration of deprived neighborhoods by contrasting specific aspects of phenomena in two case studies in order to determine differences in their potential to become health-promoting neighborhoods and develop a theory of healthy urban regeneration.

Based on Tilly's (1984) classification, two strategies were selected for comparing case studies. *Individualising comparisons* (Tilly 1984) was used as an initial, descriptive analysis (Pickvance 2001) and then *Variation-finding comparison* (Tilly 1984) was used as more appropriate for exploratory analysis (Pickvance 2001).

<i>Individualising comparisons</i>
<i>'...the point is to contrast specific instances of a given phenomenon as a means of grasping the peculiarities of each case'.</i>
<i>Variation-finding comparisons</i>
<i>'It is supposed to establish a principle of variation in the character or intensity of a phenomenon by examining systematic differences among instances'.</i>

Tilly 1984, p.82

Comparisons between Germany and United Kingdom serve initially to extract the distinctive features of the two experiences of urban policy development. Furthermore, the aim of comparison is to explore possible principles of variation (Tilly 1985) implicit in the outcome of urban regeneration of two deprived neighborhoods as a result of the rather different ways national states regulate urban policy and governance of urban regeneration.

Initial assumptions were that two case studies should be similar in terms of common features like being in the European Union and undergoing economic restructuring as a broader context, as well as located in the secondary cities of similar size and population density, outside inner-city. However, in order to include potentially important explanatory issues, instead of observing solely similarities, the principle of variation (Tilly 1985) was used to identify differences that may have influenced the variable of interest - regeneration outcome.

In order identify those differences and find the variation in the character (Tilly 1985) of urban regeneration, it was necessary to illuminate the causal mechanism and broader

context of urban regeneration. For that purpose comparative, most-similar method (Gerring 2007) was used. In the case of most-similar method

...the chosen pair of cases is similar in all respects except the variable of interest. ...intensive study of these cases will reveal one – or at most several – factors that differ across these cases. These differing factors (X1) are the putative causes.

Gerring 2007, p.131

Two case studies were carefully chosen according to specific criteria (see section that follows 2.2.1) and intensively explored ‘with the aim to generalize across a larger set of cases of the same general type’ (Gerring 2007, p.65). Case study tactics suggested by Yin (2014) were embedded in the research design to assure its quality and to ensure ‘construct validity, internal validity, external validity and reliability’ (p.45).

On the neighborhood level, spatial comparison (Gerring 2007) was selected to illuminate the causal relationship between the process of urban regeneration and its outcome in both case studies. Other types of comparisons like dynamic and longitudinal comparison (Gerring 2007) were not appropriate for this comparative study. Dynamic comparison is usually conducted when units of analysis are individuals or small groups (Gerring 2007, p.157), while longitudinal comparison emphasizes temporal dimension over spatial and focuses mostly on one case or several cases ‘regarded simply as multiple instances of the same intervention’ (Gerring 2007, p.164).

Spatial comparison is happening at some point of time when phenomenon is observed (Gerring 2007). It is assumed ‘that spatial differences between the two cases are a product of antecedent changes in one (or both) of the cases’ (Gerring 2007, p.164). In the case of Gelsenkirchen, urban regeneration was completed and phenomenon was observed after this intervention. In the case of Salford urban regeneration was in some parts terminated, in others still in the implementation phase. However, the planning phase in the case of Salford had also ended.

Since in both cases ‘One cannot “see” X_1 [the variable of interest] and Y [the outcome of interest] interact; one can only observe residues of their prior interaction’ (Gerring 2007, p.164), the main emphasis is on spatial variable and ‘limited to observational settings’ (*ibid.*). The pre-intervention state of the physical and social environment, the state of neighborhoods before urban regeneration, was used as a “control” (Gerring 2007, p. 152) in

both case studies. It is assumed that deprived neighborhoods would remain in the same state in the absence of intervention – urban regeneration. The description of the state of neighborhoods before intervention is based on secondary data and semi-structured interviews, rather than direct observations.

Since urban planning is not just a technical discipline, but it is rather ‘an end-product of political and administrative and legal forces’ (Booth 2011, p.16) that depends on ‘a culture of decision-making’ (*ibid.*) exploring broader national and regional aspects of urban policy through time was of great significance for illuminating the broader context for urban regeneration in Germany and Britain and explaining the *path-dependence* (Booth 2011).

Path dependence characterizes specifically those historical sequences in which contingent events set into motion institutional patterns or event chains that have deterministic properties

Mahoney 2000 in Booth 2011, p.20

One of the assumptions was that if the regeneration process adopts an integrative approach and involves different stakeholders in the process of planning and decision-making it will have as a result a positive outcome and great potential to become a health-promoting neighborhood.

Comparing two most-similar cases of urban regeneration of deprived neighborhoods in the secondary cities in metropolitan regions, that are similar in all respects except in their outcomes, allowed the identification and understanding of mechanisms that led to successful urban regeneration. This, along with lessons learned from the case studies and theoretical prepositions from the literature, further helped create recommendations for successful urban regeneration that can transform deprived neighborhoods into neighborhoods that promote health. They are aimed at supporting urban planners and policy makers to focus more on health issues in the course of well-established sustainable urban planning and development.

3.2.1 Selection of case studies

Based on the main hypothesis, that urban regeneration can transform deprived neighborhoods into health-promoting neighborhoods, the search for the most-similar pair of cases started with the negative case of urban regeneration of deprived neighborhoods.

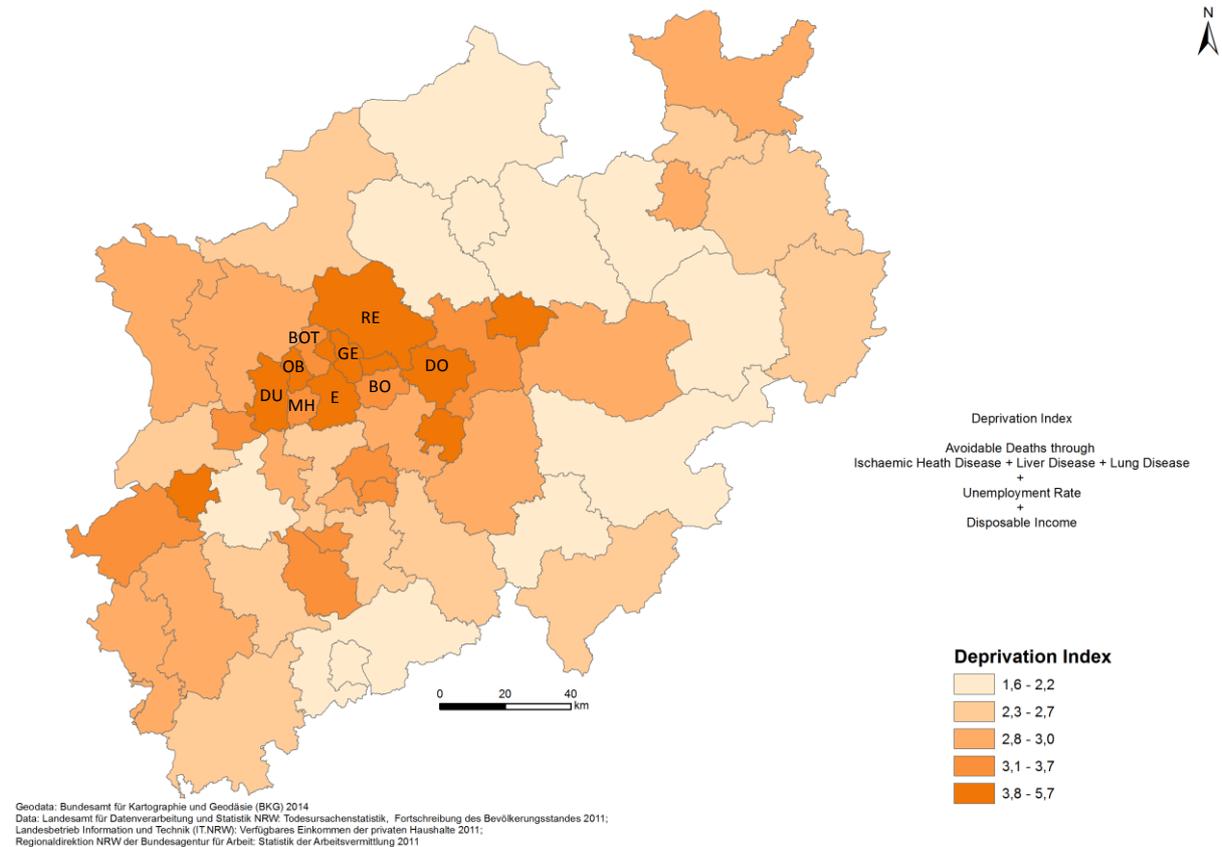
Initial criteria for selecting case studies were based on main health indicators, mortality and one of the broader indicators of health, socio-economic status.

A preliminary analysis based on census data and on the Health Atlas of North Rhine-Westphalia (NRW) (Gesundheitsatlas NRW) was used to identify a suitable case study in the Ruhr Metropolitan Region, as the most densely populated region in Germany. Geographic Information System (GIS), more specifically software ArcGIS 10, was used to determine sensitive urban areas. The sensitivity of urban areas was graded by mortality rates and levels of socio-economic status.

Values for the three most frequent causes of premature death in NRW, cardiovascular disease, lung and liver disease, were used as indicators for mortality. Indicators for socio-economic status were unemployment and low-income. Data was obtained online from the NRW State Centre for Health (Landeszentrum Gesundheit NRW) website for the year 2001.

Mortality rates for selected diseases were summed and assigned to the map of NRW showing the areas with the highest risks of premature death in red. Furthermore, values for unemployment and low-income were summed and added to the mortality data and also assigned to the map. The results are displayed in a sensitive zones map (see Figure 18), showing the cities in NRW most vulnerable to risk of premature death due to chronic disease and difficult socio-economic structure in red.

Figure 18: Deprivation index based on the risk of premature death due to chronic disease and difficult socio-economic structure, cities in North Rhine-Westphalia, Germany, 2001



Source: author, data from Landeszentrum Gesundheit NRW

Furthermore, Table 2 reveals that Gelsenkirchen has the highest mortality rates and unemployment, and the lowest disposable income in the Ruhr Metropolitan Region.

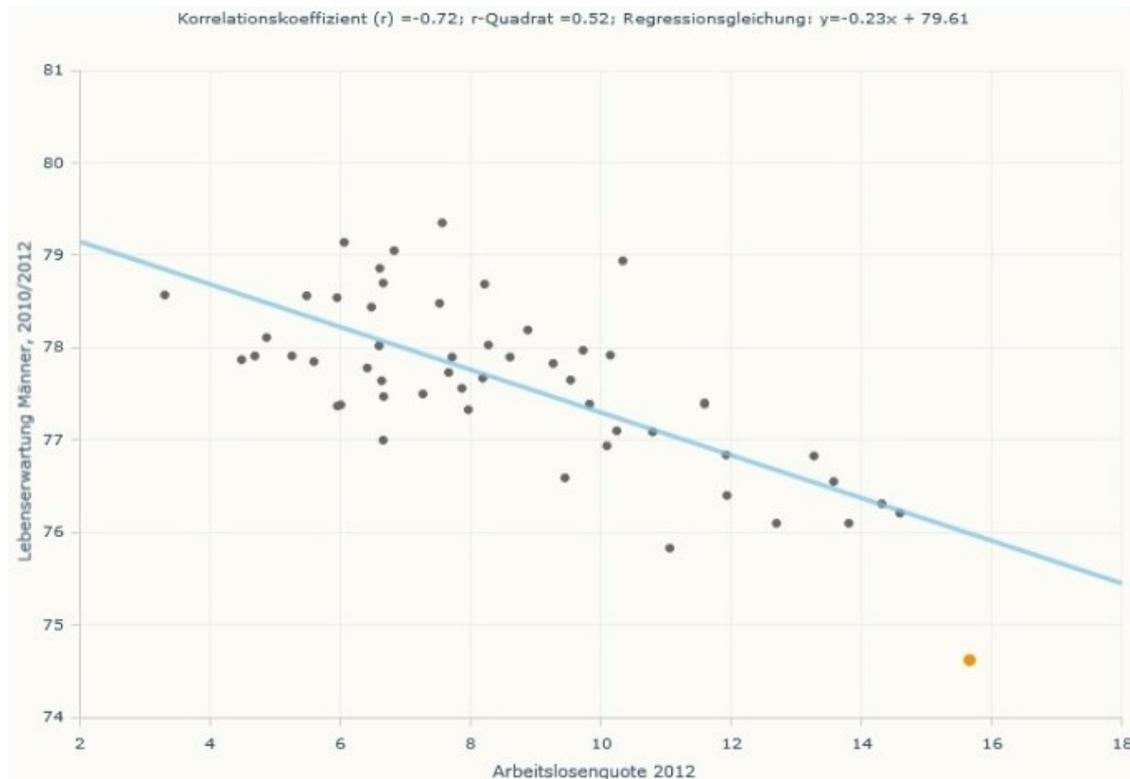
Table 2: Mortality rates and socio-economic aspects in the cities in the Ruhr Metropolitan Region,

Indicators/ Cities	Avoidable deaths - SMR			Sum of SMR avoidable deaths	Socio-economic aspects	
	Ischemic heart disease	Lung cancer	Liver disease		Unemployment rate in % 2002	share of disposable income per inhabitant
Duisburg	1,19	1,31	1,22	3,72	13,6	81,8
Mülheim	1,04	0,99	1,06	3,09	8,8	111,2
Essen	1,04	1,19	1,35	3,58	12,2	99,8
Bottrop	1,15	1,28	1,28	3,71	12,3	89,4
Dortmund	1,27	1,16	1,35	3,78	14,7	89,1
Bochum	1,1	1,06	1,35	3,51	12	94,5
Oberhausen	1,28	1,35	1,19	3,82	11,5	87,5
Gelsenkirchen	1,43	1,32	1,8	4,55	17,1	81,6

Source: data from Landeszentrum Gesundheit NRW

Further analysis has shown that in the year 2012 Gelsenkirchen had the lowest life expectancy and the highest level of unemployment compared to other cities in the Ruhr Metropolitan Region (Figure 19). That was an indicator that in a time span of more than ten years there was no improvement in the city performance in terms of health.

Figure 19: Correlation between life expectancy for man (y) and unemployment rate (x) in the cities in North Rhine-Westphalia, Germany, 2012 – Gelsenkirchen in orange color



Source: Landeszentrum NRW

After selecting the city, the deprived neighborhood in Gelsenkirchen - Bulmke-Hüllen - was selected based on the outcome of the renewal project Social City – City renewal “South-East” (*Soziale Stadt – Stadterneuerung “Süd-Ost”*) and the concept of vulnerability, which emphasizes that in certain areas people lacking individual and collective skills have to bear a greater environmental burden of disease than the total population (Köckler and Hornberg 2012).

The outcome of the regeneration process in Bulmke-Hüllen was evaluated as moderate based on the four policy areas – **housing, local facilities, movement and open space** - and key issues for creating healthy neighborhoods (see Section 2.4.3). Although Barton and Tsourou (2000, pp.124,125) list additional three key issues related to water and bio diversity,

natural resources, soil and minerals as well as global ecosystem (Barton and Tsourou 2000, p. 125), they were left out due to limited capacity for the assessment.

In the case of Bulmke-Hüllen even after the renewal project, there were only limited improvements in the built environment and according to the selected policy areas these were evaluated as moderate. Although there were improvements of public open spaces and some buildings, there are still voids and unmaintained areas in the neighborhood that influence the sense of safety and willingness to walk. Access to retail and connectivity to other parts of metropolis were evaluated as negative. The negative outcome was based on the buffer analysis of retail, which has shown that there were many areas in the neighborhood that were not covered with 400m buffers. Distance of 400m is considered a comfortable walkable distance and recommended for local retail (see Section 2.4.3.2). Although bus stops were in the range of 400m additional time table analysis has shown that buses were coming every 20 minutes on the work-days, which is considered inefficient.

Selecting the positive case of urban regeneration

In order to identify a similar city in another metropolitan region with a good outcome of urban regeneration main variables presented in the Table 3 were used. A good outcome of the urban regeneration was based on the four policy areas – **housing, local facilities, movement and open space** - and key issues for creating healthy neighborhoods (see Section 2.4.3).

Population number for the year 2001 was selected as a census year, which preceded the renewal project Social City – City renewal “South-East” in Bulmke-Hüllen initiated in 2002. Density as ‘an important urban form variable, influencing healthy behavior and transport-related emissions’ (Barton 2017, p.185) was selected as a constant variable. It should have the same or even lower value in the positive case as it plays an important role for accessibility.

Table 3: Main variables for selecting the second case study

CITIES	pop. number	urban density inh/km ²	industrial history	outskirts near brownfields	low-income community	outcome of urban regeneration
Gelsenkirchen	277.827	2.651	yes	yes	yes	moderate
second case study criteria	200.000-350.000	≤ 2.651 min. 2.000	yes	yes	yes	good

Source: Population data for the year 2001, Stadt Gelsenkirchen 2017

According to the survey of the German Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR 2011) there are 125 metropolitan areas in Europe classified in four main types based on spatial concentration of significant metropolitan functions. These functions are: 1) politics, 2) economy, 3) science, 4) transport and 5) culture (BBSR 2011). Ruhr Metropolitan Region belongs to Type 2 metropolitan areas due to lack of politics as significant function. Thus, the most similar metropolitan area, appropriate for comparison, was selected among seven metropolitan areas classified as Type 2 (BBSR 2011), which are listed in the Table 4.

Two of seven metropolitan regions, Birmingham and Manchester, that are similar to the Ruhr Metropolitan Region were selected as relevant (Table 4) and further analyzed to identify the city with a good outcome of urban regeneration.

Table 4: Type 2 metropolitan areas in Europe and their relevance to Ruhr Metropolitan Region

	Type 2 metropolitan area	relevance to Ruhr Met. Region
1	Maas-Rheine	cross-border area (p. 102 and 104) not relevant
2	Rheine-Neckar	low value for transport (p. 104) not relevant
3	Manchester - Liverpool	Liverpool is a seaside area – not relevant Manchester area similar - relevant
4	Birmingham	West Midlands Conurbation similar – relevant
5	Cardiff-Bristol	small population number, no official authority - not relevant
6	Valencia	Seaside area – not relevant
7	Istanbul	Seaside area, not in EU – not relevant

Source: based on BBSR 2011

Successful regeneration projects that match the initial selection criteria based on research questions were identified and their relevance to Bulmke-Hüllen in Gelsenkirchen was evaluated (Table 5). City centers were excluded as irrelevant and these projects are not listed in Table 5. Since gentrification in this thesis is not considered a positive outcome, the case of Charlestown and Lower Kersal in Salford was rejected as irrelevant (Table 5). Only

cases where deprived area was upgraded and the existing community preserved to great extent were relevant.

Table 5: Successful regeneration projects in two selected metropolitan regions and their potential relevance to Bulmke-Hüllen

	successful regeneration projects	relevance to Bulmke-Hüllen
	GREATER MANCHESTER	
1	City of Manchester	not taken into consideration due to greater significance of the city – not relevant
2	Bury – Prestwich – Village Greens Community Co-op	only aspects of healthy food – not relevant
3	Salford	
	- New Pendleton	- tower blocks – not relevant
	- Charlestown and Lower Kersal	- trends of gentrification (Wallace 2010)- not relevant
	- Broughton	- all aspects present - relevant
	WEST MIDLANDS CONURBATION	
4	City of Birmingham	not taken into consideration due to greater significance of the city – not relevant
5	Walsall - Bradford Street Heritage Economic Regeneration Scheme (HERS)	city significantly smaller (less than 100.000 inh.) heritage regeneration scheme – not relevant
6	Solihull - North Solihull Project	city significantly smaller (less than 100.000 inh.), no industrial history - not relevant

Source: based on the general information on the projects' and city website as well as in the local newspapers

Broughton regeneration in the City of Salford, was selected according to its positive outcome - improved built environment and housing, accessibility to local facilities, movement and open spaces. Table 6 shows similar values of all variables on the city level in both cases, and lower value of density.

Table 6: Similar variables in Gelsenkirchen and Salford with different regeneration outcome

CITIES	pop. number	urban density inh/km ²	industrial history	outskirts near brownfields	low-income community	outcome of urban regeneration
Gelsenkirchen	277.827	2.462	yes	yes	yes	moderate
Salford	216.103	2.223	yes	yes	yes	good

Source: Population data for the year 2001, Stadt Gelsenkirchen 2017 and ONS 2001

Since the case studies are located in two countries with different political regimes and systems, there were two initial considerations. One was that if there is the same finding for both regions, it is possible to argue that country factors that differ between the two cases are irrelevant because differences cannot explain similarities. And the second one was that it

is possible to generalize from Gelsenkirchen to Oberhausen and Duisburg because it is the same region, same country and the cities face similar problems meaning that they are comparable. In addition, the same might hold for British cities that are comparable to Salford. Furthermore, Gelsenkirchen and Salford are comparable only to some extent due to the difference in the organization of the metropolitan regions, polycentric and monocentric (respectively).

3.2.2 Data collection

Multidimensional case boundaries – spatial, temporal, institutional (Rohlfing 2012, p.26) were defined prior to data collection in order to determine the main purpose of data collection and enable the differentiation of the phenomena from its context (Yin 2014, p.34). In the preparation phase for collecting the case study evidence, a protocol for the study and questions for the semi-structured interviews were developed. Case study protocol was developed according to guiding lines provided by Yin (2014, pp.84-94). In addition, the approval for study was obtained from the Ethic Committee at the University of Duisburg-Essen.

Four out of six sources of evidence listed by Yin (2014, p. 106) were selected as relevant for urban regeneration case studies data collection. Data was collected from the four following sources of evidence:

1. documentation – administrative documents, proposals and progress reports, master plans and supplementary documents, formal studies and evaluations, minutes of the Community Committee meetings, as well as mass media articles. Documents retrieved from electronic sources were examined with greater caution.
2. archival records – census and other statistical data, maps and charts of the geographical characteristics of both neighborhoods, cities and metropolitan regions as well as available survey data
3. recorded semi-structured interviews - officials and experts from municipal agencies and offices, private developer, local groups and organizations as well as active residents
4. direct observations – observation of the Community Committee meeting in Salford, neighborhood condition and activities in the public open spaces, reconnaissance, photo documentation, and mapping

Two remaining sources of evidence (*ibid.*) were not used because participant-observation technique could not be applied at the time the field work was conducted since

the planning process of urban regeneration was already finished, while physical artifacts were not relevant evidence for this case study.

Census and other statistical data were not available for the project area itself but rather for the larger areas. In the case of Salford the smallest administrative unit used is Ward, although some data can be found for the small areas (Super Output Areas) specifically introduced to improve the reporting and comparison of local statistics. However, since not all data is available for small areas due to disclosure issues and the need to protect the confidentiality of individuals, Ward was selected as an appropriate unit for data collection and analysis. Furthermore, it enables better comparison of two case studies since administrative units in Germany are larger areas. Broughton Ward consists of Higher and Lower Broughton. Thus, values used for analysis in Lower Broughton are from the Ward level. In the case of Gelsenkirchen, Bulmke-Hüllen consists also of two parts as its name suggests.

Moreover, the calculation of an unemployment rate differs in Germany and in Great Britain. Thus, unemployment rates on the city and neighborhood level were used to show the relation to the national level as well as to compare the values before and after the urban regeneration rather than to compare the cities.

Multiple sources of evidence and data triangulation were used to develop convergent evidence and 'strengthen the *construct validity*' (Yin 2014, p. 121) of both case studies. Collected data as well as field notes were stored in the comprehensive case study data base.

3.2.2.1 Interviews

Main stakeholders of urban regeneration from both case studies were identified prior to the field research by searching the documents related to neighborhood regeneration available on the web as well as from the list of participants of the community meetings. As a result of stakeholder analysis, they were divided into three groups: public sector, private sector and civil society (detailed table with interviewees is in the Appendix 3).

Potential interviewees were selected from these three groups to assure that all sides were represented to a certain extent. However, since this is a qualitative study there is no representative sample. In order to answer the research question it was necessary to discover

the mechanism that leads to the successful urban regeneration. Thus, selected interviewees were relevant to this research due to the information about and/or the involvement in the regeneration process. Their recommendation of other experts or stakeholders (snowball sampling) was highly valuable and most of the times have matched the preselected key interviewees (Appendix 3). All interviewees were provided with an Information Form prior to the interview and recorded upon their written permission (Participant Consent Form). After the interview a Debriefing Form was given or sent via email to all interviewees.

Interview questions for experts - officials and professionals from municipal departments, agencies and private sector (e.g. the Planning Office, department of Urban Regeneration, Health Department, private developer) involved in the regeneration process were developed to understand the process of urban regeneration and its context for each case study.

At the beginning interviewees were asked about their professional background and their own or institutional definition of urban regeneration to be able to evaluate the quality and relevance of the interviewee's statements (Rohlfing 2012, p.170). Interviewees were asked about their priorities in the planning and implementation phase as well as the engagement of other departments and stakeholders. Furthermore, in order to determine what exactly was assumed with a term 'urban regeneration' and how its definition may have varied through different sectors involved in the regeneration process, initial question to all interviewees was to define or to explain the meaning of urban regeneration.

Questions also explored to what extent and by which means community members were involved and how these aspects were integrated into the planning and implementation of urban regeneration. These interviews were important to understand the way in which the urban regeneration was initiated and governed. After the interviews most of the interviewees provided relevant documents, reports or plans mentioned during the interview.

In addition, questions for the semi-structured interviews for active residents in each neighborhood were developed to understand their involvement in the regeneration process. Furthermore, active residents were asked to evaluate the process of urban regeneration and to describe the influence of the changes to their daily life.

All the interviews were transcribed in a form of intelligent verbatim as a most useful mode for the research purposes (Kvale and Brinkmann 2009, p.186). Each interviewee has confirmed the validity of their transcribed interview. In addition, all parts of the interviews, which are cited in this thesis, were sent additionally to the interviewees to obtain additional permission for validity and citing.

3.2.2.2 Direct observations

In parallel with interviews, the direct observation of meetings and events related to urban regeneration or neighborhood management like e.g. community committee meeting, friends of park meeting, exhibition of the new regeneration project with possibility for residents to comment and talk with project developers, etc. were performed. These were important to understand general context, dynamics between different stakeholders as well as to identify important issues for residents in both neighborhoods. In addition, many hours during different times in the day and week were spent observing activities in the neighborhood, urban gardens, parks and other open spaces. Informal exchanges with users of space were important to understand better local contexts and meanings.

The main methods employed for the assessment of the built environment were inventory, observation, photo documentation, and mapping, which enabled the description of the status quo in both neighborhoods. Although no map can represent all the complexity of a real world (Wang and vom Hofe 2007), a mapping technique was used to record the observations in the built environment in both case studies, related to the condition and type of buildings, streets, parks and open spaces as well as to the availability of stores with fresh food. In addition, walking with a baby carriage through both neighborhoods was used to identify barriers in the neighborhoods and assess the accessibility to open spaces and retail for different population groups. These maps were later used to analyze accessibility and spatial connection as a part of the evaluation of regeneration processes.

In parallel with mapping, photographing was used as a supplementary visual method with automatic geotagging by a smartphone. Since geotagging refers to the standing point while capturing an image, the direction of photographing was assigned to a map. All photographs were taken with the same device and used in this thesis without any editing to preserve the faithfulness of the images presented (Ball and Smith 1992). Furthermore,

photographs were captured with great caution to assure that the content of the image is framed in the surrounding context, which faithfully mirrors the reality (*ibid.*).

Additionally, old photographs were used to characterize the neighborhoods before urban regeneration, as well as in other crucial points in time. 'Through photographs, we can compare spaces in different times, looking closely at the changes and transformations that occur there in relation to each activity' (Vigiola 2015, p.207).

3.3 Data analysis

The main aim of comparative analysis here was to identify causal relations (Pickvance 2001) rather than just to discover patterns. Data was collected for both case studies and analyzed to find the variates in urban regeneration processes in order to explain the difference in regeneration outcome. The theory of path dependence was used to track the events in broader national and regional urban policy development in order to conceptualize policy processes (Booth 2011) that have influenced urban regeneration.

The analysis of rich empirical data based on the wide range of semi-structured interviews, direct observations, relevant documentation and secondary data collection was separated in two steps. The first analysis started during the field work with the writing of extensive notes reflecting the impressions about respondents or events observed. These notes were used to develop analytical short memos after each day on the field, which were later used to process the data.

The second step was performed after the data was collected and processed. In order to discover causal mechanism - why regeneration outcome was positive in the case of Broughton in Salford and only moderate in the case of Bulmke-Hüllen in Gelsenkirchen - there were two levels of analysis:

1. within-case analysis: process tracing in order to 'generate inferences about causal mechanisms and causal processes' (Rohlfing 2012, p.218), which illuminate the regeneration process and enable better understanding of **how** the urban regeneration was planned and implemented, and how better access to local facilities and open spaces was achieved
2. cross-case analysis, which follows the presentation of separate, single cases - cross-case synthesis (Yin 2014, p. 164) that allows for determining the reasons **why** the urban regeneration in the case of Broughton was more successful than in the case of Bulmke-Hüllen.

3.3.1 Within-case analysis

Collected data about each case study was aggregated in different categories based on the theoretical matrix (see Section 2.4.3) in order to identify distribution patterns within each category and to identify relationships between categories (Wang and vom Hofe 2007, p.11). Demographic, land use and spatial analysis were used to analyze and describe neighborhoods in Salford and Gelsenkirchen and create their profiles with two temporal dimensions - before and after the regeneration process. Profiles of the study areas were constructed by using a Health Impact Assessment (HIA) as a framework. HIA was applied in order to evaluate the regeneration process in regard to health and environmental inequalities. Based on the *Design for Health (DFH) Rapid HIA Toolkit* (Forsyth 2008, p. 10) profiling of both areas followed the same structure.

Profiles of the neighborhoods:

- *Characteristics of the existing and, where appropriate, new or transient residents of the region (size, age structure, socioeconomic status, groups at risk)*
- *Physical characteristics of the region (e.g., weather, geography)*
- *Existing and proposed land uses (and their compatibility with proposed developments)*
- *History of the region (e.g., land use, institutions, populations)*
- *Current environmental quality (e.g., levels of pollution and environmental degradation over time)*
- *Current health status of the population (e.g., morbidity, mortality, social and psychological health indicators)*
- *Information from previous studies of similar projects in similar locations (can be problematic as data reliability needs to be given careful consideration)*
- *Existing living conditions of the population, especially in relation to access to food and water supplies, as well as access to healthcare facilities and other community-level services.*

Forsyth 2008, p. 10

GIS-based spatial analysis, buffering and overlaying (Wang and vom Hofe 2007) were used to determine the access to open spaces, food stores and bus stops, which were mapped during the fieldwork. The main goal was to assess the accessibility and connectivity of the study areas, as important factors for developing neighborhoods that promote health. The HIA-based Checklist was used to evaluate to what extent deprived neighborhoods in Salford and Gelsenkirchen were transformed into neighborhoods that promote health.

Stakeholder analysis, interviews and documentation analysis (e.g. minutes of the Community Committee meetings, organizational chart of city administrations) were used to explore the governance of urban regeneration.

3.3.1.1 Interviews analysis

Interviews with stakeholders, planners and coordinators, as well as documents and reports relevant to urban regeneration in Salford and Gelsenkirchen were initially analyzed using the focused and selective coding (Charmaz 2006, p. 46). Coding was linked to the memo-writing which enabled the writing down of own reflections and not just pure indexing (Saillard 2011). Focused and selected coding enabled categorizing the data and comparing different opinions and observations (Charmaz 2006), especially between interviewees from different sectors in each case study. Software MAXQDA 12 was used for coding and analyzing the data (Appendix 4).

Concepts derived from the interviews' data in each case study were embedded in the process tracing and arranged into 'a logical, systematic explanatory scheme' (Corbin and Strauss 2008, p.56), which was essential for explaining the process of urban regeneration in Salford and Gelsenkirchen and formulating new mini-theories. Microanalysis was combined with general analysis to provide larger spectrum of interpretations and avoid one-sided conclusions (Corbin and Strauss 2008, p.60).

3.3.1.2 Process tracing

Characterization of the neighborhoods and interview analysis were followed by the process tracing of the urban regeneration in Broughton and Bulmke-Hüllen in order to identify the factors that have influenced neighborhood transformation. Process tracing enabled linking of causal variables (X_i) to outcome variable (Y) and exploring their relationship (Gerring 2007, Rohlfing 2012) in order to understand and explain how the urban regeneration planning and implementation have influenced regeneration outcome. Improvements in built environment, access to retail and public open spaces as well as connectivity to the metropolitan region were the result of planning, management and governance of urban regeneration. The goal was 'to shed light on the underlying causal mechanism' (Rohlfing 2012, p.214) that influenced an outcome of the urban regeneration.

Rich empirical data from interviews and observations as well as secondary data were used as pieces of evidence for the confirmation of conclusions (Gerring 2007) drawn from the analysis of the regeneration process. Events were chronologically arrayed and their occurrence at a specific point of time was determined and related to other events that

occurred at the same time, analyzed before or after the event (Yin 2014). It was necessary to ‘maintain the chain of evidence’ (Yin 2014, p. 127) that was derived ‘from the observation of a spatio-temporally ordered chain of events, therefore following the conventional procedure of tying observations to concepts in order to generate inferences’ (Rohlfing 2012, p.34). Furthermore, process tracing in both case studies was regarded ‘as a cross-check, a triangulation that can be – and ought to be – applied to all results gained through formal methods’ (Gerring 2007, p.185).

Eventually, process tracing has enabled a better understanding of complex causal relationships and formulating new mini-theories on the causal mechanisms that illuminate urban regeneration enabling the capture and piecing together of the elements necessary to continue with cross-case synthesis and to answer the research question. Historical narratives were selected for presenting empirical information based on the qualitative technique of process tracing (Büthe 2002, p.486).

3.3.1.3 Historical narratives and path dependence

The greatest strength of historical narratives is that they contextualize different ‘steps in ways that make the entire process visible rather than leaving it fragmented into analytical stages’ (Büthe 2002, p. 486). Büthe (2002) emphasizes the importance of incorporating causal feedback loops and the sequential element of temporality. Since urban regeneration has precise beginning and end, it was possible to extract it from the wider historical process and create a narrative. Wider historical processes were incorporated in the explanation of the path dependence of decision-making (Booth 2011) related to observed urban regenerations. However, in case of Broughton in Salford it was possible only partly to “conclude” the narrative (Büthe 2002, p.488) since the process of implementation was not complete in all parts of the area. That had as a result limited “generality” of the conclusion (Büthe 2002, p.488).

3.3.2 Cross-case synthesis

Cross-case analysis enabled determining variables that led to differences in outcome in the regeneration processes in Salford and Gelsenkirchen. It was based on three steps in order to enhance causal inference (Rohlfing 2012, p. 143). In the initial phase causes related to outcome and causal effect were specified. Furthermore, the nature of the causal effect

was identified and interaction effects were specified. Categories created during the data coding focused around the planning and implementation of urban regeneration, as well as the wider context of urban policy development were assembled into histories and explanations. This has allowed the determination of the systematic differences and the identification of the reasons for positive and negative outcomes of the regeneration process.

3.4 Research limits

The research is limited to an observation of an outcome of urban regeneration. Since some changes that led to the specific outcome of urban regeneration were not directly observable, 'the research takes on a... more ambivalent, form' (Gerring 2007, p.164).

When it comes to data collection, limited selection of the representatives for the interviews influenced the obtained information. Many of the experts involved in urban regeneration at the time of planning and implementation were on other functions when the research and the fieldwork took place. Although interviewees were initially carefully selected to assure good representativeness of different sectors and perspectives, some of them were not willing to take a part in the study, limiting the diversity of views obtained.

Even though interviews are a primary source, there are certain limitations related to interviewees' ability to recall the information about events that occurred at some point in the past. Furthermore, 'interview partners may have been prepared to share some pieces of information while not reporting others' (Rohlfing 2012, p.170). In that sense the triangulation of data sources was crucial for obtaining the less distorted picture about the phenomena. However,

Although triangulation is clearly superior to the reliance on a single type of source, one must clearly acknowledge that some uncertainty about the presence and extent of a source coverage problem and bias will always remain. This uncertainty should be taken into account in the context of deriving causal inferences because they cannot be more certain than the confidence in the accuracy of the underlying evidence.

Rohlfing 2012, p.171

Additionally when it comes to analysis and the coding of collected data it is important to be aware of personal influence on data description and overall conclusions:

We may think our codes capture the empirical reality. Yet, it is our view: we choose the words that constitute our codes. Thus we define what we see as significant in the data and describe what we think is happening.

Charmaz 2006, p.47

Furthermore, every source of data contains only a part of all information necessary to describe and analyze the process of urban regeneration. Thus, 'it is likely that the information that it offers is biased, thereby introducing a source coverage bias into the analysis' (Rohlfing 2012, p.170). Secondary data from e.g. reports or research papers is also a biased 'with respect to the hypothesis of interest because its own research focus is at least partially different' (Rohlfing 2012, p.170).

Similarly, it is argued by Corbin and Strauss (2008) that different hypothesis and research questions can give different meaning to the same set of data. Thus secondary sources of data are examined with greater caution. Finally, conducting the research as a non-native speaker and in foreign cultural contexts as well as the researcher's own abilities to read, observe, analyze and write have influenced the research as well.

CHAPTER 4 | Urban regeneration in Germany and the United Kingdom

In the previous Chapter the comparative case study method was selected for analyzing two case studies of urban regeneration in Germany and the United Kingdom. Since urban regeneration is a part of a wider urban policies field, it is necessary to better understand the culture of decision-making (Booth 2011) and discover factors that have influenced *the path* of urban policies development (Booth 2011). Thus, comparison begins at national and regional level and then focuses on the neighborhood level (Chapters 5 and 6) where urban regeneration has actually taken place.

In both countries, Germany and the United Kingdom (UK), regeneration projects in deprived areas are identified as important issues. Both countries dealt with housing improvements or slum clearance in the early periods of industrialization to improve living conditions and health and with overall reconstruction after the World War II. Contemporary approaches to urban regeneration are influenced by European policy frameworks for sustainable urban development. However, each country has developed its own urban development strategy in the form of urban policies that influence urban regeneration planning and implementation.

In this Chapter the similarities related to the overall European context and differences in national approaches to urban regeneration will be reflected through the wider urban policy context. The development of urban policy and urban regeneration will be traced through history starting from the industrial revolution in order to explain the wider context of the events that have influenced urban regeneration in selected neighborhoods. The historical context of urban regeneration policies in Germany and Great Britain that encompasses economic and political background is included here starting with the industrial revolution. The period of industrial revolution was selected as a starting point since these neighborhoods were developed at that point in time as workers' settlements.

4.1 European urban development policy and urban regeneration

The European Union (EU) recognizes the crucial role of cities in the future development of all nation states. Although European policy does not explicitly refer to urban

planning, different policies such as ‘economic, social and territorial cohesion all have a strong urban dimension’ (EC 2011, p.7).

In 1973 the Commission of European Communities (CEC) had recognized for the first time regional development disparities in the European Community, now the European Union (EU). The “Thomson Report” (CEC 1973) emphasized that based on the goals set in the Treaty of Rome ‘[c]ontinuous expansion has been achieved; balanced expansion has been lacking’ (CEC 1973, p.2). The main reasons for the unbalanced development were: ‘the preponderance of agriculture,...industrial change and structural under-employment’ (CEC 1973, p. 14). As a response to these challenges, it was proposed to establish the Regional Development Fund for medium and long-term development of the areas ‘the most in need in relation to the [European] Community as a whole’ (*ibid.*) in order to ensure the ‘reduction of structural and regional imbalances in the [European] Community which might affect the achievement of European Economic and Monetary Union’ (CEC 1973, p. 14).

The European Regional Development Fund (ERDF) was set up in 1975 for a trial period of three years. It had a limited aim and focus in those early years compared to the contemporary scope which will be described later in this section. The key event for the Regional Policy was a ratification of the Single European Act (SEA) in 1987 (Nanetti, 1996). SEA has not only envisioned the way of integration, but rather ‘substantially changed the *nature* of the process of integration by formally building into it the goal of social and economic cohesion’ [emphasis in the original] (Nanetti, 1996, p.59). Cohesion was seen as an important aspect of regional development that would ensure that growth does not cause disparities and gaps between regions in the EU (Nanetti, 1996).

A stronger spatial dimension was added by the Committee on Spatial Development in 1999 (European Communities 1999). This Committee had developed a “European Spatial Development Perspective” (ESDP) with an aim to achieve a balanced and sustainable development. Based on the definition of sustainability from the United Nations Brundtland Report (UN 1987), ESDP emphasized the importance of the balanced spatial development including balanced competitiveness of the European territory in addition to economic and social cohesion within the ecological and cultural functions (European Communities 1999). However, although it was supported by the European Commission, the ‘ESDP is the product of a voluntary form of intergovernmental cooperation’ (Faludi 2009, p.25).

The importance of these voluntary, ‘soft’ spaces of cooperation and planning (Allmendinger *et al.* 2015) is reflected in “an explicit European consensus on the principles of urban development - the ‘Acquis Urbain’” (EC 2011, p.7), which was developed in a more than twenty years long intergovernmental process. The report *Cities of Tomorrow* (EC 2011) is based on that intergovernmental process as well as on a series of ministerial meetings and previous key documents that are evidence of political integration and commitment. Key documents like Lille Action Programme, 2000; ‘Acquis Urbain’, Rotterdam 2004; Bristol Accord, 2005; Leipzig Charter on Sustainable European Cities, 2007; Marseille Statement, 2008; Lisbon Treaty, 2009 and Toledo Declaration, 2010 were adopted in the past decades to ensure the step towards implementation.

4.1.1 Key documents on European urban development

The main aspects of some of these key documents are highlighted in the following section. Documents adopted in the period from 2000-2007 were examined in more detail as they may have influenced urban regeneration in selected neighborhoods in Gelsenkirchen and Salford. Special attention was given to aspects relevant to urban regeneration and deprived neighborhoods, as well as to health and urban governance. Although health was not explicitly mentioned in all documents, ‘quality of life’ as one of the indicators that may include health to certain extent, was an important aspect in most of the documents listed (except for the *Urban Acquis*).

The Lille Action Programme was based on a ‘Proposal for a multiannual programme of co-operation in urban policy within the European Union: Report by the Committee of Spatial Development (CSD)’ (CSD 2000). One of the main aims of this document was ‘to help Member States, the Commission and cities to give a *more* tangible form to the main policy objectives defined at European level in response to the challenges facing cities’ (CSD 2000, p.55). The Programme proposes a common set of nine priorities, which are related to different levels, including community level:

1. *A better acknowledgement of the role of towns and cities in urban development*
2. *A new approach of urban policies on national and community levels, especially of integrated, result-orientated urban development strategies*
3. *Support the community life in the disadvantaged neighbourhoods by improving the involvement of inhabitants and promoting civic participation*
4. *Measures to tackle social, ethnic and discriminating segregation in disadvantaged neighbourhoods*

5. *Promote an integrated and balanced urban development (that is to counteract segregation) addressing the urban territory both at the neighbourhood and city and conurbation levels*
6. *Partnership between the public and private sectors in urban regeneration and especially in reinforcing the economic life in disadvantaged areas*
7. *Increasing European cooperation and sharing knowledge on best practices*
8. *Use of modern information technology to be used as a tool for urban policy areas*
9. *Further analyses of the urban policy areas to deepen the knowledge of inter-linked phenomena*

CSD 2000, pp.56-57

Disadvantaged neighborhoods were explicitly named in three of its nine priorities and an integrated approach to urban development was seen as a means to eradicate segregation and balance overall urban development. Public-private partnerships were related to urban regeneration. In addition, the French delegation proposed the initiation of the discussion on the European approaches to urban regeneration (CSD 2000) and a study 'Interim note on urban regeneration policies in Europe' (CSD 2000, pp.93-100) was added to the document. Eventually, although health aspects were not explicitly specified in the document, the WHO Healthy Cities Project was briefly described in the 'Review of Work on European Issues' (CSD 2000 pp.81-82).

Urban Acquis (EU Ministers for Urban Development 2004) adopted during the informal ministerial meeting in Rotterdam as a part of its political agenda, strives to put the cities higher in the EU agenda and include small and medium-size cities in the national urban agendas. Two main priorities are related to balancing economic competitiveness, social cohesion and environmental quality as well as creating livable cities as 'places of choice and places of cultural identity' (EU Ministers for Urban Development 2004, p.2). Further four categories of common principles are related to:

- mechanisms for successful urban policy (integration of policies on all levels and between different sectors, taking into account local city context, long-term policies, balancing top-down with bottom-up approach, favoring partnerships and agreements between different levels instead of rigid controls)
- engaging stakeholders (constructive working relationships between public, private and community partners, balanced partnerships with democratic accountability, citizens participating in a dialogue as owners of the urban living environment)
- achieving the right spatial balance (long-term policies for specific areas of need or opportunity, social challenges in deprived areas linked to economic opportunities in the wider region, institutional collaboration between cities and regions, balanced urban networks and functional cooperation between different cities in the region)

- encouraging good practice, policy learning and capacity (evaluation of policies, advancement of regeneration skills of professionals, community partners and local government)

EU Ministers for Urban Development 2004, pp.2-3

Furthermore, as a part of follow up actions, which were planned for the year 2005, increasing zones of economic opportunity were planned for the economic regeneration of deprived areas. Five countries ‘[t]he Netherlands and the United Kingdom, together with France, Ireland, Italy and Hungary will develop a document reviewing and assessing the different policy instruments used by the member states and European Commission **to help regenerate deprived areas**. This would be an initial step in developing a Common European Review on “economic opportunity zones”’ [emphasis added] (EU Ministers for Urban Development 2004, p.5).

*This review will identify financial and fiscal measures which have been successfully used in an integrated way to encourage **the economic regeneration of socially deprived areas** in their wider territories. It could serve as a model of good practice in redevelopment and could be approved and adopted by the European Commission [emphasis added]*

EU Ministers for Urban Development 2004, p.5

Furthermore, the exchange of knowledge and best practice based on experience in regenerating physical infrastructure was seen as an approach for solving specific urban challenges of housing and infrastructure as well as social challenges (EU Ministers for Urban Development 2004). In addition, the contribution of Cohesion Policy to urban development and URBAN Community initiatives was important for developing ‘innovative approaches to urban regeneration through integrated programmes built on local partnerships’ (EU Ministers for Urban Development 2004, p.6).

Health was mentioned in the context of health care together with policies for affordable housing, education, safety and employment in order ‘to increase the impact of social inclusion policies’ (EU Ministers for Urban Development 2004, p.3).

One of the follow up actions planned for 2005 was piloting a European Knowledge network, in order to ‘[connect] European databases on urban policy and ... [to] link existing local, regional, national and European networks and support member states in developing national networks. The network ... builds on experience of the existing URBACT programme but aims to cover a wider range of policies and cities, including those outside the current

URBAN initiative’ (EU Ministers for Urban Development 2004, p.5). The network has since then developed further and more than ten years later the European Urban Knowledge Network (EUKN) ‘is the only independent Member State driven network in the field of urban policy, research and practice. As a network of national governments, EU Member States and knowledge institutes, the EUKN is deeply involved in EU policy-making’ (EUKN n.d.).

An important contribution of the *Urban Acquis* to urban development policies was adding the empowerment of citizens as owners of the urban environment. The Bristol Accord built upon those aspects and related them to the principles of effective democracy and good governance.

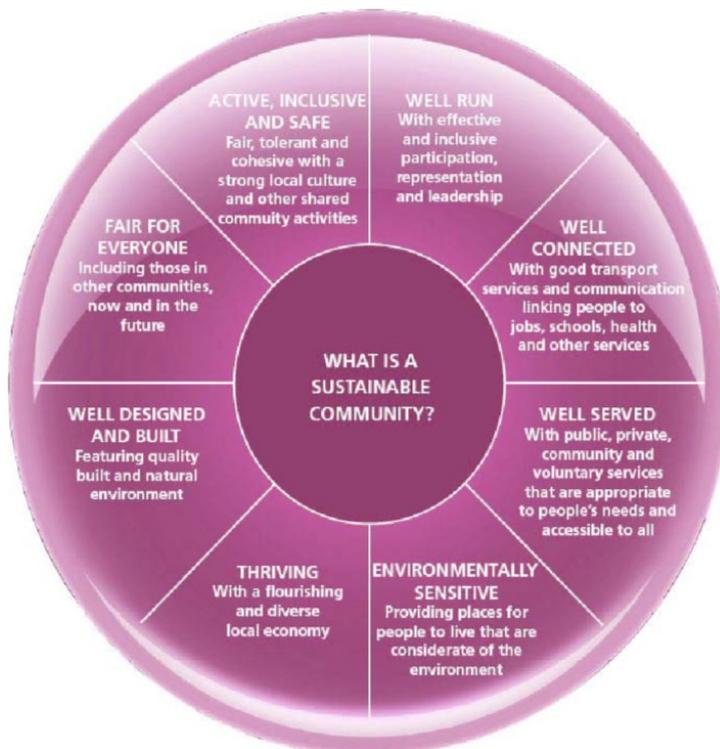
Bristol Accord (EU Ministers for Urban Development 2005) built upon the Rotterdam *Urban Acquis*’ principles of effective urban policy-making by adding the characteristics of successful places with an emphasis on the sustainable communities in spatial, social and economic terms. Sustainable communities were defined as follows:

Sustainable communities are places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all. [emphasis in the original]

EU Ministers for Urban Development 2005, p.6

Its focus was on sustainable communities (Figure 20) and the advancement of skills of urban policy stakeholders as well as integrating different disciplines besides urban planning into the urban development. The improvement of health services and their better accessibility are among important characteristics, while under the characteristic ‘Well designed and built’, sustainable communities should offer ‘buildings and public spaces which promote health and are designed to reduce crime and make people feel safe’ (EU Ministers for Urban Development 2007, p.14).

Figure 20: Eight characteristics of a sustainable community according to Bristol Accord



Source: EU Ministers for Urban Development 2005, p.15

The European Investment Bank (EIB) should support investment in Sustainable Communities in order to '[ensure] that economic and social and environmental issues are tackled through integrated strategies for renewal, regeneration and development in both urban and rural areas' (EU Ministers for Urban Development 2005, p.8).

The important contribution of the Bristol Accord was placing *good governance* on the agenda. It was recognized that developing sustainable communities requires the principles of effective democracy and good governance. Furthermore, the Principles of Metropolitan Governance 'adopted and published by the OECD in 2001 in "Cities for Citizens – Improving Metropolitan Governance"' (EU Ministers for Urban Development 2005, p.18) were seen as a benchmark for good governance on the metropolitan level (EU Ministers for Urban Development 2005).

Governance was defined as 'the rules, processes and behaviour that affect the way in which powers are exercised' (EU Ministers for Urban Development 2007, p.18). When the powers are exercised with the principles of 'openness, participation, accountability, effectiveness, and coherence' (*ibid.*), it is considered to be a *good governance*. Effective

citizen participation was seen as a part of the wider principles of democratic governance of places with the following key elements:

- i) effective citizen participation (involving society, social partners, and all levels of government) through both representative and appropriate forms of participatory democracy, designed to give communities power and influence over the decisions that affect them;*
- ii) decisions and actions to be taken at the right level – be it the neighbourhood, local, regional, national or European level – the principle of subsidiarity is the guide here;*
- iii) effective leadership of place; to create a vision of the place, gain the community's acceptance of that vision, and working with partners to secure its successful delivery; and*
- iv) high standards of conduct, skills and communications, in particular communication between different types of professionals.*

EU Ministers for Urban Development 2005, p.18

Since the European cities, towns and regions differ in their governance arrangements, these key elements 'whilst meeting European values, need to reflect the traditions, culture, and circumstances of the place' (EU Ministers for Urban Development 2007, p.18). After the meeting in Bristol, Germany and the UK were working together with the European Commission and Council Presidencies and delivered group findings that were reported at the meeting under the German presidency in Leipzig in 2007 (EU Ministers for Urban Development 2005, p.9).

Leipzig Charter on Sustainable European Cities (EU Ministers for Urban Development 2007) emphasizes the significance of an integrated approach to urban development policy that coordinates 'spatial, sectoral and temporal aspects of key areas of urban policy' (EU Ministers for Urban Development 2007, p.2). Special attention is given to deprived neighborhoods in the wider context of a city as a whole, with an aim to reduce social inequalities and eradicate social exclusion (EU Ministers for Urban Development 2007). As means for stabilizing neighborhoods and their better integration in the cities and metropolitan areas, the document emphasizes the importance of 'healthy, suitable and affordable housing' (EU Ministers for Urban Development 2007, p.5). Furthermore, the Leipzig Charter emphasizes the importance of improvements of deprived neighborhoods for better cities:

The better we manage to stabilize deprived neighbourhoods economically, to integrate them socially and to upgrade their physical environment and transport infrastructure, the better the chances are that our cities will remain places of social progress, growth and innovation in the long term.

EU Ministers for Urban Development 2007, p.7

Physical improvements of deprived neighborhoods are related to improved design and physical conditions, as well as to higher levels of energy-efficiency (EU Ministers for Urban Development 2007). However, these improvements should not be isolated interventions, but rather a part of a long-term development strategy, which includes follow-up interventions and investments of both public and private sectors in order to assure ‘a sustainability of investments in upgrading the physical environment’ (EU Ministers for Urban Development 2007, p.6).

Further strategy for action in the Leipzig Charter is strengthening the local economy and improving access to the labor market through tailor-made solutions for each of the deprived neighborhoods. Besides the demand-oriented training that would increase possibilities in the labor market, possible instruments and conditions for the stabilization of neighborhoods in economic terms would be to promote ‘social economy and citizen-oriented services’ (EU Ministers for Urban Development 2007, p.6). Education and training policies for children and young people living in deprived neighborhoods should ‘ensure equal opportunities on the long-term basis’ (EU Ministers for Urban Development 2007, p.6).

Efficient and affordable urban transport would enable improved access to other parts of the city and the metropolitan region and thus, better integration of deprived neighborhoods (EU Ministers for Urban Development 2007). Additionally, efficient urban transport along with an integrated network for walking and cycling would enable a variety of mobility options while reducing negative environmental effects of transport on the deprived neighborhoods (EU Ministers for Urban Development 2007).

Furthermore, it was emphasized that ‘[c]ities must contribute to ensuring and enhancing their residents' quality of life and their attractiveness as business locations by making use of sophisticated information and communication technologies in the fields of education, employment, social services, health, safety and security, as well as means for improving urban governance’ (EU Ministers for Urban Development 2007, p.7).

All these strategies, as emphasized in the Leipzig Charter, should be a part of an urban development policy developed on the national level as stimuli for innovative solutions (EU Ministers for Urban Development 2007).

Since the European Union cohesion policy (EC 2004) emphasizes that ‘people should not be disadvantaged by wherever they happen to live or work in the Union’ (p.27), the territorial component was added to the social and economic cohesion, which rationalizes development of regeneration policy as a means for urban improvements. Territorial Agenda of the EU 2020 includes Cohesion Policy developed in 2007. In order to meet the goals of the *Europe 2020 Strategy*, the EU’s main investment policy - regional policy - is allocating almost one third of the overall EU’s budget to the Cohesion Policy (EC 2016). Three main funds established to deliver regional policy are: the European Regional Development Fund (ERDF) and the Cohesion Fund (CF) and the European Social Fund (ESF) (EC 2016).

The European Cohesion Policy aims not only to reduce overall unemployment but also to tackle the considerable disparities between neighbourhoods within a city (EC 2003, p.12) as these disparities are seen as a serious problem that influence overall performance of the city and its ‘role as a motor of growth’ (EC 2003, p.12).

European development documents are influenced by visions of sustainable development on the global level. The recently adopted **Sustainable Development Goals (SDGs)** (UN 2015) and targets focus on seventeen fields (a list of 17 SDGs is in the Appendix 2) that are important for sustainable development globally. Goals and targets are aspirational and general in order to be applicable to every context. However, since each country faces specific challenges, different approaches will be in use in order to achieve transformation towards sustainability (UN 2015).

Beside these official documents and statutory planning policies there are so called ‘soft spaces’ of planning (Allmendinger *et al.* 2015) that emerge on different scales and in different contexts. Allmendinger *et al.* (2015) argues that ‘the idea of soft spaces was seen by many commentators to be helpful in understanding that something important was happening in European planning practices, something that was not fixed and yet also not entirely fluid; a hybrid form of planning that drew upon the legitimacy and statutory powers of territories yet was more open and continuous; a form of planning that engaged with and

coordinated different policy sectors and boundaries, creating new spatial imaginaries yet not discarding the old. Most significantly, this was not a conscious or planned outcome; it was happening spontaneously in different places and different circumstances' (Allmendinger et al. 2015, p.6).

The soft spaces of planning are typically associated with attempts to facilitate market-led growth and development that simultaneously emphasise partnership, governance and sustainability whilst working around the territorial accountability of statutory planning processes.

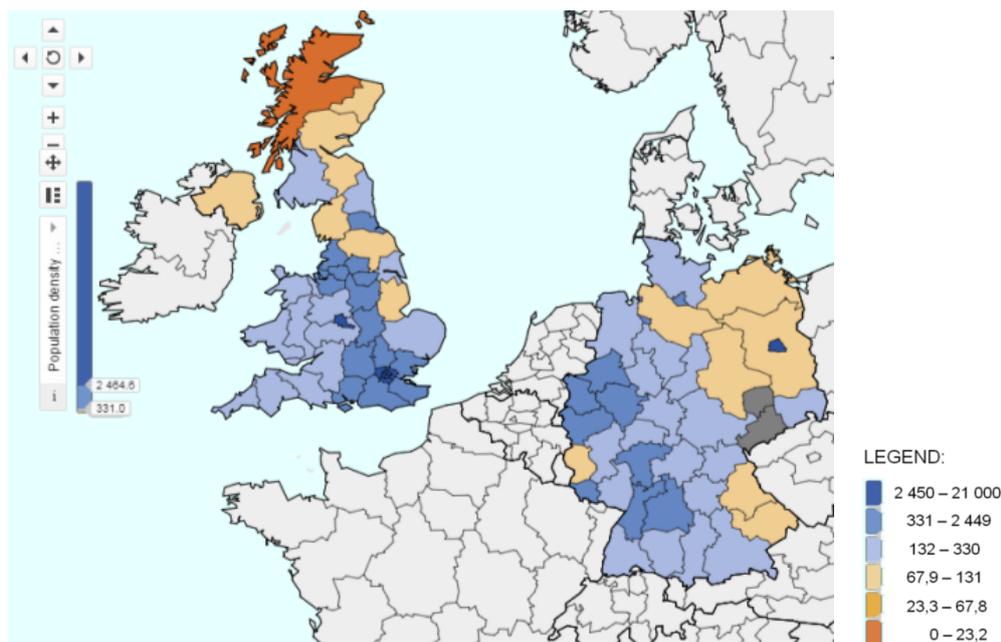
Allmendinger et al. 2015, p.14

However, soft spaces of planning are not always intended to improve the traditional statutory spaces of planning (Allmendinger et al. 2015). In the following sections soft spaces of planning are identified in both German and British context.

4.2 German and British Context

Set within the wider context of European Union outlined in the previous Chapter, Germany and the United Kingdom (UK) share some similarities, but there are also some very important differences. Although Germany has a higher population number, both countries have similar population density, especially in the regions where case studies are located (Figure 21).

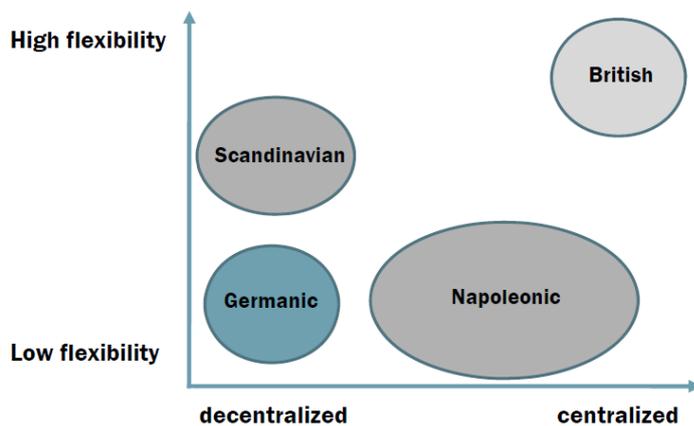
Figure 21: Population density in Germany and UK in 2006 (inhabitants per km²)



Source: Eurostat – GISCO 2013

However, while Germany has a polycentric urban structure with decentralized political, economic and cultural power, the UK is a monocentric country dominated by the capital city. Figure 22 illustrates legal and administrative families in the European Union with levels of centralization and flexibility.

Figure 22: Legal and administrative families in European Union



Source: Based on Newman and Thornley 1996

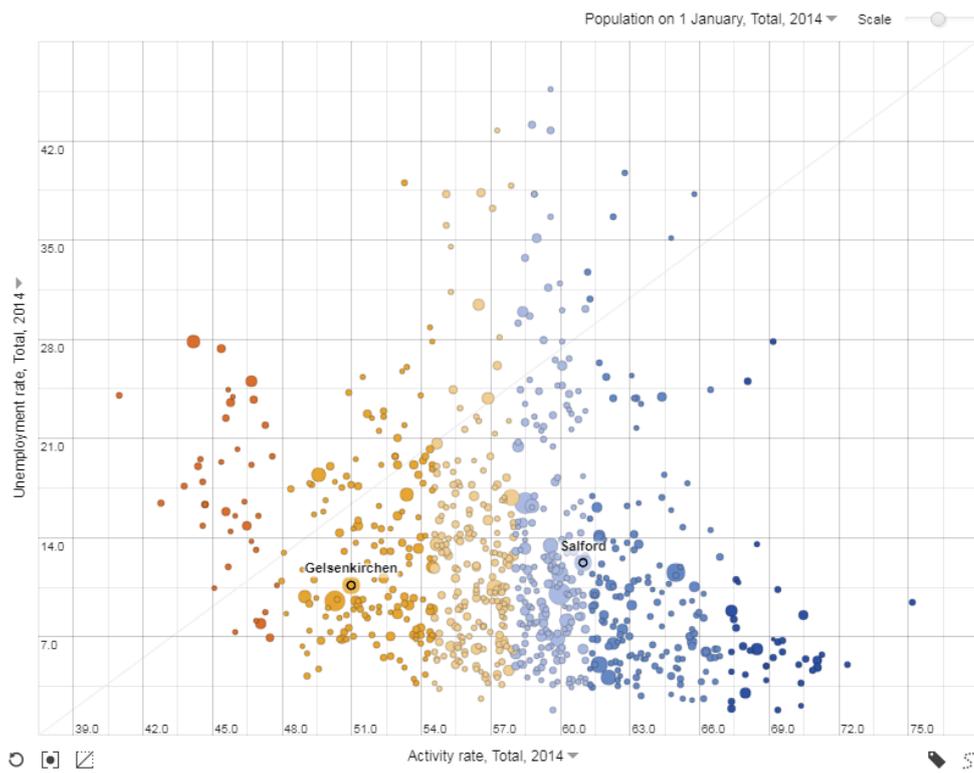
Both countries, Germany and the UK are among the largest economies in the European Union and contain regions like the Ruhr Region and Greater Manchester that are facing challenges of industrial restructuring and structural change. However, compared with Germany⁸, the UK started earlier with the de-industrialization (Jones and Wild 1991, Couch *et al.* 2011) and the process was much more severe in the UK (Jones and Wild 1991).

Parallel with the decline in industrial employment, service employment increased. However, the replacement of industrial jobs with service jobs was not one-to-one and the difference in the rate of sectoral change in the two countries 'produced a very strong contrast in the overall employment market' (Jones and Wild 1991, p.4), with higher levels of unemployment in the UK in 1970, 1979 and 1986 (*ibid.*). In both countries the effects of de-industrialization have caused regional disparities with declining traditional industrial regions and fast-expanding regions with new industries (Jones and Wild 1991). These changes have influenced population distribution and density causing a population decline in traditional industrial regions including the Ruhr Region and Greater Manchester.

⁸ West Germany at the time of industrial restructuring

Figure 23 illustrates a similar population number in selected cities, Gelsenkirchen and Salford on January 1st, 2014. However, although the unemployment rate in both cities is similar, the economic activity rate differs significantly.

Figure 23: Population number on January 2014 is in both cities similar: Gelsenkirchen 257.850 inhabitants and Salford 240.500 inhabitants, similar unemployment rates for both cities Gelsenkirchen 10,6 estimated, and Salford 12,2. Activity rates⁹ differ significantly: Gelsenkirchen 51 and Salford 61.



Source: Eurostat

Governments in the UK and Germany have recognized that the disadvantaged socio-economic groups in deprived neighborhoods are characterized by the lower life expectancy compared to other neighborhoods (HC 2008, RKI 2005). However, although a focus of the urban regeneration projects in both countries is on improving dysfunctional urban areas, it is only in the UK that the quality of life of local people is taken into consideration (Tallon 2013). In the following sections urban regeneration approaches in Germany and the UK are explored more into detail.

⁹ Economic activity rate is the percentage of the population, both employed and unemployed, that constitutes the manpower supply of the labor market, regardless of their current labor status

4.3 Urban regeneration in Germany: the historical context and contemporary approaches

Urban regeneration policy in Germany is determined on the national level and beside ‘regulations on urban development measures, “special urban planning legislation” focuses on preservation and renewal’ (BBR 2000, p.36). In the German context the term *regeneration* is related to redevelopment and renewal and these two terms will be used in this section. Furthermore, since case study is located in the Ruhr Metropolitan Region, which was a part of the Federal Republic of Germany before the reunification in 1990, the historical overview of the redevelopment policy refers to this republic.

As stated in the redevelopment law, the main purpose of redevelopment is to ‘alleviate urban deficits in the area’ and ‘municipalities [should] perform a planned and coordinated renewal process under an overall urban planning measure in areas where such redevelopment is urgently needed’ (BBR 2000, p.39). Furthermore, urban deficits are defined as an existing physical condition of an area, which ‘fails to meet general requirements of healthy living and working conditions and general safety of those living and working there’ (BBR 2000, p.39). Lack of green spaces or amenities in the area are defined as functional impairments that contribute to the urban deficits (BBR 2000).

Although a procedure of redevelopment takes approximately ten years (BBR 2000), in the post-war period after 1945, when many dwellings were lost or damaged, it was necessary to search for solutions that would enable reconstruction in the short term in order to solve the housing needs. Large-scale redevelopment with demolition and new construction after WWII were answers to the high housing demand (BBR 2000). ‘In the Federal Republic of Germany during the reconstruction phase over 5 million flats were built on the basis of the Second Federal Housing Construction Act’ (BBR 2000, p.39) with an overall guiding principle to create a “segmented and diversified city” (BBR 2000, p.46). The Athens Charter (see Section 2.4.2) had great influence on these reconstructions resulting in separated urban functions of housing, work and recreation (BBR 2000, p.46).

Urban expansion in the 1960s characterized by the construction of multi-story housing settlements and low-density urban sprawl was replaced with a new approach to urban development policy in the 1970s due to the economic crisis and the need to renew the existing housing stock (BBR 2000). ‘The Urban Renewal and Town Development Act created

the basis for the renewal of the cities as a joint task of the Federal Government, *Länder* and municipalities' (BBR 2000, p.49) for the long-term urban development. Modernization of the existing building stock was seen as an opportunity to improve its energy-efficiency. Furthermore, necessity for urban research and an interdisciplinary approach was recognized and resulted in establishing urban development institutes (BBR 2000). Still 'until the late 70s urban renewal projects...focused mainly upon clearance and reconstruction' (Couch *et al.* 2011, p.28). However, since large redevelopment schemes failed to take into account social consequences they were replaced with a 'careful' urban renewal approach (BBR 2000).

In the 1980s the consequences of the economic structural change reflected in high unemployment rates and demographic change required state support for investment and employment. Focus was on the promotion of urban renewal; however, 'municipalities were at that time trying to maintain existing areas of the city... and to [set] up new areas of owner-occupied dwellings... [in order to] retain a high-income population in the city' (BBR 2000, p.51). A new approach of 'careful' urban renewal 'sought to find different ways of renewal, initiating a turn in the downward towards an upward, or at least stable development, securing existing structures, which include explicitly the existing social structures' (Couch *et al.* 2011, p.29). At that time formal participation was introduced by the Federal Building Code as an attempt to formalize informal forms of participation and citizens' commitment (BBR 2000). One of the first projects of 'careful' urban renewal was in the Ruhr area in 1984 (Couch *et al.* 2011). Some of the main aims were 'the prevention of forced mobility, the improvement of equal opportunities and the integration of different groups of the population as well as the improvement of the attractiveness of an area/quarter for all groups in society' (Couch *et al.* 2011, p.29). In addition, an office within the project area, a predecessor of neighborhood management as exists today, was established to provide information to citizens and to coordinate the project (Couch *et al.* 2011). The International Building Exhibition (IBA¹⁰) in Berlin in 1984-1987 was an important contribution for developing the 'careful' urban renewal approach, which influenced future policies (Couch *et al.* 2011).

Urban development and urban regeneration policies in the 1990s were influenced by globalization and German reunification (BBR 2000, Couch *et al.* 2011). It was necessary 'to

¹⁰ *Internationale Bauausstellung (IBA)*

balance out the living conditions in both parts of Germany' (BBR 2000, p.53) after four decades of separate systems. This challenging task became more complex as Germany strived 'to bring together environmental issues (Rio Conference, Agenda 21) and urban development (Istanbul Conference, Habitat Agenda)' (BBR 2000, p.53) in order to create conditions for future sustainable urban development and reconstruction (BBR 2000, Couch *et al.* 2011). In that sense, 'the dominating principal orientation of the 1990s [was] sustainable urban development' (BBR 2000, p.53) reflected in setting the priority on urban reconstruction instead on new developments on the green sites (BBR 2000). Focus was set on the reuse of military sites and industrial brownfields. However, although technical aspects allowed reuse and renewal of brownfields, these interventions were limited due to political aspects of private ownership of former industrial sites (BBR 2000). Nevertheless, the International Building Exhibition, IBA-Emscher Park focused on the economic and ecologic renewal of the Emscher Zone with an emphasis on the 'protection, renovation and reuse of examples of the region's industrial heritage' (Couch *et al.* 2011, p.30). Emscher Zone is a part of the Emscher open sewage system built during the industrial period, which is described in Section 5.1.2.

The current approach to redevelopment and renewal is defined by urban policies on the national level. The German culture of urban planning with 'the notion of the common good' (Keller *et al.* 1996, p.50) is embedded in the national urban planning policy, which focuses on the scientific approach in order to 'ensure just and consequently implementable criteria for decision-making' (Keller *et al.* 1996, p.51). Although the main framework is set on the national level, 'it is at the regional and local levels where the strongest powers are found and where responsibility for implementation lies. The structures of governance of urban regeneration are fairly traditional with relatively good local democratic control, few quangos and limited, controlled private sector involvement' (Couch *et al.* 2011, p.19). Leipzig Charter on Sustainable European Cities (see Section 4.1.1) had a great influence on urban planning policy in Germany.

Socio-spatial disparities that emerged as a result of structural change were tackled in 1999 when a special program "Districts with special development needs - the Socially Integrated City" ("Stadtteile mit besonderem Entwicklungsbedarf - Die soziale Stadt") was

initiated on the national level. Districts with special development needs, deprived areas, were identified according to following criteria:

'above-average long-term and/or youth unemployment, large sections of the population relying on government transfer payments, the decline of local economies, increased migration away from the area of more affluent sectors of the population, structural and urban development deficits, vacant properties, disinvestment, tensions between social and/or ethnic groups, individual psychosocial problems such as resignation and substance abuse.'

BMVBS/BBR 2007, p.63

Selle (2010) argues that in the context of post-industrial cities in Germany the condition of public open spaces is influenced by spatial division rooted in social segregation of the active population and 'problematic' groups, characterized with 4As: 'der Armen [poor], der Arbeitslosen [unemployed], der Alten [old] and der Ausländer [migrants]' (p.40).

The program *Soziale Stadt* is envisioned as an integrative approach to urban renewal with strong emphasis on social aspects, but includes also environmental and housing improvements (MWEBWV 2011). The program is described in detail in the context of the case study in Gelsenkirchen (see Section 5.2).

In 2004 the new program *Stadtumbau West*¹¹ (urban conversion) was initiated by the national government in order to 'support urban restructuring and the reuse of derelict land; improvement of public space; adaptation of urban/rural, technical and cultural infrastructure; improvement and conversion of public buildings; and the removal of long-term redundant buildings and infrastructure' (Couch *et al.* 2011, p.32). Both programs the *Soziale Stadt* and *Stadtumbau West* 'require integrated concepts as a condition for funding...[They] have served as training grounds for [integrated] approach and represent the state of the art of urban regeneration in Germany today' (Couch *et al.* 2011, p.33).

4.4 Urban regeneration in England: the historical context and contemporary approaches

One of the first policy documents in England referred to *regeneration* as a 'proposed strategy [which] would concentrate investment and development within the urban County and particularly in those areas with the most acute problems, enhancing the environment and encouraging housing and economic expansion on derelict and disused sites' (Merseyside County Council 1975 in Couch *et al.* 2011, p.3). However, it was the post-war urban

¹¹ *West* refers to west Germany

reconstructions that were the first form of regeneration (Tallon 2013). In these early years after the Second World War until 1968 focus was on a 'physical redevelopment or so-called "bricks and mortar" policies more associated with town and country planning and housing policy than with urban policy or urban regeneration as such' (Tallon 2013, p.30). The UK was facing similar challenges of high housing demand as Germany at that time, thus UK policies were also focused on physical improvements and solving problems of sprawl (Tallon 2013).

A change in policy in the period 'from 1968 to 1979 witnessed the introduction of area-based community initiatives' (Tallon 2013, p.30). However, deprived areas of former industrial sites with high unemployment rates of unskilled and semiskilled workers (Massey and Meegan 1978) who were at the same time mostly immigrants may have not gained great attention if there had been no riots. Hall (2014) and Cochrane (2007) argue that riots were the main reason for immediate political reaction in the form of an urban program at the end of 1960s (a table illustrating the evolution of urban regeneration policies is in the Appendix 5).

Deprivation had different definitions which were related to characterizing urban poor. Hall (2014) emphasizes that after the investigation of three deprived inner-cities areas in 1977, the Secretary of State for Environment in Great Britain changed the view on deprivation and 'deprivation was no longer a matter of individuals of households failing below the poverty line; rather, it had become a matter of the failure of entire urban economies' (Hall 2014, p.418). "A Policy for the Inner Cities" 'was the first explicit "Urban" White Paper, although being very much "inner city" focused' (Tallon 2013, p.38).

As a result of this conclusion the emphasis was placed on the economic revival of inner-cities and not on urban poverty (Hall 2014). The reason for that was 'a view that such problems would sort themselves out, if the local economy could be made strong enough. Economic success would provide jobs and redevelopment in ways that would also transform inner cities' (Cochrane 2007, p.88). However, it is not only inner cities that were suffering from deprivation. In order to identify and map deprived areas, an objective, "technical" approach was selected (Cochrane 2007).

In the 1980s wider factors of 'the de-industrialization, the urban-rural shift and the widening north-south divide' (Tallon 2013, p.42) influenced urban policy to a great extent.

The definition of urban problems, which included structural economic change and social challenges characterized by government as a social pathology, determined the government's approaches to top-down neoliberal approaches to urban regeneration (Tallon 2013). Market-led and property-led urban regeneration was a main approach reflecting growth-orientated government strategies and entrepreneurialism (Tallon 2013). Central government established Urban Development Corporations (UDCs) 'with nominated members from the business background to drive change' (Tallon 2013 p.43) and excluded local governments from the urban regeneration process (Tallon 2013, Couch *et al.* 2011).

A new initiative "City Challenge" with a competitive approach was initiated in 1991 'as being the most effective way of encouraging progress, and partnership between local government, community, the private sector and voluntary sector' (Tallon 2013, p.69). Local government gained its role again; however, in order to receive funding for urban regeneration it was necessary to develop a winning proposal, rather than to have a greatest need for regeneration (Couch *et al.* 2011, Tallon 2013). In 1994 a "Single Regeneration Budget" (SRB) was established with an objective 'to enhance the quality of life of local people in areas of need by reducing the gap between deprived and other areas, and between different groups' (Tallon 2013, p.75).

Urban renaissance and neighborhood renewal were the main approaches to urban regeneration in the UK in the period between 1997 and 2010. Although SRB initiatives developed in further phases, new initiatives were introduced. New Deal for Communities (NDC) was program for neighborhood renewal initiated in 1998. It was 'designed to tackle multiple deprivation in the poorest areas... and to bridge the gap between the most deprived neighborhoods and the rest of the country by allocating grants to community-based partnerships for neighborhood renewal' (Tallon 2013, p.94). Trends of sustainable urban development triggered the linking of sustainable communities policies to urban regeneration and determining priority areas for the Sustainable Communities Plan (ODPM 2003). Housing Market Renewal Pathfinders was initiated in 2002 as an action program 'to replace obsolete housing with modern sustainable accommodation, through demolition, refurbishment and new build' (Tallon 2013, p.91). Although the program was planned for 10 to 15 years it was ended after eight years leaving uncompleted projects (Tallon 2013).

The state of the living environment is one aspect that is taken into account when measuring the level of deprivation. The level of deprivation in the UK is measured by the Deprivation Index compounded of seven main indicators including income, employment, health, education, housing and services, crime and living environment (CLG 2011). English indices of deprivation are used to identify the most deprived areas and allocate means from the Neighborhood Renewal Fund as well as to initiate regeneration processes through the Neighborhood Management Pathfinders (McLennan n.d.).

Although deprived neighborhoods are mostly not suffering from the lack of social capital, but rather of poverty (Cochrane 2007), it is the increase in political participation that may improve their status by influencing decision-making. Furthermore, '...the development of British urban policy since the 1990s...is increasingly predicated by a belief that "empowering" communities and giving them direct responsibility for their own well-being will make it more likely that any gains will be sustained over the longer term, even when particular projects have come to an end' (Cochrane 2007, p. 61).

However, in order to "empower" the communities, it is necessary that the community has a leader. Cochrane (2007) argues that not all communities are easily identifiable, nor do they all have a leader. He further notes that in 2004 the Home Office Active Community Unit had a task to generate strong and active communities in order to 'help generate and identify community "leaders" who are able to encourage community cohesion and to take responsibility for their own areas' (Cochrane 2007, p. 61). These models were furthermore used as showcases for neighborhood management containing 'an action plan and a means of monitoring it; the oversight of a "champion" leading a team; a community development fund for pump-priming; and neighborhood forums for local involvement' (Cochrane 2007, p. 61). The British experience in urban regeneration and active communities was integrated in Bristol Accord (see Section 4.1.1).

The alternative involvement of communities requires 'to find creative ways of equipping those who are politically, socially and economically excluded to find and exploit the cracks and tensions within the system and the windows of opportunity they create' (Taylor 2003 cited in Cochrane 2007, p. 67). Although one of the important features of urban regeneration in the UK is the involvement of the voluntary sector (Roberts 2017) it does not assure that the usually excluded groups would take a part.

Parallel to this, new institutional forms are tried out 'bringing in unique constellations of actors often mobilized at hybrid spatial scales or in new geographies that challenge preexisting state territorialities' (Allmendinger *et al.* 2015, p.7). The rescaling of the state is reflected in urban regeneration projects joining different scales independent of territorial characteristics as '...state powers are lent upwards (e.g. to the EU), downwards (e.g. to local or regional government) and outwards (e.g. to neighborhood regeneration partnerships)' (Allmendinger *et al.* 2015, p.7).

CHAPTER 5 | Case study: Bulmke-Hüllen, Gelsenkirchen, Ruhr Metropolitan Region

A brief description of the historical evolution of urban policies in Germany and Britain in the previous chapter revealed similarities and differences of national strategies for urban regeneration. In the following chapters local contextual influences of the metropolitan regions and urban development strategies are related to the urban regeneration of selected neighborhoods.

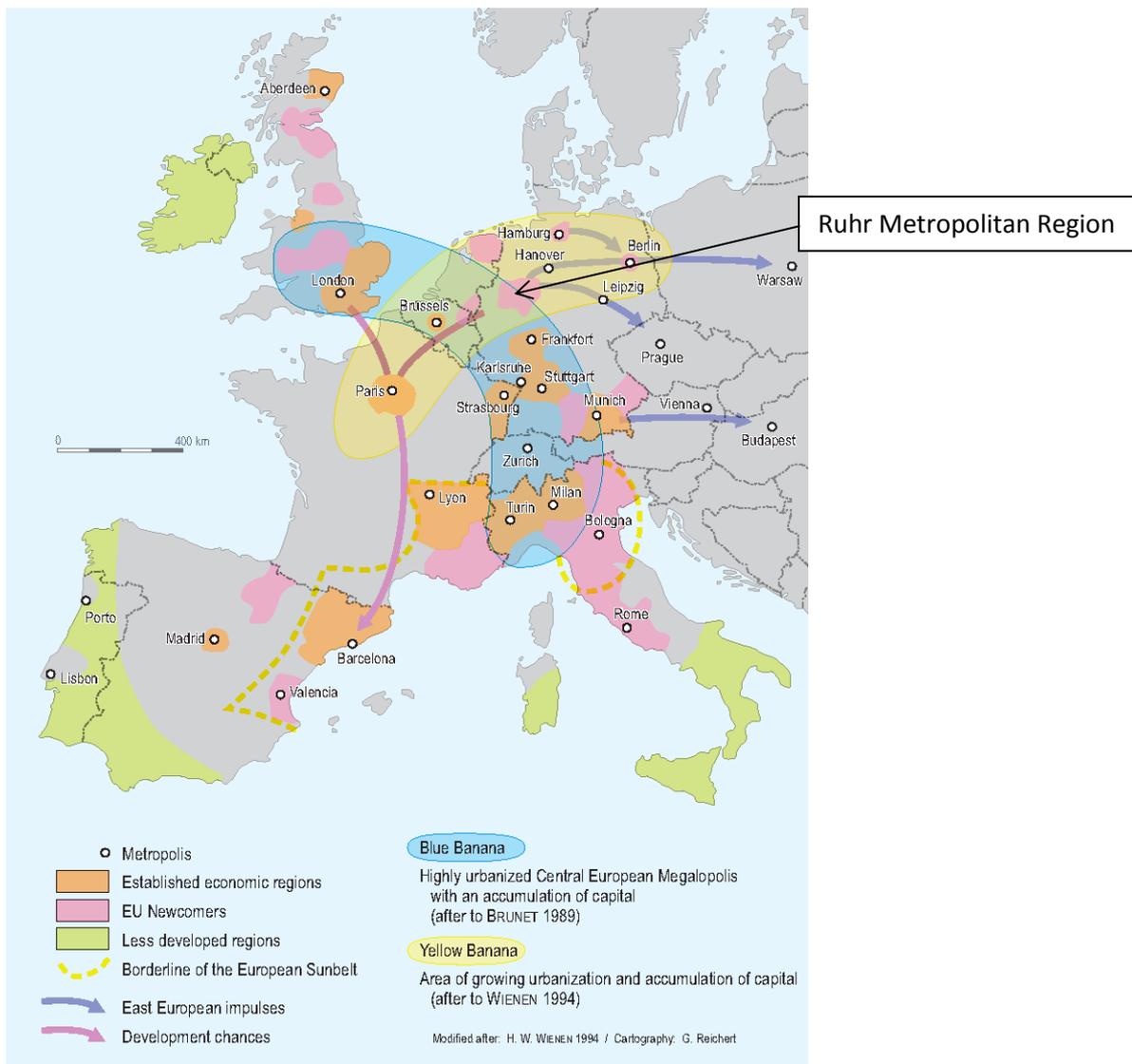
5.1 Ruhr Metropolitan Region and the city of Gelsenkirchen

Located within the federal state (*Land*) of North Rhine-Westphalia, Ruhr Metropolitan Region (*Ruhrgebiet*) is a polycentric metropolitan region with more than 5 million (5.062.307) inhabitants (Census 2011, it.nrw). It is a part of the largest metropolitan region in Germany, Rhine-Ruhr metropolitan region, which lies in the intersection of the highly-urbanized corridor of economic development “Blue Banana”¹² and corridor of growing economic importance “Yellow Banana” (Wehling 2011) (Figure 24).

While the Rhein-Ruhr metropolitan region was established as a strategic planning concept necessary for global competitiveness lacking real cooperation between cities and public acceptance (Wehling 2011), the Ruhr Metropolitan Region was developed out of the necessity for cooperation.

¹² Brunet’s (1989) analysis of growing European economy with dominance of Manchester-Milan axis (*la Dorsale européenne*) - so called “Blue Banana” - which was entirely by-passing Paris and France.

Figure 24: Tendencies in European development with the most important urban regions in the blue and yellow corridor



Source: Wehling 2011, p.16

In 1920 Ruhr cities founded an association *Siedlungsverband Ruhrkohlenbezirk* (SVR) as a first German regional planning authority due to the indispensable cooperation needed between cities in order to overcome different challenges that were not solvable on the local level (Wehling 2011). In 1979 SVR was converted to Kommunalverband Ruhr (KVR), which dealt mainly with clearance, recreational, landscape and recreational planning, surveying and forestry, public relations and waste management. With the change of the association law the KVR was renamed on October 1st, 2004 into the regional association Ruhr (RVR) and received extended competencies in regional self-government (metropoleruhr 2010).

Figure 25 illustrates the administrative borders of the cities and four rivers that flow through the Ruhr Metropolitan Region. The Rivers Rhein, Ruhr, Lippe and Emscher were

important for the historical development of the region. The Emscher River was converted to an open sewage canal during the period of industrial expansion and is currently in the process of renaturalisation (see Section 5.1.2).

Figure 25: Administrative borders of the cities in the Ruhr Metropolitan Region



Source: Wikipedia, attribution: Threedots (Daniel Ullrich)

Cities in the Ruhr Metropolitan Region were coping with similar problems during the industrial development and facing related challenges in the de-industrialization period, which has influenced their overall development. However, some parts of the region, like areas in the proximity of the Emscher River, were particularly affected due to high industrial exploitation:

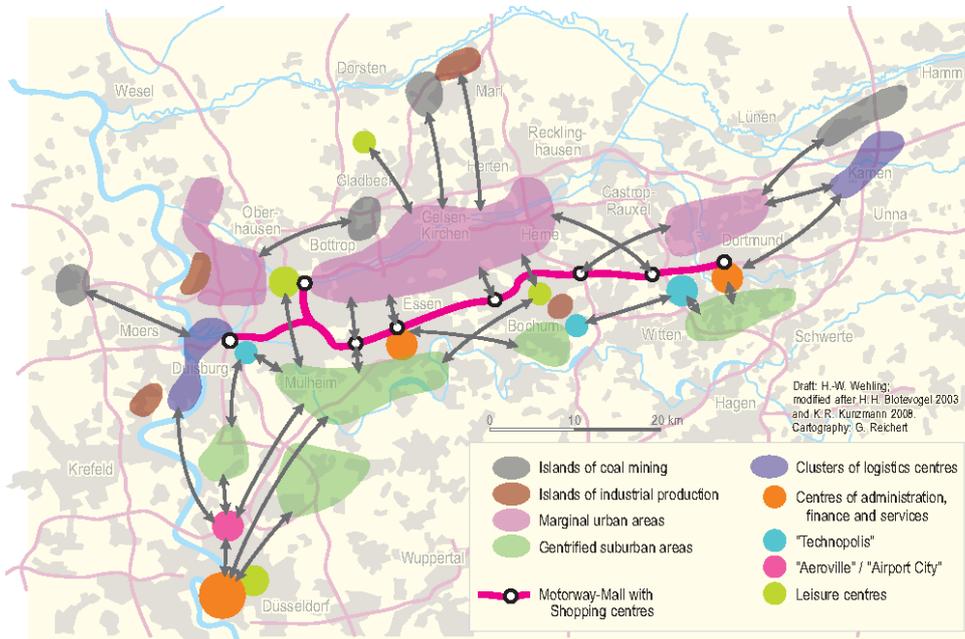
In the proximity of Emscher River are located brownfields, infrastructure facilities of former industrial sites and housing estates that were originally formed in connection with the work. In the time after the industrial utilization they are too isolated and partially underutilized, unattractive settlement areas.

Emschergenossenschaft 2006 p.C8

The consequences of their industrial past and economic restructuring are reflected spatially in the fragmented urban structures and unequal urban development. Figure 26 shows the strong separation of gentrified suburban areas in yellow (e.g. in Essen and

Mülheim) and the marginalized urban areas in the proximity of the Emscher River in magenta (e.g. in Gelsenkirchen and Herne).

Figure 26: Fragmented Ruhr Metropolitan Region

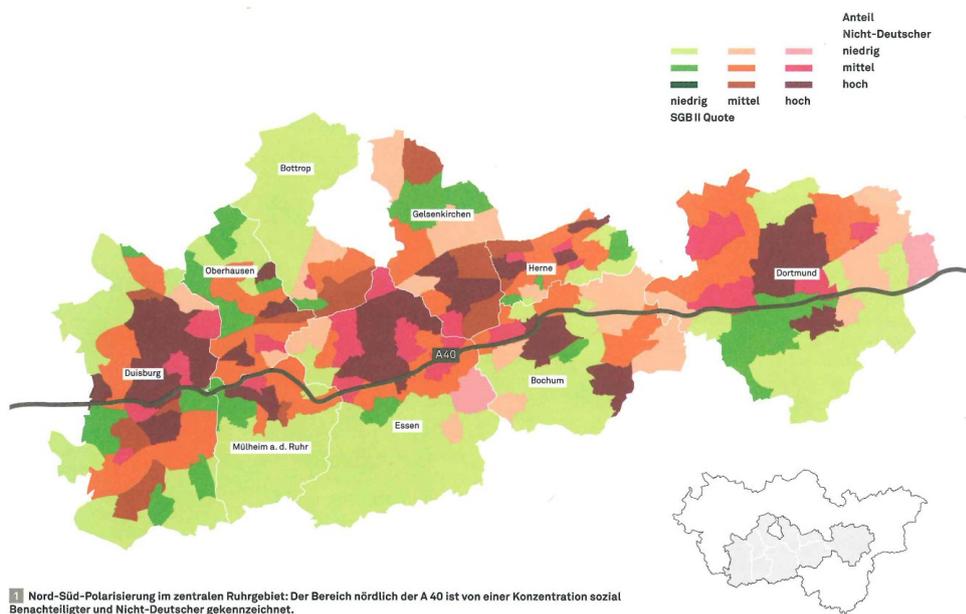


Source: Wehling 2011, p. 14

Furthermore, unequal spatial development is reflected in socio-economic segregation and the north-south division with a highway A40 as a main border (Figure 27). Farwick et al. (2011) argue that socio-spatial polarization is the greatest around the A40 highway and the Emscher River. Their analysis of social structure data reveals clear spatial patterns of social inequality. Authors (Farwick et al. 2011) differentiate between socially privileged districts with low unemployment and low quotas of SGB II¹³ references and socially disadvantaged districts with high unemployment and high rates of SGB II salaries. They emphasize that socially disadvantaged neighborhoods are concentrated in the region between the A40 and the Emscher River (Farwick et al. 2011, p.131). The districts with a high proportion and increasing number of non-German population are predominantly located in the traditional workers' quarters and the areas characterized by social housing north of the A40. While districts with a low proportion and decreasing number of non-German population are mostly found in the suburban areas of the Emscher region (pp. 104,105).

¹³ SGB II rate shows how strongly the population group below 65 years of age is in need of benefits. It is a starting point for the analysis of the spatial and socio-demographic distribution of deprivation (Bundesagentur für Arbeit n.d.)

Figure 27: Social segregation, north-south division and highway A40 as a border



Source: Hanhörster and Terpoorten 2011, p. 112

In terms of the transport network, highway A40 is a part of a networked system of highways (Figure 28) and railways in the Ruhr Metropolitan Region, which is a characteristic of the polycentric urban systems (El Khafif and Roost 2011, p.24). There is a good railway connection between cities. However, when it comes to public transport there is no network of underground lines through the metropolitan region. Some cities have a joint underground line, like Essen and Gelsenkirchen (U11 Essen, Messe/Gruga – Gelsenkirchen Buerer Str.) or Essen and Mülheim (U18), however due to the incompatibility of underground lines there is no direct connection between all cities in the metropolitan region.

Within the Ruhr Metropolitan Region, the Emscher cities have been working on different projects related to the generation project - conversion of the Emscher system. An ongoing *Zukunftsinitiative „Wasser in der Stadt von Morgen“* (“Future initiative: Water in the Future City”), is a ‘soft space’ (Allmendinger *et al.* 2015) of planning based on the cooperation of experts and local governments of all Emscher cities. It integrates different disciplines as well as sectors including universities and presents a vehicle for future urban governance across cities in the Ruhr Metropolitan Region including the city of Gelsenkirchen.

Figure 28: Dense network of highways and railroads in the Ruhr Metropolitan Region



Source: author, data from BKG and DCW

5.1.1 Gelsenkirchen

Gelsenkirchen is the fifth biggest city in the Ruhr Metropolitan Region with 257.765 inhabitants in the year 2011 (Stadt Gelsenkirchen 2017). In the same year disposable income of a household in Gelsenkirchen was 79,4% compared to the national average (100%) the lowest in the State of North Rhine-Westphalia (Izg.nrw n.d.b). A high unemployment rate reaching 16% on the city level (9,7% on the state level) in 2007 was coupled with a continuous population loss that resulted in a decrease in the population number by 44% (Stadtplanung 2007).

Life expectancy at birth in Gelsenkirchen in 2010-2012 was 74,62 years for men and 80,19 years for women (Izg.nrw n.d.), which is 3,1 years less for men and 2,61 years less for women than the national average (Statistische Bundesamt 2014). According to the Census 2011, the proportion of the population leaving school without qualifications was 13,4 in

Gelsenkirchen (Izg.nrw n.d.a), which was higher compared to 3,8 on the national level (Statistisches Bundesamt 2015).

These trends were a result of the structural change that took place after decades of industrial expansion and development that transformed in the 1870s the predominantly agricultural landscape of Gelsenkirchen (Wehling 2014).

Historic overview

In the early middle ages, prior to industrial expansion, an agricultural landscape was predominant in the entire region. In today's administrative area of Gelsenkirchen, south and north of the River Emscher economic and functional centers of *Kirchdorf* Gelsenkirchen and the Buer and Horst had been developed (Wehling 2014).

Between 1866 and 1880 iron and steel companies were in search for favorable site conditions for mining and low-cost traffic lines in Gelsenkirchen and overall in the Ruhr Metropolitan Region (*ibid.*). In the mid-1870s a first mining district was developed south of the Emscher River in the old-Gelsenkirchen (*Alt-Gelsenkirchen*) with a great number of mine shafts mostly distanced by only 1 – 1.5 km (Wehling 2014, p.38). That had marked the beginning of the industrial expansion and tremendous population growth of the city. In the preparatory period between 1852 till 1871 there was an increase in the population number by 503,7 percent, which has further multiplied 3,7 times until 1890 and once again doubled in the following 15 years (Wehling 2014, p.55). Consequently, population density rose from 59,7 inh./km² in 1818 to 497,4 inh./km² in 1871 and reached its peak in 1939 with 5.383,7 inh./km² (Wehling 2014, p.56).

The 'Golden age' of industrial expansion (1870-1918) was followed by industrial consolidation, a period of urban growth and development during which early urban planning was established (Tenfelde and Urban 2010). Unqualified laborers came from the surrounding villages or even other countries like Poland and Austro-Hungary to work in factories or mining. A massive inflow of workers not only completely changed the social structure of Gelsenkirchen and the Ruhr Metropolitan Region as a whole (Wehling 2014) but it also caused housing shortages. This was addressed by constructing dispersed settlements of compact housing with small gardens near mines mostly within the Emscher Valley. While

exposed to high levels of pollution, paradoxically workers grew fruits and vegetables as an affordable solution for a healthy diet.

The industrial urban development of Gelsenkirchen took place on the southern banks of the Emscher River until World War I, which was later on extended to the northern parts as well (Wehling 2014). Factories discharged their waste water into the Emscher River, a common practice in other industrial regions as well due to its convenience:

... it was the cheapest and most convenient dumping ground for all soluble or suspendable forms of waste. The transformation of the rivers into open sewers was a characteristic feat of the new economy.

Mumford 1966, p. 459

However, the Emscher River was prone to flooding (Emschergenossenschaft 2006), which had an influence on the spreading of infectious disease. In the year 1901 the Typhus epidemic spread quickly in Gelsenkirchen causing 200 deaths out of 2.500 affected individuals (Wehling 2014, p.83). Out of necessity to regulate the Emscher River, a first German public water board *Emschergenossenschaft* was founded in 1899 (Wehling 2014). Since it was impossible to construct underground sewage canals due to terrain sinking caused by mining, 109 km of the Emscher River was transformed into a 77 km long straight, open sewage canal with high dykes to prevent flooding (Wehling 2014, p.84). The transformation of the River began in 1906. Parallel to channeling the Emscher River, new transport routes were built by constructing bridges (Wehling 2014).

Beside the transport routes, new tram lines were laid in 1895/96 across the old-Gelsenkirchen, including Bulmke-Hüllen, to the administrative border with Bochum where the connection to the electric tram line to Herne was placed (Wehling 2014). Gelsenkirchen was also connected to Essen and Recklinghausen. The tram lines were constantly expanded, achieving by 1940 a good connectedness of the city with a whole industrial region (Wehling 2014, p.86).

The phase of reconstruction and reproduction after the WWII (1947-1960), shifted to a phase of de-industrialization of coal, iron and steel in the 1960s due to the economic crisis (Tenfelde and Urban 2010). The development of information and communication technologies, among others, promoted globalization and shifted industrial production from traditionally industrial countries to developing ones. Cities and regions were transformed

due to the shifts from industrial to post-industrial and information cities (Soja 2000), which require highly skilled labor instead of the unskilled workers characteristic of Fordism.

This shift has not bypassed Gelsenkirchen and in the 1970s it resulted in a high number of unemployed, unskilled laborers, a deteriorated urban environment and a faltering local economy (Pinch and Adams 2013) – growth was replaced with decline. As a result of this new transformation process, the city of Gelsenkirchen was facing new challenges that were jointly characteristic of all industrial cities:

...many of these cities themselves threaten to become residual; abandoned and obsolete monuments to an earlier epoch. Or else, as twilight regions of once confident and rational projects, they are transformed into aestheticized cityscapes ..., while their previous populations, if they have no role to play in this act, are inserted into other discourses: ethnic communities, urban poverty, inner-city decay, industrial decline, drugs, organized crime.

Chambers 1990 in Soja 2000, p.149

Ethnic communities of migrants, who came during the industrial expansion, were segregated in the areas of former industrial settlements. The poor quality of life in these areas was coupled with high levels of unemployment caused by the deindustrialisation expanding further socio-spatial segregation in urban areas (Krummacher *et al* 2003). These challenges were recognized by the state and local government and ‘since the 1970s, Gelsenkirchen has been subject to an ongoing process of urban redevelopment’ (Wehling 2014, p.156).

5.2 Initiatives before selected urban regeneration in Bulmke-Hüllen

Although there were different efforts to tackle the challenges of the post-industrial development, it was the International Building Exhibition (IBA) Emscher Park that gave impetus for more profound transformation (Pinch and Adams 2013, Wehling 2014).

Conceived by the state of North Rhine-Westphalia (NRW), the main goal of the IBA Emscher Park was to initiate the ecological renewal and urban development of deprived the Emscher area through regeneration projects realized over a period of 10 years, from 1989 until 1999. Transforming and integrating industrial areas into a regional landscape park with recreational green areas and a network of cycle paths was supplemented with efforts to renaturalize the Emscher River. An interdisciplinary approach combined with involvement of

international experts resulted in innovative measures and projects to improve housing as well as the socio-economic situation (Pinch and Adams 2013).

The IBA Emscher Park had a project-based approach, due to vast areas and various stakeholders. Although lacking in comprehensive strategy, the main vision of creating sustainable and innovative projects to foster transformation of the region was met through a guided incrementalism, which allowed for greater flexibility to cope with the complex structure of the region and stakeholders (Pinch and Adams 2013).

Gelsenkirchen-Bismarck/Schalke-Nord, was one of the IBAs program areas. Due to severe problems related to structural change, this area was the first to be included in the interdepartmental action program “Districts with Special Renewal Needs” (*“Stadtteile mit besonderem Erneuerungsbedarf”*), which was initiated in 1994 by the NRW state government (Wehling 2014, p.156). The State government identified several cross-issues that were joint characteristic of areas in need across the state of NRW:

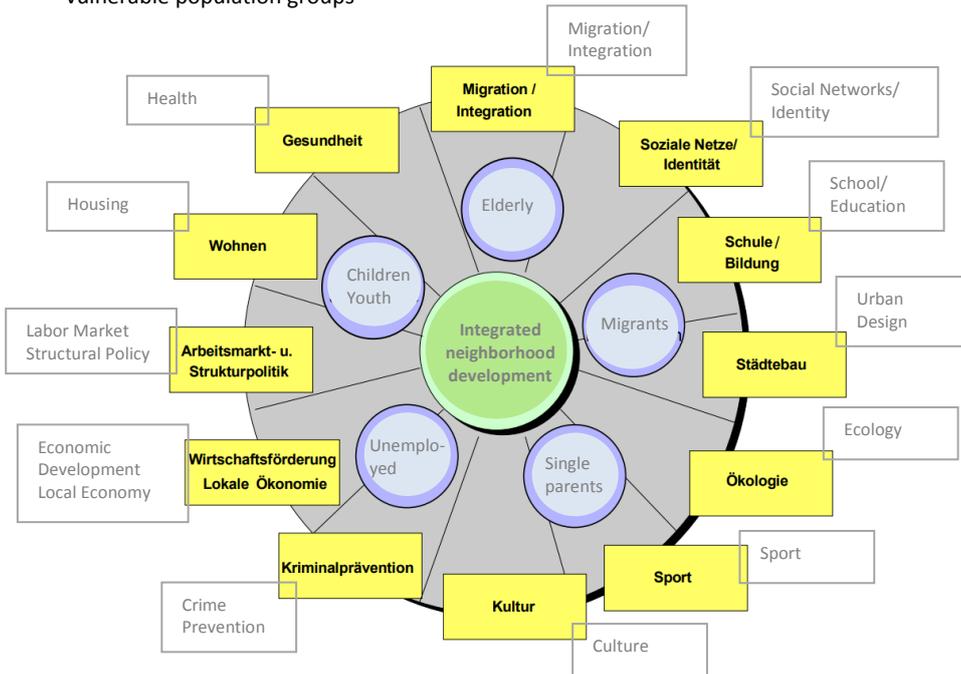
- unfavorable living conditions,
- above-average unemployment,
- concentration of various disadvantaged groups,
- negative image

Murböck 2002, p.102

As a response to these challenges a concept of the action program for the integrated neighborhood development included the cooperation of different sectors and the inclusion of vulnerable population groups (Figure 29) with an aim to stabilize the areas in the long-term (Murböck 2002, p.102).

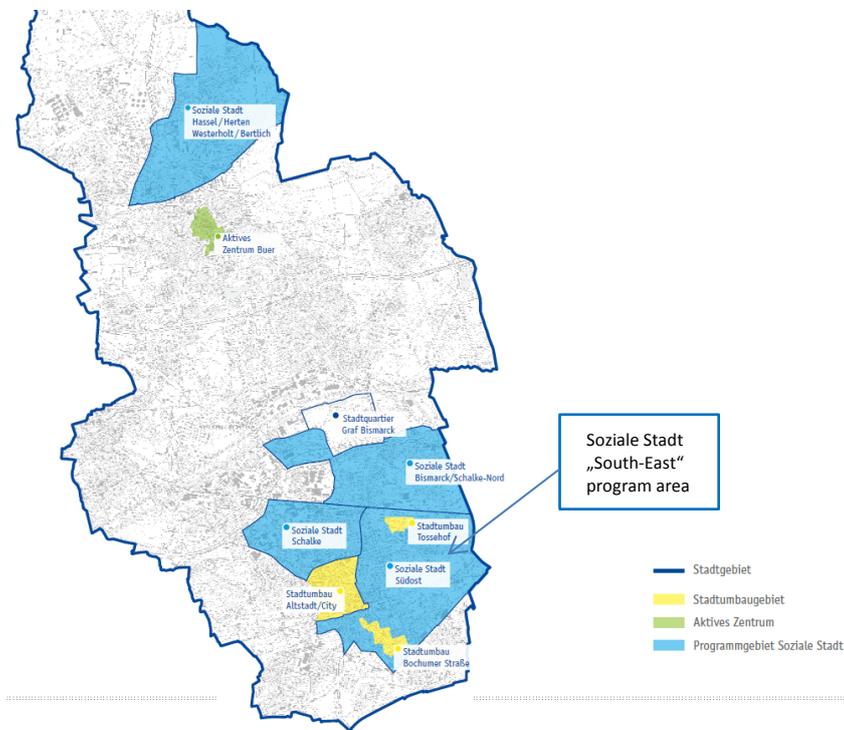
Since 1999 this program was further supported by the national government as a part of the urban development policy and renamed to "Districts with Special Development Needs - the Socially Integrated City" (*“Stadtteile mit besonderem Entwicklungsbedarf - Die soziale Stadt”*). Bulmke-Hüllen has been taking part in this program since 2002 (Stadt Gelsenkirchen n.d.) as a part of *Soziale Stadt* program area “Südost” (“South-East”)(Figure 30). *Südost* program area with approx. 750 ha and 42.000 inhabitants is one of the largest areas taking part in this program in the state of NRW (Soziale Stadt NRW 2015).

Figure 29: Concept of the action program for the integrated neighborhood development with different sectors and vulnerable population groups



Source: ILS 1998 in Murböck 2002, p.104, own translation in gray

Figure 30: Map of the areas taking part in programs for urban renewal in Gelsenkirchen including “Socially Integrative City” program area “South-East”



Source: Stadterneuerung 2016, p.27

The program was envisioned to incorporate an interdisciplinary approach and horizontal cooperation between different departments on the municipal level, as well as the inclusion of all stakeholders and the active participation of residents aimed at improving local conditions holistically (MWEBWV 2011). Projects were funded from the European, national and state funds as well as from municipal funds for a limited time period (*ibid.*). The urban renewal program had four main work fields:

- Improvement of housing, residential environment, traffic situation and urban ecology
- Strengthening of local economy, creation jobs and qualification opportunities
- Social work within the districts for a better social cohesion
- Participation and activation of the residents

Stadt Gelsenkirchen n.d.

Furthermore, the Federal Ministry of Transport, Building and Urban Affairs (BMVBS) had set up the "Urban Redevelopment West" (*Stadtumbau West*) funding program in 2004 in order to support urban redevelopment measures. The main aim of this development scheme was to improve the built environment in deprived areas and prevent further deterioration in order to assure future viability of cities and communities (BMVBS 2009). In 2002, prior to the scheme *Stadtumbau West* an "Experimental Housing and Urban Design"¹⁴ (ExWoSt) a pilot program was initiated to test the urban redevelopment strategies (BMVBS 2008). In Gelsenkirchen the ExWoSt pilot phase was initiated in 2003 to address population loss as well as urban and institutional dysfunctions by using innovative concepts and methods (Stadplanung 2007).

Located on the north of the *Soziale Stadt* program area *Südost* (Figure 30), a large multi-story residential settlement "*Tossehof*" in Bulmke-Hüllen was a part of renewal programs *Soziale Stadt* and *Stadtumbau West* at the same time.

5.3 Bulmke-Hüllen district and residential settlement Tossehof

Bulmke-Hüllen is a part of the administrative district Gelsenkirchen-Mitte located next to the city center - *Altstadt* (Figure 31) with 23,401 inhabitants in 2011 (Table 7). On the south of the area there is a large brownfield site of former mining and metallurgical facilities "*Schalkers Verein*" (Figure 31), which was closed in 2004.

¹⁴ *Experimenteller Wohnungs- und Städtebau (ExWoSt)*

Figure 31: Map of Gelsenkirchen with city districts and Bulmke-Hüllen

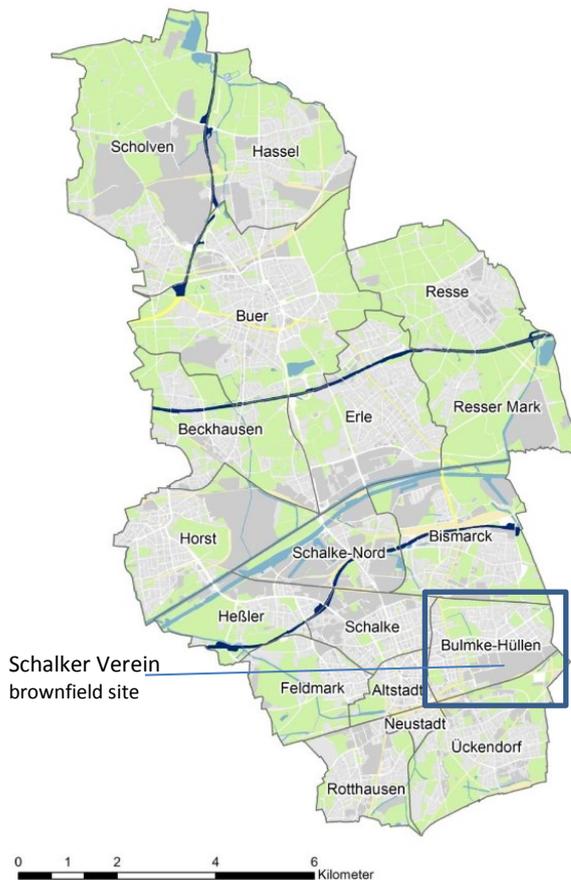


Table 7: Population number in Gelsenkirchen and city districts in 2011

District	Population
Altstadt	8.927
Schalke	19.327
Schalke- Nord	4.396
Bismarck	15.758
Bulmke- Hüllen	23.401
Feldmark	10.274
Heßler	5.804
Buer	33.917
Scholven	9.293
Hassel	14.867
Horst	19.437
Beckhausen	14.180
Erle	26.159
Resse	11.653
Resser Mark	3.449
Neustadt	4.371
Ückendorf	19.119
Rotthausen	13.433
Gelsenkirchen	257.765

Source: Stadt Gelsenkirchen 2017

Source: Junker and Kruse 2015, p.30, own emphasis

Bulmke-Hüllen was created from scratch during the industrialization period and it was densely populated; however, the situation changed after the closure of the industrial plants, when structural change was initiated. The settlement Tossehof is a part of a district Bulmke-Hüllen and it was built between 1969 and 1975 as one of the city's largest new residential settlements. Multistory modernist residential buildings up to 17 floors consisted of approx. 1.400 apartments and were equipped with central heating, garbage chutes and basement garage (Stadterneuerung n.d.). Multistory buildings were surrounded with green areas and had good access to daily supply (Stadterneuerung n.d.). This "Residential Oasis" (*"Eine Wohnoase in verkehrsreichem Stadtgebiet"*) was home to the approx. 3.000 inhabitants who were proud to live in such a prominent neighborhood (*"Prominentwohndiertel"*) (Stadterneuerung n.d., p.11).

Initially apartments were shared by 60 different owners (Stadtplanung 2007) with mostly middle-class residents (Stadterneuerung n.d., p.11). The "Residential Oasis" has turned into a problematic neighborhood in only 15 years. Ownership structure changed

during the years resulting in approx. 500 privately-owned apartments at the time the redevelopment measures took place (Stadtplanung 2007).

Urban problems in Bulmke-Hüllen and Tossehof

The demographic change and high unemployment rates were the main challenges after the closure of the industrial plants. In the year 2005 the unemployment rate in Bulmke-Hüllen had reached 18,5% (Stadterneuerung 2016, p.57), which was 4% more than on the city level. Physical and environmental degradation followed the social and economic consequences of structural change. The industrial plant “Schalker Verein” was abandoned, leaving contaminated land with large ruined constructions (Figure 32).

Figure 32: Large ruined constructions that remained after the closure of the “Schalker Verein” industrial plant



Source: Wikipedia, photo from 2010

The whole area of the former industrial plant “Schalker Verein” was fenced (Figure 33) and inaccessible to residents, creating fragmentation of urban space. A further contribution to the fragmented urban structure in Bulmke-Hüllen are the fenced tributary of the Emscher open sewage canal (Figure 34) and the abandoned ruined buildings (Figure 35) that present obstacles for coherence in urban space. These obstacles influence the sense of safety and prevent the use of these urban spaces, as residents perceive them as places to avoid (based on informal interviews with residents).

Figure 33: Fenced former industrial plant
“Schalker Verein”



Figure 34: Inaccessible Emscher Canal – life danger



Figure 35: Abandoned and ruined buildings



Source: author, 2013

Although once a prominent living area, multistore building blocks in Kopernikusstraße in Tossehof (Figure 36 left), became a problematic quarter in the 1990s. The building blocks in Kopernikusstraße were owned by the Gelsenkirchen non-profit Housing Association (*Gelsenkirchener gemeinnützige Wohnungsbaugesellschaft*) (GGW), while in *Plutostraße* the owner was the former *Schwäbische Immobilien GmbH*. The main characteristic of these settlements was that the most of the residents were receiving social benefits and there was a very high share (90%) of foreigners and young population (Stadtplanung 2007). Furthermore, the multistore structure and complex socio-economic background of residents living in these settlements contributed to social isolation and anti-social behavior. The unfavorable living conditions and physical deprivation are illustrated on the Figure 36.

As a result of structural change, dramatic loss of population, as well as high levels of unemployment in Bulmke-Hüllen and Tossehof compared to the whole city of Gelsenkirchen (Stadt Gelsenkirchen 2011) created an unsustainable environment for local services and further decline of the neighborhood. These characteristics of the neighborhood were the reason for initiating urban regeneration.

Figure 36: Physical deprivation and unfavorable living conditions in Tossehof



Source: Stadt Gelsenkirchen 2007

5.4 Process of urban renewal in Bulmke-Hüllen and Tossehof

The urban renewal initiative in Bulmke-Hüllen was initiated as a part of a larger *Soziale Stadt* project. Although, social integration was a dominant component, urban renewal was defined as an integrative approach including other aspects like physical, economic and environmental improvements.

Basically, we believe that urban renewal needs an integrated approach, thus we look at the structural-investment, social dimensions, ecologically sustainable dimensions and the economic situation of a district as a whole. For us, urban renewal, if we renew, means integrated renewal¹ (Feldmann, Stadterneuerung, City of Gelsenkirchen, interview 2015)

Basically, the definition for urban renewal in Bulmke-Hüllen was based on the definition provided by the former Ministry for Economic Affairs, Energy, Building, Housing and Transport (MWEBWV¹⁵) in NRW for the renewal of the areas with special development needs, *Soziale Stadt*. These four fields were named by the former District Coordinator for Socially Inclusive Projects (*Stadtteilkoordinator für sozial-integrative Projekte*):

Actually here in Gelsenkirchen, we have more or less four fields of action depending on the concrete program area: structural renewal, local economy and labor market integration, these are socially

¹⁵ Ministerium für Wirtschaft, Energie, Bauen, Wohnen und Verkehr

integrative measures and then there is the huge field of participation and involvement. (Gerwin, former District Coordinator for Social Inclusive Projects, City of Gelsenkirchen, interview 2015)

In the case of Tossehof, improvements in built environment were seen as a prerequisite for changing the image of an obsolete settlement that should be improved according to residents' needs

The other thing that was mentioned was, the living environment in the Tossehof must be examined and changes are made, so that the whole picture in Tossehof changes again. That was, as said, a thought that emerged in the 70s and then of course also gotten old and a clear need for improvement was then seen. Furthermore, it has been said from the beginning, we would like to design the urban redevelopment with the people who live here in order to see what the local people want (Czackowski, neighborhood manager, City of Gelsenkirchen).

Planning of urban renewal in Bulmke-Hüllen and Tossehof required an integrative approach in order to solve complex socio-economic challenges and improve the physical environment of the neighborhood. Since urban problems in Bulmke-Hüllen were not an isolated case, but rather they were shared by other areas in the city, this approach was based on the overall strategy for urban development on the city level with three main fields¹⁶:

1. *economic modernization and development of sustainable locations for living and working*
2. *sustainable renewal and stabilization of neighborhoods and improvement of environmental quality*
3. *social integration of migrants and socially disadvantaged groups*

Stadtplanung 2007, p.2, own translation

Furthermore, a specific tailor-made action plan was developed in a consensual participative approach. *Gebietsbeirat* - an area Advisory Board participated in planning and developing the action plan. There were seventeen democratically elected members of *Gebietsbeirat*, nine citizens and eight politicians, who worked together on the urban renewal project. The main measuresⁱⁱ of urban renewal were:

- *upgrading the long-term preservable city neighborhoods and housing stocks with stabilization of inner-city old buildings*
- *adaptation of the social, cultural and technical infrastructure to the changed demands*

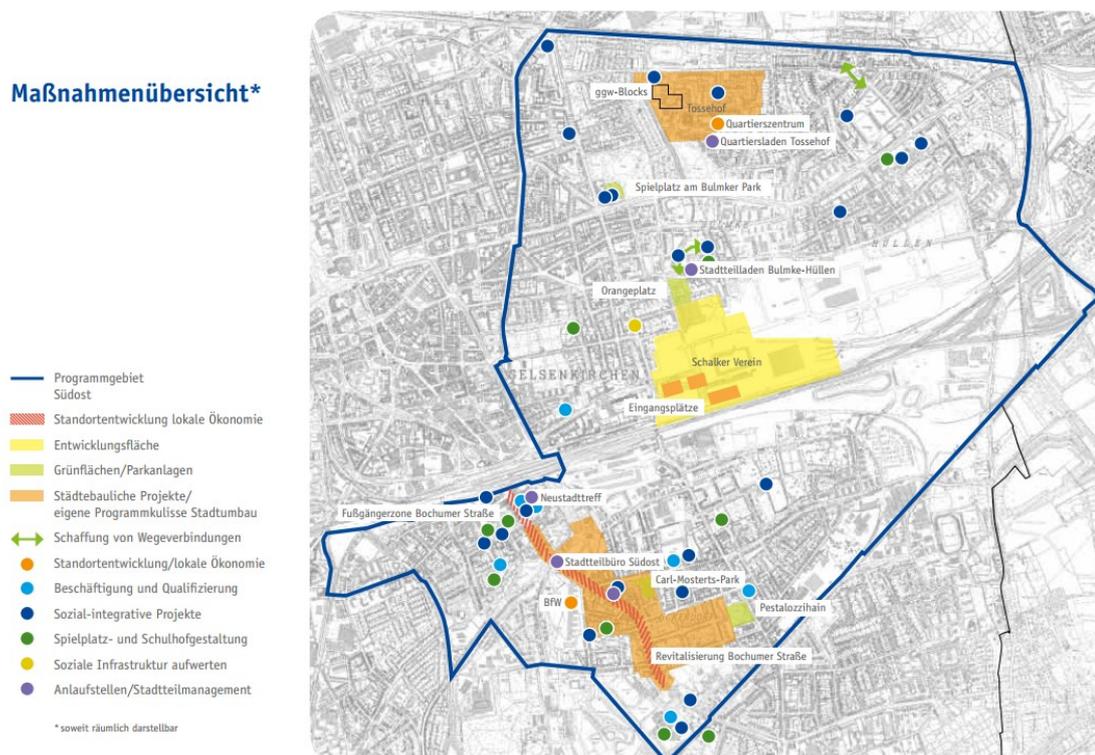
¹⁶ 1. ökonomische Modernisierung und Entwicklung von zukunftsfähigen Standorten für Wohnen und Arbeiten, 2. nachhaltige Erneuerung und Stabilisierung von Stadtquartieren und Verbesserung der Umfeldqualität, 3. soziale Integration von Migranten und sozial schwachen Gruppen

- demand-oriented quality improvement in the stock in combination with the consolidation of the housing market (occasionally also by dismantling unsustainable stocks)
- spatial control of new construction development on urban brownfields
- temporary use of areas that can be reused in perspective
- process control by an interdisciplinary team in the neighborhood-based office, which supports the activating of the resident, owner and retailer

Stadtplanung 2007, p.3, own translation

Figure 37 illustrates interventions in the *Soziale Stadt* program area *Süd-Ost* which include different socio-integrative projects (blue points), playgrounds and school yard improvements (green points), locations of neighborhood management offices (purple points), open space Orangeplatz as well as larger renewal projects in *Schalcker Verein* and *Tossehof*.

Figure 37: Tossehof, Schalcker Verein and other punctual interventions in the program *Soziale Stadt Süd-Ost*



Source: Stadterneuerung 2016, p.4

Tossehof was deconstructed and restored in the period from 2005 - 2012 in order to improve the appearance and functionality; moreover, to reduce social struggles in the neighborhood. A neighborhood manager describes the situation in the settlement before the renewal:

Well, the people who lived there came from different cultures, from different countries and from different social classes. And that has resulted in social conflicts that have also been carried out to the outside world. So Tossehof's image has suffered under this. Due to Kopernikusstraße, this image manifested so badly on entire Tossehof that even living in the buildings that were not actually affected was no longer trendy. Vacancies emerged in Tossehof and in Kopernikusstraße, where no one wanted to move in anyway, and if anyone heard Tossehof, they said, "Nah, I'm not going to move there." (Czackowski, neighborhood manager, City of Gelsenkirchen, Interview 2015)

That negative image of the neighborhood was a great challenge. Thus, building identity was one of important starting points. Image experts, a Holland Branding Group, were selected to create a new brand for Tossehof. They organized a workshop in December 2007 in order to create a vision of Tossehof together with the citizens. By using Graphic Recording, all the ideas specified by the citizens were visualized in order to support wider discussion. Besides the branding, it was important to involve residents and activate them in order to engage with different projects in the neighborhood, as described by the neighborhood manager.

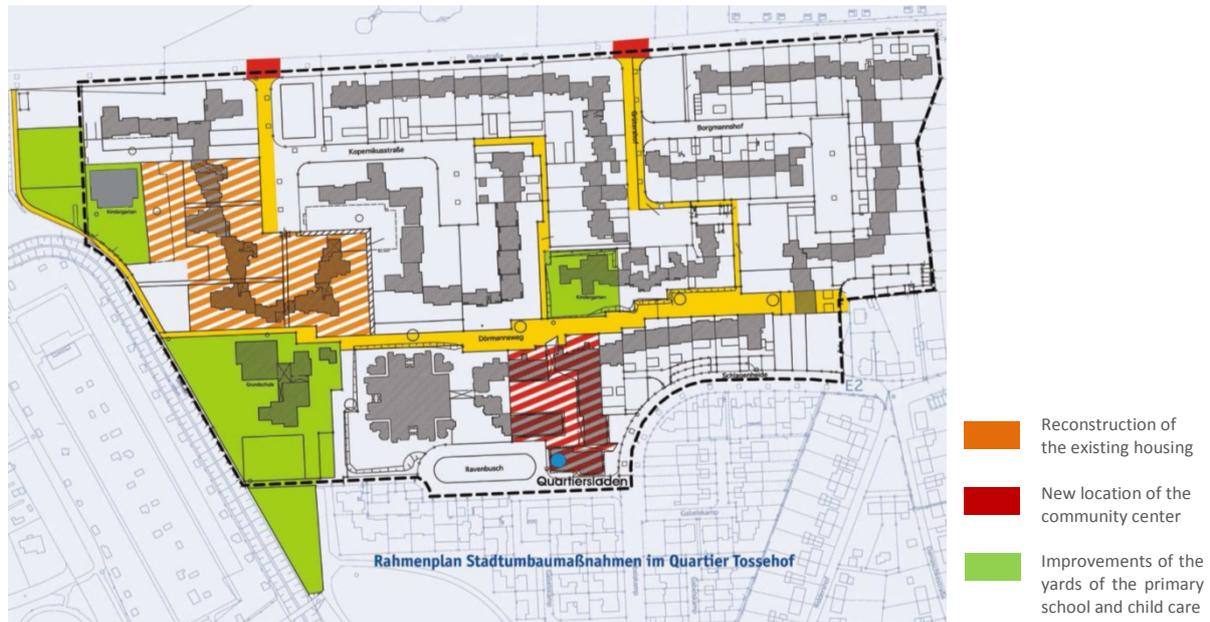
Another thing that was said from the outset was that we want to design the urban renewal with the people living here to see what the local people want, this was one aspect. The other aspect was that we want the people living here to identify with Tossehof and maybe do something for Tossehof, to become involved. Yes, those were the first preconditions and considerations (Czackowski, neighborhood manager, City of Gelsenkirchen, Interview 2015)

One of the important improvements of building blocks were related to decreasing the number of stores. That was a challenging task because the building blocks were the ownership of *Gesenkirchener gemeinnützige Wohnungsbaugesellschaft (ggw)*, and by decreasing the number of apartments they were facing economic constraints. However, as emphasized by the neighborhood manager, cooperation with ggw was easier than with private owners:

The houses in Kopernikusstraße which represented the problem belong to the Gelsenkirchen housing association and cooperation with them was not easy, but easier in comparison to cooperation with private owners. (Czackowski, neighborhood manager, City of Gelsenkirchen, interview 2015)

Gesenkirchener gemeinnützige Wohnungsbaugesellschaft (ggw) developed together with architects and planners THS Consulting a concept for the modernization of their residential building blocks in Tossehof. Figure 38 illustrates planned interventions in the residential settlement Tossehof, which include building reconstruction in Kopernikusstraße in orange and new neighborhood's center in red.

Figure 38: Framework for the urban renewal in the quarter Tossehof



Source: Stadt Gelsenkirchen

Besides building reconstructions, there were also planned improvements of green areas (Figure 38 in green color) which include improvements of school yards and kindergarten outdoor facilities as well as open space and playground improvements. These improvements were designed in cooperation with landscape architects from the BASTA office. Figure 39 illustrates the vision for the renewal of outdoor facilities in the proximity of the planned building reconstruction in Kopernikusstraße.

Socio-integrative projects included many events during the planning and implementation phase. Different actors were involved beside the urban renewal team from the city of Gelsenkirchen and S.T.E.R.N¹⁷ representative responsible for implementation of the project. Arbeiterwohlfahrt¹⁸ (AWO) with its office in Bulmke-Hüllen supported different social projects for all population groups. Furthermore, church communities were contributing with their initiatives in cooperation with the city of Gelsenkirchen. The aim of the project *Nachbarn-helfen-Nachbarn* (neighbors help neighbors) organized by the Evangelistic church in Bulmke-Hüllen was to support people in need that were mostly socially isolated.

¹⁷ S.T.E.R.N Gesellschaft der behutsamen Stadterneuerung mbH - Society of careful urban renewal

¹⁸ Arbeiterwohlfahrt is a decentralized German charitable organization based on personal membership in its local associations

Figure 39: Design plan for remodeling and expansion of the outdoor facilities of the day care center *Plutostraße* and the reconstruction of the neighboring sports and recreational facilities for young people



Source: Stadt Gelsenkirchen

Although the district's name is Bulmke-Hüllen, residents do not identify with this administrative title and that is reflected in two residents groups. Bulmker Forum is a residents' group formed in 2001, which had fully participated in renewal initiatives. While, the residents' group Hüllen-Aktiv was initiated as a part of socio-integrative projects during the renewal process.

5.5 Evaluation of physical improvements in Bulmke-Hüllen regeneration

5.5.1 Improvements in the built environment and housing

Improvements in the built environment and housing are only one aspect of the renewal program in Bülmke-Hüllen, which had very strong emphasis on social integration. Housing improvement is focused on the enhancement of the existing housing stock, rather than new housing development. The most important project in this area is the conversion of the 100 ha brownfield “Schalker Verein” into a commercial area (Soziale Stadt NRW 2015). This former steelwork industrial plant, which operated until 2004, is now equipped with solar panels for energy production installed in 2008 by the Abakus Solar AG (Wehling 2014, p.143). However, although the city of Gelsenkirchen has improved the open space, buildings are still abandoned and neglected (Figure 40).

Figure 40: One of the abandoned buildings on the site of Schalker Verein. View from the Kesselstr.,



Source: author, June 2014

The reasons for that are the high costs for decontamination and the difficulties in converting those large structures for other uses. Even a demolition is challenging due to large foundations. However, temporary functions such as solar energy production or skating have been taking place even before planned uses have been developed.

...there are things that we could not remove because they have very deep foundations and are big concrete blocks, we had to leave them there, but they have been integrated. For example, there is now a skate park or in the bunker underworld. A solar factory was built at this huge bunker (Feldmann, Urban Renewal, City of Gelsenkirchen, interview 2015)

The planned new functions for the former „Schalker Verein“ are commercial facilities as well as residential uses and recreational facilities. However, an investor or funding scheme is missing in order to develop this area of Bulmke-Hüllen.

Not only can commercial and retail activities take place again, but also living and leisure activities. This large piece of land is now mostly developed and the development will continue in the next phases in the surrounding area. (Feldmann, Urban Renewal, City of Gelsenkirchen, interview 2015)

Housing in the residential settlement Tossehof in Kopernikusstraße has been improved by reconstructing the old 13-story buildings to human-scale 4-story buildings (Figure 41). Two building blocks were completely destroyed to provide more open space. Old toxic façade panels have been removed and facades painted to improve the attractiveness of the residential environment. Although a new parking place has been provided, there is also a new open space for all population groups.

Figure 41: Tossehof residential buildings in Kopernikusstraße after renewal



Source: author, 2015

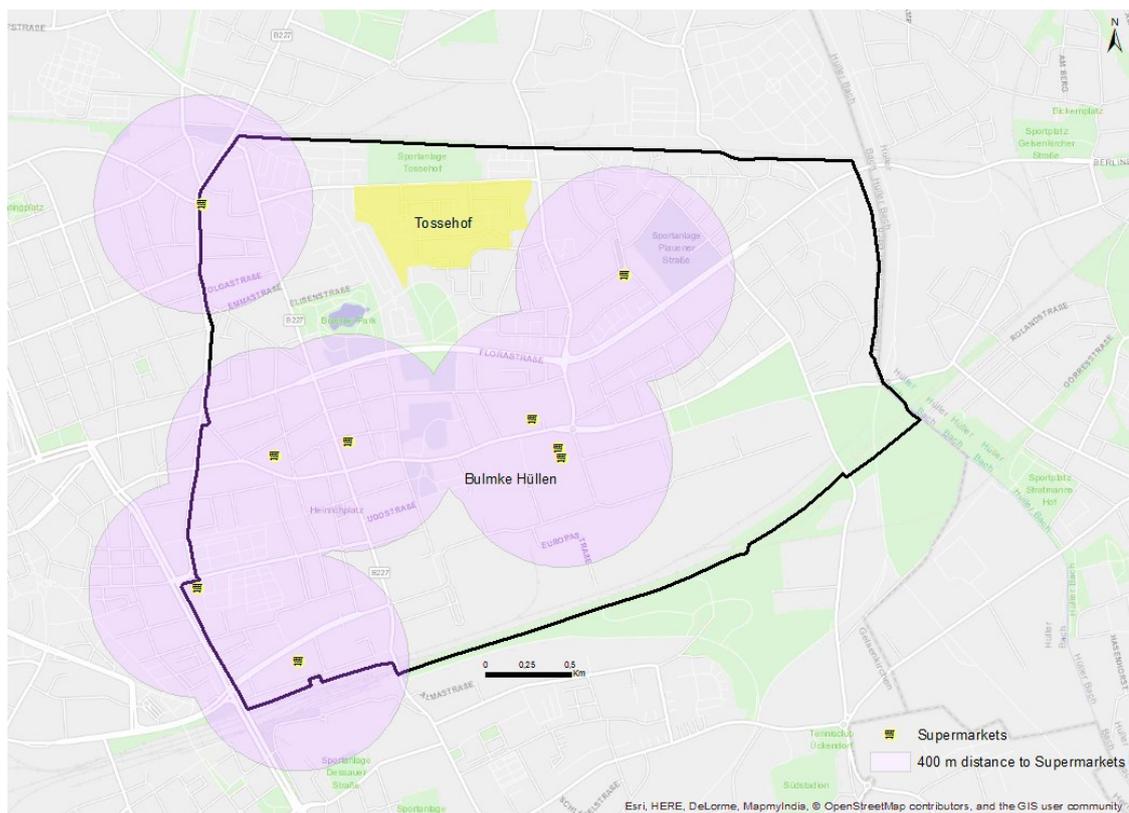
There is a good range of housing sizes that are convenient for small and big families. Ground floors are barrier-free planned for the elderly and people with disabilities. Since these residential blocks are under the ownership of Gelsenkirchener Gemeinnützige Wohnungsbaugesellschaft (ggw), which is a non-profit housing association, rents are below market prices.

A good range of quality green spaces are in the proximity of the residential blocks as well as public transport stops (see sections 5.5.4 and 5.5.3). Furthermore, there is a good pedestrian access to primary school and kindergarten, which are on the west and south side of the residential blocs and were also improved in the renewal process.

5.5.2 Local facilities and accessibility

Buffer analysis (Figure 42) reveals that the accessibility to supermarkets in the Tossehof have not improved even after the redevelopment measures have taken place. Tossehof has the highest density in the area, however due to low purchasing power of its residents there is no retailer interested in opening a supermarket there. Thus, Tossehof residents must travel longer to provide for daily needs.

Figure 42: Bulmke-Hüllen access to retail: buffer analysis



Source: author, base map: open street map contributors and the GIS user community

Limited access to retail was one of the challenges before the urban renewal in Tossehof, which was tackled by opening the alternative supermarket “Carekauf” in 2009. Carekauf was envisioned as an integrative supermarket supported by the big supermarket chain REWE and charitable organization Caritas to offer affordable prices to the vulnerable

population groups in Tossenhof (Stockmann 2009). Its social dimension of employing disabled and long-term unemployed people was coupled with a special home delivery service for the elderly (*ibid.*). However, the purchasing power of residents was very low, and although highly supported by different actors it was unsustainable for the supermarket to operate, which led to its closure in 2012 (WAZ 2012).

5.5.3 Movement and access to public transport

A street network with a high number of dead ends makes the area less attractive for walking and biking. Renewal projects did not include improvements of pedestrian and cycling routes. Furthermore, barriers such as a fenced open sewer canal *Sellmannsbach*, a part of the Emscher's system, prevents direct routes from the east of the neighborhood to the city center. The canal's transformation is planned by 2019 (Emschergenossenschaft 2015), which could improve the situation regarding the movement and connectivity of the neighborhood. Figure 43 illustrates barriers to convenient pedestrian and cycling routes in Bulmke-Hüllen, which include railway on the north of the area, national road in the middle of the area and the brownfield site at the south of the area in addition to fenced open sewer canal.

The bus stop network is at a walkable distance of 400m (Figure 44), universally accessible; however there is a lack of frequent timetables, which is for most of the residents a reason to use the car. Although many of them, 18,62% are unemployed (Stadt Gelsenkirchen 2011) or on low-income, they opt for car use due to the inefficient public transport, which is an additional burden for these vulnerable population groups.

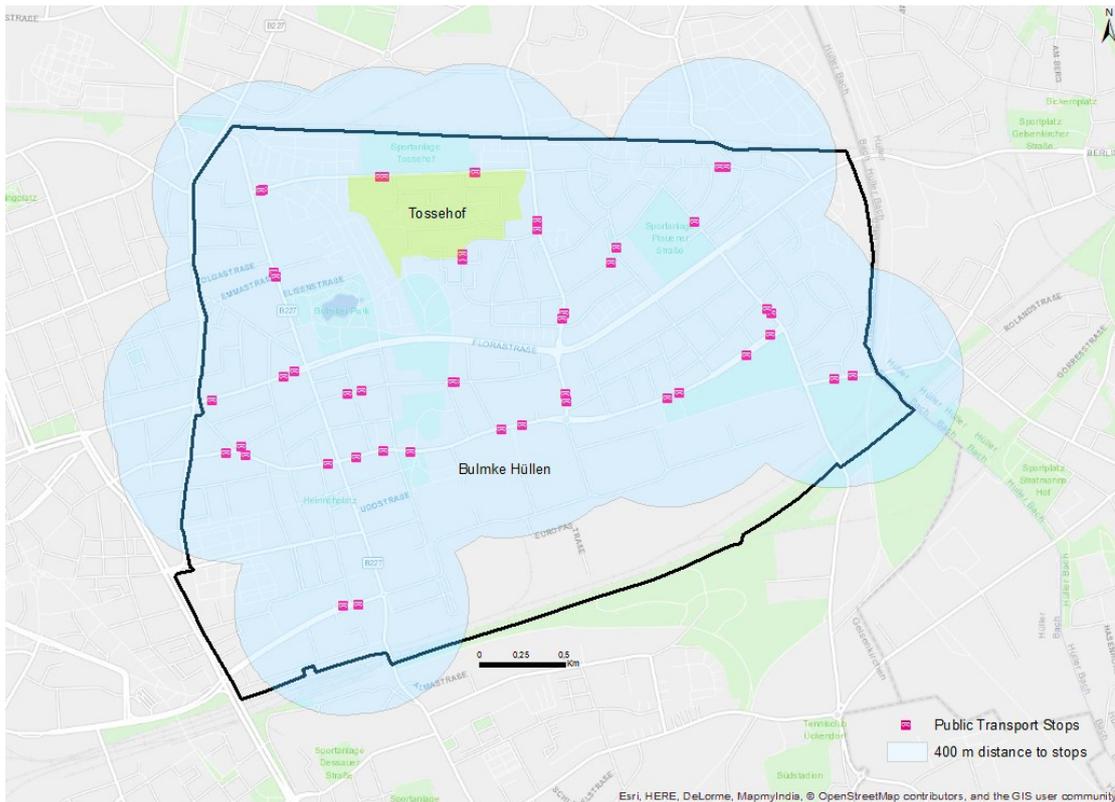
Figure 43: Barriers to convenient pedestrian and cycling routes in Bulmke-Hüllen



- Tosehof
- barriers

Source: author, base map Google, DigitalGlobe

Figure 44: Public transport stops in Bulmke-Hüllen and Tossehof: buffer analysis



Source: author, base map: Open Street Map and the GIS user community

5.5.4 Open green spaces

There is a relatively high amount of green spaces, 14,8%, in Bulmke-Hüllen compared to the city level of 11,5% (Stadt Gelsenkirchen 2010). The area is characterized by many allotment gardens as well as parks and open places. One of the initiatives of the urban renewal was the refurbishment of the playground in one of the biggest parks in the area, Bulmker Park. The Park is highly used by local residents during the daytime, while underused during the night due to bad lighting and security issues.

In the north-west of the old industrial site “Schalker Verein”, public open space *Bürgergarten Orangeplatz* (“Garden for Residents Orange Square”) was renewed as a part of the initiative *Soziale Stadt* and reopened in 2006 (Stadt Gelsenkirchen 2007). Although planned in cooperation with local residents, the park is marked as a place which is rarely used due to safety concerns. Table 8 shows the values of evaluation of urban regeneration in Bulmke-Hüllen assigned to key issues in the evaluation matrix.

Figure 45: Open green spaces in Bulmke-Hüllen



Source: author, base map Google, DigitalGlobe

5.5.5 Evaluation matrix for Bulmke-Hüllen

Table 8: Evaluation matrix with four policy areas for Bulmke-Hüllen
Assigned values: (+) positive value, (±) moderate value, (-) negative value

POLICY AREAS				
Key issues	Housing	Local facilities	Movement	Open Space
Air quality	<ul style="list-style-type: none"> Energy-efficient Non-toxic materials V: ++	<ul style="list-style-type: none"> Localize facilities Locate for pedestrian convenience V: --	<ul style="list-style-type: none"> Reduce reliance on cars Reduce lorry penetration into neighborhood and reduce through traffic V: --	<ul style="list-style-type: none"> Good microclimate design Increase tree cover V: ±+
Exercise	<ul style="list-style-type: none"> An attractive, safe residential environment V: +	<ul style="list-style-type: none"> Accessible local facilities to encourage walking and cycling V: -	<ul style="list-style-type: none"> Convenient and safe pedestrian and cycling routes V: -	<ul style="list-style-type: none"> Recreational greenways Playing fields and playgrounds V: ++
Safety	<ul style="list-style-type: none"> Design for effective surveillance and clarity of ownership of semi- public and private spaces V: +	<ul style="list-style-type: none"> Accessible local facilities to encourage people to be on the street V: -	<ul style="list-style-type: none"> Calmed traffic Design for natural surveillance of footpaths and pavements V: --	<ul style="list-style-type: none"> Good visibility across open land V: +
Accessibility	<ul style="list-style-type: none"> Close to public transport and local services Grade densities Prohibit new housing on inaccessible sites V: -++	<ul style="list-style-type: none"> Localize services within housing areas Locate for the convenience of pedestrians and access to public transport Design for disability V: ±±+	<ul style="list-style-type: none"> Permeable pedestrian and cycling environment Plan to ensure that public transport is viable V: -+	<ul style="list-style-type: none"> Provide accessible open spaces for all kinds of activities V: +
Shelter	<ul style="list-style-type: none"> Good range of housing tenure, size and price Energy-efficient stock Siting to reduce heat loss V: ++±	<ul style="list-style-type: none"> Adaptable buildings for local social and commercial uses Inexpensive to operate and energy efficient Siting to reduce heat loss V: +?+	<ul style="list-style-type: none"> Bus shelters V: +	<ul style="list-style-type: none"> Shelter belts V: +
Work	<ul style="list-style-type: none"> Support dwelling based working options Locate housing accessible by public transport to main work centers V: ±	<ul style="list-style-type: none"> Foster local small-scale jobs V: -	<ul style="list-style-type: none"> Good public transport services to all main centers A strategic cycling network serving the locality V: ±-	<ul style="list-style-type: none"> Encourage the productive use of open land V: ±
Community	<ul style="list-style-type: none"> Support community action Design residential places Support co-housing and self-build schemes V: ++-	<ul style="list-style-type: none"> Foster local services and employment V: ±	<ul style="list-style-type: none"> Permeable and attractive pedestrian and cycling environment Safety on the streets Design of casual gatherings V: --±	<ul style="list-style-type: none"> Parks, play areas, playing fields and allotments as meeting places V: +
Sum:	10 +, 2±, 2-	3+, 3±, 5-	2+, 2±, 9-	7+, 2±, 0-

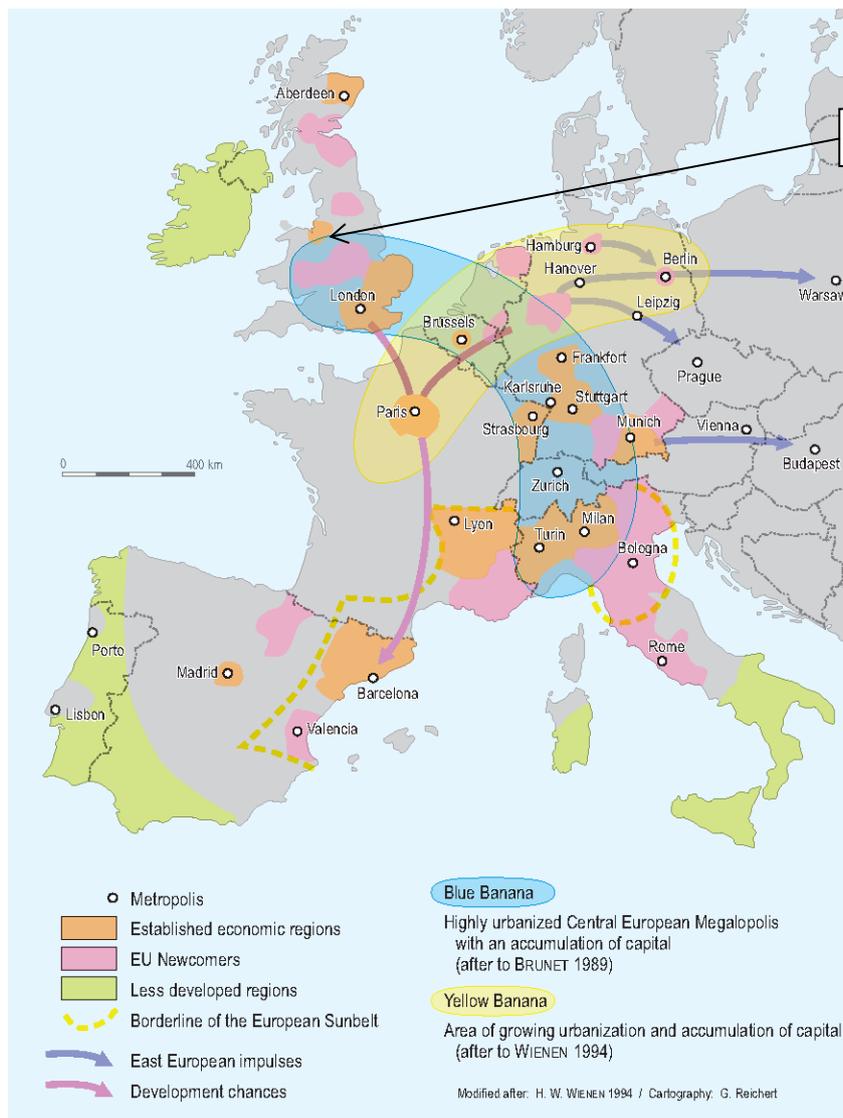
Source: values by author, based on Barton and Tsourou 2000, pp. 124,125

CHAPTER 6 | Case Study: New Broughton, Salford, Greater Manchester

6.1 Greater Manchester and the city of Salford

Located in North West England (Figure 46 on the right) Greater Manchester is a monocentric metropolitan region, centered on the City of Manchester. The population number of the metropolitan region in 2011 was above 2.5 Million (2.682.528) (ONS 2011). The first industrial region in the world has been facing challenges of economic restructuring after the Second World War. It also lies in the highly-urbanized corridor of economic development “Blue Banana” (Figure 46).

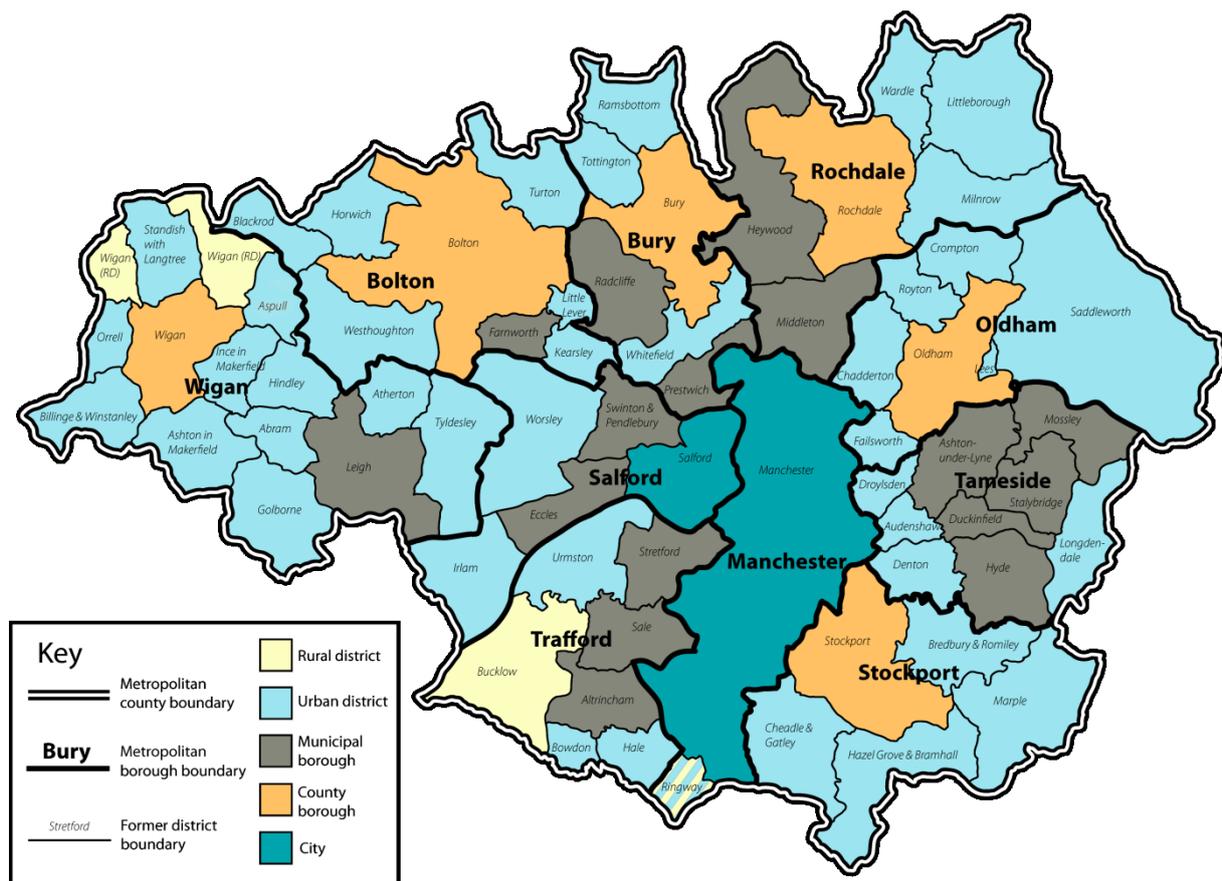
Figure 46: Greater Manchester part of the Manchester-Milan axis of the economic development corridor



Source: Wehling 2011, p.16

The territorial governance of the metropolitan region ‘mutated through various forms of hard, soft and hybrid governance structures’ (Deas *et al.* 2015, p. 42). The Greater Manchester metropolitan council was created in 1974 to be abolished in 1986 and replaced with ten unitary authorities (Deas *et al.* 2015). In order to assure continuity in managing policies on the city-region ‘discretionary intergovernmental cooperation across the now unitary authorities...emerged’ (Deas *et al.* 2015, p. 28) as a soft governance structure in the form of the Association of Greater Manchester Authorities (Deas *et al.* 2015). The Association has developed a city-regional strategy, which was a great advantage when the national government decided to support the metropolitan government (Deas *et al.* 2015). It resulted in 2011 in the forming of the Greater Manchester Combined Authority (GMCA), ‘the first statutory city-regional body in England outside of London’ (Deas *et al.* 2015, p.28).

Figure 47: Administrative borders of the cities in the Greater Manchester



Source: Wikipedia, 2014

The GMCA is made up of the ten Greater Manchester councils and a Mayor, who work with other local services, businesses, communities and other partners on the improvement

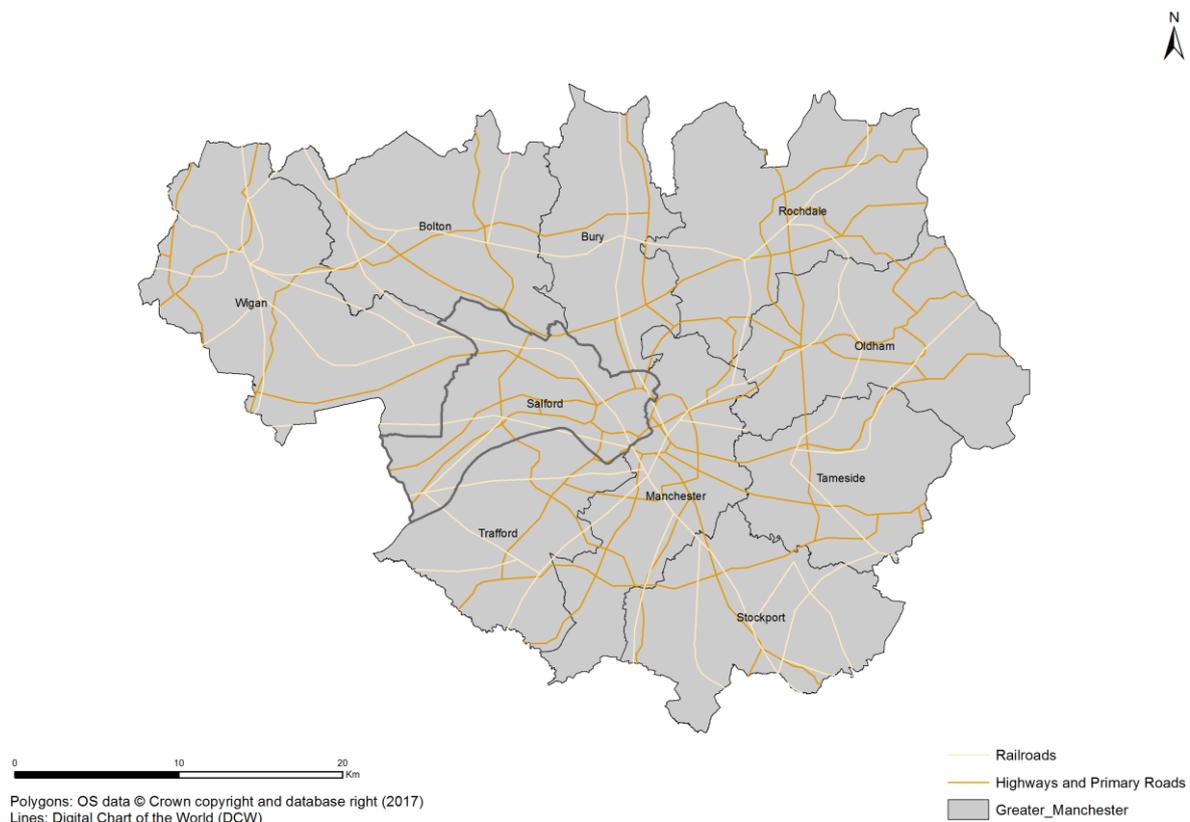
of the city-region. These ten councils¹⁹ including Salford have worked together voluntarily for many years on common issues like transport, regeneration and attracting investments (GMCA 2017). Furthermore, when it comes to urban regeneration even before the establishment of the GMCA, the City of Manchester and neighboring authorities, including Salford, have worked together in the City Pride partnership.

The Manchester CPA [City Pride Area] has benefited from being part of every single major UK governmental regeneration initiative since the 1980s, and there is a general perception that the city has been particularly successful in regenerating. Many parts of the city, and of the wider City Pride area, saw major improvements in their physical condition and business environment during the 1980s and 1990s.

Mace et al. 2004, p.7

The transportation network (Figure 48) consists of a radial system of national roads and railroads due to the centric system of the metropolitan region. The transportation network was developed during the industrial expansion in order to support industrial production.

Figure 48: Greater Manchester transportation network



Source: author, data from DCW

¹⁹ Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan

Greater Manchester is characterized by a dense population and commercial, retail and recreation facilities. The border between the city of Manchester and Salford is not visible as there is no great difference in urban fabric.

6.1.1 Salford

The City of Salford is a part of a Greater Manchester metropolitan region with 233.933 inhabitants in the year 2011 (ONS 2011). The unemployment level of 5,2% is above the national average of 4,4% (ONS 2011). Life expectancy at birth in Salford between 2008-2012 was 75,5 years for men and 80,10 years for women (NHS 2006), which is 3,4 years less for men and 2,7 years less for women than the national average (NHS 2006). According to the Census of 2011, child development at age 5 was over 10 percent lower than the national average (ONS 2011).

Due to the high level of deprivation the city is a large regeneration site. Salford Quays office development including BBC regional headquarters and Lowry Arts Complex are important examples of regeneration that influenced the funding and development of further regeneration projects. Regeneration projects are part of the City of Salford Unitary Development Plan (UDP) 2004-2016, which has replaced the first UDP adopted in 1995. Figure 49) illustrates the policy context for the City of Salford Unitary Development Plan.

An important characteristic of the city of Salford is its industrial history that influenced population change (Figure 50) as well as population structure. Change in population structure was not related to ‘mortality decline in the late 19th century ... the reduction of very high infant mortality rates: the presence or absence of large number of infants dying before their first birthday had little effect on overall age structures. During the twentieth century, declining fertility and improved life expectancy in later life significantly changed age structures’ (GB Historical GIS 2017).

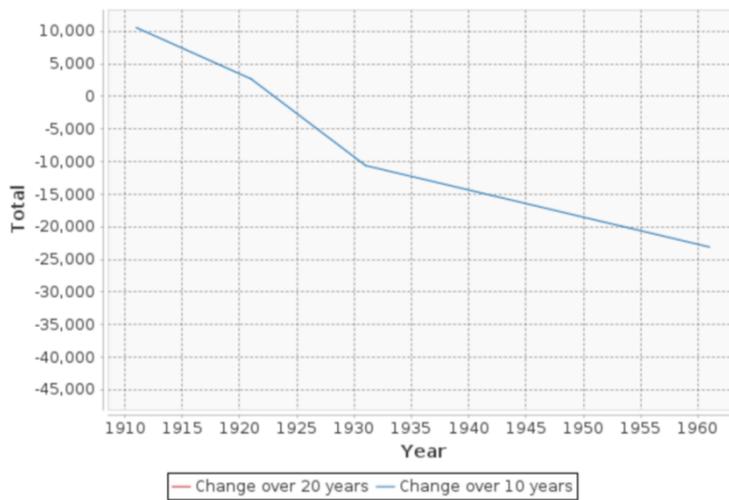
Salford’s role in the industrial development of the Greater Manchester region and the main challenges that influenced city development as well as structure of the city that is an object of current regeneration efforts will be described in the following section.

Figure 49: Policy Context for the City of Salford Unitary Development Plan



Source: Salford City Council 2006a, p. 2

Figure 50: Population change in Salford from 1911 to 1961



Source: GB Historical GIS 2017

Historic overview

Mediaeval Salford as an Hundred²⁰ was an important administrative center ‘responsible for twenty one manors, of which Manchester was one’ (Frow and Frow 1984, p.3). Salford was a small town whose inhabitants produced food and cloth for their own need in their own homes (Frow and Frow 1984). However, with industrial expansion the population number has risen and ‘[i]n 1773, the first year for which census figures are available, Salford Township had 866 houses with 4.765 inhabitants. Fifteen years later, both figures had almost doubled’ (Frow and Frow 1984, p.3).

At first, Salford’s rapid development was initiated due to advancements in cotton production. The water power used by mills along the Irwell River had displaced production from homes. A further advancement, the steam engine, replaced water power and opened the industrial age. Salford grew rapidly in all terms and became the center of a conurbation (Frow and Frow 1984, p.3).

Houses were built as close to the work places as possible and Salford grew outward, with terraces of small cottages grouped around the mills and factories...The coal had to be transported to the factories so Salford roads were improved and canals were built. Later, railways replaced the canals as the arteries of the production system...The dyers and bleachers, the papermakers, the chemistry industry, the machine makers and those servicing the transport system flourished in the expanding urban environment which sprawled around the feudal township of Salford.

Frow and Frow 1984, p.3

Meryl River and Irwell River were used as canals for transport of goods before the railway network was developed (Frow and Frow 1984). Some of ‘the worst forms of exploitation’ (Frow and Frow 1984, p.4) took place in Salford during the time of industrial expansion. Members of the working class were aware of that, ‘they could see that their work produced wealth – for someone – they realised that they were being deprived of much that made life bearable. They lived in small uncomfortable houses; they were denied education and they had no say in the organization of the country’ (Frow and Frow 1984, p.4), thus they could not do much to change their situation.

²⁰ The Hundred is a division of the Ancient County, also known as a Leet, a Ward, and Wapentake. It held administrative and judicial functions, although the level of administrative responsibilities held by each of these units differed. (Source: http://www.visionofbritain.org.uk/types/status_page.jsp?unit_status=Hundred)

The members of the bourgeoisie, however, lived separated from workers' settlements and did not cross to the parts of the city where workers lived. Engels described the situation in Manchester and the separation between well-off and poor districts

The town itself is peculiarly built, so that a person may live in it for years, and go in and out daily without coming into contact with a working-people's quarter or even with workers, that is, so long as he confines himself to his business or to pleasure walks. This arises chiefly from the fact, that by unconscious tacit agreement, as well as with outspoken conscious determination, the working-people's quarters are sharply separated from the sections of the city reserved for the middle-class; or, if this does not succeed, they are concealed with the cloak of charity.

Engels 1844, pp.45-46

Although Manchester became predominant over Salford, housing and working conditions remained unchanged. Engels (1844) describes the unfavorable conditions in workers' settlements of terraced housing emphasizing that 'if any one takes the trouble to pass through these lanes, and glance through the open doors and windows into the houses and cellars, he can convince himself afresh with every step that the workers of Salford live in dwellings in which cleanliness and comfort are impossible' (Engels 1844, pp.61-62). Furthermore, Engels (1844) brings into light the investigations of a local physician, Holland, who had related mortality to the street and house quality associated with social class

That this enormous shortening of life falls chiefly upon the working-class, that the general average is improved by the smaller mortality of the upper and middle-classes, is attested upon all sides. One of the most recent depositions is that of a physician, Dr. P. H. Holland, in Manchester, who investigated Chorlton-on-Medlock, a suburb of Manchester, under official commission. He divided the houses and streets into three classes each, and ascertained the following variations in the death-rate... It is clear from other tables given by Holland that the mortality in the streets of the second class is 18 per cent. greater, and in the streets of the third class 68 per cent. greater than in those of the first class; that the mortality in the houses of the second class is 31 per cent greater, and in the third class 78 per cent. greater than in those of the first class; that the mortality in those bad streets which were improved, decreased 25 per cent.

Engels 1844, pp.106-107

The working class in Salford and Manchester was struggling for decades to obtain a voice in parliament and improve working and living conditions (Frow and Frow 1984). The British labor movement and its crucial Chartist gathering, whose demands were later on almost entirely adopted by Parliament, took place on Kersal Moor in Salford in 1839 (Frow and Frow 1984).

A hundred years after Engels described Salford and Manchester in his book *The Condition of the Working Class in England in 1844*, the living conditions of the working class remain almost the same. High levels of pollution and unsanitary living conditions were only slightly improved. Ewan MacColl, a songwriter and political activist born in 1915 in Broughton, Salford, wrote a song “Dirty Old Town” about his hometown. In the initial version of his song the lyrics included “Salford wind”. However, since Salford City Council was ‘uncomfortable’ with this direct reference to Salford, it was changed to “smoky wind” (Morley 2013).

*I've heard the siren from the docks
Seen a train set the night on fire
Smelt the spring on the [Salford] smoky wind
Dirty old town, dirty old town'*

Ewan MacColl (1949)

From the period of industrialization and rapid urbanization until 1950 Lower Broughton was densely populated. An industrial suburb, characterized by Victorian ‘terraced’ housing with only few amenities. The situation changed during the 1970s and 1980s when most of the terraced housing was demolished (Figure 51) and replaced with low density housing (City of Salford 2004).

Figure 51: Salford slum clearance 1971 – cleared site and remaining terrace housing



Source: Manchester Evening News (2016a)

On witnessing changes in the central government's approach to urban regeneration (see Section 4.4) the city of Salford began to take an active part in improving deprived areas. Before initiating the urban regeneration in Lower Broughton, different initiatives were suggested and strategies developed while waiting for funding opportunities in order for them to be implemented.

6.2 Initiatives before selected urban regeneration in Lower Broughton

Urban regeneration in Lower Broughton, which is selected as a case study, was initiated in 2005. Although there were previous attempts to initiate urban regeneration in Lower Broughton, they were not successful. In 1994 Salford Council adopted a corporate *Strategy for Action for Lower Broughton* that included 'the reduction of local authority housing stock, refurbishment of the remainder, and disposal of land for private sector housing development' (Chief Executive and Directors of Housing and Development Services 2001, p.2). However, the private investor Miller Partnerships withdrew from the project and urban regeneration was not initiated.

Since previous attempts to attract private investment had failed and the vacant site of the former Lowery High School had added to already numerous vacant sites in the neighborhood, the local authority 'decided to take a fresh look at the area' (Chief Executive and Directors of Housing and Development Services 2001, p.2). In the year 2000 the local authority decided to appoint consultants to estimate the regeneration potentials of the area for the private investment and determine principles for the land assembly exercise in Lower Broughton. Land assembly is crucial in forming an adequate parcel for urban regeneration and only public authorities can exercise powers over individual interests in the form of compulsory purchase (Institution of Civil Engineers 1988, p.27). 'The private sector forms development partnerships with public sector bodies with CPO powers... Such an arrangement enables the private sector to be channeled into urban regeneration at an early stage...The main problem with the exercise of these powers is that it invariably takes two to three years...' (*ibid.*).

In the case of Lower Broughton the City Council adopted a step-by-step approach to land assembly with the support of the Northwest Regional Development Agency (NWDA)ⁱⁱⁱ and together they agreed on a brief of the study which included a sustainable urban

development approach (Council Leader and Lead Members for Planning and Development and Housing 2000).

Taylor Young Consultants initially described the area of Lower Broughton as unattractive for private investments due to '[t]he poor image and scale of deprivation of the area, coupled with the dominance of social-rented housing' (Chief Executive and Directors of Housing and Development Services 2001, p.2). Their suggestion was to extend the area for development beyond the vacant land of the Lowry High site and Clarence Street to a 'sufficient scale to allow a developer to "paint a new canvas" for the area' (*ibid.*). According to the consultants' vision the public housing sector block should be interspersed with larger segments of private investments, which would be attracted by assets such as proximity to the riverside and regional center.

Following the Cabinet's (2001) decision the Lead Members for Housing and Development Services (October 2001) reviewed the proposal led by Taylor Young, and made some revisions including the rejection of some of the proposed public housing reductions especially for the Spike Island area due to the given commitment to the existing community.

Former Housing Officer Vince (2015), described the Taylor Young report as having '... a high level master planning view of the whole of the neighbourhood... and they have picked up a lot of the problems and solutions that have then manifested themselves here'. He further emphasized a written sentence referred to in the report "The study carried out by Taylor Young and Partners has provided us a suitable regeneration framework". However, 'the Taylor Young report wasn't put into planning guidance' (D. Vince, Regeneration Manager, SCC, interview 2015).

Based on the Taylor Young proposal for a regeneration strategy in Lower Broughton, a study on retail capacity was conducted to assess the potentials for new retail services. Recommendations included the 'emphasis on sustaining and enhancing the City's four main centres and [that in] considering edge of centre sites, the need for excellent pedestrian linkages is vital' (Lead Member of Development Services 2003, pp.3,4).

Furthermore, implications for regeneration in central Salford were also examined and it was concluded that 'the higher land values associated with retail development can make otherwise unattractive regeneration projects feasible to the development industry...[and]

significantly improve the environment, and provide local shops and services, as well as employment’ (Lead Member of Development Services pp.4,5).

Central Salford Urban Regeneration Company (URC) was established in 2004, and had a main aim to support and deliver the regeneration agenda (SCC 2006b). It used guidelines from the Office of the Deputy Prime Minister (ODPM) and the Department of Trade and Industry (DTI) on set up, operation and governance (SCC 2004). Funding of the URC was shared by three founder members: the Salford City Council, the North West development Agency (NWDA) and the English Partnership. SCC used Neighbourhood Renewal Fund to provide contribution for financing of the URC (SCC 2004). However, the abolition of the NWDA in 2010 influenced the URC.

6.3 Broughton ward and residential settlement Lower Broughton

Broughton Ward is a part of the administrative district East Salford (Figure 52) distanced only 1.5 km to the northwest of Manchester’s City core and bounded on the west and south by the River Irwell. According to the UK Census in 2011 (ONS 2011) Broughton had 13,869 inhabitants (table Figure 52).

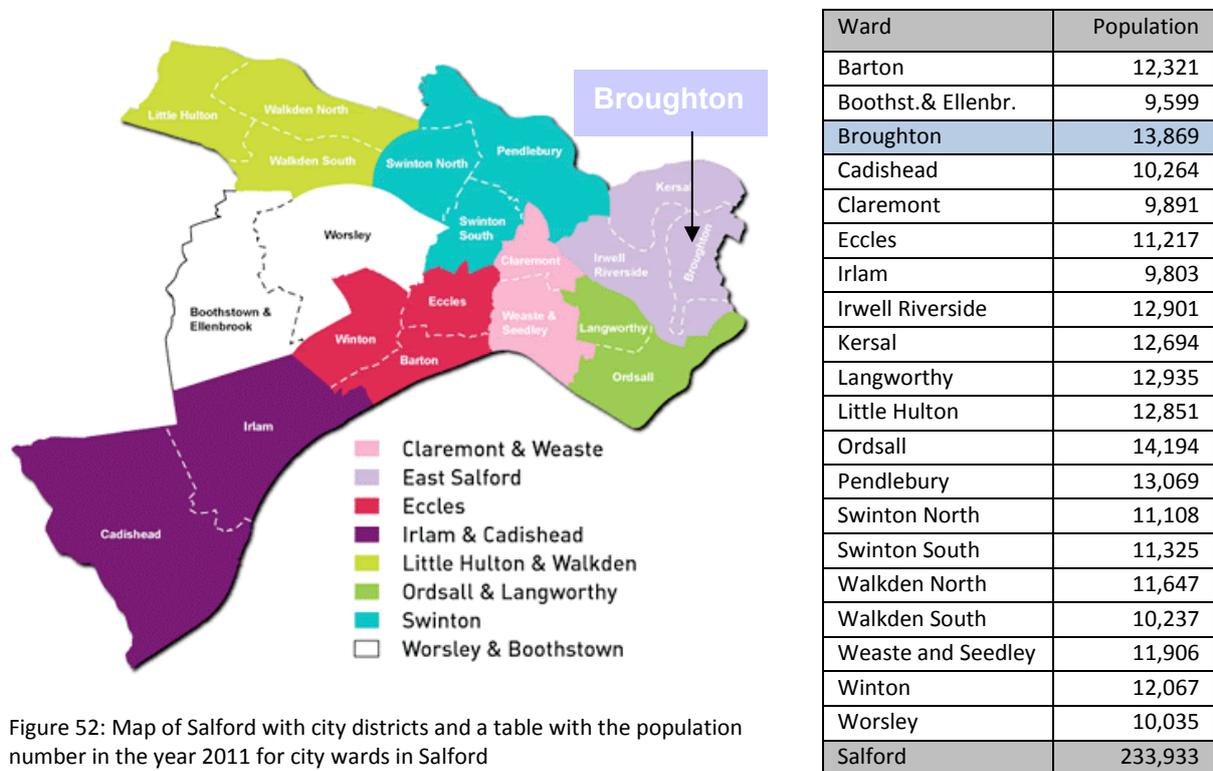


Figure 52: Map of Salford with city districts and a table with the population number in the year 2011 for city wards in Salford

Source: Salford City Council

Lower Broughton is a part of Broughton Ward, and most of data is for the whole Ward, rather than for Lower Broughton itself. The deprivation level in Broughton Ward in the year 2001 was significantly below the city level (Table 9). One of the indicators that is strongly related to deprivation, life expectancy, was the lowest in Broughton for women from 1999-2003 and one of the lowest (after Pendelton) for men in Salford (Salford NHS 2010, p.14).

Urban Problems in Lower Broughton

Lower Broughton was facing different challenges after the industrial displacement. Some of them were related to wider context like economic restructuring with high unemployment rates of unskilled labor, while others were related to urban structure of the neighborhood. City of Salford was high on a list of deprivation level nationally and Lower Broughton was one of the neighborhoods facing downward spiral resulting in vast amount of abandoned sites, closure of schools and further decline.

Lower Broughton was facing different challenges after the industrial displacement. Some of them were related to the wider context like economic restructuring with high unemployment rates of unskilled labor, while others were related to the urban structure of the neighborhood. The City of Salford was high on a list of deprivation levels nationally and Lower Broughton was one of the neighborhoods facing downward spiral resulting in a vast amount of abandoned sites, closure of schools and further decline.

Significant population decline started in 1950s. While in the period from 1991 – 2001 there was an increase in population (2,9%). On the national level, Salford had faced an overall decrease in population of 6% with a high level of 22% in Lower Broughton (SCC 2006b, p.4). Declining population had caused retail and services to withdraw from the area, vandalism and increased criminal rates. Constant population loss due to deindustrialization led to a sharp population decline. The drop in population and the high level of unemployment (Table 9) consequently led to a lower supply demand, which was coupled with lower purchasing power. The low level of education (Table 9) was a significant barrier to accessing the labor market and further influenced the unemployment level.

Table 9: Population in Broughton in 2001 with levels of education, unemployment and deprivation

Variable/Indicator	Broughton	Salford	England
2001 Population number	7,784 ¹	216,103 ¹	49,138,831 ¹
People aged 16-74 with no formal qualifications (%)	47.02 ¹	35.52 ¹	28.85 ¹
People aged 16-74: Economically active: Unemployed (%)	5.31 ¹	3.81 ¹	3.35 ¹
Level of deprivation (%)	67.17 ²	50.9 ³	

Sources: ¹ Neighborhood Statistics 2001 – Office for National Statistics (ONS 2001), ² Neighborhood Statistics 2000 - Office for National Statistics (ONS 2000) – experimental data, ³ Health Profile 2006, value for period 2001 (NHS 2006)

Furthermore, low income influenced fuel poverty in the neighborhood as one of the challenges that have great influence on health and inequalities. Residents who are on the lowest incomes or social benefits are paying the highest rate for electricity and gas because they are using prepayment meters. Due to low income or unemployment it is uncertain if they could pay a monthly rate, or it is even not possible to open a bank account so they cannot pay monthly or quarterly. Although the cost per unit when using prepayment meters is higher than regularly monthly or quarterly payments, these residents have no possibility of choice.

In addition, low income and unemployment resulted in low purchasing power creating an unsustainable environment for local services and retail as well as for recreational and community facilities leading to their closure or abandonment. High levels of abandoned land and properties (Figure 53) as well as increase in crime and anti-social behavior created a downward spiral making Lower Broughton a place to be avoided.

Figure 53: Physical deprivation of Lower Broughton in 2003



Source: Farrell Partners



Source: Farrell Partners

Figure 54: Salford: High fences and unmaintained streets in 1971 (left photo) and in 2015 (right photo)



Sources: Left photo – Manchester Evening News 2016b; right photo – author

A Health Impact Assessment (HIA) in 2002 for the whole city of Salford revealed that there was an ‘increase in mental health problems because of lack of facilities in areas such as Ordsall and Broughton’ (Douglas *et al.* 2004, p.644). The UK Index of Deprivation 2004 classified Lower Broughton within the 2,3 percent most deprived areas in England (Salford City Council, 2006b, p.8). The high deprivation level was a main indicator for initiating the regeneration process in Lower Broughton. Lower Broughton was not an isolated case of regeneration, there were different initiatives taking place in Salford as shown on the map in the Appendix 6.

6.4 Process of urban regeneration in Lower Broughton

Different studies were obtained on behalf of the Salford City Council (see Section 6.2) in order to estimate the potential for urban regeneration. There was a range of initiatives

that the Council had tried to address urban problems, the existing framework of legislation and funding was insufficient for holistic improvements. In 2003 the city of Salford submitted a prospectus to the central government in order to obtain funding to address the housing market failure. Lower Broughton was one of nine areas that took a part in a national programme the Housing Market Renewal Pathfinder programme (see Section 4.4).

A town and country planner, Sheila Murtagh (2015), who was a neighborhood manager in East Salford when the regeneration process was initiated, emphasizes that urban regeneration was not just about improving physical environment, but it rather involved economic and social aspects as well. She emphasized that urban regeneration in Lower Broughton was about improving the quality of life of existing and new residents. Thus, it was important to involve the local community and to understand how they would want to improve it.

“It’s that combination of the physical and the economic and the social really. If you build houses, but don’t ensure there are jobs and services, the physical regeneration won’t be as effective. Similarly, you need to work with local people to actually understand how they use their local community and how they want it to improve as well... So, I think it’s trying to use the stimulus of change, and often that’s money being invested in an area, to try and improve it. So, it’s about improving the quality of life, ultimately, for people who already live there and also people that we want to bring into the area. Ultimately, it’s about that quality of life aspect.” (Sheila Murtagh, former neighborhood manager)

Being a human resources manager, Ross Spanner (2015) was a neighbourhood manager in East Salford at the time when the field work was conducted. His view on urban regeneration is related to problem-solving by reversing the trends of decline with a focus on both community and the built environment:

“I think, to me, it means that there’s part of a city that has started to die, that is failing in some way. Where the physical housing stock and other physical assets are deteriorating and perhaps coming to the end of their useful life, and it’s about changing those and making them new again, or replacing them with something else. The same can be said, I think, about the people who live there, where maybe there’s high levels of unemployment, high levels of crime, high levels of poverty, and it’s about reversing those trends and regenerating the community as well, that lives there. So it’s regenerating people and buildings, is how I see it. I suppose, part of that is regenerating the economy. The implication is the economy is old and not working properly, and so to rejuvenate the economy as well, to help that process.” (Ross Spanner, neighbourhood manager)

A chartered surveyor Andrew Cartwright (2015), an Urban Vision officer, also saw urban regeneration as a reversing of the trends of decline by acting on different “fronts”:

“So I think regeneration in Lower Broughton was always on a number of fronts, not just the physical side of things which you can’t always just build out a problem and an issue. You’ve got to deal with the rest of it as well.” (Andrew Cartwright, Urban Vision officer)

Former Housing Officer (Housing Market Renewal Manager) in Lower Broughton, Dylan Vince (2015) also emphasized that “it wasn’t just about the physical property, it was about linking to the neighbourhood.” Leslie Brown (2015) Regional Project Director at Countryside Properties, private developer, emphasized the holistic approach.

“And it was, returning economic activity, to existing rundown areas. But in fact, it’s putting back everything that was missing, to make a thriving community or village. In other words, in English we would say, it takes the butcher, the baker and the candlestick maker. And it takes all aspects of community, from very low economic levels, to very high economic levels, and to every degree of what you might interpret as village life... ..regeneration is far, far more than bricks and mortar, it’s about the space that’s there, when everybody else, all the professionals have left... It’s an all-encompassing, holistic approach. You cannot put just a small sticking plaster on a huge wound, so we had to be very broad in what we were trying to seek to achieve, and that was very important.” (Les Brown, Regional Project Director at Countryside Properties)

All interviewees, actors in the regeneration process, had a similar initial approach; they all viewed the regeneration beyond just the physical improvements of the built environment. Urban regeneration in Lower Broughton was defined as improvements in the built and social environment, as well as improvements of the economic aspects.

Since the Pathfinder approach assumed ‘large scale clearance, refurbishment and new build work’ (ODPM 2003, p.25), it was a significant advantage that a great amount of existing stock of social housing in Lower Broughton was owned by Salford City Council (SCC). In addition, decommissioning of the secondary school in the area added a large site to many existing empty lots in the neighborhood (Figure 54). These were great challenges for the coherence and functioning of the neighborhood. However, in terms of regeneration it was an opportunity to develop a significant part of the neighborhood without displacing existing tenants and residents.

Although there were different funding options including the New Deal for Communities and the Single Regeneration budget (see Section 4.4), the involvement of the private sector was also an important aspect (ODPM 2003). Local strategic partnerships were aimed at involving all stakeholders in the regeneration process. In 2003 Salford City Council

decided upon a strategic regeneration program to transform Lower Broughton (Urban Vision 2011) and a master planning for the area and land assembly followed (SCC 2003).

Figure 55: Aerial view of Lower Broughton and assigned cleared site



Source: SPD Lower Broughton Design Code (SCC 2006b, front page)

Salford City Council and Countryside Properties established a strategic regeneration program in 2004, which was to be managed by City Council teams and Urban Vision (Urban Vision 2011). Furthermore, the city council formed a development partnership with Countryside Properties with a framework under which the redevelopment of the area would be planned, phased, and implemented (Salford City Council, 2006b). The partnership developed an overall vision:

...to regenerate Lower Broughton and create a successful, sustainable neighbourhood which is safe, healthy, economically active, and above all, a place where people will choose to live.

Salford City Council, 2006b, p.5

In order to achieve their vision and guide the regeneration process, additional guidance on the design of Lower Broughton was produced. Urban Vision, a public-private Joint Venture Partnership, was responsible for legal issues and the overarching structure for the development as well as support to the City Council and Countryside Properties throughout community consultation and information about the overall progress. In addition, capacity building was important in the initial phase of the planning document preparation

and the consultants Kevin Murray Associates were involved in community engagement and consultation.

After ‘preparatory and networking meetings with local groups and individuals’ (Salford City Council 2006b, p.6) initiated in February 2004, ‘public consultation began with a public meeting in May 2004’ (Strategic Director of Housing and Planning 2005, p.2). During a one year period of consultation with the local community and all other stakeholders, different themed workshops, steering group meetings and a study trip were organized to engage the existing community. A study trip of interested residents was organized to visit previous Countryside development sites in Peckham and Great Notley in July 2004 (Salford City Council 2006b, p.6). The Salford City Regeneration Manager (2015) emphasized that Countryside took people to London to establish trust. Local resident, Beryl (2015), in her interview said:

“Now, us on the steering group, we were flown down to London at the very beginning to see an estate out in Essex. We flew into City Airport in London itself and then we were taken to Peckham. ...We went out to Essex. They had gone through the process of getting us on little aeroplanes up and down the country so that was nice.” (Beryl, local resident and member of residents steering group)

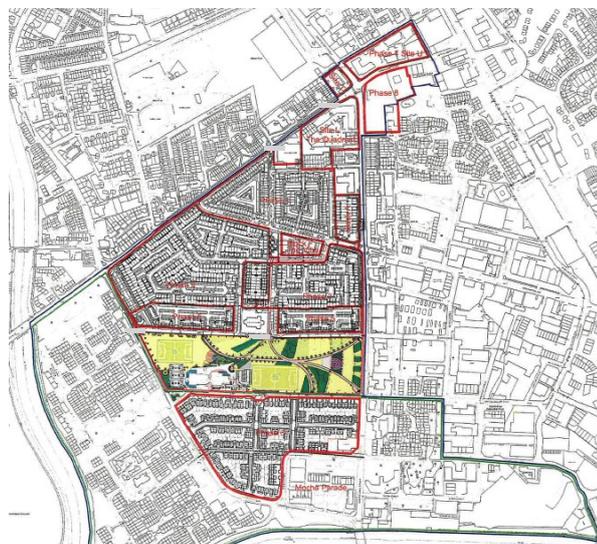
The consultation activity provided information that was integrated into the strategic vision for the regeneration of the area in a form of *Supplementary Planning Document (SPD): Lower Broughton Design Code* (Salford City Council, 2006b), which was adopted in January 2006. Strategic vision was focused on the improvement of the quality of life and sustainable development of the area by tackling economic, social and environmental issues (Salford City Council, 2006b). In addition, before adopting the final form of the SPD Lower Broughton Design Code (Salford City Council, 2006b), local government undertook a Sustainability Appraisal (SA) of the consultation draft Lower Broughton Design Code, which was prepared in June 2005 (Salford City Council 2005). Objective 4 of the SA included health improvement and reduction of inequalities, while objective 5 focused on improved accessibility to affordable housing, services and amenities. Objective 6 included access to public open space and green space, while objective 7 focused on the improvement of housing choice (type, tenure, mix and style) (Salford City Council 2005, p.4). All objectives of the SA are listed in the Appendix 7. Furthermore, preparation for the *SPD Lower Broughton Design Code* (Salford

City Council, 2006b) included Equality Impact Assessment (EIA) in order to identify potential effects of the planning document on specific population groups (Salford City Council, 2006b).

The vision was shaped into a ‘New Broughton Village’ regeneration project for Lower Broughton. A new name for the project and the area, *New Broughton Village* was significant in order to change the perception of the area and provide it with a new identity. Similar to other regeneration projects in Salford, branding was an important tool in stimulating local investment (Wallace 2010). In the case of Lower Broughton initially there was an advertising campaign called “Suburbia”. As every private developer has an ultimate goal to create profit, Countryside properties, put great emphasis on marketing to sell new properties.

An Action Plan developed to address issues related to Housing, Environment, Consultation and Community, Crime, Anti-Social Behaviour, Traffic and Transport, was led by six teams comprising different experts responsible for the implementation phase. The implementation of the planned regeneration was divided into eight phases. In May 2015 Phase 6 (Figure 56) was still under construction, while Phases 5, 7 and 8 were in the initial phase of site preparation. Starting with relatively unoccupied land in Phase 1 (Figure 56) gave the chance to plan and build new homes prior to clearance of the old ones. This was a favorable situation for the existing residents of council housing because they were able to engage to a certain extent in planning their new homes, as well as in selecting their future neighbors, which may have contributed in preserving a strong community feeling in the area.

Figure 56: A part of the New Broughton Village implementation plan with phases



Source: Urban Vision

One Phase followed the other, based on the same principle it enabled that residents had to move only once. This was of great significance because most of the residents were from the lower-income and vulnerable population groups, living in council housing. However, the regeneration process was interrupted and delayed due to the economic crisis in 2008/09. Some of the great challenges for the private developer were buffered by government support, which prevented further delays. Government funding to support affordable and social housing provided means for the developer to continue the regeneration process independent from selling the market properties. Furthermore, an unfavorable location on the River Irwell's flooding area (a 100 year flood), meant that housing had to be elevated, which added extra costs to the construction; however, all the costs related to flooding were taken over by the UK Environmental Agency.

6.5 Evaluation of physical improvements in Lower Broughton regeneration

6.5.1 Improvements in the built environment and housing

The key element of the regeneration, as stated in the SPD, was to reverse the population loss and to attract new residents into the area in order to increase the number of inhabitants from 3,200 (in 2005) to 7.500-10.000 over the period of 10 to 12 years (Salford City Council, 2006b). Population growth was seen as an important precondition to sustaining a range of services and supporting the local economy. Significant improvements in the built environment are visible in Figure 57 by comparing the housing conditions and street layout in 2003 (left photograph) with a new housing development (right photograph). A mix of property types was envisioned to create a vibrant and diverse community (Salford City Council, 2006b). Market and non-market housing were designed in the same row or block and therefore, not differentiable from the outside (Figure 57, right).

Figure 57: Lower Broughton in Salford in 2003 on the left and new development on the right in May 2015



Source: Urban Vision (Figure left) and author (Figure right)

Although the improvements were planned together with the local community, expectations were not fully met. One of the reasons is that local residents that were taken to a trip to London in the initial phase of the project were not satisfied with the regeneration outcome because they considered their area was not as good as the one they had visited in London.

“Now, us on the steering group, we were flown down to London at the very beginning to see an estate out in Essex. We flew into City Airport in London itself and then we were taken to Peckham. That was absolutely nothing like we have here. You could not relate anything to it.

Like I have said, there is nothing I can see here now, and most of the building has been done, that we saw down in Essex or in Peckham. Nothing.” (Interview with one of active residents in Low Broughton, Salford, May 20, 2015)

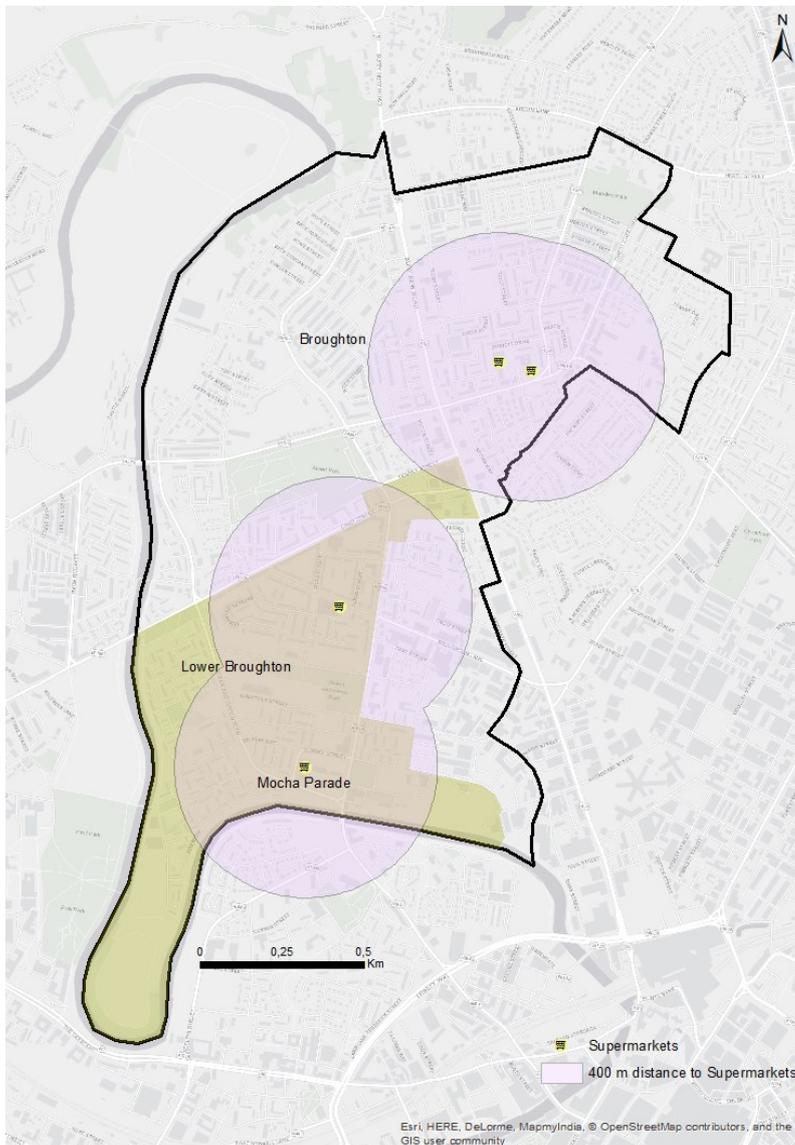
Newly developed housing had improved design as well as energy efficiency with solar panels as part of each unit. However, according to one of the informal interviews with residents, some solar heating systems were not turned on and were out of function for some time. Residents were not aware about that, which means that information about these systems was not communicated adequately. Furthermore, a fuel poverty, which is a great challenge in the neighborhood and has a significant impact on health, is solved to certain extent by providing solar heating systems. Many residents are advised by Broughton Trust, community center, how to use a prepayment meters.

6.5.2 Local facilities and accessibility

A primary school “River View”, was built at the beginning of the regeneration process with an aim to attract new residents. It was built on the east side of the new park and many of its possible outdoor activities are extended to other parts of the park. As described in the Section 6.3 lack of facilities and retail were important urban problems before the urban regeneration.

Figure 58 illustrates good access to local retail with a new facility established in Lower Broughton after the regeneration process. Traditional retail location in the neighborhood was Mocha Parade, which will be redeveloped in the coming years.

Figure 58: Lower Broughton and retail facilities: buffer analysis



Source: author, base map: Open Street Map and the GIS user community

Furthermore, Health Improvement Service was established during the regeneration process in the Lower Broughton Health Center in order to support health of local residents. They were participating in developing an action plan for regeneration. Furthermore, one representative of the Health Improvement Team is taking part on regular Community Committee meetings in order to respond to residents' requests and concerns. In addition to individual work in the Center, Health Improvement Team organizes different activities and initiatives as a part of their health-promoting program.

6.5.3 Movement and access to public transport

According to the SPD, enhancing accessibility in terms of better connectivity of the area with other parts of the city was one of the design principles (Salford City Council, 2006b). The area of Lower Broughton is well connected with only few barriers (Figure 59) to convenient and safe pedestrian and cycling routes. Local highway on the east side of the urban regeneration site has several safe pedestrian crossings. While further on the east urban fabric does not encourage walking and cycling due to abandoned, fenced industrial buildings, on the west side of the site there is a small promenade on the bank of the River Irwell convenient for walking and cycling.

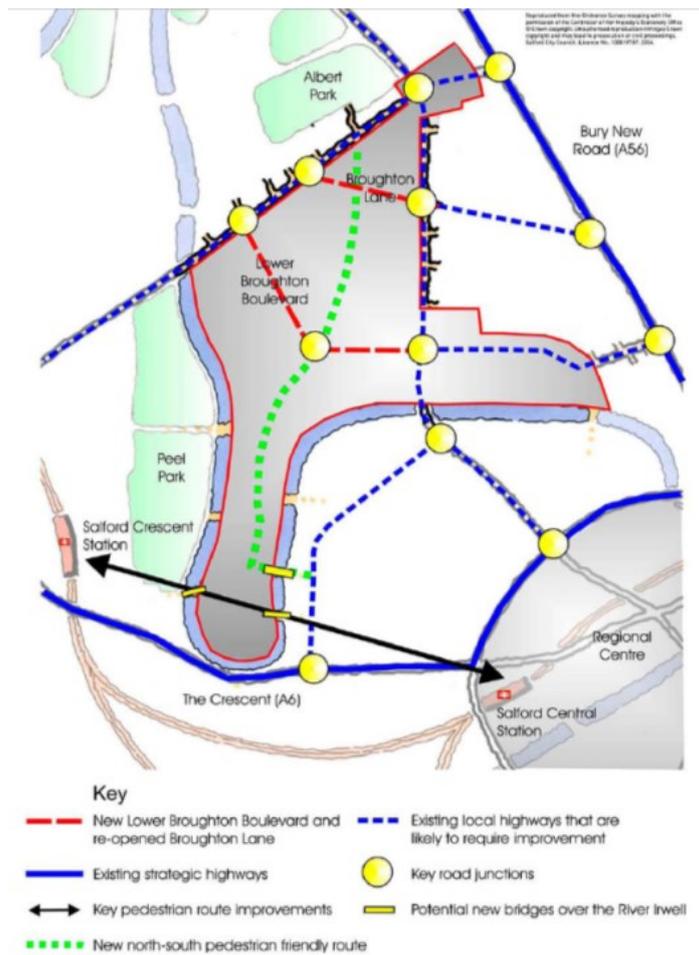
Streets are designed to accommodate different modes of transport; however, there are no separate bike lanes. The emphasis was on the improvement of existing pedestrian routes as well as creating new pedestrian friendly routes (Figure 60). New pedestrian-friendly route (Figure 60, green color) connects Albert Park on the north with new Green Grosvenor Park and ends in the green area, *the Meadow*, on the south of the regeneration area. While preserving the existing local highway network, Broughton Lane and Lower Broughton Boulevard were converted to accommodate various modes of transport marked with different pavement and with slow traffic speeds (20km/h). However, although there are significant improvements in the street layout and street network, car use is still dominant in the area.

Figure 59: Barriers to convenient pedestrian and cycling routes in Lower Broughton



Source: author, base map: Google, DigitalGlobe

Figure 60: Key accessibility/connectivity improvements in the Lower Broughton redevelopment

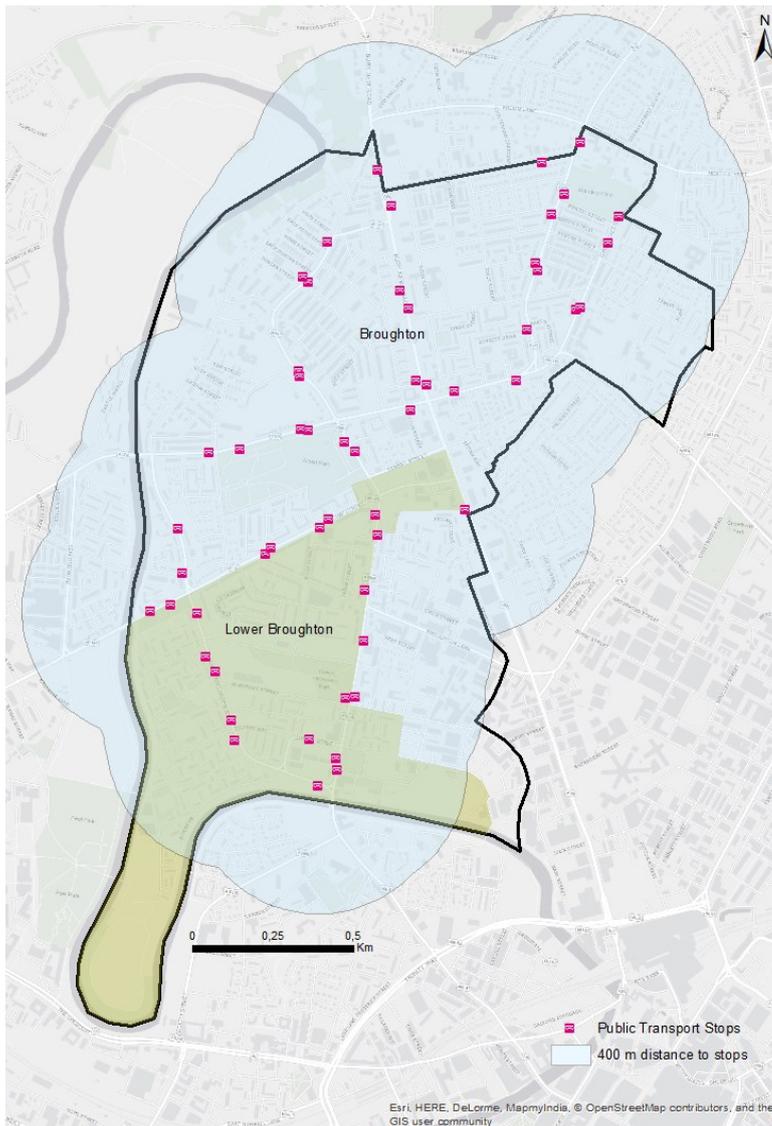


Source: SPD: Lower Broughton Design Code 2006, p. 32

Private providers of bus services as a part of Transport for Greater Manchester are operating in the area on the two main corridors, Lower Broughton Road and Great Clowes Street. Public transport stops (Figure 61) are located at comfortable walking distances to housing and are universally accessible; however, evening and night timetables, as well as long waiting times at some points during the day are not responding to residents' needs, which reinforces car use.

Although the area has a very good connections to Manchester City, the regional center and its traditional retail locations lacks direct lines to the west of Salford where new employment centers are being developed. These and other issues related to transport are reported in the Community Committee meetings and further stated in the Transport Advisory Group meetings in order to improve public transport in the area.

Figure 61: Public transport stops in Broughton and Lower Broughton: buffer analysis



Source: author, base map: Open Street Map and the GIS user community

6.5.4 Open green spaces

Green Grosvenor Park, a new public open space in Lower Broughton, is located on a site of the century old Grosvenor Square Park, which was a center for the local community. The Park was developed in an early phase of the regeneration process due to its role as a flooding basin with channels intended to conduit the water away from the settlement. This was introduced as one of the flood mitigation measures. Additionally, early development of the park was important for the provision of a new social infrastructure. A primary school “River View”, which aimed to attract new residents, was built on the east side of the park. Many of its possible outdoor activities are extended to other parts of the park (Figure 62).

Figure 62: Open green spaces in Lower Broughton



Source: author, base map: Google, DigitalGlobe

Green Grosvenor Park accommodates different activities and it is equipped with an outdoor gym and children's playground. Albert Park, an existing park on the northern border of the regeneration area was significantly improved by the mechanism of Section 106 (S106) planning obligations agreement of the Town and Country Planning Act 1990. Planning obligations are aimed at supporting the development of sustainable communities (ODPM 2005) and help to assume different improvements in the neighborhood as a compensation for the newly developed area. In the case of the public open spaces:

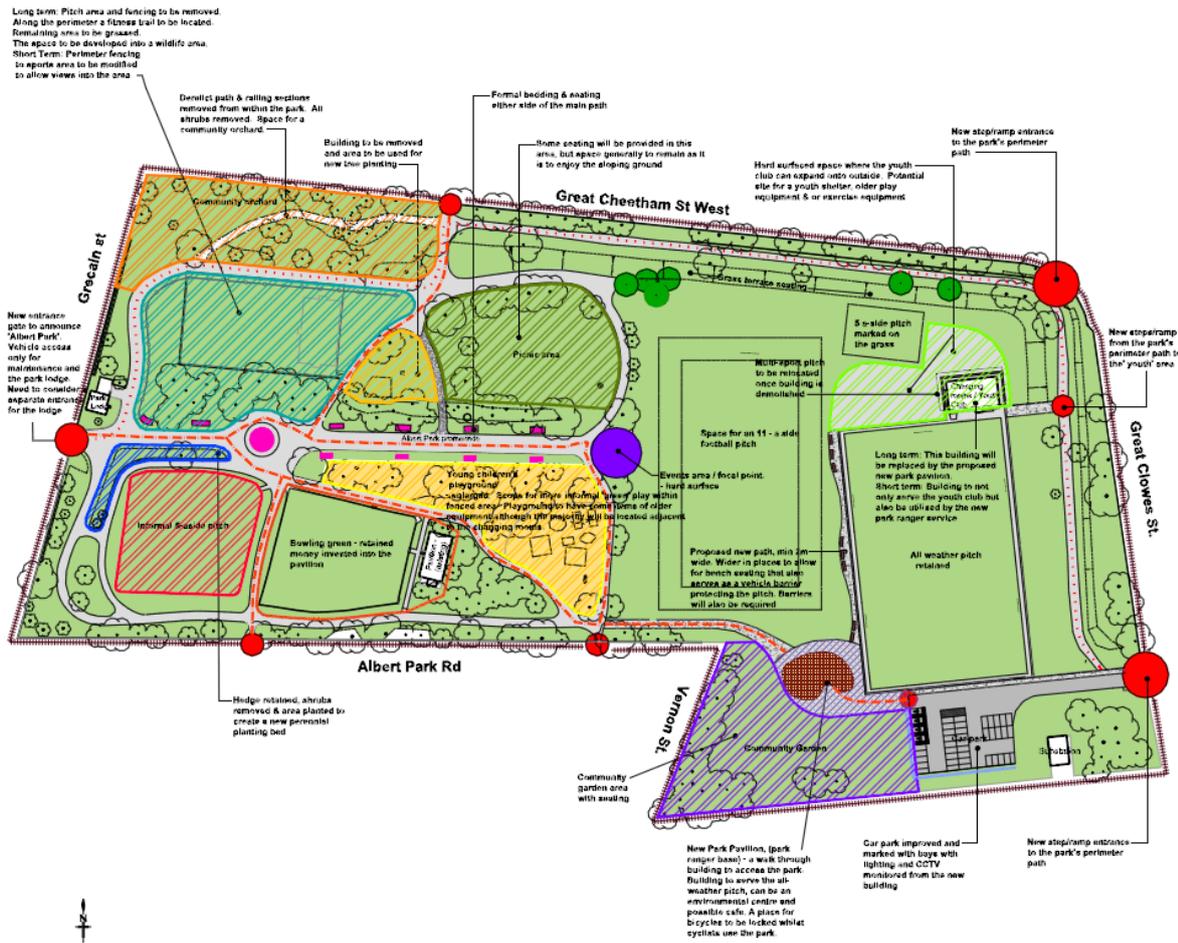
Planning obligations should be used as a means to remedy local deficiencies in the quantity or quality of open space, sports and recreational provision. Local authorities will be justified in seeking planning obligations where the quantity or quality of provision is inadequate or under threat, or where new development increases local needs.

DCLG n.d., p. 13

Before the improvements took place, Albert Park was underused due to crime and safety concerns. One of the first actions was placing special barriers on the entrances (Figure 62 second photo on the left side) that enable trolleys and wheel-chairs to enter, but prevent motorcycles, which were the main concern for the visitors due to their high speeds and theft.

In 2006, a voluntary group "Friends of Albert Park" started working together with the Neighborhood Management team on the improvements of the parks and supervision of its state and maintenance. They are still eligible for the various funding options for further park improvements. Equipment for the picnic area as well as table tennis area was financed from government funds. In addition to the football pitch, bowling green and pavilion, as well as the fitness area with equipment, new tennis terrains are planned to respond to diverse users' demands. Besides the areas for different sport activities, there are assigned locations for young children, which are fenced due to safety reasons. In the case of Albert Park, Friends of Albert Park together with experts in "Urban Vision" have developed a Master Plan, which was a starting point for the voluntary group to apply for funding and to initiate the improvements.

Figure 63: Master Plan for the improvement of Albert Park



Source: Urban Vision

The voluntary group meets regularly and discusses a range of issues such as safety and maintenance but also appearance and future activities for the residents. They cooperate with the police in regard to safety issues. Furthermore, Salford Community Leisure supports them in regard to the organization of activities and events. Additionally, the Neighborhood Manager networks them with various sectors that may be relevant on certain occasions, and their issues are reported at the regular Community Committee meetings.

6.5.5 Evaluation matrix for Lower Broughton

In the previous sections urban regeneration in Lower Broughton and improvements that have influence on health based on the theoretical framework (see Section 2.4.3) are evaluated. Table 10 shows the values of evaluation assigned to key issues in the evaluation matrix.

Table 10: Evaluation matrix with four policy areas for Lower Broughton
Assigned values: (+) positive value, (±) moderate value, (-) negative value

POLICY AREAS				
Key issues	Housing	Local facilities	Movement	Open Space
Air quality	<ul style="list-style-type: none"> Energy-efficient Non-toxic materials V: ++	<ul style="list-style-type: none"> Localize facilities Locate for pedestrian convenience V: ++	<ul style="list-style-type: none"> Reduce reliance on cars Reduce lorry penetration into neighborhood and reduce through traffic V: ±+	<ul style="list-style-type: none"> Good microclimate design Increase tree cover V: ++
Exercise	<ul style="list-style-type: none"> An attractive, safe residential environment V: +	<ul style="list-style-type: none"> Accessible local facilities to encourage walking and cycling V: +	<ul style="list-style-type: none"> Convenient and safe pedestrian and cycling routes V: +	<ul style="list-style-type: none"> Recreational greenways Playing fields and playgrounds V: ++
Safety	<ul style="list-style-type: none"> Design for effective surveillance and clarity of ownership of semi- public and private spaces V: +	<ul style="list-style-type: none"> Accessible local facilities to encourage people to be on the street V: +	<ul style="list-style-type: none"> Calmed traffic Design for natural surveillance of footpaths and pavements V: ++	<ul style="list-style-type: none"> Good visibility across open land V: +
Accessibility	<ul style="list-style-type: none"> Close to public transport and local services Grade densities Prohibit new housing on inaccessible sites V: +++	<ul style="list-style-type: none"> Localize services within housing areas Locate for the convenience of pedestrians and access to public transport Design for disability V: +++	<ul style="list-style-type: none"> Permeable pedestrian and cycling environment Plan to ensure that public transport is viable V: ++	<ul style="list-style-type: none"> Provide accessible open spaces for all kinds of activities V: +
Shelter	<ul style="list-style-type: none"> Good range of housing tenure, size and price Energy-efficient stock Siting to reduce heat loss V: +++	<ul style="list-style-type: none"> Adaptable buildings for local social and commercial uses Inexpensive to operate and energy efficient Siting to reduce heat loss V: +?+	<ul style="list-style-type: none"> Bus shelters V: +	<ul style="list-style-type: none"> Shelter belts V: +
Work	<ul style="list-style-type: none"> Support dwelling based working options Locate housing accessible by public transport to main work centers V: +	<ul style="list-style-type: none"> Foster local small-scale jobs V: ±	<ul style="list-style-type: none"> Good public transport services to all main centers A strategic cycling network serving the locality V: ±±	<ul style="list-style-type: none"> Encourage the productive use of open land V: +
Community	<ul style="list-style-type: none"> Support community action Design residential places Support co-housing and self-build schemes V: ++-	<ul style="list-style-type: none"> Foster local services and employment V: +	<ul style="list-style-type: none"> Permeable and attractive pedestrian and cycling environment Safety on the streets Design of casual gatherings V: +++	<ul style="list-style-type: none"> Parks, play areas, playing fields and allotments as meeting places V: +
Sum:	13 +, 0±, 1-	10+, 1±, 0-	11+, 2±, 0-	9+, 0±, 0-

Source: values by author, based on Barton and Tsourou 2000, pp. 124,125

6.6 Socio-economic characteristics of the urban regeneration in Broughton

The regeneration process, which is still uncompleted, has already shown some positive trends in the area, such as the number of households in East Salford district which has increased by 10.8% from 2001-2011, while the amount of households with no adults in employment has decreased by 9.1% in the same period (Salford City Council 2015). The population number in Broughton ward has almost doubled in 2011 compared to 2001 (Table 11), which is a positive trend. Although there has been an improvement in education level it is still below the city average and England's average level (Table 11). Unemployment has increased in 2011 compared to 2001; however, that is a general trend which can be observed in Salford and England (Table 11).

Table 11: Population in Broughton in 2001 and 2011 with levels of education and unemployment

Variable/Indicator	Broughton	Salford	England
2001 Population number	7,784	216,103	49,138,831
2011 Population number	13,869	233,933	53,012,456
People aged 16-74 with no formal qualifications (%) in 2001	47.02	35.52	28.85
People aged 16-74 with no formal qualifications (%) in 2011	38.90	27.10	22.50
People aged 16-74: Economically active: Unemployed (%) in 2001	5.31	3.81	3.35
People aged 16-74: Economically active: Unemployed (%) in 2011	7.30	5.20	4.40

Source: ONS 2001 (values for 2001) and ONS 2011 (values for 2011)

In order to improve skills and reduce unemployment there were different initiatives organized by local community center Broughton Trust. Broughton residents had an opportunity to attend courses, which would enable them to run a small-business in the area. Although the preparation courses were good, there was no final support to initiate an own small business. One of local residents argues that

...occasionally they [Broughton Trust] have workshops, so you'll learn about something, so you do it for a few weeks, and you might be interested in it and might want to carry on doing that. But the workshop finishes and that's it; there's nowhere to carry on

Interview with one of local residents in Lower Broughton, Salford, May 22, 2015

Broughton Trust has also provided information about options for electricity and gas supply in order to better cope with fuel poverty. They have created a little brochure with the explanation of the problems that arise. Different aspects that are explained in the brochure like how to read the meter, what to do if there is a problem, how to find the means to pay for it, and to get back onto paying monthly, are aimed to inform and support the residents.

All these interventions and initiatives are aimed at decreasing deprivation level and increasing life expectancy. However, index of deprivation has been changed several times since the year 2000, and they are not comparable due to changes in geographical units, domains and subdomains (Office of the Deputy Prime Minister 2004).

Although life expectancy at birth has improved in the Broughton Ward from 2008-2012 it is still low (70,4 years for men and 76,7 women) when compared to the city of Salford (75,5 years for men and 80,1 years for women) and lower than the national level (78,9 for men and 82,8 for women) (Public Health England 2013, p. 17). However, the time period from 2006 when the changes in the built and social environment were first initiated until today is too short to be reflected in the increase of life expectancy in a population.

It is important to understand the regeneration area in the larger context to identify other factors that may have also influenced the improvements and positive trends in the area. Lower Broughton regeneration cannot be regarded as an isolated project and its initiation may be related to other events, such as the Salford Quays regeneration in the western part of the city of Salford, which was labeled as successful. Additionally, the British Broadcasting Corporation (BBC) announced in 2004 that they plan to move some of their production to Salford or Manchester (Breen 2004) and eventually selected Salford and its newly developed "Media City" on Salford Quays in 2006 (Deans 2006). This probably has had some influence on other regeneration projects including Lower Broughton.

Furthermore, other urban regeneration initiatives in East Salford district, such as the government initiative "New Deal for Communities in Charlestown and Lower Kersal" have helped to improve the perception of the area. Due to their experience in community engagement they were able to transfer their knowledge to Lower Broughton.

Salford Conclusion:

Beside the improvements in the built environment, open spaces and access to retail and education opportunities, also important for the local community is the provision of local employment opportunities. Different education programs in the local community groups have helped residents to gain knowledge about small business development; however, there were no provisions made to give them the opportunity to start their own business. The local community could benefit from these small businesses in many ways. It could contribute to the decrease in the unemployment level and increase in local supply, which would contribute to the sustainability of the neighborhood. In addition, it could contribute to the decrease in car dependency and increase in incidental physical activity. Further research is necessary to identify the main factors that can enable the initiation of local businesses and their support.

CHAPTER 7 | Comparison: cross-case synthesis

In previous Chapters the case studies of two neighborhoods in Bulmke-Hüllen and Broughton were characterized and the process of urban regeneration was traced. Interventions in physical and social environment were evaluated according to theoretical criteria for developing health-promoting neighborhoods (see Section 2.4.3). In this Chapter the two case studies are compared in order to understand what factors have influenced the specific outcome of urban regeneration as well as to determine causal effects and their interaction. Furthermore, systematic differences are elaborated in order to identify the reasons for the specific outcome of urban regeneration and its influence on creating health-promoting neighborhoods.

7.1 Comparison of physical and socio-economic improvements

Based on the theoretical criteria for developing health-promoting neighborhoods four policy areas housing, local facilities, movement and open space were evaluated in both case studies. Table 12 shows positive, moderate or negative values for specific issues in both neighborhoods. Lower Broughton shows a good regeneration outcome with positive values in all policy areas with only three moderate values and one negative. In contrast, Bulmke-Hüllen with nine moderate and sixteen negative values shows only a moderate regeneration outcome.

According to the overall analysis and evaluation matrix, Lower Broughton urban regeneration is evaluated as successful while the urban regeneration in Bulmke-Hüllen in Gelsenkirchen has showed only modest improvements. Four policy areas will be compared in the following sections.

Table 12: Comparison of urban regeneration in Bulmke-Hüllen and Lower Broughton based on the evaluation of four policy areas and key issues for creating health-promoting neighborhoods
BH – Bulmke-Hüllen, LB – Lower Broughton, assigned values: (+) positive value, (±) moderate value, (-) negative value

POLICY AREAS				
Key issues	Housing	Local facilities	Movement	Open Space
Air quality	<ul style="list-style-type: none"> Energy-efficient Non-toxic materials BH: ++ LB: ++	<ul style="list-style-type: none"> Localize facilities Locate for pedestrian convenience BH: -- LB: ++	<ul style="list-style-type: none"> Reduce reliance on cars Reduce lorry penetration into neighborhood and reduce through traffic BH: -- LB: ±+	<ul style="list-style-type: none"> Good microclimate design Increase tree cover BH: ±+ LB: ++
Exercise	<ul style="list-style-type: none"> An attractive, safe residential environment BH: + LB: +	<ul style="list-style-type: none"> Accessible local facilities to encourage walking and cycling BH: - LB: +	<ul style="list-style-type: none"> Convenient and safe pedestrian and cycling routes BH: - LB: +	<ul style="list-style-type: none"> Recreational greenways Playing fields and playgrounds BH: ++ LB: ++
Safety	<ul style="list-style-type: none"> Design for effective surveillance and clarity of ownership of semi- public and private spaces BH: + LB: +	<ul style="list-style-type: none"> Accessible local facilities to encourage people to be on the street BH: - LB: +	<ul style="list-style-type: none"> Calmed traffic Design for natural surveillance of footpaths and pavements BH: -- LB: ++	<ul style="list-style-type: none"> Good visibility across open land BH: + LB: +
Accessibility	<ul style="list-style-type: none"> Close to public transport and local services Grade densities Prohibit new housing on inaccessible sites BH: -++ LB: +++	<ul style="list-style-type: none"> Localize services within housing areas Locate for the convenience of pedestrians and access to public transport Design for disability BH: ±±+ LB: +++	<ul style="list-style-type: none"> Permeable pedestrian and cycling environment Plan to ensure that public transport is viable BH: -+ LB: ++	<ul style="list-style-type: none"> Provide accessible open spaces for all kinds of activities BH: + LB: +
Shelter	<ul style="list-style-type: none"> Good range of housing tenure, size and price Energy-efficient stock Siting to reduce heat loss BH: ++± LB: +++	<ul style="list-style-type: none"> Adaptable buildings for local social and commercial uses Inexpensive to operate and energy efficient Siting to reduce heat loss BH: +?+ LB: +?+	<ul style="list-style-type: none"> Bus shelters BH: + LB: +	<ul style="list-style-type: none"> Shelter belts BH: + LB: +
Work	<ul style="list-style-type: none"> Support dwelling based working options Locate housing accessible by public transport to main work centers BH: ± LB: +	<ul style="list-style-type: none"> Foster local small-scale jobs BH: - LB: ±	<ul style="list-style-type: none"> Good public transport services to all main centers A strategic cycling network serving the locality BH: ±- LB: ±±	<ul style="list-style-type: none"> Encourage the productive use of open land BH: ± LB: +
Community	<ul style="list-style-type: none"> Support community action Design residential places Support co-housing and self-build schemes BH: ++- LB: +-+	<ul style="list-style-type: none"> Foster local services and employment BH: ± LB: +	<ul style="list-style-type: none"> Permeable and attractive pedestrian and cycling environment Safety on the streets Design of casual gatherings BH: --± LB: +++	<ul style="list-style-type: none"> Parks, play areas, playing fields and allotments as meeting places BH: + LB: +
Sum BH:	10 +, 2±, 2-	3+, 3±, 5-	2+, 2±, 9-	7+, 2± 0-
Sum LB:	13 +, 0±, 1-	10+, 1±, 0-	11+, 2±, 0-	9+, 0±, 0-

7.1.1 Comparison of improvements in the built environment and housing

In Bulmke-Hüllen the greater emphasis was on social integration, rather than on the improvements in the built environment. Except for the high-rise residential buildings in Tossen Hof, there were only very limited improvements of certain parks, playgrounds and school yards compared to the new development in Lower Broughton. Nevertheless, in both case studies housing improvements contribute to better air quality, opportunities for physical activity and safety. In terms of accessibility to public transport, both housing developments are in the proximity of public transport stops. However, in the case of Tossen Hof and Bulmke-Hüllen the low frequency in timetables reduces the opportunity to use public transport and increase car use.

In both case studies there is a good range of housing tenure, size and price, which contributes to creating a socially balanced population with various incomes and types of households. Diverse housing opportunities are an important characteristic of a health-promoting neighborhood (see Figure 10). However, in neither of the case studies were co-housing and self-built schemes envisioned, nor supported. Nevertheless, in Lower Broughton residents of social housing were able to design their new homes together with architects. The existence of a large cleared site in Lower Broughton meant that residents had to move only once. This was of great significance because most of the residents were from the lower-income and vulnerable population groups, living in council housing. In Tossen Hof the residents who lived on the floors that were completely demolished had to move to other parts of Bulmke-Hüllen or elsewhere in the city, while others were temporary relocated during the reconstruction works. That was an additional burden to the low-income or unemployed residents of Tossen Hof.

In Lower Broughton market and non-market housing were designed in the same row or block and therefore, not differentiable from the outside, which prevents stigmatization and social segregation. Furthermore, existing residents were able to choose their future neighbors and their requests were fulfilled to a great extent, which contributed to preserving the existing community. In general, urban regeneration has supported community action in both case studies.

7.1.2 Comparison of local facilities and accessibility

Unlike housing where both case studies shared positive values, local facilities and accessibility improvements show rather great differences. Although there were great efforts to improve access to retail and other facilities in Tossehof, they were only partly successful. “Carekauf”, an integrative supermarket supported by the big supermarket chain REWE and charitable organization Caritas existed only for three years, between 2009-2012. Although Tossehof is the densest populated area in Bulmke-Hüllen, it has the worst access to retail in the whole district (Figure 42). The traditional local shopping facilities of Mocha Parade in Lower Broughton will be reconstructed in the coming years as the last phase of the urban regeneration in Lower Broughton and will provide a full range of retail and other facilities. A new food store located in the first phase of urban regeneration in Lower Broughton has improved access to daily needs (Figure 58) and its convenient location enables pedestrian access, thus encouraging walking and cycling. Furthermore, other local facilities located in the core of the new development encourage people to be on the street and increase the feeling of safety.

The primary school in Lower Broughton was built in the initial phase of the urban regeneration in order to attract new residents and improve the socio-economic situation of the neighborhood. In Tossehof only the existing school yard was improved as a part of regeneration project. While in Lower Broughton there were new medical service and a Health Improvement Service established in the local Health Center during the regeneration process in order to support the health of local residents, in Tossehof there was a lack of physicians. The social initiatives organized during the regeneration process in Tossehof lacked other health supporting aspects.

In terms of local jobs, “Carekauf” in Tossehof enabled local people to work in the supermarket, however there were no further initiatives to foster small-scale jobs. In Lower Broughton there were initiatives to improve skills in order to initiate own local small-scale business. However, due to lack of financial support it was not possible to realize such projects.

7.1.3 Comparison of movement and access to public transport

Urban regeneration in Lower Broughton has enabled an improved street network and direct street connectivity instead of cul-de-sacs, which was the case before the regeneration. A better street network, as well as cooperation with the police and the Neighborhood Management Team has created a safer environment. Furthermore, calmed traffic and street pavements have improved the pedestrian and cycling infrastructure in the neighborhood. In Tossehof and Bulmke-Hüllen there were no changes in the street network. Numerous cul-de-sacs and different barriers like the fenced tributary of the Emscher open sewage system prevent street connectivity and increase travel times, making the neighborhood unattractive for walking and cycling.

Although in both case studies there is a good network of public transport stops accessible by foot, timetables in Tossehof and Bulmke-Hüllen with services every 20 minutes make the public transport inefficient. Furthermore, the public transport service lacks lines to all main centers contributing further to the increase in car use. In Lower Broughton there is a good connectivity of the neighborhood with other parts of the city and Manchester center. However, there is no good connection to Salford West where many jobs are located. Residents of Lower Broughton together with other residents in East Salford have formed a Transport Advisory Group in order to improve public transport in the neighborhood.

7.1.4 Comparison of open green spaces

In both case studies there was a great emphasis on improving public open spaces and green areas. There is an increase in tree cover and improvements in recreational greenways and playgrounds, which have contributed to accessible open spaces for different kinds of activities.

In the case of Albert Park in Lower Broughton, where safety was a serious impediment in using the park, the Friends of Albert Park group worked together with the Neighborhood Management Team and other sectors to improve the safety of the park. Furthermore, there were different efforts to add various amenities and sustain the park in order to make it a central point for local residents. This approach of direct engagement of local residents in sustaining the park has benefits not only for the visible changes in the park but also for the social cohesion and for strengthening the community.

Although “*Orangenplatz*” in Bulmke-Hüllen was improved according to residents’ suggestions in the planning phase, it is still underused, meaning that some important aspects such as safety, were not completely solved. The example of Alfred Park and the direct involvement of residents would probably have the beneficial effects in the case of Orange Square as well.

In Tossehof beside parks there are traditionally allotment gardens, which encourage the productive use of open land. However, users of these allotment gardens come from different parts of the city, not only from the neighborhood. In Lower Broughton, the use of temporary open land for urban gardening was encouraged by the Broughton Trust community center. Besides growing own food, allotments were meeting places where residents exchanged different recipes and children learned how to grow their own food.

7.2 Comparison of governance and management of urban regeneration

Urban regeneration strategies in both areas aimed to improve the built and social environment of deprived neighborhoods. It was recognized that only a holistic and integrated approach can overall improve the situation. In Lower Broughton health was one of the explicit goals and it was one of the action fields in the implementation phase, while in Tossehof and Bulmke-Hüllen health was not on the urban regeneration agenda.

In both case studies different levels of government and governance were employed to reach the goals. In the case of Lower Broughton six teams were formed to tackle the issues identified as the most important in the neighborhood, including health. The cooperation of different actors and experts in improving those aspects as well as a meaningful citizens’ involvement has proven to be crucial for the success of the project. Community Committee meetings where residents including vulnerable population groups could present and discuss important issues in their neighborhood gave them a chance to influence the situation in their living environment. Since an important aspect of the urban regeneration that would result in health-promoting neighborhood is not only to improve the physical environment, but also to create sustainable communities and improve the social environment, the direct involvement of residents plays an important role in achieving that goal. In the case of Tossehof public participation was also part of the renewal, however there level of involvement was not on a high level based on the interviews.

7.3 Lessons learned

Although creating health-promoting neighborhood was not a specific goal in neither of urban regenerations, action plan for Lower Broughton included health aspects and health experts. In both case studies local authorities had great level of autonomy. Governance of urban regeneration in the Lower Broughton was based on an open and equal partnership between public and private sector with a long-term strategic purpose. In Tossehof there was a predominant role of local government.

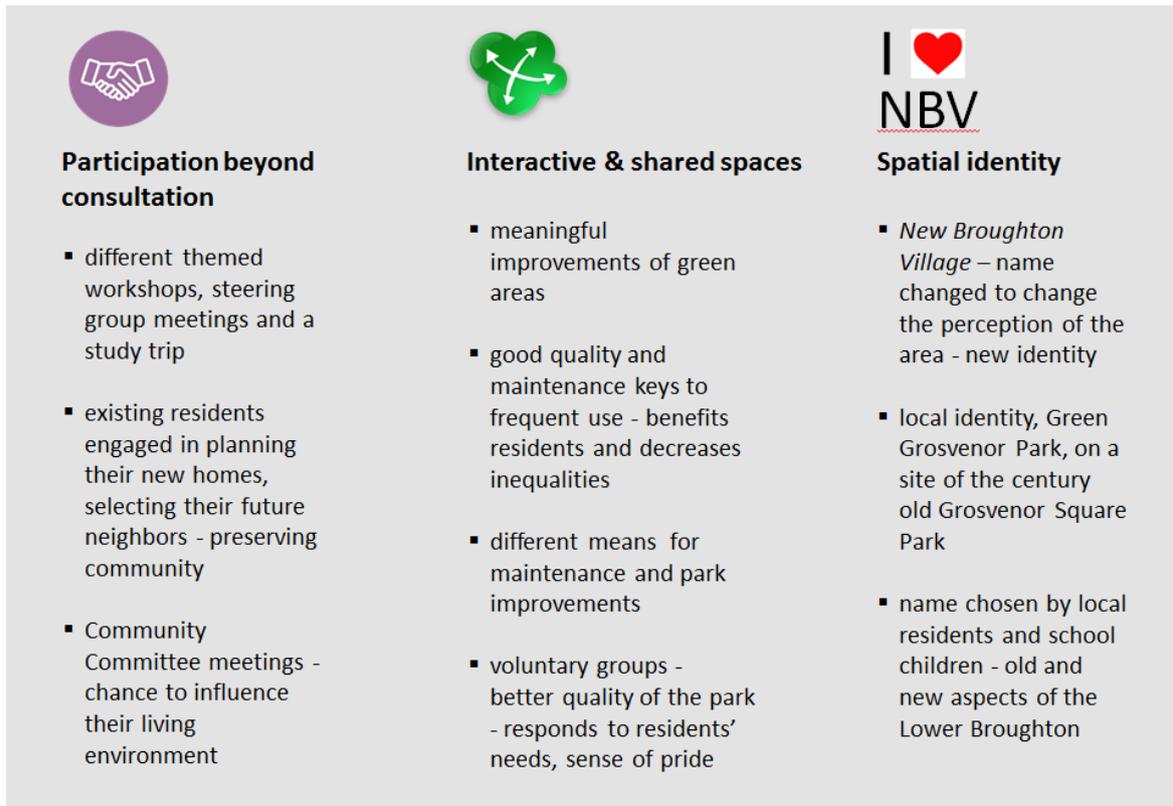
Key aspects that were identified in the urban regeneration in Broughton that were missing in Bulmke-Hüllen are characterized as success factors:

- Partnership, strategy and sustainable development approach (Sustainability Appraisal)
- Networking with other partnerships (regional level, local residents partnership)
- Community center and the Broughton trust (capacity building, employment support, sustainability projects)
- Volunteering groups Friends of Parks (management of parks, initiatives)
- Integrating the Health Improvement Team, Sport and recreation team, police
- Involving university
- Building upon experience of previous good practice (New Deal for Communities)
- Flexibility of local government in the long-term
- Strong leadership and continuity of personnel

Figure 64 illustrates additional lessons learned with a focus on participation, public open spaces and sense of community where contribution of residents was crucial for the success of interventions.

Taking the long view and strategic approach were important groundings for reaching the positive outcome of urban regeneration. Moreover, support of the central government, who funded social housing in Lower Broughton, provided stability and continuity in developing large scale urban regeneration over a long time span. In addition, that approach assured preserving existing community.

Figure 64: Lessons learned based on case studies analysis



Source: author

CHAPTER 8 | Discussion

Obviously differences in political regime and systems in two countries, Germany and the UK, are reflected in their urban policies that frame urban planning and urban regeneration. Although health is high on an urban agenda in the international documents, when it comes to urban regeneration policies health is not an explicit goal of the urban regeneration. However, both countries have adopted sustainable urban development approach, which overlaps with healthy urban planning approach in many aspects.

Analysis of case studies has revealed that holistic approach to urban regeneration brings positive effects on health and reduces inequalities. Besides the visible improvements of the built environment, factors contributing to the successful urban regeneration and reduction of environmental inequalities in Lower Broughton are related to the access of vulnerable population groups to decision-making as well as to better education and employment opportunities. Furthermore, success of the urban regeneration was highly dependent on meaningful and active community involvement, as well as cooperation of different sectors and stakeholders. In Bulmke-Hüllen cooperation of different sectors was planned, however horizontal collaboration was developed only to a certain level which gave modest results.

Although, different external factors may have influenced the urban regeneration it is of great significance that local community is not only playing a passive role in the regeneration, but rather being an active stakeholder involved in the regeneration process from its very beginning to the end and furthermore. It is the local government that made provisions for the local community to be a part of the regeneration process. Involvement and maintenance after the completed project is crucial to reinforce sustainability.

Maintenance and park improvements can be provided by using different means and ways of financing and organization, such as in the case of Lower Broughton. Albert Park was underused before the regeneration due to safety concerns, which is a case in many deprived neighborhoods. Thus, a simple provision of a green area without meaningful improvements is insufficient. A good quality and maintenance are keys to frequent use that benefits residents and decreases inequalities. In addition, involvement of voluntary groups in park

improvements not only results in better quality of the park that responds to residents' needs, but also provides a sense of pride, which is crucial especially in deprived neighborhoods. Local identity, an important factor for the existing residents, was preserved in the case of Green Grosvenor Park, which was built on a site of the century old Grosvenor Square Park.

Results are discussed also in regard to strategies to avoid gentrification. Urban regeneration driven locally in partnership with existing residents, and different interventions that range from temporary to permanent have enabled the improvement of the urban environment in a deprived neighborhood in Broughton. Aspects such as cooperation between the public, private and civil sector as well as different models of financing were identified as the main enabling factors, which have facilitated improvements in the built environment and better access to facilities and services. In that sense non-market housing delivery besides better security of investment provides important stability of housing supply for vulnerable groups. Good proportion of non-market housing delivery in the regeneration of deprived areas, as well as meaningful involvement of local community, is significant for preventing gentrification process. Unlike neighborhoods that have undergone urban regeneration and then faced gentrification, this approach allowed for preserving to a great extent the existing population, especially vulnerable groups and enabling them to benefit from these interventions that were designed for them and with them in the first place.

Important aspects for further improvement, systematic evaluations on how far these interventions improved the health of the residents are warranted for both areas. Methods and tools like the Health Impact Assessment or comprehensive checklists like Healthy Urban Development checklist could be adopted for the evaluation of urban regeneration. Starting from the planning phase would enable identifying critical issues that could be modeled to reinforce health.

8.1 Transformation recommendations: from deprived to healthy neighborhoods in metropolitan regions

Coming from the theoretical background elaborated in Chapter 2 *resolving urban problems and bringing about lasting improvement* should include health as an explicit goal of urban regeneration. A new comprehensive approach – a healthy urban regeneration - is necessary in order to contribute to developing health-promoting neighborhoods.

Urban regeneration interventions should contribute to fulfilling an overall vision of city and regional development. Since urban areas undergoing regeneration are part of a wider city or region, their improvements should contribute to strengthening the overall image or character of the city. In that sense, based on the various definitions of cities and towns (Section 3.1.1), urban regeneration should reflect different dimensions of the envisioned city and regional development. These may include social and functional dimension as well as aesthetics of space, based on various cultural aspects related to socially heterogeneous individuals that live in the city and in the neighborhood. Moreover, to strengthen cities inner structure and provide good quality of services is a prerequisite for a *healthy, orderly life* in the metropolis.

8.1.1 Recommendations for urban planners and policy makers

In addition to the characteristics of the health-promoting neighborhood (Section 2.4.3) and lessons learned from case studies (Section 7.3) recommendations for urban planners and policy makers are:

1. Balancing economic development of the city with the reduction of social and environmental inequalities in an integrative approach;
2. Determining the scale of interventions that would contribute to creating health-promoting neighborhood and using HIA to determine potential effects of planned interventions on health;
3. Balancing range and type of housing that is not visible from outside to enable socially balanced population without stigmatization;
4. Working with community to identify their needs, to develop aesthetic identity and balance it with the overall city image;
5. Planning temporary uses on the underused land using it as an opportunity to involve the community in a meaningful way;
6. Providing opportunities for gradual renewal and adaptation in order to prevent decline and dysfunction of the neighborhood.

8.2 Conclusion

Incorporating health aspects into urban planning gives opportunity for holistic regeneration of social and physical environment, which enables improvements in quality of life and reductions in environmental inequalities. Although development of a health-promoting neighborhood was not an explicit goal of urban regeneration in Lower Broughton, evaluation based on criteria for healthy neighborhoods revealed that most of the issues in physical and social environment were improved. Although there is a place for further improvement, it can be concluded that Lower Broughton has been converted to a health-promoting neighborhood. In that sense, hypothesis that urban regeneration can contribute to converting deprived neighborhoods into healthy ones is confirmed.

According to analysis, long-term strategy and horizontal cooperation between different sectors as well as public-private partnership and partnership with residents contributed to successful planning and implementation of urban regeneration. Furthermore, although Health Impact Assessment was not carried out, Sustainability Appraisal and Equality Impact Assessment in the initial phase of planning contributed to identifying key issues, including health, as well as positive and negative attributes of the proposal.

In both countries national government develops urban policies and distributes funds for regeneration, leaving limited opportunities to manage urban regeneration on the local level. However, flexibility of local government and commitment to horizontal cooperation, as well as to working in partnership with communities can significantly improve outcome of urban regeneration. Moreover, examples of 'soft spaces' of planning have shown great potential in creating vehicle for urban change.

Planning and developing future healthy, human-scale cities and neighborhoods in a new era of technology may have significant advantages. In a new network society technology can facilitate networking and integrative approach to healthy urban regeneration planning that can enable better inclusion of various sectors, including public health, and support horizontal cooperation, as well as citizens involvement. However, technology is only a tool. What is important is that there is a two-way communication between the citizens and government in order to envision strategies for healthy urban regeneration and reach more just decisions.

APPENDICES

APPENDIX 1 Issues and policy objectives in healthy neighborhood planning

Urban planning and policy areas according to Barton and Tsourou (2000, pp.124-125) as important aspects influencing health and environmental inequalities that can be tackled by urban planning and urban regeneration.

Key issues	Policy areas			
	Housing	Local facilities	Movement	Open space
Air quality	<ul style="list-style-type: none"> Energy-efficient housing stock Nontoxic materials 	<ul style="list-style-type: none"> Localize facilities Locate for pedestrian convenience 	<ul style="list-style-type: none"> Reduce reliance on cars Reduce lorry penetration into neighbourhoods and reduce through traffic 	<ul style="list-style-type: none"> Good microclimate design Increase tree cover
Exercise	<ul style="list-style-type: none"> An attractive, safe residential environment 	<ul style="list-style-type: none"> Accessible local facilities to encourage walking and cycling 	<ul style="list-style-type: none"> Convenient and safe pedestrian and cycling routes 	<ul style="list-style-type: none"> Recreational greenways Playing fields and playgrounds
Safety	<ul style="list-style-type: none"> Design for effective surveillance and clarity of ownership of semi-public and private spaces 	<ul style="list-style-type: none"> Accessible local facilities to encourage people to be on the street 	<ul style="list-style-type: none"> Calmed traffic Design for natural surveillance of footpaths and pavements 	<ul style="list-style-type: none"> Good visibility across open land
Accessibility	<ul style="list-style-type: none"> Develop close to public transport and local services Grade densities Prohibit new housing on inaccessible sites 	<ul style="list-style-type: none"> Localize services within housing areas Locate for the convenience of pedestrians and access to public transport Design for disability 	<ul style="list-style-type: none"> Permeable pedestrian and cycling environment Plan to ensure that public transport is viable 	<ul style="list-style-type: none"> Provide accessible open spaces for all kinds of activities
Shelter	<ul style="list-style-type: none"> Good range of housing tenure, size and price in every neighbourhood Energy-efficient housing stock Siting to reduce heat loss 	<ul style="list-style-type: none"> Adaptable buildings for local social and commercial uses Inexpensive to operate and energy efficient Siting to reduce heat loss 	<ul style="list-style-type: none"> Bus shelters 	<ul style="list-style-type: none"> Shelter belts
Work	<ul style="list-style-type: none"> Support dwelling-based working options Locate housing accessible by public transport to main work centres 	<ul style="list-style-type: none"> Foster local small-scale jobs 	<ul style="list-style-type: none"> Good public transport services to all main centres A strategic cycling network serving the locality 	<ul style="list-style-type: none"> Encourage the productive use of open land
Community	<ul style="list-style-type: none"> Support community action Design residential places Support co-housing and self-build schemes 	<ul style="list-style-type: none"> Foster local services and employment 	<ul style="list-style-type: none"> Permeable and attractive pedestrian and cycling environment Safety on the streets Design for casual gatherings 	<ul style="list-style-type: none"> Parks, play areas, playing fields and allotments as meeting places
Water and biodiversity	<ul style="list-style-type: none"> Increase water autonomy Local wastewater treatment and groundwater replenishment Preserve and enhance habitats 	<ul style="list-style-type: none"> Increase self-sufficiency in water Local wastewater treatment and groundwater replenishment Preserve and enhance habitats 	<ul style="list-style-type: none"> Ensure local, clean road drainage, replenishing groundwater Reduce vehicular road traffic 	<ul style="list-style-type: none"> Structure open space around watercourses to create habitats and conserve water Create a range of wildlife habitats
Natural resources, soil and minerals	<ul style="list-style-type: none"> Build using recycled or renewable materials Safeguard topsoil Encourage residential composting 	<ul style="list-style-type: none"> Build using recycled or renewable materials 	<ul style="list-style-type: none"> Construct fewer roads 	<ul style="list-style-type: none"> Facilitate local allotment use and organic recycling Grow crops that can be used for craft and building materials
Global ecosystem	<ul style="list-style-type: none"> Low energy in construction and use 	<ul style="list-style-type: none"> Low energy in construction and use 	<ul style="list-style-type: none"> Reduce dependence on fossil fuel 	<ul style="list-style-type: none"> Grow energy crops Reduce wind speed by planting Increase carbon fixing

APPENDIX 2 Sustainable Development Goals (SDGs) (UN 2015, p.18)

Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts*

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

APPENDIX 3 Table of conducted interviews

City of Gelsenkirchen

Name	Position	Year
Uwe Gerwin	Ex-Coordinator for the City Renewal (Stadterneuerung) - <i>Soziale Stadt Südost</i> – projects for social integrations	2015
Janine Feldmann	City of Gelsenkirchen, Urban Planning Department Urban renewal manager	2015
Michaela Klee	City of Gelsenkirchen, Urban Planning Department Urban planner	2015
Detlev Czackowski	City of Gelsenkirchen, Neighborhood manager Tossehof	2015
Werner Skiba	Member of the Bülmke Forum and selected member of the Advisory Board for Tossehof and Bulmke-Hüllen	2016
Barabara Bienert	Social pedagogue Project ‚Nachbarn helfen Nachbarn‘	2016
Zuzanna Hanussek	Evangelische Kirche Gelsenkirchen	2016
Brigit Wend	Stadtumbaubüro Tossehof – project manager	2017

City of Salford

Name	Position	Year
Dr. Beth Perry¹	Uni Salford – Sustainable urban and regional futures (SURF)	2014
Dr. Graeme Sherriff²	Uni Salford - Sustainable Housing & Urban Studies Unit (SHUSU)	2014
Ross Spanner	City of Salford, East Salford - neighborhood manager	2015
Sheila Murtagh³	City of Salford, East Salford – neighborhood manager between 2006-2013	2015
Bernadette Elder	Inspiring Communities Together – coordinator	2015
Roger Baldry	The Broughton Trust – Sustainable communities	2015
Les Brown³	Countryside Properties – project director for New Broughton	2015

Andrew Cartwright	Urban Vision - officer	2015
Carole Sumner	Friends of Albert's Park and Broughton Trust	2015
Beryl Hawke	Residents steering group	2015
Dylan Vince	Salford City Council Regeneration Manager	2015
Debbie Cordingley	Health Improvement Team	2015
Jaime Wise	Friends of Green Grosvenor Park	2015
John Wooderson³	Salford City Council, Urban Regeneration director	2015

¹ informal interview

² e-mail communication

³ Skype interview

Note: Informal interviews with residents are not included here

APPENDIX 4 List of MAXQDA codes

Projekt		Ansicht		Dokumente		Codes		Variablen		Analyse		Mixed Methods		Visual Tools	
Liste der Codes															
768															
Code	Count														
Codesystem	768														
GELB	20														
lessons learned	28														
future steps	10														
evaluation of regeneration	30														
education	18														
social cohesion	6														
connectivity	33														
regeneration challenges	65														
affordable housing	16														
social benefits	5														
social housing	21														
implementation phase	44														
main actors	3														
improvements	26														
Food access	26														
Public open spaces	17														
management	2														
financing	6														
Status of the project	3														
priorities in the area	11														
challenges in the area	56														
community groups	5														
decisions for the area	4														
Community Committee	3														
priorities	5														
neighborhood management	14														
community social projects	2														
private developer	14														
involving the community	39														
planning process	28														
planning policy	2														
governance	42														
priorities	13														
PPP	23														
funding	25														
initiator of regeneration	8														
other regeneration projects	12														
benefits for city	1														
external factors	6														
successful project	4														
reason for regeneration	19														
initial aim	10														
before regeneration	29														
urban regeneration def	14														
Sets	0														

APPENDIX 5 The evolution of urban regeneration according to Roberts (2000, p.14)

14

Peter Roberts

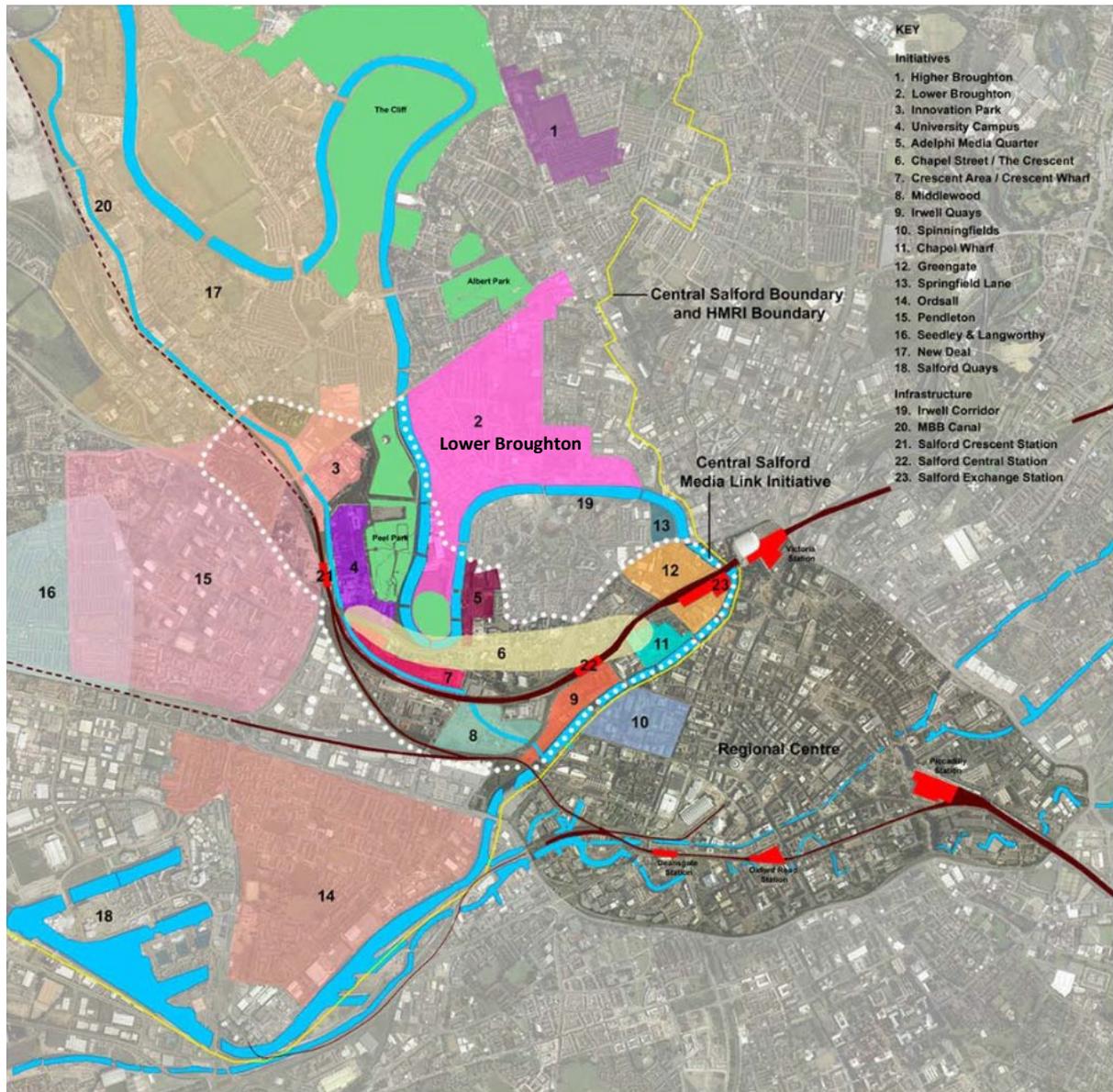
Table 2.1 The evolution of urban regeneration

Period Policy type	1950s Recon- struction	1960s Revital- isation	1970s Renewal	1980s Redevelop- ment	1990s Regener- ation
Major strategy and orien- tation	Reconstruction and extension of older areas of towns and cities often based on a 'masterplan'; suburban growth.	Continuation of 1950s theme; suburban and peripheral growth; some early attempts at rehab- ilitation.	Focus on <i>in- situ</i> renewal and neigh- bourhood schemes; still development at periphery.	Many major schemes of development and redevelop- ment; flagship projects; out of town projects.	Move towards a more com- prehensive form of policy and practice; more emphasis on integrated treatments.
Key actors and stakeholders	National and local government; private sector developers and contractors.	Move towards a greater balance between public and private sectors.	Growing role of private sector and de- centralisation in local government.	Emphasis on private sector and special agencies; growth of partnerships.	Partnership the dominant approach.
Spatial level of activity	Emphasis on local and site levels.	Regional level of activity emerged.	Regional and local levels initially; later more local emphasis.	In early 1980s focus on site; later emphasis on local level.	Reintroduction of strategic perspective; growth of regional activity.
Economic focus	Public sector investment with some private sector involvement.	Continuing from 1950s with growing influence of private investment.	Resource constraints in public sector and growth of private investment.	Private sector dominant with selective public funds.	Greater balance between public, private and voluntary funding.
Social content	Improvement of housing and living standards.	Social and welfare improvement.	Community- based action and greater empower- ment.	Community self-help with very selective state support.	Emphasis on the role of community.
Physical emphasis	Replacement of inner areas and peripheral development.	Some continuation from 1950s with parallel rehabilitation of existing areas.	More extensive renewal of older urban areas.	Major schemes of replacement and new development; 'flagship schemes'.	More modest than 1980s; heritage and retention.
Environmental approach	Landscaping and some greening.	Selective im- provements.	Environmental improvement with some in- novations.	Growth of concern for wider approach to environment.	Introduction of broader idea of environmen- tal sustain- ability.

Sources: After Stöhr (1989) and Lichfield (1992).

Source: Roberts 2000, p.14

APPENDIX 6 Lower Broughton and other policy initiatives in Salford



Source: Supplementary Planning Document: Lower Broughton Design Code (Salford City Council 2006b, p.30)

APPENDIX 7 Design Code Sustainability Appraisal in Lower Broughton

Table 2: The final SA Objectives used for the Appraisal

Final SA Objectives
1. To protect and enhance biodiversity
2. To protect and improve the quality of air, land and controlled waters.
3. To reduce crime, disorder and the fear of crime
4. To improve health and reduce health inequalities
5. To improve access to housing, services and amenities and employment.
6. To improve urban green spaces and access to open space (including urban green spaces).
7. To improve and enhance housing choice (type, tenure, mix and style).
8. To encourage a sense of community identity and welfare.
9. To ensure properties at risk of flooding are constructed with an appropriate standard of protection and development in such areas should not increase flood risk elsewhere.
10. To protect and enhance and manage the character and appearance of the landscape and townscape, maintaining and strengthening local distinctiveness and sense of place
11. To enhance the image and growth potential of the area both as a business location and as a place to live.
12. To reduce the amount of waste requiring final disposal through waste minimisation, and to increase in order of priority, the proportion of waste reused, recycled and composted and recovered.
13. To minimise energy and water use and increase the proportion of energy both purchased and generated from renewable and sustainable sources.
14. To reduce the need to travel.

Source: Salford City Council 2005, p.4

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Endnotes

ⁱ „Grundsätzlich sind wir der Ansicht, dass Stadterneuerung eine integrierte Herangehensweise bedarf, dass wir vom baulich-investiven, soziale Dimensionen, ökologische nachhaltige Dimensionen und die ökonomische Situation eines Stadtteils insgesamt betrachten. Für uns bedeutet Stadterneuerung, wenn wir erneuern, eben integrierte Erneuerung“ (Feldmann, Urban Renewal, Interview 2015)

ⁱⁱ Die wesentlichen Maßnahmen der Stadterneuerung sind dabei bisher:

- *Aufwertung der langfristig zu erhaltenden Stadtquartiere und Wohnungsbestände mit Stabilisierung innerstädtischer Altbauquartiere*
- *Anpassung der sozialen, kulturellen und technischen Infrastruktur an die veränderten Bedarfe*
- *nachfrageorientierte Qualitätsverbesserung im Bestand in Kombination mit der Konsolidierung des Wohnungsmarktes (punktuell auch durch Rückbau nicht zukunftsfähiger Bestände)*
- *räumliche Steuerung der Neubauentwicklung auf innerstädtische Brachflächen*
- *Zwischennutzung von Flächen, die perspektivisch neu genutzt werden können*
- *Verfahrenssteuerung durch ein interdisziplinär besetztes Vor-Ort-Büro, das eine aktivierende Beteiligung der Bewohner, Eigentümer und Einzelhändler anregt*

Stadtplanung 2007, p.3

ⁱⁱⁱ The Northwest Regional Development Agency (NWDA)ⁱⁱⁱ ‘was the regional development agency for the North West England region and was a non-departmental public body’ (gov.uk, n.d.) ‘sponsored by the Department for Business, Innovation and Skills (BIS)’ (NWDA 2012, p.3).

When established by the Government in April 1999, the Regional Development Agencies (RDAs) were given five key objectives, one of which was ‘to further economic development and regeneration’...Regeneration remains a key element of the NWDA’s activities and it is the view of the NWDA that the Northwest should seek to capitalise on its economic opportunities and link them to the areas of greatest need... the challenge faced by the NWDA has been how to give greater weight to the economic elements of regeneration in the Northwest, whilst ensuring that a comprehensive and holistic approach is taken to dealing with areas of deprivation... NWDA intends to contribute to the increased prosperity of the Region, by improving conditions for enterprise to flourish and by influencing the regeneration schemes and proposals emerging from sub-regional and local partnerships.

NWDA 2002, p.4

‘NWDA provided a crucial link between the needs of business and Government policies. As such, a major responsibility for the Agency was to help create an environment in which businesses in the region can flourish through offering business support, business finance, encouraging new start-ups, matching skills provision to employer needs and bringing business investment into the region.’
Source: LinkedIn

NWDA has played important role during the 2008/09 economic crisis

In 2008/09, the major focus for the NWDA was to provide the strategic leadership needed to support the region through the economic downturn and to plan for economic recovery. The £200 million business support package put in place by the Agency continues to provide crucial financial aid to companies across the region, ensuring that there are alternative options for finance available.

This support package included NWDA and ERDF [European Regional Development Fund] funded schemes such as the £10 million Transitional Loan Fund, providing transitional loans to SMEs finding it hard to access working capital in the current climate, a £10 million High Growth business support programme designed to help entrepreneurs in the region with 'starting a high growth business' and provide 'coaching for high growth', as well as enhancing the provision of other finance schemes such as the Grants for Business Investment programme. These schemes continue to make a real difference in supporting the region's businesses through these challenging economic times.

Salford City Councillor for East Salford John Merry was appointed as a NWDA Board member on December 2004 (NWDA 2009, p.12).