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Liveability in Shrinking Cities

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By

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Front-page images, own photographs:
Top: Gelsenkirchen
Bottom: Vacant office building and vacant land in Heerlen

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Preface

This report describes my graduation research regarding the liveability in shrinking cities. This research has been conducted in order to complete the master Management in the Built Environment at the faculty of Architecture of the TU Delft.

Demographics are changing and more and more cities worldwide experience shrinkage. Whilst shrinkage is not yet that widespread in the Netherlands, it is expected that shrinkage will occur in a growing number of cities in the Netherlands. This means that an increasing number of municipalities will have to cope with this phenomenon. Shrinkage occurs because of changing demographics but also because of economic factors such as employment opportunities.

Often, when thinking about shrinking cities, these cities are pictured as 'ghost cities'. This picture mostly involves abandoned streets and buildings. Whilst vacancy is common in shrinking cities, these cities are far from abandoned. There is, however, a chance that the liveability in these cities will decline. To prevent the liveability from decreasing, municipalities and private parties take all sorts of measures. This research studies these measures and their effects on the liveability so that municipalities with comparable problems can use this information for their future plans.

I would like to thank my main mentor, André Mulder, as well as my second mentor Paul Stouten, for their assistance during my research.

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Isabeau Dieleman
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Summary

In Europe, an increasing number of cities are experiencing shrinkage and it is expected that, in the future, even more cities will encounter a shrinking population. Often, shrinking cities are depicted as ghost cities where there is a high share of deteriorated and vacant buildings. This image is not necessarily true. It is, however, the case that when a city is shrinking, this will have an effect on the city and its appearance and thus the living environment of the residents. Because shrinkage affects the living environment, residents of shrinking cities will benefit from an appropriate strategy to maintain the liveability in their city. When a city shrinks, the urban regeneration, and thereby urban renewal strategies, should therefore be designed with regard to the changes that the city might encounter due to the shrinkage.

Strategies related to shrinkage

When a city starts to shrink, one of the first things that municipalities will attempt is to counter shrinkage. Whilst countering shrinkage might seem a good idea, it is not. Because demographics are changing it is likely that the population of the western world will shrink as a whole. This means that many cities will encounter shrinkage and there is the risk that if one city counters shrinkage, another city will shrink even more because of the competition for residents that will emerge. This means that a city that is facing shrinkage should not try to counter the shrinkage but should accept that it is shrinking. Many shrinking cities, especially in the UK and Germany, accepted their shrinkage and are coping with its effects. In the Netherlands, there are some cities that are already experiencing shrinkage and it is likely that more cities in the Netherlands will encounter shrinkage in the future. Therefore, it is interesting to research the strategies employed by shrinking cities, in the Netherlands and abroad, to maintain the liveability and whether these strategies are effective. If they are effective, it is interesting to determine if these strategies could be transferred to other municipalities in the Netherlands.

Shrinkage can occur at various geographical levels. For instance, at the level of a country, region or city. Because the perception of the effects of shrinkage and the effects themselves are important when it comes to the changing liveability, this research focuses on shrinkage at the level of a city.

Causes for shrinkage

Shrinkage can be caused by various developments, such as a death-surplus or a low fertility rate. Both developments mean that there are less new-borns then deceased. Another cause for shrinkage is a decrease in job opportunities. This causes people to move to places where there are better job opportunities. This might lead to a negative migration balance.

Effects of shrinkage

Shrinkage can have various effects. According to Hospers (2013, 2014) the effects of shrinkage occur in the hardware, software and mindware of a city. The hardware concerns the tangible, visible and countable. Software concerns norms and values of residents. Mindware relates to the image of a city. The most obvious effects that concern hardware are vacancy and decay of real estate and the public space. Other hardware effects are high unemployment rates, low willingness to invest and few job opportunities. Effects on the software are, according to Hospers (2013), that the young and talented move away leaving elderly and less privileged behind. This leads to weakened social networks and a decrease in the community morale. Shrinkage also affects the mindware of a city, because shrinkage has a negative image. This might be a cause for residents of shrinking cities to feel inferior to the residents of 'successful' cities which in turn affects local empowerment. When these effects of shrinkage become visible, the liveability in a city might decrease. The visibility of the effects of shrinkage therefore plays an important role when it comes to the liveability in a city.

In literature, shrinkage is often defined as a decline in the number of residents. Because a decline in number of residents does not necessarily result in, for instance, vacancy, this definition is not used in this thesis. For the purpose of this thesis, shrinkage is defined as a decline in the number of households because this is more likely to make the effects of shrinkage visible.

Liveability in shrinking cities

When it comes to the effects of shrinkage, the questions that arise most often are how to counter specific problems such as vacancy or decay. However, more general questions such as how to maintain the liveability in a city will, according to Großmann, Bontje, Haase, and Mykhnenko (2013), provide better insight in the drivers of shrinkage and phenomena associated with shrinkage that might be overlooked on the local level.

Often, liveability and quality of life are used interchangeably. There is, however, a difference between the two terms. The difference is found in the relationship between the people and their surroundings. In quality of life, the person is the object and the perspective of the surroundings is used. Liveability concerns the extent to which the surroundings meet the conditions that are set by the people, thus it has the surroundings as object and uses the perspective of people. In shrinking cities, the perception of residents of these cities plays an important role since the out-migration of people ensures continuation of shrinkage. The reasons for this out-migration are that another place fits the demands of these people better which means it is more liveable. Because the perception of people is important in shrinking cities, this research focusses on liveability and not on quality of life.

A study concerning the liveability in the Netherlands, performed by Leidelmeijer and Marlet (2011), shows a negative trend of the liveability score in shrinking cities in the Netherlands compared to the average liveability score in the Netherlands. This study included hardware and software elements. This study showed that the hardware elements that influence the negative trend are the availability of amenities and employment rates. The employment rates are especially of influence up to 2008. Since 2008, there has been a reduction of unemployment rates in shrinking areas which contributed to the positive development of the liveability score. Software elements that negatively affect the liveability in shrinking cities are crime and population composition. The liveability score for shrinking cities is determined by the same indicators as the liveability score in other cities in the Netherlands. It is, however, possible that in shrinking cities there are other indicators that are of importance when determining the liveability. While it is not noticed yet, it could be possible that the usually positive correlation between the share of elderly and the liveability in an area will come at a tipping point in shrinking cities where the high share of elderly, especially when combined with low incomes, might lead to a decreased liveability.

Urban regeneration

In order to cope with the effects of shrinkage, urban regeneration and by that, urban renewal are important mechanisms. Urban renewal is mostly concerned with the modernisation and improvement of the housing stock. Urban regeneration is a broader concept which, according to Roberts and Sykes (2005) can be defined as a "comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about lasting improvements in the economic, physical, social and environmental condition of an area that has been subject to change". Because each city is unique due to the complex interplay between the urban hardware, software and mindware, urban regeneration should be based on an analysis of the urban area and its situation and should aim to adjust all elements of the area at the same time. When it comes to urban regeneration, it is important that clear objectives are set and, whenever possible, these objectives are quantified. When these objectives are set, it is also important that the process towards reaching these objectives is monitored. Take note that because of changing context, it is possible that policies and programmes need to be adjusted in line with this context.

When it comes to urban regeneration in shrinking cities, municipalities often pick a few small projects that will be executed. The municipalities hope that these projects will have an effect on other parts of the city as well. Often it is debatable whether these projects are the result of an integrated vision and whether these projects themselves have an effect on the various aspects of a city.

Shrinkage in Europe

In Europe, one type of city that is experiencing shrinkage for some time now, are former mining cities. In the Netherlands, the government decided in 1965 that the mines in the Netherlands would close. The last mine was closed in 1974. The closing of the mines led to high unemployment rates in the areas where

the mines used to be operated, which was mostly in the south of Limburg. One of the cities that used to be a mining city and that is currently experiencing shrinkage is Heerlen.

In Germany, there are numerous former mining cities that experience shrinkage as well. Especially in the Ruhr area. One of these former mining cities in the Ruhr area is Gelsenkirchen. The Ruhr area has a well-developed background of policy measures to cope with shrinkage and improve the liveability.

Gelsenkirchen and Heerlen have a comparable shrinking rate of approximately 7% between 2000 and 2013. The shrinking rate is important since this determines the visibility of the shrinkage. Aside from the comparable shrinking rate, both Heerlen and Gelsenkirchen are former mining cities and both cities are or were involved in a regional approach to cope with shrinkage in the form of an Internationale Bauausstellung (International Building Exhibition or IBA in short). Because of these similarities, Heerlen and Gelsenkirchen are considered to be fitting as subject for this research.

Research questions

The main question that this research will answer is the following:

"Which measures, taken by both the municipality and private parties, influence the liveability in shrinking cities in a positive way?"

The main question will be answered by answering the following, more detailed, research questions:

- Which measures are taken by the municipalities and private parties in Gelsenkirchen in Germany and in Heerlen in the Netherlands?
- What are the effects of the measures on the liveability in Gelsenkirchen and Heerlen?
- Why do the implemented measures have that effect on the liveability in Gelsenkirchen and Heerlen?
- Which measures, taken by the municipalities and private parties in Gelsenkirchen, that are effective in maintaining the liveability are not taken in Heerlen?
- Could the measures that are taken in Gelsenkirchen and are not taken in Heerlen be effective in Heerlen in maintaining the liveability in that area?

Heerlen, problems

The city of Heerlen grew because of the emergence of the mining industry. During this growth, new settlements were built near the mines. Each of these settlements were equipped with their own amenities such as community centres. Because Heerlen kept on growing, the settlements near the mines were eventually all incorporated into the structure of the city. This causes for Heerlen to feature multiple centres.

In the year 2000, the number of inhabitants of Heerlen peaked at 95,000. In 2014, Heerlen counted 88,196 inhabitants.

In 2001, there were 44,789 households in Heerlen and in 2014, there were 44,711 households in Heerlen. These numbers do not indicate a high shrinkage but this does indicate that the number of persons per households has decreased since the number of inhabitants has decreased more than the number of households.

The negative population development in Heerlen is caused by both a negative migration balance and a death-surplus.

In Heerlen, there are many problems that affect the hardware, software and mindware of the city. Some of these problems are the cause of the shrinkage and other problems are the effect of shrinkage. When it comes to the hardware, Heerlen suffers from a high unemployment rate because of the closure of the mines and the fact that there were not enough jobs created to compensate the closure of the mines. Another problem that Heerlen faces is vacancy and decay of real estate. Another problem concerning the real estate is that there are many mono-functional neighbourhoods in Heerlen. A mono-functional neighbourhood is a neighbourhood which consists solely of one type of dwellings. Other problems in Heerlen were caused by drugs and prostitution which caused nuisance and feelings of unsafety.

Problems concerning software are weakened social networks because of the ageing population and low resident participation in various neighbourhoods. Furthermore, there are indications that residents feel less responsible for their surroundings because there already is some decay.

When it comes to mindware, problems are not always noticeable. For Heerlen there has been some research done that indicates there are problems concerning the mindware. One neighbourhood for which there are indications that there are problems concerning the mindware is the neighbourhood MSP which stands for Meezenbroek, Schaesbergerveld and Palemig.

Heerlen, measures

The measures taken in Heerlen are mostly determined per neighbourhood. For many of the neighbourhoods, the strategy is determined based on the strengths, weaknesses and opportunities of the neighbourhood. All measures have in common that the restructuring of the neighbourhoods is done by addressing the hardware problems and social activation of the residents.

The neighbourhood Passart is one of the neighbourhoods that gained special attention. In 2014 Passart had 2,073 inhabitants and there were 1,087 dwellings. There were 175 unemployed persons and 166 persons on welfare (*Kerncijfers Heerlen 2013-2014*, 2014). In this neighbourhood measures are taken on various aspects. The aspects and corresponding measures are listed below:

- Safety
    o Hartslag Passart, a programme consisting of, amongst others, neighbourhood mediation;
    o Projects at schools to improve safety and liveability around the schools;
    o Better accessibility of the police force in the neighbourhood;
    o Procedure to help with domestic problems such as violence and poverty;
    o Clean Passart, a programme that employs teams of homeless people to clean the neighbourhood.
- Living
    o Demolishment of flats. The space that came available is transformed to a park;
    o Housing of (temporary) social functions in buildings at the Plataanplein that would have been demolished if the residents would not have intervened.
- Participation
    o Activities to increase the potential of volunteers in the neighbourhood;
    o Activities to improve the community feeling in the neighbourhood.
- Care and well-being
    o Development of a tool to assess the quality of the education in the neighbourhood;
    o A survey amongst the youth to gain insight in their wishes and needs;
    o Special activities in order to guide parents and children such as consulting hours where it is possible to ask questions about, for instance, parenting;
    o A social neighbourhood team that will connect different parties and projects as a basis for an integrated approach.

For the implementation of the measures, support from the residents was needed. Therefore, communication was of utmost importance. For each project it was determined which group needed to be informed. Sometimes the whole neighbourhood was informed and for some projects only the residents in the direct surroundings of the project were informed.

MSP, which stands for Meezenbroek, Schaesbergerveld and Palemig, is another neighbourhood in Heerlen that gained special attention. In 2014, MSP had 6,377 inhabitants and there were 3,285 dwellings. 542 Persons were unemployed and 445 persons were on welfare (*Kerncijfers Heerlen 2013-2014*, 2014).

For MSP, a neighbourhood action plan was formulated which was based on resident participation and contained a mix of social, physical, economical and safety measures. The following action points, which were based on goals and principles, were formulated on five themes which are elaborated on below:

- Living
  - Demolishment of 759 dwellings, build 414 new dwellings, renovate 470 dwellings;
  - New centre for the neighbourhood which has better accessibility;
  - Concentrating of primary care facilities and construction of a new nursing home.
- Labour
  - Stimulation of self-employment;
  - Conversion of dwellings to accommodate local entrepreneurs;
  - Handyman service by people that are unemployed for a longer period of time.
- Learning
  - Students from the vocational school participate in the handyman service under professional supervision;
  - Realisation of a broad social facility including two schools, cultural, pedagogic, sport and recreational facilities for the youth, children and parents.
- Integration
  - Special activities for female immigrants.
- Safety
  - Establishment of a neighbourhood team to solve issues in the public space;
  - More supervisors and special law-enforcers;
  - Execution of the "safe school and surroundings of secondary education" covenant;
  - More police;
  - Connect to the "Clean GMS" programme in which addicts clean the public space.

Furthermore, the infrastructure of MSP will be restructured in order to improve the accessibility of the three sub-neighbourhoods and improvement of the routing to the existing green structures.

Not all measures from the neighbourhood action plan have been executed. It is however, not exactly clear which measures have been executed. It is known that the green route through the neighbourhood has been realised as well as a library and a playground for children. The re-integration of unemployed people, neighbourhood help and the connection to "Clean GMS" have also been realised. Not realised are the new neighbourhood centre and the health centre. Also not all dwellings that were to be demolished are demolished because of a request of the residents. Also, not all new planned dwellings are built. The demolishment and realisation of new dwellings are connected since some of the new dwellings were to be realised at the location of existing dwellings. It is not clear how many dwellings are demolished and how many new dwellings are realised. Besides the request from the residents, it is also likely that the demolishment of the dwellings is postponed because of financial reasons. There is no clear cause for the cancellation of the new centre. It is however known that there was only one supermarket willing to take place in the new centre instead of the planned two supermarkets. This could have influenced the feasibility of this plan in a negative way.

When it comes to the city centre of Heerlen, the municipality of Heerlen wants their city to become the centre municipality of the region. In order to create a more attractive city centre, the municipality of Heerlen remodelled several streets and squares and the station area is regenerated. A new station building is realised which houses, amongst others, dwellings, offices, retail properties and a hotel.

In order to increase the job opportunities and educational possibilities in the city, the municipality initiated a "Smart Services Hub". This project is a collaboration between educational facilities, businesses and the government. The main goal of this hub is to connect businesses and stimulate innovative financial services. Furthermore, the hub should boost the employment possibilities in the region.

Furthermore, Heerlen is involved in the IBA Parkstad Limburg which is an organisation that will initiate various projects in the municipalities of Parkstad Limburg. The IBA itself is not the client but the IBA will initiate projects in cooperation with municipalities and private parties.

Heerlen, effect of the measures

The effectiveness of the measures will be assessed by evaluating if the measures achieved the intended results. Generally, the goal of the measures is to increase the liveability in the neighbourhood in which the measures were taken. For Heerlen it is possible to use information of the "Leefbaarometer" (liveability indicator) which is a tool developed by the government which assesses the liveability in the Netherlands. According to the Leefbaarometer, neighbourhoods in Heerlen have a score between weak and excellent. Furthermore, the Leefbaarometer indicates that the liveability in most neighbourhoods in Heerlen has not developed between 2002 and 2014. This indicates that the measures taken by the municipality do not have the desired effect and thus are not effective.

The majority of the respondents feels Heerlen is a pleasant city to live in. This is confirmed by answers given to other questions. Most respondents are satisfied with their living environment and do not feel it is annoying to live in their neighbourhood. Furthermore, the majority of the respondents feels at home in their neighbourhood. This is also confirmed by the respondents since most respondents would not move out of their neighbourhood if this was possible. It is however striking to notice that not all residents feel they have amenities such as a supermarket or police station in their neighbourhood. When it comes to the extra attention for the various neighbourhoods in Heerlen, the majority of the respondents feels this extra attention is needed and most respondents also notice a little improvement because of this extra attention. This can also be derived from the answers given to the questions about the various projects. For the projects that did not take place in the city centre, the respondents are generally positive. When it comes to the projects in the city centre, however, respondents indicate either that money could better be spent elsewhere or that the developments in the city centre do bring economic benefits for Heerlen as a whole.

- Density of dwellings increased, indicating that there have been more dwellings built while the city is shrinking and there is a diminution task concerning dwellings
- Unemployment rate increased
- Share of immigrants is stable
- Crime decreased indicating that Heerlen has become safer

Gelsenkirchen, problems

Gelsenkirchen is a former mining city that grew because of the industrialisation. Because of this growth, Gelsenkirchen merged with neighbouring towns which resulted in a city with multiple centres, each with its own amenities. In the 1960s, Gelsenkirchen had approximately 400,000 inhabitants which has dropped to approximately 260,000 inhabitants in 2014. The shrinkage in Gelsenkirchen is, as in Heerlen, caused by both a negative migratory balance and a death-surplus.

In 2001, there were 136,000 households in Gelsenkirchen and in 2011 there were 128,000 households in Gelsenkirchen. Besides the decline in inhabitants and households, approximately 40,000 jobs have been lost since the 1960s.

Gelsenkirchen has to cope with various problems concerning the hardware of the city. As mentioned before, many jobs have been lost which leads to high unemployment rates. Also, because of the declining number of households there is vacancy on the housing market and there is decay of all sorts of real estate. Gelsenkirchen also has to cope with the large industrial facilities that function as a physical barrier between the different neighbourhoods of the city.

One of the areas in Gelsenkirchen that has to cope with several problems is the Bochumer Straße. In this area, there is almost 30% vacancy on the housing market and 50% vacancy on the commercial real estate market. Furthermore, most of the real estate in this area dates from the Gründerzeit, a period between 1870 and 1914 in which the German unification took place. Buildings from the Gründerzeit have Art Nouveau characteristics. Besides the high vacancy rate, this area has to cope with a high traffic load.

When it comes to the software of Gelsenkirchen there are problems occurring too. The population of Gelsenkirchen counts a high share of immigrants and some neighbourhoods have a high share of elderly. This leads to weakened social networks but it also results in a low feeling of solidarity and various social

conflicts because of the different cultures that coexist. One of the neighbourhoods where this is the case is Tossehof. In this neighbourhood there is a high share of immigrants and many of the residents are on welfare. Furthermore, a large share of the youth in Gelsenkirchen experiences a social disadvantage and poor education.

Gelsenkirchen, measures

In Gelsenkirchen, there have been several programmes initiated by several governmental levels. One of these programmes is the IBA. Another programme is the Social city programme. In line with these programmes, the municipality of Gelsenkirchen created an overall urban renewal concept for the city. These programmes and the overall urban renewal concept will be described below.

Internationale Bauausstellung Emscher Park

The Internationale Bauausstellung (IBA) Emscher Park was a programme in which 17 municipalities from the Ruhr area collaborated. The main goals for the IBA Emscher Park were the ecological and urban renewal of the northern Ruhr area as described in a so-called "Memorandum". The IBA was organised alongside the Emscher river. The projects for the IBA were organised in the following five themes:

- Remodelling of the Emscher system;
- Employment in the park;
- Industrial monuments;
- Living and urban development;
- Social initiatives, labour and qualification which includes education.

For the IBA, everyone that wanted to propose a project, was able to do so. Over 400 proposals for projects were submitted. 260 Of these proposals related to a specific location in the Emscher region. These projects were divided into four categories of which only the projects in category four would not be executed. The projects in category one could be developed right away. The projects in category two and three needed to be elaborated by either the proposer or the IBA before they could be developed.

A total of 5 billion Deutsche Mark which is approximately € 2.6 billion was invested in the IBA. Two thirds of this was invested by public funds and one third was invested by private funds. The funding for the IBA came from existing funds of the regional and the national government as well as funds of the European Union (Urban, 2008).

Social city programme

The social city programme is a social oriented, integrated urban renewal programme that was initiated by the national government. In this programme, complex and integrated themes such as education, health and youth- and social work are addressed in combination with structural renovations. The first district that took part in this programme was the district Bismarck/Schalke-Nord in Gelsenkirchen which became a model project for the social city programme in 1999. This programme is still active and currently the district Bochumer Straße is redeveloped within this programme.

Overall renewal concept initiated by the municipality of Gelsenkirchen

The IBA Emscher Park and the Social City programme led to experiences with integrated, multiple-goal projects in Gelsenkirchen. The in 2007 by the municipality created overall urban renewal concept continues the basis created by the previous programmes. In this programme, the goals and action fields for the urban renewal in Gelsenkirchen are described. The goals and action fields are as follows (Feldmann et al., 2007):

Goals

- Urban and ecological revaluation on the long-term in order to preserve neighbourhoods and residential properties as well as the stabilisation of the inner cities older neighbourhoods;
- Demand driven quality improvements in the housing stock combined with new built houses in contemporary residential areas. Selectively dismantling old stock, unsustainable stock is required. This has to be connected to the improvement of the living environment quality;
- Adjustment of the social, cultural and technical infrastructure to the changing needs;

- Temporary use of areas which can be used in a new perspective;
- Stimulate local economy through consultancy networks, start-ups and qualification-and training activities;
- Social integration activities for families, elderly, children and teenagers, improved education;
- Therefore, interdisciplinary local offices will be set-up that can activate and stimulate participation of residents, owners and retailers.

Action fields
- Promoting the use of state housing support for maintenance and upgrading of the housing stock;
- A housing and garden program as a means for the improvement of the urban landscape;
- Educational and ecological redevelopment of school playgrounds.
- Strengthen the educational quality to improve the transition to higher quality schools;
- Supporting the cohabitation of different cultures, creation of networks in the neighbourhoods;
- Stabilisation and revaluation of the local supply of amenities;
- Establishment of a district bureau as advisory board for project development and for connecting actors;
- Establish and strengthen civic groups. Building a cooperation structure.

Gelsenkirchen, effect of the measures
The effectiveness of the measures is assessed by using information provided by the Städteranking in which the 69 largest cities of Germany are ranked. The Städteranking consists of a level ranking which indicates the current situation and a dynamics ranking which indicates the progress of a city. Furthermore, results of the surveys will be used as well as indicators.

According to the dynamics ranking of the Städteranking, Gelsenkirchen did improve somewhat. Compared to the other cities, more young people found a job and there have been more business registrations than in other cities. On the other hand, the number of people in debt increased. When it comes to the number of registered crimes, Gelsenkirchen scores quite positive. The number of crimes in Gelsenkirchen is lower than the average number of crimes in other cities on the list.

When it comes to the survey results, it is interesting to notice that, while generally respondents are satisfied with their living environment, do not feel it is annoying to live in their neighbourhood and feel at home in their neighbourhood. However, the majority of the respondents does indicate they would move out of their neighbourhood if this would be possible. Furthermore, it seems that the measures taken by the municipality do not have the desired effect since most respondents do not notice any improvement of their living environment. Sometimes, the projects that are executed even have the opposite effect because the execution causes much nuisance for the residents. As is the case with the developments in the city centre for instance. Furthermore, it can be said that, in general, the respondents feel Gelsenkirchen is a dirty, dangerous, old-fashioned, cheap city where it is unpleasant to live. On the other hand, the respondents also indicate that Gelsenkirchen is easily accessible and has lots of green.

Indicators:

- Density dwellings decreased between 2006 and 2012. Light increase between 2012 and 2014 but not significant;
- While density of dwellings decreased, vacancy rate increased;
- Unemployment rate is lower than in 2006 but higher than in 2012;
- Share of immigrants increased.

Comparison of Heerlen and Gelsenkirchen
Both Heerlen and Gelsenkirchen are former mining cities. The closure of the mines in Gelsenkirchen was more spread over time than the closure of the mines in Heerlen. In total, Gelsenkirchen has lost 33% of its inhabitants while Heerlen has lost only 8% of its inhabitants. Between 2000 and 2013 both cities have lost about 7% of its inhabitants.

In both cities problems manifest mostly on the cities' hardware and software. These problems are, amongst others, vacancy of dwellings, decay, relatively high unemployment and an ageing population.

Both cities indicate they take integrated measures in order to cope with shrinkage. This means that these measures address more than one problem at once. Most measures are focussed on living, employment, education and integration. In Heerlen measures also address safety, participation and care and well-being.

There are indications that residents of Heerlen are more satisfied with their living environment than residents of Gelsenkirchen. Over all the respondents in Heerlen were more positive about their city than respondents in Gelsenkirchen. Respondents of Heerlen also indicated to notice more improvement than the respondents in Gelsenkirchen. These outcomes however, do not provide statistically relevant information because of the low number of respondents in especially Gelsenkirchen.

In Gelsenkirchen, the density and vacancy of dwellings is higher than in Heerlen. The unemployment rate is also higher in Gelsenkirchen. The household income is higher in Gelsenkirchen and the share of immigrants is lower. Also, Gelsenkirchen had a positive migration rate in 2014 and an increase in house prices while the house prices in Heerlen decreased.

Reason for effects

In Heerlen the Leefbaarometer indicated a minor improvement on the dimension physical environment. This could be because of the projects the municipality executed in the public space. In Gelsenkirchen, the number of crimes decreased which could be because of the social engagement the municipality of Gelsenkirchen tries to achieve. The reason that respondents in Heerlen notice a slight improvement in their neighbourhood because of the extra attention might be because of the way in which the municipality involves the residents in the projects. in Gelsenkirchen, the respondents indicated they do not notice improvement. This might be because of the large amount of projects that is executed and the amount of time that these projects take. This makes that there is always something being built which causes nuisance for the residents. Furthermore, there is much unemployment and poverty in Gelsenkirchen which might cause for the residents to have a more pessimistic view on their life and their surroundings.

Possibility to apply measures in the other city

It was expected that measures from Gelsenkirchen could be applied in Heerlen because Gelsenkirchen has more experience with coping with shrinkage. This research, however, indicates that the city of Heerlen has achieved more positive effects than the city of Gelsenkirchen. Which measures caused for the more positive effect is, however, difficult to determine. Reasons for the more positive effect in Heerlen could be that the municipality of Heerlen takes more rigorous measures by demolishing whole building blocks while the municipality of Gelsenkirchen demolishes floors from apartment buildings which has a different effect on the perception of the residents. It could be that more rigorous demolishment could help in improving the perception of the residents.

Recommendations for further research

In this research, two cities were studied. For more insight in the measures taken in shrinking cities, other cities could be studied as well. In England, for instance, there has been an extensive policy concerning shrinkage under the labour government. For the execution of this policy a large amount of extra money was made available. It could be studied what the effects of the availability of extra money was. It is also possible to study the IBAs in Germany more into detail and evaluate them more thorough.

Samenvatting

Het is de verwachting dat steeds meer steden te maken gaan krijgen met krimp door de veranderende demografie. In tegenstelling tot wat vaak wordt gedacht zijn krimpende steden geen spooksteden. In krimpende steden is er extra aandacht nodig voor de leefbaarheid in de stad omdat een afnemende bevolking invloed heeft op de structuur van de stad. Door krimp kan er leegstand en verval van vastgoed ontstaan, maar ook het aantal voorzieningen kan afnemen omdat er niet genoeg draagvlak voor is. Om ervoor te zorgen dat de stad aan blijft sluiten bij de wensen van de inwoners, wordt ook in krimpende steden gebruik gemaakt van stedelijke vernieuwingsstrategieën om de stedelijke hardware aan te pakken. Naast de zichtbare problemen zijn in een krimpende stad vaak ook minder zichtbare problemen, zoals een laag opleidingsniveau en verzwakte sociale structuren doordat de jonge, getalenteerde personen uit de stad verhuizen. Ook voor deze, minder zichtbare, problemen wordt vaak een aanpak geformuleerd.

Dit onderzoek richt zich op twee steden: Heerlen in Nederland en Gelsenkirchen in Duitsland. Beide steden zijn voormalig mijnsteden die te maken hebben met krimp. De krimp in deze steden is onder andere veroorzaakt door de sluiting van de mijnen. Zowel Heerlen als Gelsenkirchen is tussen 2000 en 2013 ongeveer 7% van zijn inwoners verloren. Daarnaast is in beide steden een Internationale Bauausstelling gebruikt om de leefbaarheid van de stad te verbeteren. Door deze overeenkomsten zijn deze twee steden geschikt bevonden als onderwerp van dit onderzoek.

In dit onderzoek staat centraal welke maatregelen gemeenten van krimpende steden nemen om de leefbaarheid in de stad te verbeteren. Er is onderzocht welke maatregelen zijn genomen en wat het effect van deze maatregelen is. Tevens zijn de reden voor deze effecten onderzocht waarna gekeken is of de maatregelen die wel in Gelsenkirchen zijn genomen en in deze stad een positief effect hebben op de leefbaarheid ook in Heerlen genomen kunnen worden.

Zowel in Heerlen als in Gelsenkirchen is sprake van leegstand en verval van vastgoed, hoge werkloosheid. Daarnaast geeft de gemeente Heerlen aan dat er in de stad veel monofunctionele wijken zijn. In Gelsenkirchen vormen de oude industriegebieden fysieke barrières in de stad. In Heerlen is sprake van verzwakte sociale netwerken en verminderd verantwoordelijkheidsgevoel van inwoners voor de leefomgeving. In Gelsenkirchen geeft de gemeente aan dat er in de stad veel ouderen wonen. Ook wonen er veel immigranten. Er is weinig solidariteit voor andere culturen wat leidt tot sociale conflicten tussen deze culturen. Daarnaast is het onderwijs in de stad slecht.

Beide steden voeren maatregelen uit op het gebied van de hardware van de stad als op de software van de stad. Maatregelen zijn bijvoorbeeld het herinrichten van de openbare ruimte, afbreken van verouderde woningvoorraad. Daarnaast worden er ook maatregelen genomen op het gebied van de stedelijke software. Voorbeelden van deze maatregelen zijn beter toegankelijkheid van de politie voor inwoners en het betrekken van bewoners bij de herontwikkeling van (delen van) de buurt. Daarnaast is er aandacht voor het onderwijs en voor speelplekken voor kinderen.

Naast de bovenstaande voorbeelden van maatregelen is in Gelsenkirchen tussen 1989 en 1999 een IBA uitgevoerd waarin de stedelijke en ecologische vernieuwing van het noordelijk Ruhrgebied centraal stond. In Parkstad Limburg, de regio waar Heerlen deel van uit maakt is momenteel een IBA bezig. Een IBA wordt gebruikt als aanjager van de stedelijke vernieuwing. Hierbij is belangrijk op te merken dat de IBA geen opdrachtgever is. Puur een motivator en aanjager.

Om de effectiviteit van de maatregelen te evalueren is gekeken naar de Leefbaarometer in Nederland en gebruik gemaakt van informatie uit de Städteranking in Duitsland. Daarnaast is gekeken naar hoe verschillende indicatoren zoals woningdichtheid, leegstand en werkloosheid zich ontwikkeld hebben en zijn enquêtes afgenomen bij inwoners van beide steden.

In de Leefbaarometer is in de meeste wijken in Heerlen geen ontwikkeling in de leefbaarheid waarneembaar. Wanneer naar de ruwe data gekeken wordt is te zien dat de score van de fysieke

omgeving zich licht positief heeft ontwikkeld. Uit de enquêtes blijkt dat de meeste respondenten tevreden zijn met hun leefomgeving. Ook vinden de meeste respondenten dat er extra aandacht nodig is voor hun wijk. De meeste respondenten merken dat deze extra aandacht een beetje invloed heeft op hun leefomgeving. De indicatoren voor Heerlen laten zien dat de dichtheid van woningen en de leegstand van woningen is toegenomen. Ook is de werkloosheid toegenomen. Het aantal misdrijven in Heerlen is afgenomen waaruit af te leiden is dat Heerlen veiliger is geworden.

Uit een vergelijking tussen Duitse steden (Städteranking) blijkt dat Gelsenkirchen momenteel het slechtste presteert. Uit deze vergelijking blijkt echter ook dat de stad een kleine positieve ontwikkeling heeft doorgemaakt. Uit de enquêtes komt naar voren dat de respondenten in Gelsenkirchen minder positief zijn over hun leefomgeving dan de inwoners van Heerlen. De indicatoren voor Gelsenkirchen laten ook zien dat de dichtheid toegenomen is. De werkloosheid in de stad is ten opzichte van 2006 afgenomen maar ten opzichte van 2012 toegenomen. Ook het aantal immigranten in de stad is toegenomen. Het migratiesaldo in Gelsenkirchen is positief.

In beide steden is het niet goed mogelijk om de effecten van de afzonderlijke maatregelen te bepalen doordat veel maatregelen tegelijk worden uitgevoerd. Wel is het waarschijnlijk zo dat de maatregelen van de gemeenten over het algemeen een positief effect hebben op de leefbaarheid aangezien het aannemelijk is dat wanneer er geen maatregelen genomen worden de leefbaarheid afneemt.

In eerste instantie werd aangenomen dat in Gelsenkirchen meer positieve effecten waar te nemen zouden zijn door de maatregelen omdat deze stad al langer te maken heeft met krimp. In dit onderzoek zijn echter aanwijzingen dat in Heerlen meer positieve effecten waar te nemen zijn. Dit kan komen doordat in Gelsenkirchen al relatief lang gewerkt wordt aan de leefbaarheid in de stad en dit de inwoners niet meer opvalt of dat de inwoners de hoop hebben opgegeven. Het zou ook kunnen dat de mate van overlast tijdens het uitvoeren van de maatregelen van dusdanige aard is dat de positieve effecten niet opgemerkt worden.

Vervolgonderzoek zou zich kunnen richten op het grondiger evalueren van de verschillende IBA's in Duitsland en de vergelijking van de IBA's die plaats hebben gevonden in krimpregio's. Daarnaast zou ook gekeken kunnen worden naar maatregelen in andere steden en in andere landen. Zo is in Engeland tussen 2003 en 2010 veel extra geld beschikbaar gemaakt voor de aanpak van krimp onder andere met de Housing Market Renewal Pathfinder. In Engeland zou dus onderzocht kunnen worden wat het effect van beschikbaar maken van veel extra geld voor invloed heeft op de aanpak van krimp.

List of abbreviations

IBA   Internationale Bauausstellung, International Building Exhibition.

MSP   A neighbourhood in Heerlen consisting of Meezenbroek, Schaesbergerveld and Palemig.

Glossary of terms

Shrinking city	A city in which the number of households is declining.
Liveability	The extent to which the living environment meets the conditions set by the residents (Leidelmeijer & van Kamp, 2003).
Quality of life	The extent to which the surroundings contribute to the degree to which characteristics of life fit someone's needs and wishes (Leidelmeijer & van Kamp, 2003).
Urban renewal	Improving and modernising of the housing stock in degraded areas.
Urban regeneration	A comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change (Roberts & Sykes, 2005, p. 27).
Unemployment rate	In Germany unemployed people are those persons who do not have a job of more than 15 hours per week and are looking for a job of more than 15 hours per week to whom the mediation efforts of the unemployment agency and basic support benefits are available and that have reported that they are unemployed (Drey & Schäffer, 2016, p. 3)
	For unemployment in the Netherlands, the definition that was used until 2014 is utilised. This definition is the following: a person that is 15-64 years old that does not have a job of more than 12 hours a week and is directly available for the labour market and is actively looking for a job of more than 12 hours a week (Dirven & Janssen, 2013).

Table of Contents

1. Introduction

In this chapter, first the motivation for the subject of this thesis is explained. Second, a concise problem analysis is given which leads to the research questions, objectives and the intended end-result. The generalisability of this research is explained as well as the research design. Last, this chapter provides the readers guide for this thesis.

1.1. Motivation

This paragraph explains the motivation for the chosen subject from a scientific, societal and personal point of view.

1.1.1. Scientific relevance

In Europe, an increasing number of cities is experiencing shrinkage and it is expected that even more cities will experience shrinkage in the future because of the expected population decline. Even though more cities are experiencing shrinkage, urban development and urban regeneration policies are in most cases still focused on growth. When a city is shrinking, the urban structure changes and therefore the urban regeneration strategy has to change as well. Currently, shrinking cities are experimenting to determine the appropriate approach since shrinkage is a relatively new challenge in the Netherlands. This research will contribute to the decision making of municipalities regarding an appropriate strategy to cope with shrinkage.

1.1.2. Societal relevance

When cities are shrinking, the living environment is changing as well. Because an increasing amount of cities is going to experience shrinkage, an increasing amount of the population will encounter shrinkage. Because of the emergence of the 'participation society' which means that all people should take their responsibility for their own life and their surroundings, more people will be involved finding ways to cope with shrinkage. Furthermore, since shrinkage is effecting the living environment, residents of shrinking areas benefit from a well-established strategy to maintain the liveability of their surroundings.

1.1.3. Personal motivation

More and more cities are experiencing shrinkage. When thinking about shrinking cities, most people think about ghost cities where there is a lot of vacancy and decay such as not well maintained facades or public space. However, this is not necessarily true. Many cities are trying to counter shrinkage by taking various measures to attract people to their city. While this sounds as a good thing, it might not be. The demographics are changing and it is believed that eventually the population in the western world will shrink as a whole. This means that if one city is countering shrinkage, another city encounters even more shrinkage. Therefore, municipalities should not attempt to counter shrinkage but cope with shrinkage. Many cities, especially in Germany and the UK, accepted the fact that they are shrinking and are coping with the effects of shrinkage. The reason for the choice of this research topic is that some cities in the Netherlands are experiencing shrinkage already and many cities in the Netherlands are expected to experience shrinkage in the future. Therefore, it is interesting to know what strategies cities are employing to cope with shrinkage and what the effects of these efforts are so this information can be used by municipalities in the Netherlands.

1.2. Problem analysis

Shrinkage is an increasingly common phenomenon in cities across Europe. Shrinkage can occur on different geographical levels such as on the level of a country, a region or a city. Because the effects of shrinkage and the perception of these effects play an important role when considering shrinkage, this research considers shrinkage on the city level. There are several causes for shrinkage, for instance, a death surplus or decreased job opportunities. When the effects of shrinkage become visible, when there are vacant houses or vacant retail properties, the liveability in shrinking cities might decrease. Liveability concerns the question whether the living environment meets the conditions set by the residents and to which extent these conditions are met. Whilst quality of life concerns the more objective measure of how suitable the living environment is. When the liveability in a city decreases, it is likely that more households move away and the shrinking rate increases. Besides the visible effects, there are other effects of shrinkage. Tax income of a municipality decreases and the willingness to invest decreases as well. There is a drop in house prices and less people are willing to settle in the city. Often, vacant properties will deteriorate which might lead to decreased liveability as well. A lot of research on shrinking cities is concerned with the possibilities to counter shrinkage. Countering shrinkage is however not the best option since attracting more residents to one city will cause for another city to shrink. Therefore, maintaining the liveability for the remaining residents and by doing that, creating an equilibrium in the number of households is a more appropriate strategy. Whilst it is clear that maintaining or improving the liveability for the remaining residents of a city is a more appropriate strategy, it is not yet known what policies have a positive effect on the liveability. Further information on the problem analysis can be found in chapter 2.

1.3. Research questions

Main research question:
Which measures, taken by both the municipality and private parties, influence the liveability in shrinking cities in a positive way?

Detailed research questions:
- Which measures are taken by the municipalities and private parties in Gelsenkirchen in Germany and in Heerlen in the Netherlands?
- What are the effects of the measures on the liveability in Gelsenkirchen and Heerlen?
- Why do the implemented measures have that effect on the liveability in Gelsenkirchen and Heerlen?
- which measures, taken by the municipalities and private parties in Gelsenkirchen, that are effective in maintaining the liveability are not taken in Heerlen?[1]
- Could the measures that are taken in Gelsenkirchen and are not taken in Heerlen be effective in Heerlen in maintaining the liveability in that area?

1.4. Objective and intended result

The objective of this research is to find out which measures that are taken by municipalities of and private parties in shrinking cities that should contribute to the preservation or improvement of the liveability in a city. The result of this research is a report which indicates which measures are taken by the different parties and what the effect on the liveability of those measures was. These results concern planned effects and side-effects with both desired and undesired effects. Besides describing the effects, the reasons for these effects is explored. Because this report indicates why specific measures had a certain effect, the report can be used by municipalities and private parties to make well-informed choices on which measures they might implement to maintain or improve the liveability in their city. The reasons why the effects occur

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[1] Gelsenkirchen has a greater history concerning measures in order to cope with shrinkage than Heerlen which caused for this question to be formulated this way.

are important to note since the reasons for the effects are location specific and without knowing why a measure had a certain effect it is impossible to indicate if a measure could be effective in another city.

1.5. Generalisability

When comparing shrinking cities and the measures that are taken in these cities, it is important to consider the differences between these cities. Measures that are taken in one city are not necessarily applicable in another city. This has to do with, amongst others, path dependency, which means that choices that have been made in the past, influence the choices and possibilities in the future. Therefore, when applying measures in another city, differences have to be taken into account and the possible effectiveness has to be assessed per city.

1.6. Research design

This paragraph describes how the research was designed. First, the chosen research methods will be explained. Second, the phasing of this is shown.

1.6.1. Research methods

The two cases, Heerlen and Gelsenkirchen, were studied in literature, policy documents and reports. This provided information on the measures that have been taken to improve the liveability in both cities. Furthermore, employees of the municipalities were interviewed in order to complement information obtained through policy documents and literature. For the interviews, employees that are involved in the urban renewal process of the city were selected. For Heerlen, Mr Meertens was interviewed. Mr Meertens was selected because he has worked for the municipality of Heerlen for over ten years and is now working on the IBA Parkstad Limburg. A summary of the interview can be found in Appendix E – Interview with Mr Meertens. For Gelsenkirchen Mrs Feldmann was selected because she is the head of the urban renewal department of Gelsenkirchen but because of unforeseen events and an interview with Mrs Feldmann was not possible so a colleague of Mrs Feldmann, Mr Kröger, was interviewed. Mr Kröger is involved with the urban renewal of the city centre of Gelsenkirchen since 2009. A summary of this interview can be found in Appendix F – Interview with Mr Kröger.

The effect of the measures is assessed by using information provided by the Leefbaarometer (liveability indicator) in the Netherlands and the Städteranking (City ranking) in Germany. Furthermore, the effect of the measures is assessed by using several indicators which can be found in Table 1. These indicators are derived from the dimensions used in the Leefbaarometer in the Netherlands. The opinion of residents on the measures are obtained through surveys. The questions for the surveys (see Appendix A – Survey Heerlen and Appendix C – Survey Gelsenkirchen) were based on questions asked in the residential research in the Netherlands (Woon Onderzoek Nederland, WoON). This research is also used for the Leefbaarometer (Leidelmeijer, Marlet, Ponds, Schulenberg, & Woerkens, n.d.) in the Netherlands. For the survey in Heerlen, in order to select respondents, an e-mail was sent to an acquaintance who lives in Heerlen and by asking her to forward the e-mail to her acquaintances in Heerlen. Also, e-mails were sent to resident organisations in which they were asked to participate in the survey as well. This did not reach the residents in the neighbourhoods that are elaborated on in this research. Therefore, these neighbourhoods were visited and people on the street were asked to participate in the survey. In Gelsenkirchen, residents were only approached on the street. This was done in the city centre and in the neighbourhood Buer because these are two places where there are many people on the street. Besides the methods described above, the two cities were visited for observations to obtain information that complements information from the reports and policy documents.

Table 1. Indicators for liveability

Indicators	Available	Obtain	Remark
Density [dwellings / km²]	Yes		
Vacancy rate of dwellings	Yes		
Availability of amenities	No	Find information on internet	
Unemployment rate	Yes		
Household income	Yes		
Share of immigrants	Yes		
Demographic structure (age)	Yes		
Migration rate	Yes		
House prices (average)	Yes		In the Netherlands, house prices are available per province. In Germany, per region.
Crime	Yes (NL)		
Resident participation	No	Interviews with people at 'Stadtteilbüros'	
City image	No	Obtain through surveys amongst residents and non-residents	
Quality of the public space	No	Observations will provide an indication of the quality of the public space. Furthermore, surveys amongst residents will give insight in this indicator.	

1.6.2. Phasing

The phasing in Figure 1 shows the steps that were taken to complete the research. First, it was analysed which measures have been taken in Gelsenkirchen and which measures have been taken in Heerlen. Second, the effect of these measures was analysed as well as the reason for these effects. Afterwards the difference in the measures taken was studied to see if there are measures taken in Gelsenkirchen which are not taken in Heerlen in order to analyse whether those measures could have a positive effect on the liveability in Heerlen.
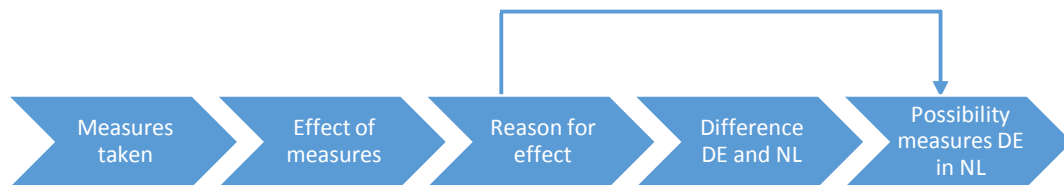
Figure 1. Phasing of this graduation research (own illustration).

1.7. Readers guide

Chapter two of this report will go deeper into the theory of shrinking cities by explaining the causes and effects of shrinkage in the first paragraph, liveability in shrinking cities in the second paragraph followed by an explanation of urban regeneration in the third paragraph. Chapter three will introduce the two shrinking cities that are subject to this research after which chapter four will elaborate on the situation in Heerlen and chapter five will elaborate on the situation in Gelsenkirchen. Chapter six will compare the measures taken in both cities which will lead to the conclusion in chapter seven.

2.   Theoretical framework

For many years, more and more cities are experiencing shrinkage. Often, shrinkage is defined as an experience of a significant decline in population. However, as described by Mulder (2010) shrinkage becomes visible when there is a high vacancy rate of dwellings, shops, offices and factories. Vacancy is caused by a decline in households in an area and thereby the demand for housing. Since the demand for housing is an important factor in the housing market, because this demand defines the number of homes that is needed, this might be a better indicator for shrinkage than the number of inhabitants (Mulder, 2008). Therefore, one could say that shrinkage should be defined as a decline in the number of households and not as a decline in the population. Unfortunately, most research on shrinking cities focuses on a decline in population.

2.1. Causes and effects of shrinkage

There are various causes for shrinkage. One cause is a decrease in job opportunities since people then move to a place where they have more opportunities to work. This leads to a negative migratory balance. A second cause is a low fertility rate or a death surplus. Besides these relatively clear causes for shrinkage, former industrial cities also have to cope with environmental conditions that are suboptimal which might reinforce shrinkage. These causes have several effects. These effects occur in the hardware, software and mindware of a city (Hospers, 2013, 2014). Hospers (2013, 2014) explains urban hardware as the "visible, tangible and countable" elements of a city such as infrastructure but also the local economy. The software of a city refers to the norms and values of inhabitants and the way the inhabitants act and interact. Urban mindware relates to the image of the city.

Urban hardware effects that are commonly regarded to when discussing shrinkage are, amongst others, vacancy of all types of real estate, decay of real estate and the public space, high unemployment rates, few job opportunities and low willingness to invest.

Shrinkage also affects the urban software of a city. According to Hospers (2013) the young and talented tend to move away in case of shrinkage thus leaving the elderly and underprivileged behind. This leads to a change in the socio-demographic structure of a shrinking city. This does not only lead to less creativity and entrepreneurship but it also weakens social networks and therefore the community morale.

Lastly, shrinkage affects the urban mindware since shrinkage has a negative image and when the residents of a shrinking city are aware of this negative image, they might feel inferior to people living in 'successful' cities and this discourages local empowerment.

2.2. Liveability in shrinking cities

According to Großmann et al. (2013) the question that is frequently asked is how to counter specific problems such as decay. However, they pose more general questions such as "how to keep a city liveable, maintaining the quality of life for the remaining residents?" since this will broaden the attention and this will uncover phenomena and drivers of shrinkage that are possibly overlooked on a local level.

There are some studies conducted in which either the liveability in shrinking cities or the quality of life in shrinking areas was researched (Delken, 2008; Hollander, 2011; Leidelmeijer & Marlet, 2011). At first, it seems that there is little difference between those studies since they are all concerned with the question of how pleasant it is to live in a certain area. However, there is a difference between liveability and quality of life. The main difference in these definitions is the person-surroundings relation (Leidelmeijer & van Kamp, 2003). Quality of life has the person as object and uses the perspective of the surroundings, in other words, the extent to which the surroundings contribute to the degree to which characteristics of life fit someone's needs and wishes. Liveability concerns the surroundings and uses the perspective of people, liveability is about whether the living environment meets the conditions that are set by the residents and, if so, to what extent these conditions are met. In shrinking cities, the perception, of certain groups, of people plays an important role because people, especially the out-migration of people and the reasons to move out, ensure the continuation of shrinkage. The groups of people that are meant here are, for instance, unemployed people and young families since these groups are moving away so they perceive a decreased liveability. By creating a positive perception on the living environment, out-migration can be prevented. Therefore, this research will focus on liveability.

While most studies conclude that liveability problems do not occur in shrinking cities, the data behind these studies suggests differently. When looking at the data that is used in the research of Hollander (2011), it becomes clear that there are large differences in the perceived liveability in the different shrinking cities. For example, in Cleveland the amount of occupied housing units decreased with 9.1% and the score for the quality of the neighbourhoods was reduced with 6%. However, when looking at for example Minneapolis, the amount of occupied housing units decreased with 7.4% while the score for the quality of the neighbourhoods increased with 7.1%.

Leidelmeijer and Marlet (2011) studied the liveability in shrinking areas in the Netherlands. They noticed there is a negative trend concerning liveability scores in shrinking areas when comparing the development of the liveability score in shrinking areas to the average liveability score in the Netherlands. This can be seen in Figure 2.
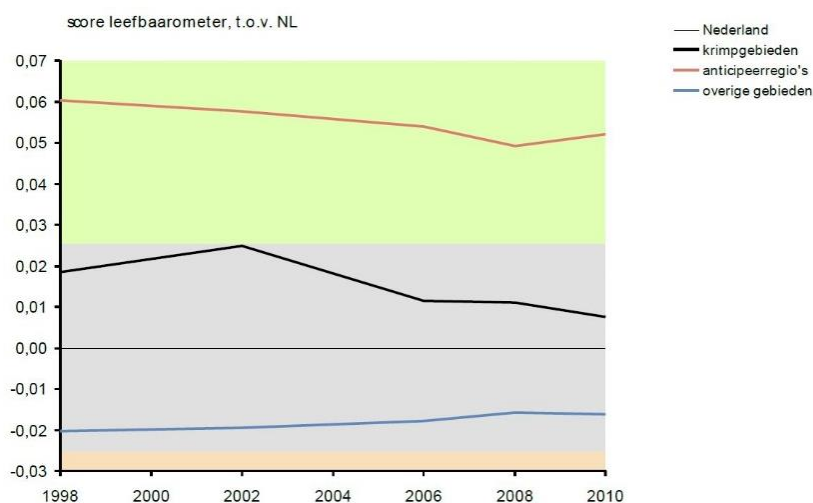

Figure 2. The development of the liveability score in shrinking areas compared to the average of the Netherlands (Leidelmeijer & Marlet, 2011)

The negative trend concerning the liveability scores is caused by elements concerning the hardware and the software. Elements concerning mindware are not included in the research.

The hardware elements that influence the negative trend are, according to Leidelmeijer and Marlet (2011), the availability of utilities (especially banking offices and supermarkets) and, at least until 2008 employment rates. Since 2008 there is a relative reduction of unemployment in the shrinking areas which contributed to the improvement of the liveability score. While it seems unlikely that there has been a reduction in unemployment rates since 2008 since the crisis started in 2008, it could be that many people reached the retirement age causing for the unemployment rate to drop.

The software elements that contribute to the negative trend of the liveability score are crime and population composition, the latter of which is especially noticeable in the residential centres of shrinking areas that have shown a relatively large decline of the population. In the population, the share of higher educated people decreased and the share of non-western immigrants increased. While it is argued that the share of higher educated people decreased, the data source for this argument is limited and the sample is relatively small. Therefore, the reality might be different. The increase of non-western immigrants is especially noticed in residential centres with a sharp declining population. However, it is not known whether the increase of non-western immigrants is because there are more immigrants in the whole of the Netherlands or because of out-migration of the autochthonous population. The other aspect, crime, is directly related to safety. While the safety in shrinking cities is fine, there are more violent crimes in shrinking cities than in other cities.

Leidelmeijer and Marlet (2011) also state there are indications that other circumstances should be included in the signalling of shrinkage related problems. The scale at which certain indicators are important differs for shrinking areas and dynamics, the fact that an area is shrinking, especially the willingness to invest, is important as well. It is also plausible that the 'normally' positive correlation between the amount of elderly in an area and the liveability will come to a turning point in shrinking areas where a high amount of elderly will lead to problems concerning the liveability, especially when the high amount of elderly is combined with low incomes. One of the problems could be that the social network and the financial support base for utilities comes under pressure. While the dominance of elderly in shrinking areas is not yet noticed it is not unlikely that this dominance will arise and that this will lead to problems concerning liveability.

From the above it becomes clear there are signs that the liveability in shrinking cities is worsening. However, there is no unambiguous evidence on this subject. Even though there is no unambiguous evidence that the liveability is worsening, it is important to maintain or improve the liveability in shrinking cities since a proper liveability will have positive effects on these cities. Also, as Leidelmeijer and Marlet (2011) indicate, liveability is a problem of the future since there are no problems noticeable yet but there is a visible trend that shrinkage can lead to problems concerning liveability when interventions do not take place.

The various causes and effects of shrinkage and the influence on the liveability of these elements are all related to each other which causes for the relationship between these elements to become complex. To obtain a better idea of the relation between the various elements, these relations are shown in the scheme in Figure 3.

Environmental conditions (e.g. air quality)

Demolishment of deteriorated dwellings

Investments in public space

Vacancy housing market

Deterioration of dwellings

Liveability

Drop in house prices

Decreased willingness to invest

Decreased settling

Ageing population

Death surplus

Shrinkage (Decrease households)

Decreased workforce

Deterioration of infrastructure

Decreased base for amenities

Migration of companies

Decreased willingness to invest

Decrease job opportunities

Decrease number of amenities

Migration working class
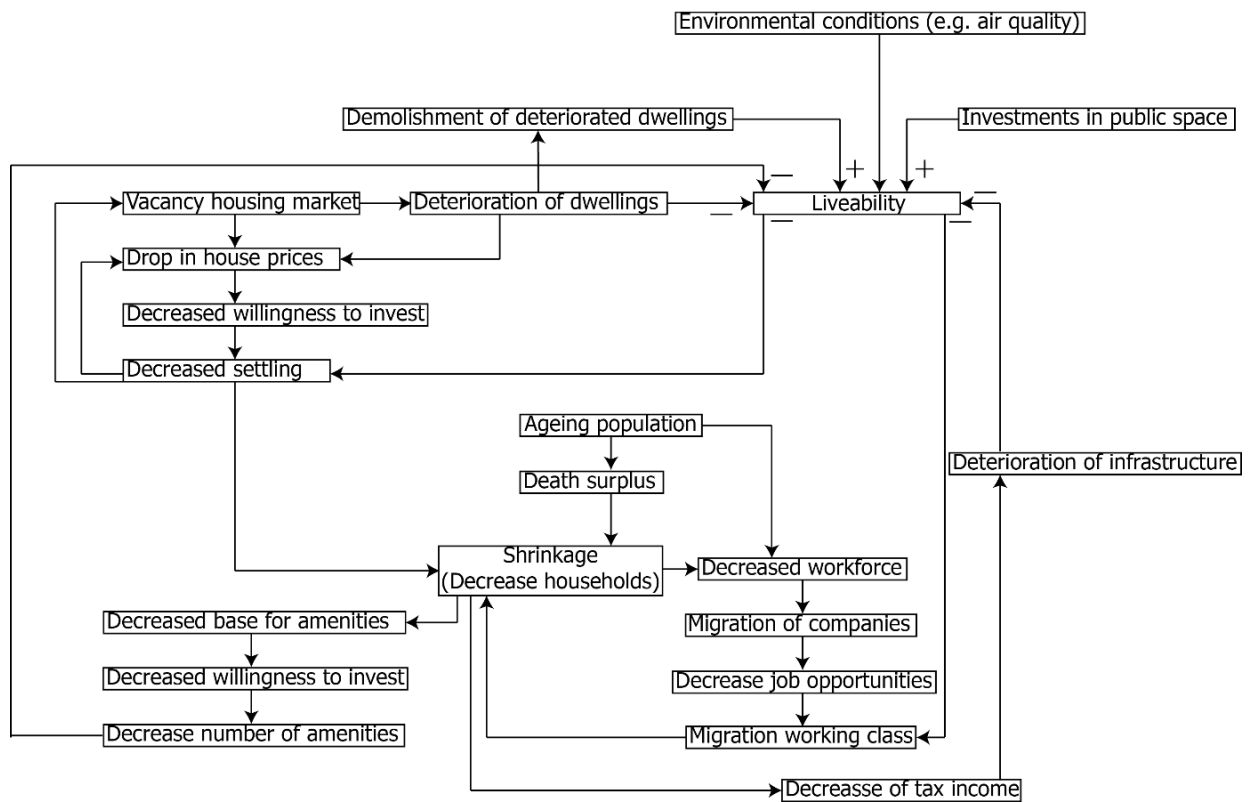
Decreasse of tax income

Figure 3. Conceptual model of shrinkage (based on Hospers & Reverda, 2014 edited from Linau, 1995; Leidelmeijer & Marlet, 2011)

2.3. Urban regeneration

In order to cope with shrinkage and the effects of shrinkage that were stated in the previous paragraph, urban regeneration and by that, urban renewal is an important mechanism. Urban regeneration is often employed in order to maintain the liveability in a city. Urban renewal can be seen as a "forerunner of urban regeneration and subsequently one of the components of urban regeneration" (Stouten, 2010, p. 11). Urban renewal is mostly concerned with improving and modernising of the housing stock in degraded areas. Urban regeneration is a much broader concept which can be defined as a "comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change" (Roberts & Sykes, 2005, p. 17). The urban relates to cities and towns (Tallon, 2013). Since all urban areas are unique because of the complex interplay between elements of urban hardware (i.e. the economic, physical and environmental), urban software (i.e. the social) and urban mindware, urban regeneration should be based on an analysis of the urban area and its condition and "aim to adapt the physical fabric, social structures, economic bases and environmental condition of an area" simultaneously (Roberts & Sykes, 2005, p. 18). Besides integration of the aspects of adaption, participation and co-operation of all stakeholders with a genuine interest in the regeneration of the area is desired so that consensus on the regeneration is ensured (Roberts & Sykes, 2005). Other important aspects in the process of urban regeneration are setting clear objectives that are, where possible, quantified and the monitoring of the progress towards reaching these objectives. Also, the changing nature of urban areas and the influence of internal and external forces that influence the urban area should not be forgotten. Furthermore, it should be accepted that because of the changing nature, policies and programmes of implementation might need to be altered in line with these changes (Roberts & Sykes, 2005).

Whilst the definition of urban regeneration states that the action and vision that are developed and implemented are comprehensive and integrated, reality often suggests otherwise. Especially in shrinking cities where municipalities often pick some small projects and hope that these will affect other parts of the city. Furthermore, it is debatable whether urban regeneration programmes in shrinking cities include an integrated vision on the physical, social, economic and environmental aspects of the city. As will be seen in both cases, there are some projects that focus on more than one aspect but many projects only deal with one aspect of a city. Because projects are focused on one aspect, multiple projects are needed to obtain the integration of all aspects. In order to ensure the integration of the aspects of a city through multiple projects, municipalities often write a vision which states where the city should be in a certain amount of years. The vision is a framework that sets the conditions in order to achieve the vision. A vision could be to have a qualitative, diverse and lively city centre. The projects that will be executed are selected based on their contribution to achieving the vision. A qualitative city centre for instance, can be achieved by renovating facades and improving the public space. But then again, these projects only focus on the city's hardware and only on the physical aspect of the urban hardware and not on the other aspects of a city. Therefore, effort has to be made to come to an integrated approach of improving the city.

3. Shrinking cities

One type of European cities that are experiencing shrinkage for a long period of time are former mining cities. In 1965 the government of the Netherlands announced that the mines in the Netherlands would close (*Structuurvisie Heerlen 2035*, 2015, p. 16). The last mine in the Netherlands was closed in 1974 (*Intergemeentelijke structuurvisie Parkstad Limburg, "ruimte voor park & stad"*, 2009, p. 29). Closing of the mines led to unemployment and people migrated to places where they could find work. All mines were located in the province of Limburg of which most could be found in the "Oostelijke mijnstreek" (eastern mining area) which consists of the cities Onderbanken, Brunssum, Nuth, Heerlen, Landgraaf, Voerendaal, Kerkrade and Simpelveld. From 1998 the "Oostelijke Mijnstreek" is called "Parkstad Limburg". The municipalities in Parkstad Limburg used to be a WGR-plus region (a city region) from 2006 (Remkes, 2006). This city region has legal obligations which were described in the law of communal regulations. The tasks of the plus-region concerned housing, traffic and transport and child welfare (Spies, 2011/12). This status of a plus-region ensured that the agreements between the collaborating municipalities had a legal value. In 2014, Parkstad decided to change their collaboration structure. Because of this, they could not be a plus-region anymore (Plasterk, 2014).

Heerlen (Figure 4) is an example of a former mining city that is experiencing shrinkage. It is one of the cities in the Netherlands that experiences shrinkage most and is the largest shrinking city that is involved in a regional approach to cope with shrinkage.
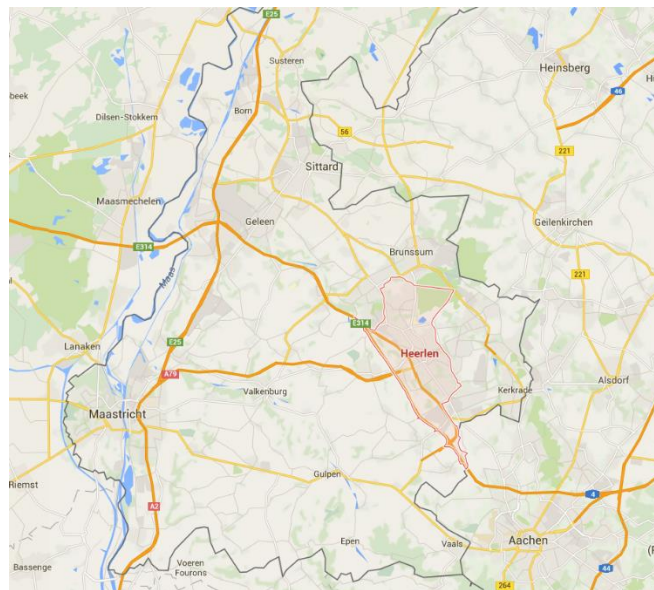
Figure 4. Heerlen ("maps.google.nl," 2016)

In Germany, mining cities are experiencing shrinkage as well. One of the areas where this is the case, is the Ruhr area in Germany (Figure 5).

Figure 5. Ruhr area in Germany ("Karte," n.d.)

The Ruhr area has a well-developed background of policy measures to cope with shrinkage and improve the liveability. In the Ruhr area, Gelsenkirchen (Figure 6) is one of the cities that is experiencing shrinkage and Gelsenkirchen has a shrinking rate that is comparable to the shrinking rate in Heerlen. The decline in number of inhabitants in both cities was approximately 7% between 2000 and 2013. The shrinking rate indicates the amount of shrinkage. The shrinking rate is important since this determines the visibility of the effects and the necessity for measures. Besides the comparable shrinking rate, Gelsenkirchen participated in the Internationale Bauausstellung (IBA, International Building Exhibition) Emscher Park (Urban, 2008, p. 24) and Heerlen is now part of the IBA Parkstad Limburg . Because these cities are both former mining cities with a comparable shrinking rate and they both participate or participated in an IBA, Gelsenkirchen and Heerlen are chosen as subject for this research.

Figure 6. Gelsenkirchen in the Ruhr area ("Overview of the Ruhr Metropolis," n.d.)

4.   Shrinkage in Heerlen

Heerlen is a city that developed because of the emergence of the mining industry. Because of the mining industry, the city grew from a town with 6,600 inhabitants in the 1900s to a city with approximately 75,000 inhabitants in the 1970s and 95,000 inhabitants in the year 2000 (*Structuurvisie Heerlen 2035*, 2015, p. 15). In 2014, Heerlen counted 88,196 inhabitants. Because of the explosive growth of Heerlen, new settlements, each with their own amenities such as community centres, were built near the mines. After the Second World War, the population of Heerlen was still growing, thus, the city kept expanding which caused for the individual settlements near the mines to be incorporated in the city (*Structuurvisie Heerlen 2035*, 2015, p. 15). This explains the current structure of Heerlen, a city with multiple centres.

As said before, Heerlen is one of the cities in the Netherlands that is experiencing shrinkage most. On January first of 2014, Heerlen had 44,711 households, whilst Heerlen had 44,789 households in 2001. These numbers do not indicate a high shrinkage rates. When considering that the number of inhabitants in Heerlen has decreased more than the number of households, it is interesting to take notice of the developments of the types of households since it can be expected that the number of single person households has increased and the number of multiple person households has decreased. Figure 7 shows that, as expected, relative to the year 2000, the number of single households in Heerlen increased whilst the number of households with children and the number of households that consist of couples without children have decreased.

In Figure 8, the population growth of Heerlen over the past years is shown. It is visible that Heerlen has a negative population growth. This is due to a death surplus and a negative migration balance which means that more people are leaving Heerlen than settling in Heerlen.
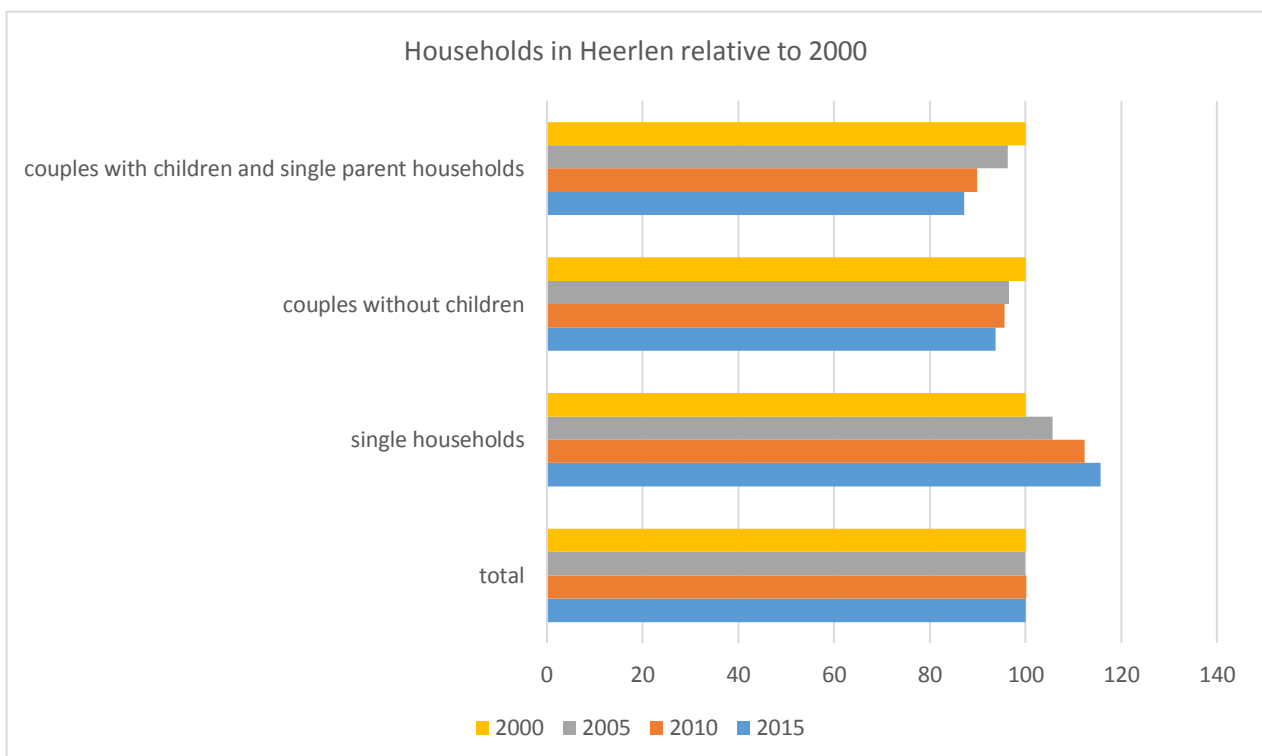

Figure 7. Types of households in Heerlen relative to the year 2000 ("Huishoudens Groei t.o.v. 2000," n.d.)
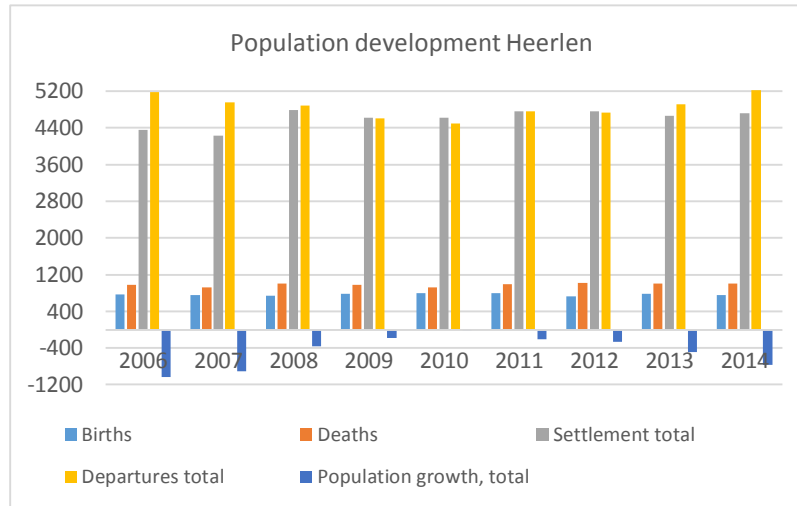
Figure 8. Population development Heerlen (Kerncijfers Heerlen 2010-2011, 2011; Kerncijfers Heerlen 2013-2014, 2014)

4.1. Problems in Heerlen

Cities that are experiencing shrinkage face several problems that affect the hardware, software and mindware of a city. Some of these problems are caused by shrinkage, other problems could be seen as a cause of shrinkage. According to the *Herstructureringsvisie voor de woningvoorraad Parkstad Limburg* (2009), one of the challenges the region has to cope with is the population decline. This decline influences the residential policy and other policy fields. How to cope with the population decline is a complex assignment. Not only is the population declining, it is changing in composition and housing needs as well. (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009).

4.1.1. Hardware

Hardware problems are the ones that are most visible and influence the liveability to a great extent. For Heerlen, hardware problems are high unemployment rates (Figure 9) because of the closure of the mines that was announced in 1965 by the government. Vacancy because of the out-migration of the labour force, decay caused by the decreased willingness to invest. The decreased willingness to invest is the result of the high unemployment rates. Other problems that Heerlen is facing, are mono-functional neighbourhoods, which means that neighbourhoods consist solely of dwellings or offices, and the architectural quality of the existing real estate does not meet the standards of today (*Structuurvisie Heerlen 2035*, 2015), meaning that the real estate is outdated. Furthermore, it is less likely that companies will settle in Heerlen because of the declining labour force. Another problem that Heerlen had to cope with was the nuisance caused by drugs and prostitution. Besides the nuisance, this caused feelings of unsafety.
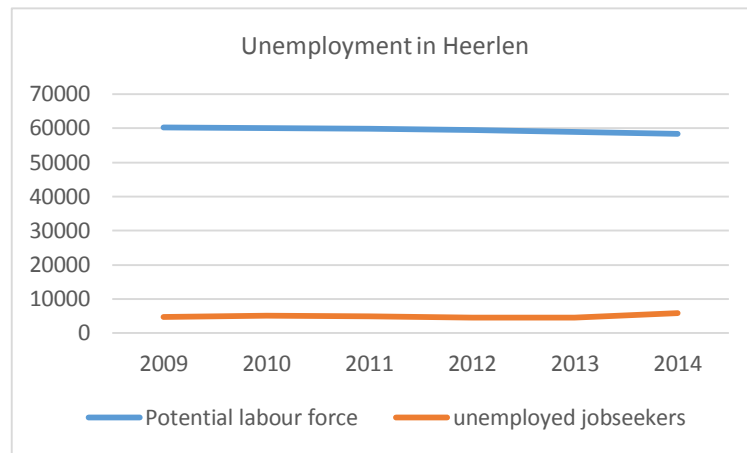
Figure 9. Unemployment in Heerlen (UWV as cited in Kerncijfers Heerlen 2013-2014, 2014)

The region of Parkstad Limburg also indicates that the region has fallen behind on various areas. The region has to cope with social problems, unemployment, a low regional income, departure of high educated youth and too slow growing starting businesses. The region also acknowledges that the dejuvenation, ageing and depopulation in the region are more apparent than elsewhere. (*Intergemeentelijke structuurvisie Parkstad Limburg, "ruimte voor park & stad"*, 2009).

4.1.2. Software

Besides problems concerning the hardware of Heerlen, there are problems concerning the software in Heerlen as well. One of the main problems is caused by the ageing population. Figure 10 shows that the number of persons in the age categories over 50 years of age have increased and the number of persons in the age categories under 50 years of age have decreased. This phenomenon causes for social networks to weaken. Also, it is likely that people feel less responsible for their living environment when there is already some decay. Therefore, nuisance from, for instance, litter on the streets might increase. Furthermore, there are social problems which vary per neighbourhood.
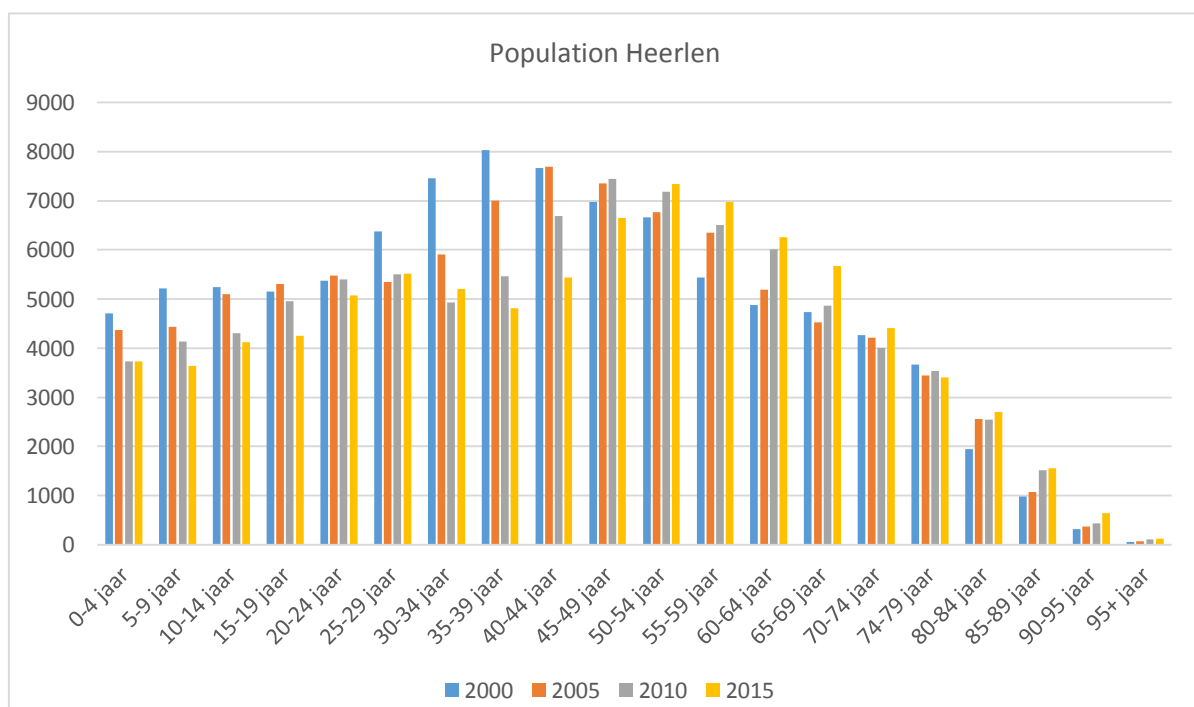
Figure 10. Number of persons per age category in Heerlen over the past 15 years (Kerncijfers Heerlen 2013-2014, 2014).

One of the neighbourhoods that had to cope with serious social problems was Passart in the north of Heerlen. In this neighbourhood the residents felt unsafe and there was much nuisance from youth and aggression. Furthermore, the participation of the residents in the community was low (*Herstructurering in Heerlen, Passart*, 2013). According to the data in the "Parkstad Limburg Buurtmonitor" (2013), similar problems occur in other neighbourhoods in Heerlen such as Hoensbroek, Grasbroek and Molenburg. These neighbourhoods have comparable scores on these themes. There are also some neighbourhoods that have almost no problems. These neighbourhoods are Heksenberg, Welten-Benzenrade, Bekkerveld, Caumerveld and Heerlerbaan-Schil. The neighbourhoods with problems concerning the software of the city are all found in the north of Heerlen whilst almost all neighbourhoods that have little problems concerning the software are in the south of the city. Figure 11 shows the various neighbourhoods of Heerlen.

1. District Hoensbroek
    10. Maria Gewanden-Terschuren
    11. Mariarade
    12. Hoensbroek-De Dem
    13. Nieuw Lotbroek
    14. De Koumen

2. District Heerlerheide
    20. Vrieheide-de Stack
    21. Heerlerheide-Passart
    22. Heksenberg
    23. De Hei
    24. Rennemig-Beersdal

3. District Heerlen-Stad
    30. Zeswegen-Nieuw Husken
    31. Schandelen-Grasbroek
    32. Meezenbroek-Schaesbergerveld
    33. Heerlen-Centrum
    34. Eikenderveld
    35. Woonboulevard-Ten Esschen
    36. Welten-Benzenrade
    37. Bekkerveld-Aarveld
    38. Caumerveld-Douve Weien
    39. Molenberg

4. District Heerlerbaan
    40. Heerlerbaan-Centrum
    41. Heerlerbaan-Schil
    42. De Beitel

Figure 11. Districts and neighbourhoods in Heerlen (Kerncijfers Heerlen 2013-2014, 2014)

4.1.3. Mindware

When it comes to mindware, it is not necessarily clear that there are problems. For some neighbourhoods in Heerlen, however, there has been some research done that indicates there are problems concerning the mindware in these neighbourhoods. For the neighbourhood Meezenbroek, Schaesbergerveld and Palemig (MSP) (number 32 in Figure 11) it has become clear that the neighbourhood has to cope with a negative image (*Stedenbouwkundige visie MSP Heerlen*, 2008). It is unclear if this is the case for the residents of the neighbourhood or for people outside the neighbourhood.

4.2. Goals for the municipality of Heerlen

The municipality of Heerlen has formulated various goals for the city. One of these goals is that Heerlen wants to be the centre municipality of Parkstad Limburg. Another goal is to "create a city that is able to respond to the changing needs of the society in a flexible manner" (*Structuurvisie Heerlen 2035*, 2015).

This means that, there where it is needed, the municipality will employ its juridical instruments to realise spatial goals on the area of desired spatial developments of Heerlen (*Structuurvisie Heerlen 2035*, 2015).

On the medium to long term, the attention of the municipality will focus on upgrading and maintaining the quality of the amenity level in the broadest possible way.

In order to achieve this, various spatial strategies can be employed depending on the living environment, the nature of the facility and the intended target group (*Structuurvisie Heerlen 2035*, 2015).

One of the prerequisites to keep Heerlen an attractive city is to create new employment possibilities. In that respect, the Smart Services Campus creates new economic perspective. With this campus, high-quality education and high-quality employment is coming to the city. This also creates opportunities for new high-quality living environments in and around the city centre. Besides creating new employment opportunities, at least the same amount of attention is needed for the retention of existing employment (*Structuurvisie Heerlen 2035*, 2015).

According to *Structuurvisie Heerlen 2035* (2015, p. 24), the housing stock in Heerlen/Parkstad is, in many neighbourhoods, strongly outdated. Given the aim to keep Heerlen attractive and liveable, the housing supply will need to make a substantial quality improvement. The following three aspects are hereby of importance:

- Making the existing housing stock more sustainable
- Making the existing housing stock care-proof. This means that people can receive care in their own home. In this way, they can stay at home for a longer period of time.
- Tie promising target groups to the city by providing high-quality living environments at desirable places.

Furthermore, the dimension of the housing stock needs to be better adjusted to the demographic developments in Parkstad. Currently, there is an over-supply of dwellings which leads to a high vacancy rate (Heerlen 4,5%, 2035 dwellings, reference date: 31-12-2013, Parkstad 4,3%) than the 2% friction vacancy rate which is needed for a proper functioning housing market. This leads to a diminution task of the housing stock. The dimension of the diminution task is determined by the region Parkstad in "the envelope" which is based on up-to-date vacancy and population data (*Structuurvisie Heerlen 2035*, 2015, p. 24).

4.3. Measures taken in Heerlen

In Heerlen, the measures are determined per neighbourhood. The neighbourhoods discussed in this chapter are the neighbourhoods on which the most documentation was available which is probably because the problems in these neighbourhoods were most severe.

Most measures are based on an analysis of the neighbourhoods' strengths, weaknesses and opportunities. One thing that these measures have in common is that the restructuring of neighbourhoods happens through approach of the problems and social activation (*Wijkactieplan MSP*, 2008).

4.3.1. General measures by the municipality

There are some measures that are not necessarily directed at a specific neighbourhood. These measures, which will be implemented by the municipality, are described in the spatial development plan (*Structuurvisie Heerlen 2035*, 2015). This plan is organised by four themes being:

- Vital city: this concerns the improvement of the living environment which concerns living, working and life.
- Central city: This is about the role that Heerlen has in the region concerning amenities such as retail, culture, education, healthcare and services.
- Innovative city: this has to do with changing the mind-set of people, flexibility and temporality but also with creating win-win situations.
- Surprising city: this is the result of the previous themes.

There are some measures that already have been taken by the municipality of Heerlen. In order to increase the liveability, the city wants to maintain the current employment and improve the employment and educational possibilities in the city. The latter is done by building the "Smart Services Hub". This project is created in 2012 and is a collaboration between parties from education, businesses and government. The smart hub focusses on smart services which are financial-administrative and information processing services. The main goal of this Hub is to bring businesses together and stimulate innovative financial services which allows for an economic surplus to occur, possibilities for knowledge institutions arise to conduct research and to be able to provide apprenticeships and to boost the employment possibilities in the region (*Masterplan Smart Services Hub*, 2014).

Furthermore, Heerlen wants to strengthen the economic potential. This is done by transforming the road N281 into an economic boulevard. This economic boulevard will contain a "woonboulevard", educational boulevard, care boulevard and office clusters. The office clusters will continue in the businessparks Trilandis and Avantis (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009).

As said in before, the quality of the existing real estate does not meet the current standards. Therefore, there are also some measures taken with regards to the real estate in the city. The existing real estate, especially the dwellings, need to be updated. The dwellings are made more sustainable which generally means that energy-saving measures are taken and the dwellings are made care-proof, meaning that measures are taken to facilitate elderly and other groups with special needs to longer live independently. Furthermore, the existing real estate is redeveloped and the housing stock is thinned out (*Structuurvisie Heerlen 2035*, 2015).

Another important measure was taken in order to restrain the nuisance caused by drugs and prostitution in Heerlen. In order to do so, the municipality initiated a program called "Operatie Hartslag" in 2001. This program involved a combination of interventions and care, especially shelter and coaching for addicts.

Furthermore, measures concerning the nature in the south of Limburg are taken. One of the projects that the municipality of Heerlen has done, together with other municipalities is the revealing of the brooks in the area in order to strengthen the rural structure and increase the value of the brook valleys and nature reserves.

The vision of the municipality of Heerlen is to create a compact city with a clear structure. In this vision, robust green connections are present between the Brunssumerheide, the Caumerbrookvalley, castle Hoensbroek and the Geleenbrookvalley with nature reserve Terworm (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009, p. 55).

Besides the scenic qualities, Heerlen is proud of its cultural historic bearers. By preserving and further strengthening of the historic centres, the ribbons and the miners settlements, a good mix is created between historic structures and contemporary interpretations (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009).

Furthermore, Heerlen is working on strong neighbourhoodcentres in the neighbourhoods Hoensbroek, Heerlerbaan and Heerlerheide (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009).

Heerlen will also respond to niche markets. An example of this is the sandpit area where a unique living environment will be created around living alongside the water while using the existing steep slopes of the sandmining (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009, p. 56). The restructuring vision for Heerlen can be seen in Figure 12.

control area   dimunition area   development area

neighbourhood approach   special plan development   strengthening
centres

neighbourhood with special attention, a so-called "Vogelaarwijk"
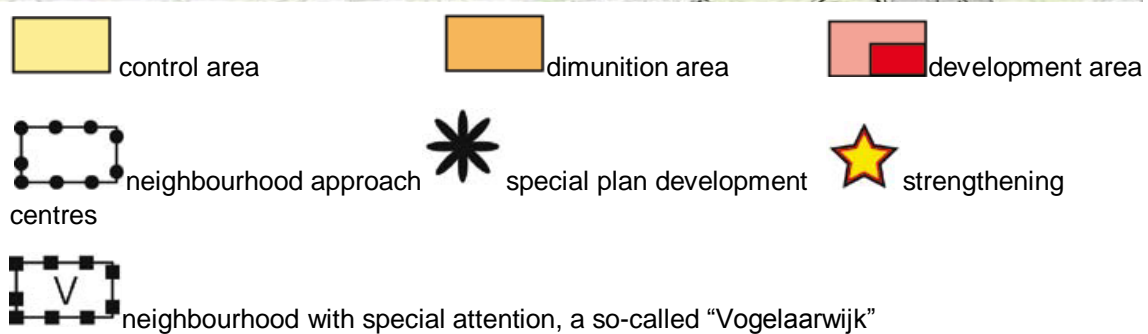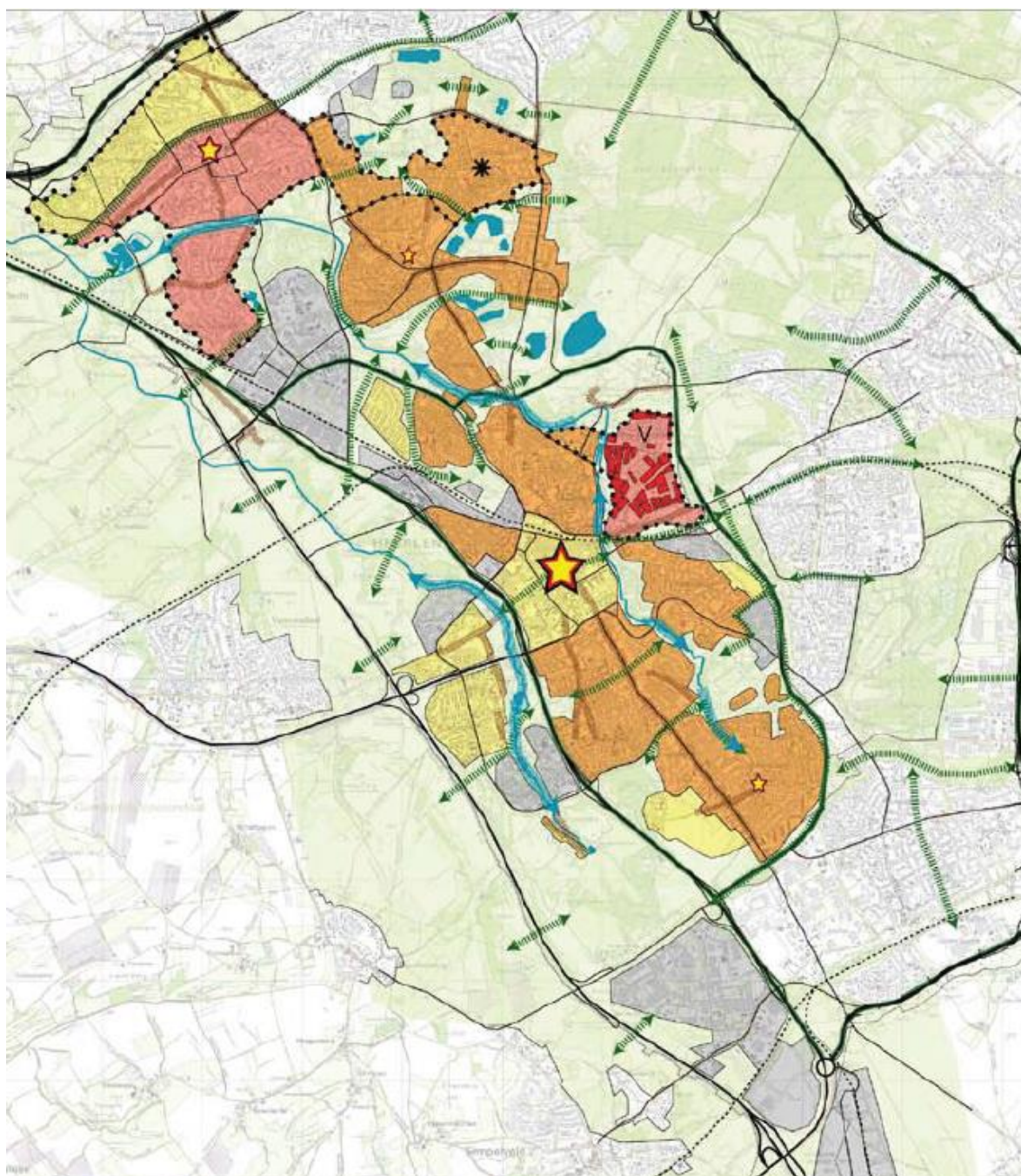
Figure 12. Restructuring vision Heerlen (Herstructureringsvisie voor de woningvoorraad Parkstad Limburg, 2009)

4.3.2. Measures taken by the region Parkstad Limburg

Besides these measures that are taken by the municipality, the region Parkstad Limburg is taking measures as well.

Already in 2006 did the municipalities of Parkstad Limburg analyse the housing market which resulted in an outline for a regional housing vision. It was also decided that there was not going to be a construction stop as "renewal of the housing market remains necessary for the changing population" (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009)

The cooperating municipalities of Parkstad Limburg have realised a regional policy on demolishment and diminution which is formulated in so-called "envelopes" which are updated every two years. The amount of dwellings that should be demolished in the region Parkstad Limburg and in Heerlen can be found in Table 2. This data of the regional strategy is based on the autonomous developments of the separate municipalities. Thus, the regional demolishment strategy is not a regional assignment which is devided over the cooperating municipalities but the regional strategy is the result of the sum of the separate municipal strategies (*Geactualiseerde envelop Herstructureringsvisie Parkstad Limburg 2010-2020*, 2011).

Table 2. Demolishment assignment Parkstad Limburg and Heerlen (Envelop stedelijke opgaven, 2008; Geactualiseerde envelop Herstructureringsvisie Parkstad Limburg 2010-2020, 2011; Geactualiseerde envelop Herstructureringsvisie Parkstad Limburg 2012-2020, 2013; Geactualiseerde Envelop Herstructureringsvisie Parkstad Limburg 2014-2020, 2015)

	Demolishment assignment Parkstad Limburg					Demolishment assignment Heerlen			
	2008	2010	2012	2014		2008	2010	2012	2014
↘	5,825	4,979	3,750	3,600	↘	2,750	2,111	1,380	1,280
↗P	4,525	4,975	-	-	↗P	2,625	2,255	-	-
↗Z	1,650	1,197	-	-	↗Z	625	442	-	-
=	12,000	11,151	3,750	3,600	=	6,300	4,808	1,380	1,280
↻	13,150	-	-	-	↻	6,800	-	-	-
?	2,275	1,967	-	-	?	1,650	1,060	-	-

↘ The amount of dwellings that needs to be subtracted from the housing stock in order to absorb the declining housing needs and to reduce the vacancy on the housing market

↗P The amount of dwellings that can be added to the housing stock based on projects that are included in the Regional housing development programme 2006-2011

↗Z The amount of dwellings that can be added to the housing stock based on the projects that supply care dwellings and are in 2010 incorporated in the housing development programme 2006-2011

= The maximum amount of dwellings that can be retracted from the housing stock. This is the sum of the first three categories. This indicates that the abovementioned categories are "communicating barrels" since more new structures result in a higher maximum retraction task.

↻ The qualitative transformation task which means that this number of houses needs to be improved to meet the current requirements.

? The amount of dwellings that is not included in the programming but could be added based on planning grounds.

In the areas in which the number of dwellings is reduced, there is an extra assignment to improve the quality by thinning out of the housing stock. This does not always involve demolishing and building new dwellings but this also involves merging and adjusting dwellings (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009, p. 56).

4.3.3. Measures in Passart

One of the neighbourhoods that gained special attention is the neighbourhood Passart. In 2014 Passart had 2,073 inhabitants and there were 1,087 dwellings. There were 175 unemployed persons and 166 persons on welfare (*Kerncijfers Heerlen 2013-2014*, 2014).

For the neighbourhood Passart, the measures are taken on various themes. These themes and corresponding measures are the following (*Herstructurering in Heerlen, Passart*, 2013):

- Safety
  - o In order to increase the safety in the neighbourhood, the programme "Hartslag Passart" was introduced. This programme consists of neighbourhood mediation, casuistry consultation and a living environment team;
  - o The elementary school in the neighbourhood initiated a project to increase the safety and liveability in and around the school. This entailed the relocation of the school playground, renovation of the direct surroundings of the school, 'parent-contact afternoons' and a language- and parenting project;
  - o Greater accessibility of the police in the neighbourhood;
  - o 'behind the front-door' procedure which means that in families with multiple problems, there is an integral plan with one coordinator which creates a plan in which all help is aligned better;
  - o The project "Clean Passart" in which the cleaning teams of homeless people are deployed.
- Living
  - o Demolishment of three flats consisting of 189 dwellings. The space that has become available because of this has been transformed to a park (Figure 13);

Figure 13. Park at the Laurierstraat

  - o At the Plataanplein (Plataansquare), the housing corporation wanted to demolish six buildings but the residents did not support this plan. The motives of the residents are not described in the documents of the municipality but from conversations with residents it became clear that the residents of Passart thought the demolishment of these buildings would be the start of the demolishment of the whole neighbourhood. Another reason was, according to a resident, that these buildings have a high emotional value to the residents because these buildings used to be housing for the miners. Because of the objections of the residents, these buildings were saved and have obtained a new -temporary- public function such as a home care service

organisation (Figure 14). Besides the new function of the buildings, the square has been redecorated by the municipality.

During the visit to Passart, "Buurthulp Passart" (neighbourhood help Passart) was visited. This is one of the temporary public functions. I asked the persons that were present in the Buurthulp whether they could tell me why the residents of Passart did not want the buildings at the Plataanplein to be demolished. One of the residents that was actively involved in the process was phoned and asked if he had the time to come over and talk to me. A few minutes later, a man of approximately 60 years old came in. After explaining the reason for my visit, I asked him whether he could tell me why the residents did not want the buildings at the Plataanplein to be demolished. The resident told me that many residents were afraid that the demolishment of these dwellings would be the beginning of the demolishment of the whole neighbourhood. Furthermore, these dwellings were designed by Joseph Cuypers, a Dutch architect mostly known for his designs of catholic churches. Another reason for many residents to object to the demolishment of the dwellings at the Plataanplein was that many residents have memories of these old miners' dwellings. Some residents grew up in these dwellings or visited their grandparents who lived in these dwellings.

Observation 1. Passart

Figure 14. Buildings at the Plataanplein in Heerlen

- Participation
  - o Alcander, a welfare organisation, and the neighbourhood organisation have organised concrete activities to increase the potential of volunteers in the neighbourhood;
  - o Neighbourhood activities have been organised by the residents with help from organisations in order to create the community feeling in the neighbourhood.
- Care and well-being
  - o A special tool is developed in order to assess the pedagogic quality, the quality of the education, of a neighbourhood. This tool is called "Pedagogic measuring staff Passart";
  - o There has been a survey amongst the youth, ages 12 to 22, in Passart to gain insight in the problems and wishes of the youth;
  - o Special activities in order to guide parents and children and families have been organised;
    - ▪ Consulting hours as an easily accessible possibility to ask questions about parenting, poverty and debts etc;
    - ▪ Social work in and around the school.
  - o Social neighbourhood team that will connect different parties and projects which will be the basis for an integrated approach.

In order to implement the measures with support from the residents, communication gained special attention. Residents were informed on each project. Per project, the group that needed to be informed was determined. For some projects, the choice was made to inform the whole neighbourhood whilst for other projects only the residents in the direct surroundings of the project were informed (*Herstructurering in Heerlen, Passart*, 2013).

4.3.4. Measures taken in Meezenbroek, Schaesbergerveld and Palemig

Another neighbourhood in Heerlen that gained special attention is Meezenbroek, Schaesbergerveld and Palemig (MSP). In 2014, MSP had 6,377 inhabitants and there were 3,285 dwellings. 542 Persons were unemployed and 445 persons were on welfare (*Kerncijfers Heerlen 2013-2014*, 2014).

MSP is one of the 40 focus neighbourhoods of the former minister of Integration and Housing. For this neighbourhood, an integrated plan or "masterplan" is made that describes the developments until 2020 with a lookout to 2035 (*Stedenbouwkundige visie MSP Heerlen*, 2008). The masterplan contains proposals that lead to a liveable neighbourhood with a high quality, differentiated housing supply, strong centres with good amenities, a high quality public space and optimal connections to the surrounding green areas (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009, p. 57; *Stedenbouwkundige visie MSP Heerlen*, 2008).

This plan is based upon resident participation and a mix of social, physical, economical and safety measures (*Wijkactieplan MSP*, 2008). The neighbourhood action plan formulates the goals and principles that result in action points on the following themes:

- Living which consists of housing, care and public space;
- Labour which consists of the local economy and retail;
- Learning;
- Integration;
- Safety.

The ambition is to create a coherent neighbourhood that has a strong relationship with the surrounding landscape, new and sustainable residential concepts, a central heart with concentrated amenities and meaningfull places . In the next 15 years, a part of the housing stock will be demolished. Gradually, a differentiated, high-quality and innovative supply of new constructed dwellings will be realised. New constructed housing will complement the existing housing stock with a focus on housing for elderly, starters and retaining the middle-income households in the neighbourhood. Furthermore, residents of

MSP have to be able to make a housing-career and diverse income groups should be housed in MSP (*Herstructureringsvisie voor de woningvoorraad Parkstad Limburg*, 2009).

According to the *Wijkactieplan MSP* (2008) the plan was to demolish 759 dwellings, build 414 new dwellings and renovate 470 dwellings. 644 Corporation dwellings will be maintained. Furthermore, the strategic principle is stabilisation. This means that there will be suitable housing for the residents, revitalisation of the neighbourhood and the limitation of the flow of newcomers.

There are also plans concerning the amenities in the neighbourhood. There should be a new heart for the neighbourhood. This means that the amenities should be moved to a more central location in MSP. Furthermore, the primary care facilities should be more concentrated and a new nursing home with care residences should be realised.

When it comes to the local economy, self-employment should be stimulated. Also, dwellings should be converted to accommodate small local entrepreneurs. For persons with trouble finding a job, there will be a handyman service so these people can perform small chores in the neighbourhood. With this service, unemployed youth, long-term unemployed persons and students from the vocational school will be active with professional supervision. Furthermore, MSP will seek connection to the "clean GMS" program in which former addicts clean the public spaces in the neighbourhood.

On the field of education there are measures that need to be taken as well. A broad social facility where there will be two schools, cultural, pedagogic sport- and recreational amenities for children, youth, parent and neighbourhood residents and there will be a cultural facility in the church in the neighbourhood.

To improve the integration of residents, there will be special activities for female immigrants. There are also measures to improve the safety in the neighbourhood. There is a neighbourhood team to solve issues in the public space such as nuisance from youth, more supervisors and "BOA's" which are special law-enforcers. Furthermore, the covenant "safe school and surrounding of secondary education" will be executed and more police will be deployed.

Besides these measures, there is need for the restructuring of the infrastructure in MSP. By restructuring the infrastructure, the accessibility of the three sub-neighbourhoods is improved. Furthermore, the routing to the existing green structures should be improved by the restructuring of the infrastructure in the neighbourhood (*Wijkactieplan MSP*, 2008).

The above-mentioned measures are the basis for the structural vision for the neighbourhood that was designed in 2008 (*Stedenbouwkundige visie MSP Heerlen*, 2008). A visualisation of this vision is shown in Figure 17.

For MSP, it is not completely clear which measures are implemented and which measures are not. For some projects, it is known that they have been executed. It is known that the green route through the neighbourhood and the so-called "pocket parks" are realised as well as a library and playgrounds for children. Furthermore, re-integration of unemployed people, neighbourhood help and "Clean MSP" are projects that are executed. Projects that are not realised are the new neighbourhood centre and the health-centre and not all dwellings that were planned to be demolished are demolished. How many dwellings were demolished and how many new dwellings were built is not exactly known. It is however known, that in 2011 there were 3140 dwellings in MSP (*Kerncijfers Heerlen 2010-2011*, 2011) and in 2014 there were 140 dwellings more.

The most recent progress report on MSP dates from 2012. From this report it becomes clear that the demolition of the dwellings is postponed. According to the report the reason for this is, amongst other things, because of a request from the residents. It is however, likely that the corporation postponed the demolishment because of financial reasons as well whilst this is not mentioned in the report. When it comes to reason that the new centre is not realised, the report does not mention an immediate cause. It is said that only the ALDI has agreed to move to the new centre and the lack of another supermarket for the new centre could have influenced the feasibility of this new centre in a negative way, causing for the realisation to be postponed or terminated (*Inhoudelijke voortgangs- en evaluatierapportage Wijkaktieplan*

(WAP)-MSP t/m 31 december 2012, 2012). It is unclear whether the new centre will be realised in the future.

When it comes to the stimulation of self-employment, the initially planned "starterscentrum" (centre for new entrepreneurs) is not realised. The reason for this is possibly the high investment costs of €1,500,000 for such a centre. Instead of the realisation of this centre, an entrepreneurial organisation has been established and there are training and coaching possibilities for entrepreneurs (*Inhoudelijke voortgangs- en evaluatierapportage Wijkaktieplan (WAP)-MSP t/m 31 december 2012*, 2012).

When reading the progress report, it is striking to read that the reason that many projects are not realised is because of the uncertainty of the realisation of the new centre.

The new centre has, until now, not been realised. In the current centre, some shops have closed and this space has not yet been filled with new shops. Furthermore, the supermarket has been closed.

Figure 15. The Etos in the current centre of MSP is closed

Figure 16. Shops in the centre of MSP

During a visit to MSP, I ran into two guys on the street whom I approached. The guys are about 25 years old. During the conversation, it became clear that there are not much activities for the youth in MSP and that, according to these guys, the youth is frustrated about this. Because there is not much to do for the youth, they cause nuisance on the streets. In order to solve this problem, the municipality provided a location for the youth but this location is in the woods, outside the neighbourhood. The guys indicated they never use this facility because it is quite far away. I got the feeling these guys are frustrated and they do not feel taken seriously by the municipality. The guys told me there are much more activities for the youth in other districts of Heerlen such as soccer tournaments. I asked the guys if they could organise such activities themselves. They indicated they would like to organise some activities but it seemed they do not have a clue how they would organise an activity and how to get assistance in organising an activity. The guys told me that in the church down the street, the squatter who lives there provides space for the youth to hang. In the church, they can do what they want and cause less nuisance.

Observation 2. Meezenbroek, Schaesbergerveld, Palemig

Figure 17. Vision MSP 2020 (Stedenbouwkundige visie MSP Heerlen, 2008)

4.3.5. Measures in the city centre

A more general measure to increase the liveability in Heerlen concerns the fact that Heerlen wants to be a centre municipality in Parkstad Limburg (*Integrale centrumvisie Heerlen*, 2005). In order to achieve this, several measures are taken in the centre of Heerlen. Several squares and streets such as the van Grunsvenplein, and the Geleenstraat are remodelled and buildings are renovated and redeveloped. Furthermore, the station area is regenerated. Heerlen gets a new station building and in this area there are also new dwellings, offices, retail, day-care and a hotel realised (*Overzicht Projecten Centrum*, 2012).

4.3.6. IBA Parkstad Limburg

Following the diverse IBA's in Germany, the cities of Parkstad Limburg decided to initiate an IBA in 2011. Since July of 2014, IBA Parkstad Limburg B.V. is responsible for the organisation and the execution of the IBA ("Wat is IBA Parkstad?," n.d.). IBA Parkstad Limburg has as goal to accelerate the innovation that has been set in motion by the region Parkstad Limburg (Meertens, 2015).

Three themes "which relate to the resilient manner in which Parkstad handles the changing circumstances in a future-proof way" have been defined ("Werkwijze," n.d.). The themes are the following:

- Flexible city;
- Energy city;
- Recycle city.

Besides these three themes, seven priorities have been set which have to do with the relevant subjects of today and "link the history of the mining industry and the present" ("Werkwijze," n.d.). These priorities are:

- Vacancy;
- Living and care;
- Leisure and employment;
- Mobility;
- Knowledge and energy innovation;
- Spatial structure and centrality;
- Regional identity.

The IBA Parkstad Limburg has been divided into two periods of three years. In the first period, from 2014 until 2017, the preparations are the main focus. This period is also called the "definition phase". The second period, from 2017 until 2020, the execution of the various projects is the main focus.

In 2014, the organisation of the IBA did an open call for the submission of projects. "Everyone who wants to help to shape the future of Parkstad can submit large or small project proposals or project ideas until 1 November 2014" ("Tijdlijn," n.d.). Based on this call, 291 projects and ideas were submitted of which 39 projects directly became candidate projects. For 87 projects it was investigated whether these projects could "in one way or another be submitted to the list of candidate projects" ("Tijdlijn," n.d.).

4.4. Financing of the projects

In *Structuurvisie Heerlen 2035* (2015, pp. 78-79), the financing of the projects that the municipality is planning to execute is explained. The municipality indicates that the traditional plan and programme budgeting is not suitable in order to do the necessary interventions at the right time in a flexible way. Therefore, the way the municipality handles its funds needs to be evaluated. The ability to decisively intervene is also needed in order to stimulate third-party investments which are essential for the implementation of the measures.

In order to implement the development strategies of the municipality, "a structural increased flexibility of the way of the of handling public funds is therefore essential".

The municipality is not only responsible for its own finances but it also has the responsibility to "properly secure the costs of project development within the framework set by the law".

From the perspective of "proper financial assurance of the costs of spatial developments", the following aspects are of importance (*Structuurvisie Heerlen 2035*, 2015):

- Every development bears, in principle, its own costs;

The municipality employs the principle that costs and benefits are, in principle, at project level within the land development, in balance. The municipality is only an active party when she is directly involved from the public space or landholding. When this is not the case, then the private party is completely responsible for the costs that are related with the functional and spatial qualitative for the municipality acceptable plan.

- Cost settlement between related projects;

Through "above plan equalisation", the municipality is able to equalise injustices and imbalances between connected land exploitations. "Above plan equalisation" means that the deficit of one project will be levelled with the positive balance of another plan (van den Brand, van Gelder, & van Sandick, 2008, p. 15). Developments that are of importance for a proper functional or spatial development of an area, but do lead to a negative land exploitation can get a contribution from a fund. From developments that profit from abovementioned developments and have a positive land exploitation, it can be asked they contribute to this fund.

- Contribution spatial developments;

This is a fund which can be used for desired spatial developments that do not have a direct relation with other developments but do have a positive effect on the value of the real estate and thereby on the investment value. For this fund, the municipality can ask for a contribution from new developments.

4.5. Effects of the measures in Heerlen

In order to assess the effectiveness of the measures, an assessment must be made whether the measures led to the intended results. In order to assess if the measures have obtained the intended results, it should be clear what the goal of the measures was. Generally, it can be said that the measures should increase the liveability in the neighbourhood in which the measures are taken. In order to determine if the liveability has increased, the indicators as introduced in Chapter 1 will be used as well as information obtained through surveys and conversations with residents. Furthermore, for Heerlen it is possible to use information of the 'Leefbaarometer' (liveability indicator) which is a tool developed by the government to assess the liveability in the Netherlands.

4.5.1. The Leefbaarometer

This chapter first describes the development of the Leefbaarometer (liveability indicator) after which the results of the Leefbaarometer for the municipality of Heerlen are discussed.

The development of the Leefbaarometer

The Leefbaarometer (liveability indicator) is developed on behalf of the government of the Netherlands. Because liveability gained more importance in the experience of the residential quality of inhabitants and because the surroundings became more important for the enjoyment of living, the Ministry of Infrastructure and Environment has increased focus on the living environment. Basis for the development of the Leefbaarometer were the General Periodic Inspection for Neighbourhoods and Early Warning. The General Periodic Inspection for Neighbourhoods was developed on behalf of the Ministry of Housing. Early Warning was developed on behalf of the Ministry of Internal affairs and Kingdom relations (Leidelmeijer, Marlet, van Iersel, van Woerkens, & van der Rijden, 2008, p. 1).

The General Periodic Inspection for Neighbourhoods monitored the social-physical developments on a small-scale level in order to signal problems early on and to be able to intervene in an early stage. The General Periodic Inspection for Neighbourhoods had much information on the social-physical state of neighbourhoods (Leidelmeijer et al., 2008).

Early Warning was developed because of the need of cities for a system that made early signalling of problems possible. This tool was strong on the monitoring of safety and nuisance (Leidelmeijer et al., 2008).

Combining the General Periodic Inspection for Neighbourhoods and Early Warning resulted in the Leefbaarometer. This is a comprehensive liveability monitoring tool that combines the various aspects of liveability. With the Leefbaarometer, it is possible to assess the liveability situation for the whole of the Netherlands on a small-scale throughout time. Not only does the Leefbaarometer follow the development of the liveability over time, it is also possible to determine if the problems in a neighbourhood are more on a social or a physical level or that it has to do with safety, or unsafety (Leidelmeijer et al., 2008, p. 2).

As mentioned before, the Leefbaarometer is a monitoring system. It consists mostly of objective registration data which is used to calculate the liveability situation in neighbourhoods and districts. Besides objective data, the Leefbaarometer uses subjective data of the perception of liveability of residents and the living behaviour of residents such as migration. Because of the combination of perception and behaviour in one model, it provides a robust image on the liveability situation (Leidelmeijer et al., 2008, p. 2).

According to Leidelmeijer et al. (2008), previous research has shown that the judgement of residents on liveability is mostly based on the conditions in a limited perimeter around the dwelling. Because of this, it is chosen to use the six-position postal code area (6-PPC area). The choice for this scale level makes it possible to observe variations in the liveability within neighbourhood boundaries.

The Leefbaarometer consists of 100 indicators which are divided over five dimensions being:

- Dwellings;
- Residents;
- Safety;
- Amenities;
- Physical environment.

Some indicators are used with a distance scale, for instance, the number of stores within a 200-meter radius. Other indicators are used with a modulating geographic scale such as the number of violent incidents in a city. The incidents that occur close to the dwelling have a higher impact than those further away but the incidents further from the dwelling do count as well (Leidelmeijer et al., 2008, pp. 11 - 12).

Because of the use of both distance scales and modulating geographical scales, it is possible to construct the indicators in a way that accounts best for the way in which people perceive aspects in their neighbourhood.

In order to determine which ambient conditions are important for people, an evaluative method is used. In this method, ambient conditions are related to the judgment of people by use of a cross-section analysis. The judgements of residents are the 'stated preferences'. The ambient conditions that explain the judgments best are considered of importance. The extent to which these conditions are important results in the respective weight of the indicators (Leidelmeijer et al., 2008, p. 26).

The subjective perception of residents of the liveability in the neighbourhood will in theory translate into the degree to which people are satisfied with their neighbourhood, want to live there and eventually will be reflected in their living behaviour or avoided living behaviour. It is therefore relevant to link the ambient conditions, at least the ambient conditions with the living behaviour of residents at least with that part of the living behaviour that is determined by the liveability situation in the neighbourhood. The ambient conditions that best explain the living behaviour are included in the Leefbaarometer. The extent to which these conditions explain the behaviour determines the reciprocal weight between the ambient conditions in the objective half of the Leefbaarometer (Leidelmeijer et al., 2008, p. 33).

The results of the Leefbaarometer for Heerlen

For each of the five dimensions mentioned above (dwellings, residents, amenities, safety and physical environment), it is known how much the score of every neighbourhood in Heerlen deviates from the national average in 2012 and 2014. For the total score of the Leefbaarometer this is known as well. The score of each neighbourhood in Heerlen is known for the years 2002, 2008, 2012 and 2014. Furthermore, the development of the total scores between all mentioned years is known.

As mentioned before, the score of the five dimensions is known for each neighbourhood in Heerlen for the years 2012 and 2014. In order to get insight in the situation in Heerlen in general, the score per neighbourhood is weighted as to the percentage of inhabitants of that neighbourhood after which the weighted scores per neighbourhood are summed to get the score for the whole municipality.

Table 3. weighted deviation from the national average score per dimension of the Leefbaarometer

	2012	2014
Dwellings	-0,015953	-0,01857
Residents	-0,00612	-0,0075
Amenities	0,028387	0,02331
Safety	-0,08509	-0,11922
Physical environment	-0,00534	0,003265

As can be seen in Table 3, the score for all dimensions, except the dimension amenities, is below the national average in 2012. In 2014, the scores for the dimension amenities and the dimension physical environment are above the national average and the scores for the dimensions dwellings, residents and safety are below the national average. Furthermore, it can be seen that the scores for all dimensions with

the exception of the score for the dimension physical environment has developed negatively between 2012 and 2014.

The full dataset is available at: https://data.overheid.nl/OpenDataSets/LBM2015/leefbaarometer_2.0.zip.

Besides the abovementioned five dimensions which constitute the qualitative aspect of the Leefbaarometer, the Leefbaarometer also consists of a quantitative aspect being the resident judgement. By combining the score of the five dimensions and the resident judgment, the total Leefbaarometer-score is determined.
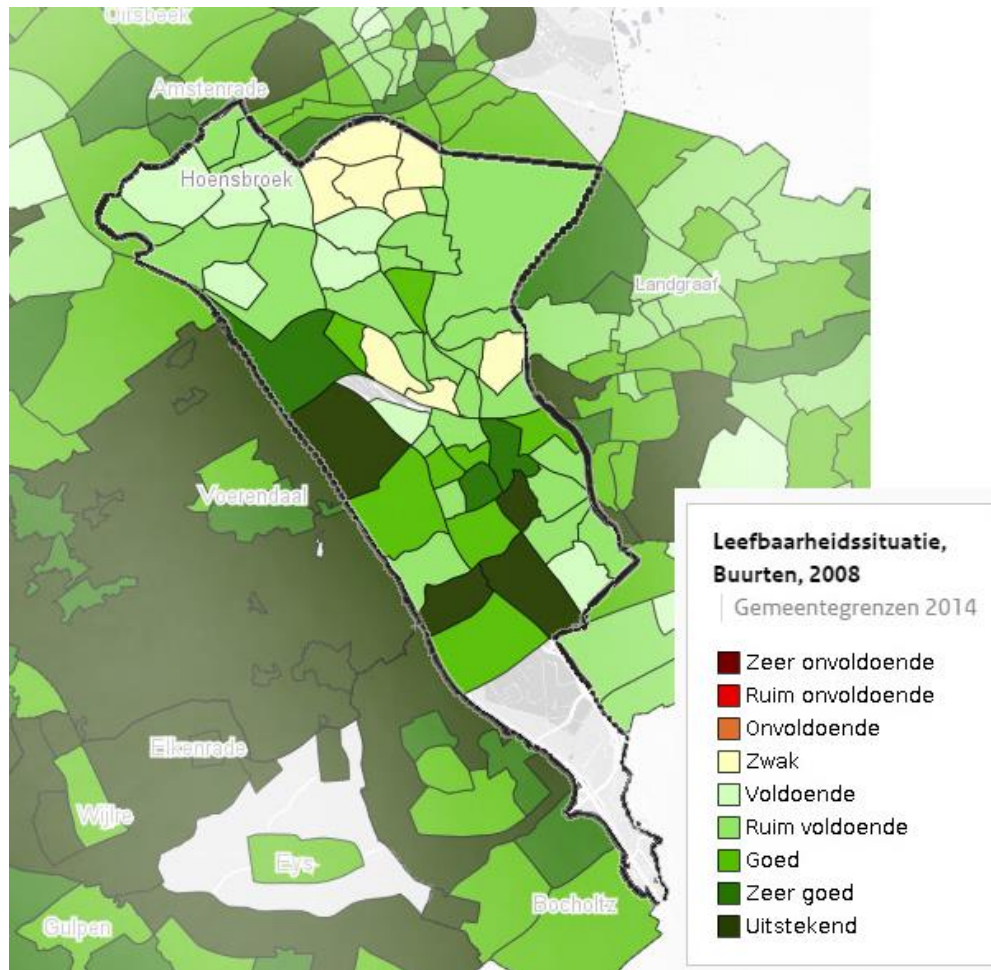
Figure 18. Liveability scores in Heerlen in 2014 ("Kaart leefbaarheidssituatie buurten Heerlen," n.d.)

Figure 18 shows that, according to the Leefbaarometer, the neighbourhoods in Heerlen all score between 'weak' and 'excellent' when it comes to the liveability. There are 8 neighbourhoods in Heerlen that score 'weak'. Two of these neighbourhoods are Passart and Meezenbroek of which Meezenbroek is part of MSP.
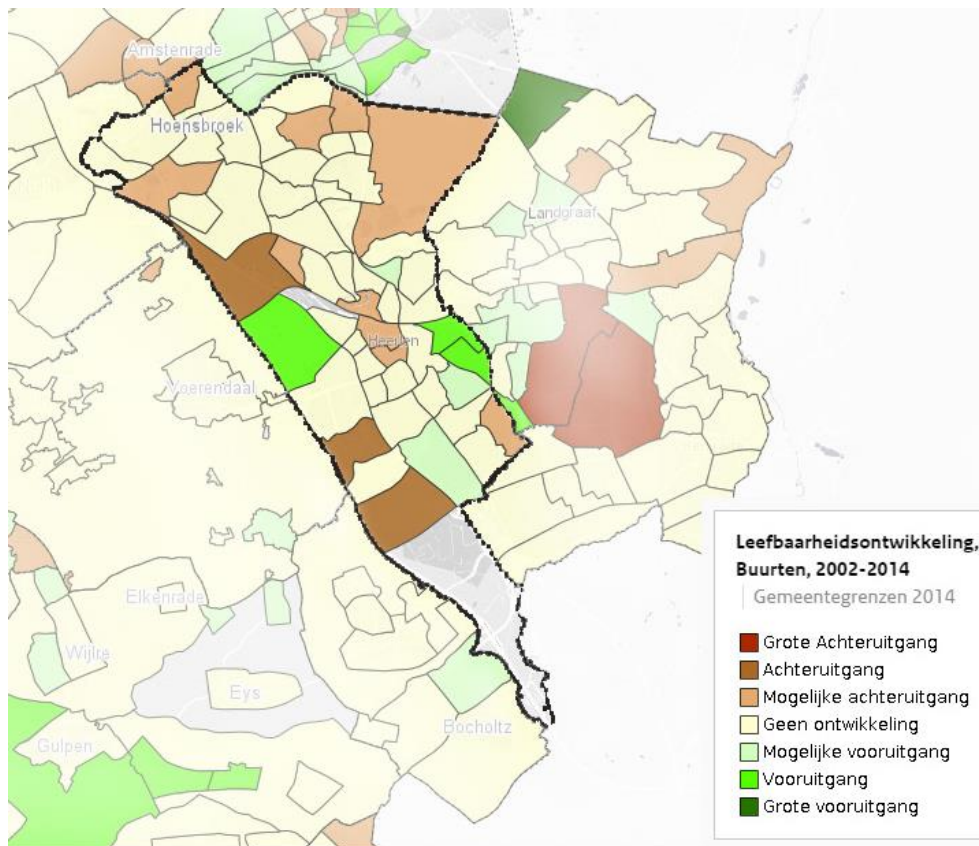
Figure 19. Development of the liveability in Heerlen from 2002 until 2014 ("Leefbaarheidsontwikkeling 2002-2014 buurten Heerlen," n.d.)

According to the Leefbaarometer, the liveability in many of the neighbourhoods in Heerlen has not developed between 2002 and 2014 which can be seen in Figure 19. This is also true for the liveability in the neighbourhoods MSP and Passart. For the city centre of Heerlen, the liveability has possibly decreased between 2002 and 2014. These results indicate that the measures that are taken by the municipality do not have the desired effect.

Conclusion Leefbaarometer

According to the Leefbaarometer, the liveability in the neighbourhoods in Heerlen did not change over the past years. Only the score for the physical environment improved slightly between 2012 and 2014.

4.5.2. Survey results

This paragraph describes the results for the survey performed in Heerlen. It turned out to be challenging to collect responses which causes for these results to be statistically irrelevant. However, these results do provide some insight on the opinion of respondents on their city.

The full survey can be found in Appendix A – Survey Heerlen.

Description of the sample

In Heerlen, 20 people participated in the survey. Of these 20 respondents, 8 are male and 12 are female. 13 Respondents state they live in Heerlen and 7 respondents state they live in another municipality. Of the 7 respondents that stated they live in another municipality, 2 respondents actually live in Heerlen since they live in Hoensbroek which is part of the municipality of Heerlen. One respondent was under 18 years old, 5 respondents are aged between 18 and 30 years old, 4 respondents are aged between 31 and 45 years old, most respondents, 8 to be exact, are aged between 46 and 64 and two respondents are over 65 years old.

8 of the respondents live in a two- or more person household. 4 respondents are a couple with children at home and 5 respondents live alone. 2 respondents are a single parent with children at home and one respondent lives in a household with children out of the house.

Regarding the employment situation of the respondents, 7 respondents are employed for more than 19 hours per week. 1 respondent is employed for less than 19 hours per week and two respondents are self-employed. 2 respondents are currently unemployed but looking for a job and 2 respondents are currently unemployed but not looking for a job. 1 respondent is retired; 3 respondents are unable to work. One respondent is a student and one respondent indicated differently. This respondent is an artist.

The survey

First, the respondents were asked to indicate whether they agree or disagree on some statements concerning their neighbourhood. These statements were:
- The buildings in this neighbourhood are attractive;
- It is annoying to live in this neighbourhood;
- If possible, I would like to move out of this neighbourhood;
- I feel attached to this neighbourhood;
- I feel at home in this neighbourhood;
- I have a lot of contact with my direct neighbours;
- I feel partly responsible for the liveability in the neighbourhood;
- I am satisfied with the composition of the population in this neighbourhood;
- I live in a sociable neighbourhood.

Apart from questions about the neighbourhood of the respondents, there were some questions asked about Heerlen in general. The respondents were asked to indicate in a table of opposites how they feel about Heerlen. The opposites that were presented are the following:

- Boring – Exciting;
- Pleasant – Unpleasant;
- Modern – Old-fashioned;
- Expensive – Cheap;
- Safe – Dangerous;
- Clean – Dirty.

Dwellings

Most respondents feel the buildings in their neighbourhood are neither attractive nor unattractive. Of the remaining respondents, the majority feels the buildings in their neighbourhood are attractive. Only one respondent feels the buildings in his or her neighbourhood are unattractive.

The majority of the respondents feels Heerlen is neither cheap nor expensive. There is, however, a considerable amount of the remaining respondents that feels Heerlen is a cheap city.

Residents

Most respondents feel they have much contact with their neighbours. Of the remaining respondents, most feel neutral about the amount of contact they have with their neighbours and few disagree with the statement "I have much contact with my neighbours".

The majority of the respondents agrees with the statement "I live in a sociable neighbourhood". Slightly less than half of the respondents is neutral on this statement and one respondent disagrees with this statement.

Most of the respondents agree with the statement "I am satisfied with the population composition of my neighbourhood". One third of the respondents is neutral on this statement and one respondent disagrees with this statement.

At the statement "In Heerlen, I feel lonely" most respondents indicated they neither agree nor disagree. All other respondents disagree with this statement.

At the statement "In Heerlen, I am happy" the number of respondents that are neutral about this statement is equal to the number of respondents that agrees or fully agrees with this statement. Still approximately 23% of the respondents disagree with this statement meaning they feel unhappy in Heerlen.

The majority of the respondents agree with the statement "I feel responsible for the liveability in my neighbourhood".

Safety

The majority of the respondents feels Heerlen is neither safe nor dangerous. Of the remaining respondents, a slight majority feels that Heerlen is unsafe but there are some respondents that feel Heerlen is a safe city.

Amenities

In the survey it was also asked which amenities the respondents have available in their neighbourhood and which amenities lack in the respondents' neighbourhood. More than half of the respondents misses one or more amenities in their neighbourhood. Amenities that are missing according to the respondents are, amongst others, a supermarket, other stores, hospitality industry, post offices, police offices and museums.

Physical environment

The majority of the respondents feel that Heerlen is easily accessible. Slightly more than 25% of the respondents are neutral to the statement "Heerlen is easily accessible".

The majority of the respondents feel that Heerlen is neither a clean nor a dirty city. Almost one third of the respondents feel Heerlen is a clean city. Only one respondent feels Heerlen is a dirty city.

The amount of the respondents that answered 'more pleasant than unpleasant' and 'neutral' is equal. However, when considering 'pleasant' and 'more pleasant than unpleasant' together, the majority of the respondents feels Heerlen is pleasant.

The majority of the respondents feels that Heerlen is a modern city. None of the respondents feel that Heerlen is an old-fashioned city.

When it comes to the statement "Heerlen is a green city" most respondents strongly agree or agree. Only few respondents are neutral on this topic and some respondents disagree with this statement.

Resident judgement

Respondents were also asked to indicate whether they are satisfied with their living environment. Half of the respondents is satisfied with their living environment. A quarter of the respondents is neutral on this

topic. Few respondents are very satisfied with their living environment and only one respondent is dissatisfied with his or her living environment.

None of the respondents agrees with the statement "it is annoying to live in this neighbourhood". Most respondents disagree with this statement and slightly over a third of the respondents is neutral on this statement.

Most respondents disagree with the statement "If possible, I would like to move". Few respondents are neutral to this statement or agree with this statement.

Most respondents feel attached to their neighbourhood. This is in line with the responses to the statement "If possible, I would like to move".

The majority of the respondents feels at home in his or her neighbourhood. None of the respondents answered they do not feel at home in their neighbourhood. This outcome is in line with the results of the two previous statements which are "I am attached to my neighbourhood" and "If possible, I would like to move".

The majority of the respondents think Heerlen is neither boring nor exciting. When combining the categories 'boring' and 'more boring than exciting' the amount of respondents that feel Heerlen is boring is equal to the amount of respondents that is neutral on this subject. A minority of the respondents feels Heerlen is more exciting than boring. This could be because these respondents interpreted exciting more as concerning safety than concerning the level of activity in the city.

Projects

Since there has been more attention for various neighbourhoods in Heerlen over the past years, respondents were also asked whether they feel this extra attention for their neighbourhood is necessary and whether they notice improvements of their neighbourhood because of this extra attention.

Most respondents feel the extra attention of the municipality of Heerlen for their neighbourhood is needed or very needed. Few respondents feel there is no extra attention needed for their neighbourhood and some respondents feel neutral about the extra attention for their neighbourhood, meaning they do not feel it is necessary but do not feel it is unnecessary either.

The majority of the respondents notices little improvement in their neighbourhood because of the extra attention. One third of the respondents does not notice improvement of their neighbourhood because of the extra attention and few notice clear improvement because of the extra attention for their neighbourhood.

In order to gain insight in the effects of some of the measures that were taken by the municipality of Heerlen, the survey also contained questions concerning a selection of the measures. In both neighbourhoods that gained the most attention over the past years at least one measure with much impact on the housing and the public space was chosen. In Passart the developments at the Plataanplein and the demolishment of the flats at the Laurierstraat were chosen. In MSP, the creation of the green structure was chosen because housing had to be demolished for the development of this structure. Furthermore, the respondents were asked for their opinion on the developments in the city centre.

When it comes to the Plataanplein, residents are pleased that the buildings have been saved with help from the municipality. The residents would, however, rather have these buildings used as dwellings since that is their intended use. On the other hand, residents appreciate that the functions in these buildings support the residents. The residents are also satisfied with the design and the furnishing of the square.

For the Laurierstraat, the respondents are generally positive about the result of the demolishment of the flats and the park that is created in that location. The park looks nice and in the park there are possibilities for children to play. On the other hand, the demolishment did change the atmosphere and residents indicated that they think it is unfortunate that housing for starters has been lost.

Most residents did not go into nature more often because of the green structures the municipality has made. Most people do, however, feel that the attention of the municipality for the nature in Heerlen has influenced their living environment to some extent.

When it comes to the city centre, the new station area called of Heerlen called 'Maankwartier' is often the first that comes to mind. This is an expensive project which is not finished yet. Residents of Heerlen are generally under the impression that this project is a waste of money since the money could have been used more efficiently for other purposes in other neighbourhoods. On the other hand, there are residents who believe that the Maankwartier has economic benefits for the city because of the programme of this project.

More detailed results of the survey performed in Heerlen can be found in Appendix B – Survey results Heerlen.

Conclusion survey

The majority of the respondents feels Heerlen is a pleasant city to live in. This is confirmed by answers given to other questions. Most respondents are satisfied with their living environment and do not feel it is annoying to live in their neighbourhood. Furthermore, the majority of the respondents feels at home in their neighbourhood. This is also confirmed by the respondents since most respondents would not move out of their neighbourhood if this was possible. It is however, striking to notice that not all residents feel they have amenities such as a supermarket or police station in their neighbourhood. When it comes to the extra attention for the various neighbourhoods in Heerlen, the majority of the respondents feels this extra attention is needed and most respondents also notice a little improvement because of this extra attention. This can also be derived from the answers given to the questions about the various projects. For the projects that did not take place in the city centre, the respondents are generally positive. When it comes to the projects in the city centre, however, respondents indicate either that money could better be spent elsewhere or that the developments in the city centre do bring economic benefits for Heerlen as a whole.

Eventually, the dwellings in Passart were not demolished but the buildings are currently not available as housing as public functions are temporarily housed in the buildings. While the residents are relieved the buildings are not demolished, the residents would have preferred the buildings to be used as housing. Nonetheless, are the functions that are currently housed in these buildings are important for the neighbourhood. The Plataanplein is the heart of the neighbourhood. There is much social control at the square. The resident does, however, indicate that there is a shift visible because of the ageing population. There are many new, young residents which causes for the social cohesion to weaken because, according to the resident, the new residents are more dissociable. The resident does, however, think that this will change during the summer since then there will be more outdoor activities for the whole neighbourhood.

Observation 3. Passart – part 2

4.5.3. Indicators

Besides the information provided by the Leefbaarometer and the surveys, the effects can also be assessed by use of the indicators. Table 4 shows the indicators for the municipality of Heerlen.

Table 4. Indicators for Heerlen

Indicator	2006	2012	2014
Density dwellings[2] [dwellings/km²]	995	1,004	1,009
Vacancy rate dwellings[3]	-	4.3%	4.6%
Unemployment rate[4]	-	7.7%	9.4%
Household income[5]	25,700	28,200	-
Share of immigrants[4]	27.5%	27.5%	27.8%
Share of non-western immigrants[4]	7%	8%	9%
Migration rate[3]	-0.9%	+0.03%	-0.6%
House prices (WOZ, average)[6]	€129,000	€133,000	€ 123,000
Crime (absolute amount)[3]	16,255	12,520	11,883
Resident participation	In Passart residents were involved in the remodelling of the neighbourhood its public space. Residents of this neighbourhood feel responsible for their surroundings. In MSP, residents participate do not participate much in the redevelopment of their neighbourhood and feel less responsible for their surroundings.		
City image	Heerlen has a negative image. Especially people living in neighbouring cities and towns think of Heerlen as an unsafe, unpleasant city. People living in Heerlen have a more positive image of their city.		
Quality of the public space	From observations, surveys and conversations with residents, it became clear that the quality of the public space in the several neighbourhoods in Heerlen has improved. Only in the vicinity of the station area this is not necessarily the case which is caused by the construction of the new station area.		

Conclusion indicators
- Density of dwellings increased indicating that there have been more dwellings built while the city is shrinking and there is a diminution task concerning dwellings;
- Unemployment rate increased;
- Share of immigrants is stable;
- Crime decreased indicating that Heerlen has become safer.

According to CBS (2014b) a vacancy rate of 2.2% is normal since people might move out of their homes several months before the new owner or tenant moves in. Interesting to note is that, in Heerlen, the vacancy rate was quite high in 2012 but the density of dwellings did increase between 2012 and 2014.

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[2] CBS (2006, 2012); (2014a)
[3] van de Ven, Vaessens, Knoors, and van Zandvoort (2015)
[4] *Kerncijfers Heerlen 2010-2011* (2011); *Kerncijfers Heerlen 2013-2014* (2014)
[5] "Particulier besteedbaar huishoudinkomen" (n.d.)
[6] "Gemiddelde WOZ-waarde woningen Heerlen" (n.d.)

4.5.4. Conclusion effects of the measures Heerlen

From the above, it becomes clear that the liveability in Heerlen is sufficient. Most residents feel attached to their neighbourhood which is positive for the city since residents that feel attached to their neighbourhood, do not tend to move in the near future meaning that the amount of inhabitants in the city might stabilise. Another positive point is that most respondents notice some improvement in their neighbourhood because of the extra attention for the neighbourhoods in Heerlen. When people notice improvement, at least they might feel that the municipality cares which has a positive effect on the self-esteem of the residents.

While the respondents of the survey do notice some improvement, the Leefbaarometer does not indicate much improvement on the liveability in Heerlen. On the other hand, the Leefbaarometer does not indicate much decline in the liveability either.

From the survey and conversations with residents, it appears that if residents are involved and heard by the municipality, they tend to feel more attached to their neighbourhood.

It remains, however, difficult to determine which measure had which effect because most measures are implemented simultaneously and there is no clear change in the liveability noticeable.

5. Shrinkage in Gelsenkirchen

Gelsenkirchen is a former mining city in the Ruhr area in western Germany. Because of the industrialisation in the beginning of the 19th century, Gelsenkirchen started to grow and surrounding towns merged with the city of Gelsenkirchen. These mergers caused for Gelsenkirchen to have several city centres, each with their own amenities. In the Ruhr area, the mining industry started to decline already in the 1950s. In the 1960s, Gelsenkirchen had approximately 400,000 inhabitants which has currently declined to approximately 260,000 inhabitants. Figure 20 shows the population development of Gelsenkirchen. It can be seen that Gelsenkirchen has mostly had a negative population growth because of a death surplus and a negative migration balance. As might be expected there is a decline visible in the number of households as well. In 2001, Gelsenkirchen counted 136,000 households and in 2011 this number had decreased to 128,000. Besides a decline in the population and households, approximately 40,000 jobs have been lost since the 1960s.
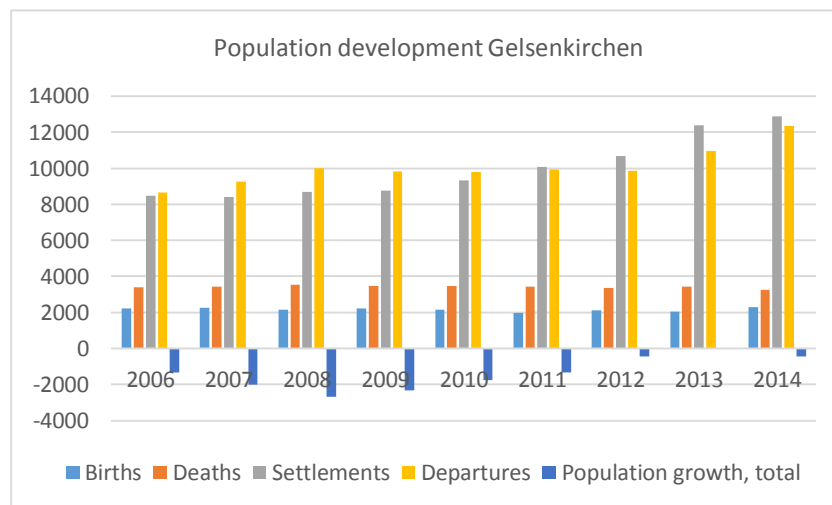
Figure 20. Population development Gelsenkirchen ("Bevölkerungsstand und -bewegung," n.d.)

5.1. Problems in Gelsenkirchen

As in Heerlen, Gelsenkirchen has to cope with several problems concerning hardware, software and mindware.

5.1.1. Hardware

The consequences of the developments described above are unemployment because of the closure of the mines, vacancy on the housing- and retail market, poorly maintained real estate such as outdated dwellings, substitution of quality retail by one-euro-shops, high unemployment rates and commercial wasteland. Another problem of Gelsenkirchen are the large industrial facilities which function as a barrier between various parts of the city.

The housing market in Gelsenkirchen consisted of 139,807 dwellings in 2011 of which 6.63% was vacant in that year whilst a "healthy" vacancy rate, which is needed to facilitate fluctuations on the housing market, is approximately 3% (Feldmann, Kurth, & Rommelfanger, 2015).

Apart from the housing market, there are other fields that require action. These fields concern the social and economic aspects of the city. Because of the mining history of the city, the population of Gelsenkirchen has a high share of immigrants. Furthermore, some neighbourhoods in Gelsenkirchen have a high share of elderly. Problems that occur in many districts are the outdated housing stock,

emergence of brownfields because of closure of industries, obsolete churches and poor educational quality (Feldmann et al., 2007). In Gelsenkirchen, there are areas that suffer from problems more than others. One of the areas that has quite some problems is the Bochumer Straße. This area has a lot of real estate from the Gründerzeit. The Gründerzeit is a period between 1870 and 1914 in which the German unification took place. Buildings from the Gründerzeit have Art Nouveau characteristics. In this area there is approximately 30% vacancy on the housing market and 50% of the commercial space is vacant. Furthermore, this area has a high traffic load (Feldmann et al., 2015).

5.1.2. Software

When it comes to the software, there are problems in Gelsenkirchen as well. Gelsenkirchen experiences ageing of the population as can be seen in Figure 21. This causes for the weakening of social networks, for instance, in the district Tossehof. In this district there are many inhabitants with welfare and with different nationalities. This has led to social conflicts in this district. Furthermore, a great part of the youth in Gelsenkirchen experiences a social disadvantage and poor education (Feldmann et al., 2007).
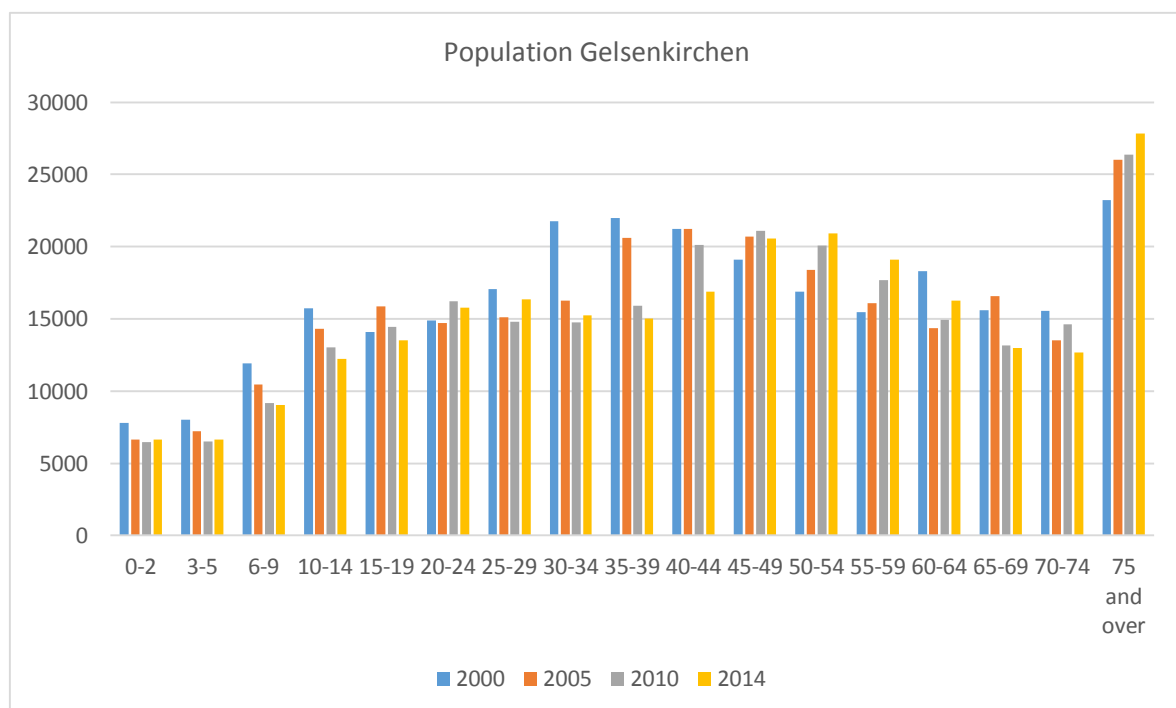
Figure 21. Number of persons per age category in Gelsenkirchen ("Bevölkerung: Kreise, Stichtag, Altersgruppen," n.d.)

5.1.3. Mindware

For Gelsenkirchen, there is no documentation on the mindware aspect of the city.

5.2. Goals for the municipality of Gelsenkirchen

The head of the urban regeneration department of Gelsenkirchen and the people responsible for the urban regeneration in the districts, have set the following goals for the city of Gelsenkirchen (Feldmann et al., 2007):

- Urban and ecological revaluation on the long-term in order to preserve neighbourhoods and residential properties, as well as the stabilisation of the inner cities older neighbourhoods;
- Demand driven quality improvements in the housing stock combined with new built houses in contemporary residential areas. Selective dismantling of old, unsustainable stock is required. This has to be connected to the improvement of the quality of the living environment;
- Adjustment of the social, cultural and technical infrastructure to the changing needs;
- Temporary use of areas which can be used in a new perspective;
- Stimulate local economy through consultancy networks, start-ups and qualification-and training activities;
- Social integration activities for families, elderly, children and teenagers, improved education;
- Setting-up interdisciplinary local offices which can activate and stimulate participation of residents, owners and retailers.

5.3. Measures taken in Gelsenkirchen

Cities in the Ruhr area have a large history when it comes to measures that are taken in order to cope with future challenges for the region. The first programme, Development programme Ruhr, dates from 1968. This programme was developed by the state government of Germany and was the first programme in which the state took responsibility for the future of a region. The renewal of the coal industry and social security for the miners were the central objectives. Other objectives were promoting the regional economy and extending the traffic network of the region. In line with promoting the regional economy, the universities in Duisburg and Essen were established (Urban, 2008, p. 9).

In 1975 the successor of the Development programme Ruhr, namely the Nordrhein-Westfalen-Programme, was approved. In this programme, which was developed by the regional government of Nordrhein-Westfalen, the priorities of the regional government were developed further (Urban, 2008, p. 9).

5.3.1. IBA Emscher Park

Both 'Entwicklungsprogramm Ruhr' and the 'Nordrhein-Westfalen programme' can be seen as the forerunners of the IBA Emscher Park because both programmes contributed to the regionalisation of the structural policy (Urban, 2008, p. 9).

The decisive impulses for the IBA were given by Karl Ganser, doctor in geography whom, in the 1970s, led a renowned, federal research centre for geography and spatial planning. In the 1980s Ganser was head of the department of urbanism in Nordrhein-Westfalen. Ganser gave great priority to a project oriented collaboration between cities and their region. The 'IBA Emscher Park' was based on this aspect of collaboration. Only in 1988 the state approved the development of a concept for an IBA for the recovery of the environment and the economy in the northern part of the Ruhr area (Urban, 2008, p. 10).

In the IBA, 17 municipalities cooperated as well as entrepreneurs and professional associations. The goals of the IBA were documented in a so-called "Memorandum". The main challenge for the IBA was the ecological and urban renewal of the northern Ruhr area which was organised along the river the Emscher (Urban, 2008, p. 10). Within the ecological and urban renewal the following priorities were set (Urban, 2008, pp. 23, 27, 30, 33, 36):

- Remodelling of the Emscher system;
- Employment in the park;
- Industrial monuments;
- Living and urban development;
- Social initiatives, labour and qualification which includes education.

The organisation of the IBA called upon municipalities, entrepreneurs and other groups in the Emscher region to submit projects which would help to achieve the goals described in the memorandum. Here it was described that there would be a park along the river Emscher that connects the various green structures in the area. Over 400 proposals were submitted to the organisation. 260 Of these proposals related to a specific location in the Emscher region. These projects were divided into four categories. Category one consisted of proposals that had great potential and could be developed simultaneously along the complete system of the Emscher landscape park. The projects in category two and three had potential but needed further development either by the IBA organisation or by the submitters. The projects that ended up in the fourth category were not executed by the IBA (Urban, 2008, p. 11).

For the financing of the projects of the IBA were no extra funds available. The projects were financed with existing funds of the land Nordrhein-Westfalen combined with structural funds of the state and the European Union. A total of 36 funds invested in the projects. A total of 5 billion Deutsche Mark (approximately € 2.6 billion) was invested of which two thirds was invested by public funds and one third by private funds (Urban, 2008, pp. 18-19).

5.3.2. National programmes in Gelsenkirchen

While the IBA was still in process, in 1995, another programme started. This was the programme 'Stadtteile mit besonderem Erneuerungsbedarf' (neighbourhoods with special renewal needs) this programme is now called 'Soziale Stadt' (social city). This programme is a social oriented, integrated, urban regeneration programme initiated by the state of Germany. This means that the programme not only addresses the structural and regulated renovation but complex and integrated themes such as health, education, youth- and social work as well. The neighbourhood Bismarck/Schalke-Nord was the first district that took part in this programme and became a model project for the social city programme in 1999 (Feldmann et al., 2015, p. 12).

5.3.3. Municipal measures in Gelsenkirchen

The programmes described above and the experiences with integrated, multiple-goal projects that they yielded led to an overall urban renewal concept. This concept was created in 2007 and initiated by the municipality of Gelsenkirchen. This concept is backed with researches concerning social aspects and housing aspects and a social area monitor. The concept focuses on urban planning and social and economic aspects. In this urban renewal concept, the goals for Gelsenkirchen and the action fields that are required to achieve these goals are listed.

In order to achieve the goals described in chapter 0, the following action fields are identified by Feldmann et al. (2007):

- Promoting the use of state housing support for maintenance and upgrading of the housing stock;
- A housing and garden program as a means for the improvement of the urban landscape;
- Educational and ecological redevelopment of school playgrounds;
- Strengthen the educational quality to improve the transition to higher quality schools;
- Supporting the cohabitation of different cultures, creation of networks in the neighbourhoods;
- Stabilisation and revaluation of the local supply of amenities;
- Establishment of a district bureau as advisory board for project development and for connecting actors;

- Establish and strengthen civic groups. Building a cooperation structure.

Figure 22. Districts in Gelsenkirchen ("Stadtplan," 2015)

In Gelsenkirchen, the urban regeneration is organised per district. The districts of Gelsenkirchen can be seen in Figure 22. For each district, the measures are categorised within three themes being: Urban development, local economy/employment and social integration.

For each district it is determined which interventions are needed. In the districts Bulmke-Hüllen, Neustadt and Ückendorf north, the programme social city south-east was started in 2001. In this area, there are several measures taken concerning the urban planning. The revitalisation of the Schalker Vereins is the main project. This area used to house a blast furnace that has been out of use since 1982. Other urban planning projects include the renovation of the pedestrian area in the Bocumer Straße and the conversion of a church (Feldmann et al., 2015).To strengthen the local economy, an entrepreneur network is established. There is also the possibility to apply for microcredit and the possibility for education for different groups having difficulties on the labour market (Feldmann et al., 2015). Measures on the social aspect concern mostly activities in community centres. In the city district, the measures concerning urban planning are the redesign and redevelopment of squares and streets in order to functionally and optically divide the different parts of the city. The local economy in the city centre is strengthened by investing in the public space so that the main street becomes more attractive to reside and by investing in the real estate so that it becomes a more attractive place for retailers (Feldmann et al., 2015).

One of the squares that is redesigned is the Heinrich-König-Platz in the city centre of Gelsenkirchen. The exact changes that are made on the square are not clear. It is known that it is taking some time to execute the redesign.

In August, Gelsenkirchen was visited. When walking down the main street, we arrived at the Heinrich-König-Platz where the municipality was redeveloping the square. Because of this, we needed to walk through the fences to get to the other side of the square. On the fences, there were visualisations of the plans of the municipality so we could see what the square would look like once finished (left image).

In February, Gelsenkirchen was visited as well. During this visit, the municipality was still working on the Heinrich-König-Platz (right image.)

Observation 4. Heinrich-König-Platz

In 2011, the city of Gelsenkirchen founded a "Urban Renewal Group" which enables the city to actively intervene in the land policy and to take over and remediate problematic real estate (Feldmann et al., 2015).

Measures taken:

- Meeting place Haverkamp in Gelsenkirchen-Bismarck;
  - o Actors of the neighbourhood, neighbours and residents, the self-organisation and creative coexistence was planned;
  - o Labour market measure for qualification of young people in an educational sponsorship support.
- Using kindergartens for other activities outside opening hours;
- Local/neighbourhood shops as a platform to inform, activate and support the residents;
  - o Instrument in order to keep the social structure of the neighbourhood alive, promote it and develop further.
- Neustadttreff: meeting place for involved resident groups.

One of the districts in Gelsenkirchen in which many measures have been taken is Tossehof. The measures were the following:

- Demolishment of 60% of the dwellings at the Kopernikusstraße, one of the streets where the most problems were. Figure 24 and Figure 25 show the buildings before and after the intervention. It can be seen that the number of floors of the apartment buildings has been reduced;
- Modernising the remaining housing stock (Figure 23);
- Redevelopment of the public space and infrastructure;
- Establishment of a neighbourhood meeting place.

Figure 23. Flats at the Kopernikusstraße

Figure 24. Tossehof before   *Figure 25. Tossehof after*

(source: stadterneuerung.gelsenkirchen.de, retrieved 12 May 2016)

According to Mr Kröger, employee of the urban renewal department, demolition of dwellings is currently not high enough on the city agenda. Demolition of dwellings is, according to Mr Kroger an unpopular subject but demolishment is important in order to achieve more dynamics on the housing market since it reduces the vacancy. In the report on urban renewal in Gelsenkirchen by Feldmann et al. (2007), it is stated that selective demolishment of buildings that are not future-proof, probably meaning that the buildings cannot be improved for future use, is required. It is also stated that restructuring areas, the areas with the lowest market acceptance, high risk for the housing sector and need for action are areas in which demolition can be performed. There is, however, no clear demolishment strategy, or at least is this strategy not published.

5.4. Financing of the projects

In Germany, the national government provides subsidies for several programmes. The subsidies for these programmes are distributed amongst the Bundeslander involved in the programme according to an allocation clause. Gelsenkirchen has two programmes that are supported by the national government which are Social City and City conversion West. Gelsenkirchen is part of the Bundesland Nordrhein-Westfalen. The subsidies Nordrhein-Westfalen received are shown in Table 5.

Table 5. financing of programmes for Nordrhein-Westfalen (Städtebauförderung 2013, Anwenderhinweise zu den Förderprogrammen, 2013; Städtebauförderung 2014, Anwenderhinweise zu den Förderprogrammen, 2014; Städtebauförderung 2015, Anwenderhinweise zu den Förderprogrammen, 2015)

	2015	*2014*	*2013*
Social City	€ 34.475.000	€ 34.318.000	€ 9.137.000
City Conversion West	€ 30.349.000	€ 30.500.000	€ 24.519.000

The amount of money that a Bundesland receives for City Conversion West depends on the following aspects ("Städtebauförderung: Ziele, Finanzierung und Mittelverteilung," n.d.):

- Amount of municipalities that are having to cope with population loss of more than 2% over a certain period of time;
- Unemployment rate;
- Percentage of vacant houses in residential buildings;
- Percentage of residents over 65 years of age.

For the social city programme, the national government provides one third of the funding the remaining two thirds have to be funded by the Bundesland and the municipality. For explanation about the governmental structure in Germany, see Appendix G – Governmental structure in Germany.

In the past municipalities received the subsidies without having to present their plans. But nowadays, before receiving the money from the state, the city has to present the plan for which the municipality needs the money (Kröger, 2015)

5.5. Effects of the measures in Gelsenkirchen

As was done for Heerlen, the effects of the measures in Gelsenkirchen are assessed. This assessment is done by using the indicators as introduced in chapter one as well as information obtained through surveys and conversations with residents. It is not possible to use results from the Leefbaarometer (liveability indicator) for Gelsenkirchen since this is a tool which is only available for the Netherlands. In Germany, however, each year 69 cities are ranked and it is indicated how these cities have developed. This is called the "Städteranking" meaning city ranking. The information provided by the Städteranking will also be used to assess the measures. Besides assessing the measures taken in Gelsenkirchen as described above, the IBA Emscher Park, which is described in chapter 5.2 will be evaluated.

5.5.1. Evaluation IBA Emscher Park

As described in chapter 5.2. the IBA Emscher Park was a program that was designed to cope with the changing situation in the Ruhr area. Now, an IBA is started in Parkstad Limburg as well. It could be that there are lessons that can be learned from the IBA Emscher Park. Therefore, the IBA Emscher Park is evaluated.

Some elements of the IBA Emscher Park can be seen as a success. Because of the IBA, tourism in the northern part of the Ruhr area has increased and the image of the area has moved from "black and dark to light and green" (Shaw, 2002). Also the methodology that was used to implement the IBA can be seen as a success. By not changing the administrative structure, the support of the various actors was gained. These would otherwise resist change because of the possible threat this could be to their authority. Also the informal methods used in the IBA such as "public participation, cross-departmental cooperation and architectural competitions" led to success (Shaw, 2002).

There are also some elements that have not been successful. Not much employment has been created. The IBA, however, was not designed to create great amounts of jobs but the IBA aimed at creating the right environment for the creation of jobs by, for instance, creating locations that give businesses the opportunities to develop (Shaw, 2002). Besides the lack of creation of jobs, the "objective of encouraging environmentally sound products and production methods in the region" has not been achieved during the IBA (Shaw, 2002).

Another issue that is pointed out by Shaw (2002) is that the transport system in the northern Ruhr area was not part of the IBA as well as waste management and sustainable agriculture.

5.5.2. Städteranking

Each year, the 69 Kreisfreie Städte in Germany with more than 100,000 inhabitants are ranked (Bahrke & Kempermann, 2014, p. 3). A Kreisfreie Stadt can be best described as an autonomous city with the same level of authority as a region within a state. For more detailed information about what a Kreisfreie Stadt is, see Appendix G – Governmental structure in Germany.

Besides a ranking of the current situation, the level ranking, a dynamics ranking is made as well.

The research for the Städteranking is performed by the Institution for the German economy on behalf of Immobilienscout24, an online marketplace for real estate, and Wirtschaftswoche, a German business news magazine. The basis for the analysis is the most recent data from the regional database of the Institution for the German economy (Bahrke & Kempermann, 2014, p. 3).

The aim of the Städteranking is "to explain the success of a region as well as possible" in which success is defined as "the highest possible purchasing power and minimum unemployment" (Bahrke & Kempermann, 2014, p. 20).

Both indicators, purchasing power and unemployment, are combined to a target index. For this target index, both indicators have an equal weight.

The ranking consists of a level ranking and a dynamics ranking. The level ranking assesses the current situation and the dynamics ranking indicates the development of a city over the past five years (Bahrke & Kempermann, 2014, p. 20). For the level ranking, 53 indicators are used. For the dynamics ranking, 40 indicators are used.

The indicators which are used are organised in four themes. Each theme is assigned a weight based on its level of explanation. The level of explanation is determined by relating the standardised regression coefficients to each other. The standardised regression coefficients are determined with use of a multiple regression model (Bahrke & Kempermann, 2014).

The four themes and their weights are:

- Labour market, 40%;
- Economic structure, 30%;
- Real estate market, 20%;
- Quality of life, 10%.

The weight of the individual indicators in each group is also based on the standardised regression coefficient which is also determined with a multiple regression model (Bahrke & Kempermann, 2014).

Furthermore, the weight of each individual indicator is linked to the weight of the group. This leads to a total weight for each indicator. The weight of each indicator is standardised in order to reach a comparable target system. The sum of the weight of all indicators adds up to 100%.

According to Bahrke and Kempermann (2014, p. 20), "the correlation between the target index and the result in the level ranking is 0.89 which is very high".

Level ranking

In the level ranking, Gelsenkirchen was ranked last. There are however, some positive points for Gelsenkirchen. According to Fischer and Bahrke (2015) the positive points are the following:

- On average, the number of registered crimes was 10,247 per 100,000 inhabitants. On this indicator, Gelsenkirchen ranked 34th.
- In March 2014, the percentage of engineers as part of the total employment was 2.2 percent. On average in the 69 cities, this was 3.0 percent. Gelsenkirchen ranked 49th.
- On the productivity, Gelsenkirchen ranked 19th. The workforce's economic output was € 68,618 per person.

Negative points in the level ranking are, according to Fischer and Bahrke (2015), the following:

- Rental homes were rented after 37 days of availability at the market. This was in the second quarter of 2015. Compared to other cities, Gelsenkirchen ranked 67th.
- The amount of adults that had a debt in the year 2014 was higher than in the other cities. The percentage of adults in debt was 16.8%. On this indicator, Gelsenkirchen was ranked 65th.
- On employment of people with an age of 55 and over, Gelsenkirchen ranked low. 37.4% of people in this age-group were employed compared to on average 47.6% in the other cities. Gelsenkirchen ranked 69th.

Dynamics ranking

When it comes to the dynamics ranking, Gelsenkirchen did slightly better as the city ranked 67th.

According to Fischer and Bahrke (2015) positive points in the dynamics ranking are the following:

- The migration rate throughout Germany was 5.4 persons per 1,000 inhabitants. In Gelsenkirchen this was 9.6 persons per 1,000 inhabitants. On this indicator, Gelsenkirchen scored 12th.
- Furthermore, the unemployment rate of young people changed -3.1 percent point between 2009 and 2014. Compared to the other cities, Gelsenkirchen ranked 13th.
- The business balance (balance of business registrations and de-registrations per 1,000 inhabitants) changed by 1.1 per 1,000 inhabitants. The average of the studied cities changed with -0.6 per 1,000 inhabitants. Gelsenkirchen ranked 4th.

Negative points in the dynamics ranking are, according to Fischer and Bahrke (2015), the following:

- The purchase price for owner-occupied apartments has risen by 1.9 percent. On this indicator, Gelsenkirchen ranks 68th.
- When it comes to the amount of adults in debt, this number has increased in Gelsenkirchen.

In 2012, Gelsenkirchen ranked 23 out of 50 in the dynamics ranking. In 2013 63th out of 71 and in 2014 68th of 69 (Bahrke & Buchweitz, 2012; Bahrke & Kempermann, 2013, 2014).

Conclusion Städteranking

Gelsenkirchen did improve somewhat according to the dynamics ranking. Compared to the other cities, more young people found a job and there have been more business registrations than in other cities. On the other hand, the number of people in debt increased. When it comes to the number of registered crimes, Gelsenkirchen scores quite positive. There are less crimes than on average in the other cities.

5.5.3. Survey results

In Gelsenkirchen, 6 residents participated. Two respondents are male and four respondents are female. All respondents live in Gelsenkirchen.

Two respondents are aged between 31 and 45 and four respondents are aged between 46 and 64.

Three respondents have a one-person household. One respondent has a one-parent household with children at home, one respondent is a couple with children at home and one respondent lives in a household with children out of the house.

Two respondents are employed less than 19 hours a week, two respondents are employed for more than 19 hours per week, one respondent is self-employed and one respondent is retired.

As in the survey for Heerlen, first, the respondents were asked to indicate whether they agree or disagree on some statements concerning their neighbourhood. These statements were:

- The buildings in this neighbourhood are attractive;
- It is annoying to live in this neighbourhood;
- If possible, I would like to move out of this neighbourhood;
- I feel attached to this neighbourhood;
- I feel at home in this neighbourhood;
- I have a lot of contact with my direct neighbours;
- I feel partly responsible for the liveability in the neighbourhood;
- I am satisfied with the composition of the population in this neighbourhood;
- I live in a sociable neighbourhood.

Besides questions on the neighbourhood of the respondents, there were some questions asked about Gelsenkirchen in general. The respondents were asked to indicate in a table of opposites how they feel about Gelsenkirchen. The opposites that were presented are the following:

- Boring – Exciting;
- Pleasant – Unpleasant;
- Modern – Old-fashioned;
- Expensive – Cheap;
- Safe – Dangerous;
- Clean – Dirty.

Dwellings
The majority of the respondents feels neutral against the statement that the buildings in their neighbourhood are attractive. There are some respondents that agree with this statement and one respondent strongly agrees with this statement.

One third of the respondents indicate they think Gelsenkirchen is a cheap city. One third of the respondents thinks Gelsenkirchen is neither a cheap nor an expensive city. One respondent feels Gelsenkirchen is an expensive city.

Residents
Most respondents indicate they have a lot of contact with their direct neighbours. Some respondents indicated they feel neutral against this statement and one respondent disagrees with this statement.

Two thirds of the respondents feel they live in a sociable neighbourhood. One respondent feels neutral about this statement and one respondent disagrees with this statement.

The majority of the respondents disagrees with the statement "I am satisfied with the composition of the population in this neighbourhood. One third of the respondents agrees with this statement and one respondent feels neutral about this statement.

The majority of the respondents disagrees with the statement "in Gelsenkirchen, I feel lonely".

When it comes to the statement "In Gelsenkirchen, I feel happy" the majority of the respondents indicated they neither agree nor disagree with this statement. The other respondents indicate they agree with this statement.

Two third of the respondents indicate they feel responsible for the liveability in their neighbourhood. One respondent disagrees with this statement and one respondent feels neutral about this statement.

Safety

The majority of the respondents feels Gelsenkirchen is a dangerous city. The other respondents feel Gelsenkirchen is neither a safe nor a dangerous city.

Amenities

In the survey, it was also asked which amenities the respondents have available in their neighbourhood and which amenities lack in the respondents' neighbourhood. Almost all respondents indicate they do not lack any amenities in their neighbourhood.

Physical environment

Most of the respondents feel Gelsenkirchen is easily accessible. One respondent indicated he or she feels neutral about the accessibility of Gelsenkirchen.

Half of the respondents feels Gelsenkirchen is a dirty city. One respondent is neutral about this topic and one respondent feels Gelsenkirchen is a clean city.

The majority of the respondents indicate they feel Gelsenkirchen is more unpleasant than pleasant. One respondent feels Gelsenkirchen is more pleasant than unpleasant and two third of the respondents did not answer this question.

Two thirds of the respondents indicate they feel Gelsenkirchen is more old-fashioned than modern. One respondent feels Gelsenkirchen is more of a modern city than an old-fashioned city.

The majority of the respondents agrees with the statement that Gelsenkirchen is a green city. One respondent disagrees with this statement and one respondent indicated to be neutral about this statement.

Resident judgement

Respondents were also asked to indicate whether they are satisfied with their living environment. Two thirds of the respondents are satisfied with their living environment. One third of the respondents is neither satisfied nor dissatisfied with their living environment.

Most of the respondents disagrees with the statement it is annoying to live in their neighbourhood. Only one respondent agrees with this statement and one respondent feels neutral about this statement.

Two third of the respondents feel they would move out of their neighbourhood if this would be possible. One third of the respondents would not move out of their neighbourhood.

All respondents that answered to the statement "I feel at home in this neighbourhood" agree with this statement.

Most respondents in Gelsenkirchen feel they live in a boring city. Only one respondent feels he or she lives in a city which is more exciting than boring.

Projects

Half of the respondents feel their neighbourhood is in need or very much in need of extra attention. One third of the respondents does not have an opinion on the need for extra attention and one respondent feels his or her neighbourhood does absolutely not need extra attention.

Two thirds of the respondents do not notice any improvement in their neighbourhood because of the extra attention. One respondent notices a little improvement and one respondent notices much improvement in his or her neighbourhood because of the extra attention.

In order to gain insight in the effects of some of the measures that were taken by the municipality of Gelsenkirchen, the survey also contained questions concerning a selection of the measures. Tossehof is one of the neighbourhoods in Gelsenkirchen that gained more attention over the past years. Therefore, the developments in Tossehof were the topic of two questions. There has also been much activity in the city centre when it comes to the redevelopment of the public space so questions were asked about this too. Because of the high amount of parks in Gelsenkirchen, there are some questions about this as well.

Many respondents were not familiar with the developments in Tossehof. This neighbourhood does, however, still have a negative image since all respondents that answered the questions about Tossehof say the effects of the developments are negative. One respondent feels that Tossehof consists of "ghetto buildings".

About the developments in the city centre, the respondents are generally speaking not so positive. First things that come to mind are: "bad city planners" and "money is thrown out". Furthermore, respondents feel that the retail adjusts to the poverty of the residents, the right neighbourhoods are not reached with the measures and that it is a wrong development.

When it comes to the parks in Gelsenkirchen, residents tend to visit the park that is closest to their home. The respondents feel that the parks they visit are well maintained and beautiful. One respondent feels that going to the park is for drug addicts and foreigners.

In Gelsenkirchen many people were unwilling to participate in the survey. Residents that did not want to participate in the survey did often indicate that they are not satisfied with their city. These people indicated they feel there are too many immigrants and there is too much unemployment in the city. Furthermore, these people do not feel safe in their own city. It was also indicated by these people that the situation did not get any better.

More detailed results can be found in Appendix D – Survey results Gelsenkirchen.

Conclusions survey

Generally, respondents are satisfied with their living environment. The respondents do not feel it is annoying to live in their neighbourhood and feel at home in their neighbourhood. However, it is interesting to notice that despite this, the majority of the respondents does indicate they would move out of their neighbourhood if this would be possible. Furthermore, it seems that the measures taken by the municipality do not have the desired effect since most respondents do not notice any improvement of their living environment. Sometimes, the projects that are executed even have the opposite effect because the execution causes much nuisance for the residents. As is the case with the developments in the city centre for instance. Furthermore, it can be said that, in general, the respondents feel Gelsenkirchen is a dirty, dangerous, old-fashioned, cheap city where it is unpleasant to live. On the other hand, do the respondents indicate that Gelsenkirchen is easily accessible and has lots of green. These results are, however, because of the low number of respondents statistically irrelevant.

5.5.4. Indicators

In this paragraph, the indicators for Gelsenkirchen are discussed.

Table 6. Indicators Gelsenkirchen

Indicator	2006	2012	2014
Density dwellings [dwellings/km²][7]	1,357	1,312	1,315
Vacancy rate dwellings[8]	5.7%	6.3%	-
Unemployment rate[9]	20.1%	14.3%	14.7%
Household income per inhabitant[10]	€ 14.518	€ 15.749	-
Share of immigrants[11]	13.7%	13.8%	15.3%
Migration rate[12]	- 0.06	+ 0.32%	+ 0.21%
Rental price for 60m² per m²[13]	-	€ 4.71	€ 4.87
Houseprice for 60m² per m²[14]	-	€ 658,42	€ 684,91
Resident participation	Children were involved in the redesign of various playgrounds and residents were involved by the municipality in other projects. Residents were almost always invited by the municipality.		
City image	The image of Gelsenkirchen is that it is a boring, outdated, dirty and dangerous city.		
Quality of public space	Generally, the public space is of good quality. In the centre of Gelsenkirchen there is a lot of activity when it comes to the redesign of various squares and these projects take a lot of time which has a negative impact on the quality of the public space.		

Conclusion indicators
- Density dwellings decreased between 2006 and 2012. Light increase between 2012 and 2014 but not significant;
- While density of dwellings decreased, vacancy rate increased;
- Unemployment rate is lower than in 2006 but higher than in 2012;
- Share of immigrants increased;
- Positive migration rate.

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[7] "Gebietsstand: Gebietsfläche in qkm - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte" (n.d.); "Wohngebäude- und Wohnungsbestand - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte" (n.d.); "Wohngebäude- und Wohnungsbestand - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte (bis 2010)" (n.d.)

[8] "Privathaushalte - kreisfreie Städte und Kreise - Jahr" (n.d.); "Wohngebäude- und Wohnungsbestand - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte" (n.d.); "Wohngebäude- und Wohnungsbestand - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte (bis 2010)" (n.d.)

[9] "Arbeitslose nach ausgewählten Personengruppen sowie Arbeitslosenquoten" (n.d.)

[10] *Verfügbares Einkommen der privaten Haushalte seit 2005 Tabellen* (n.d.)

[11] "Bevölkerungsstand: Bevölkerung nach Geschlecht, Nationalität und Altersgruppen (17) - Stichtag 31.12. - (bis 2010)" (n.d.); "Bevölkerungsstand: Bevölkerung nach Geschlecht, Nationalität und Altersgruppen (21) - Stichtag 31.12. - (ab 2011)" (n.d.)

[12] "Bevölkerungsstand und -bewegung" (n.d.)

[13] "Mietspiegel Gelsenkirchen 2016" (2016)

[14] "Immobilienpreisspiegel Gelsenkirchen 2016" (2016)

5.5.5. Conclusion effects of measures

It seems that the liveability in Gelsenkirchen is weak. Most respondents indicate they would move if this would be possible. Also, respondents do not notice any improvement because of the extra attention for their neighbourhood. Furthermore, the residents that did not want to participate in the survey did indicate that they do not feel that the liveability in Gelsenkirchen has improved.

Furthermore, the unemployment rate is quite high which probably does not contribute to the satisfaction of the residents.

From the Städteranking it also becomes clear that Gelsenkirchen has problems on many different aspects. In the dynamics ranking, Gelsenkirchen ended in the bottom ten since 2013 while in 2012 Gelsenkirchen was ranked in the top-half. This indicates that Gelsenkirchen has not improved but worsened.

It is, however, difficult to determine which measure caused which effect because there are many measures implemented at the same time. Also, it is difficult to assess the development of the liveability in Gelsenkirchen.

6.   Comparison of Heerlen and Gelsenkirchen

This chapter describes the differences and similarities of Heerlen and Gelsenkirchen. First, the history of the cities is compared after which the problems in both cities are compared. Then the measures which were taken in both cities are compared followed by the effects of the measures.

6.1.   Comparison of the cities' histories

Both Heerlen and Gelsenkirchen are former mining cities that are coping with shrinkage. In Gelsenkirchen, the first mine closed in 1958 and the last mine closed in 2000. In Heerlen, the first mine closed in 1967 and the last mine closed in 1974. The closing of the mines in Gelsenkirchen was thus more spread over the years than the closing of the mines in Heerlen. In Gelsenkirchen, shrinkage started already around the year 1960. In Heerlen, the shrinkage started only around the year 1995. From 1959 until 2015, Gelsenkirchen has lost 33% of its inhabitants. Between 1995 and 2015, Heerlen has lost a total of 9% of its inhabitants. It is expected that by 2035, Heerlen will have lost approximately 25% of its inhabitants. This percentage that Heerlen might shrink in 40 years is somewhat close to the percentage of shrinkage of Gelsenkirchen in 55 years. For more detailed information on the causes and degree of shrinkage see Table 7. Between 2000 and 2013, both cities lost about 7% of its inhabitants.

6.2.   Comparison of the problems

When it comes to the problems in both cities, there are many similarities. Both cities have to cope with vacancy of dwellings, decay, relatively high unemployment and an ageing population. A more detailed overview of the problems in both cities is given in Table 7.

6.3.   Comparison of the measures

Both cities indicate that they are taking integrated measures meaning that the measures do not address only one aspect but multiple aspects such as improving the public space but also improving the participation of the residents by involving the residents in the redesign of the public space. Both cities focus their measures on living, employment, education and integration. Heerlen also focusses on safety, participation and care and well-being. An overview of the measures taken in Gelsenkirchen and Heerlen can be found in Table 7.

Table 7. Overview of the comparison of Heerlen and Gelsenkirchen

	Gelsenkirchen	Heerlen
Causes of shrinkage[15]	Closure of the mines End of the steel industry 1958 - 2000	Closure of the mines 1967 - 1974
Start of shrinkage	Circa 1960	Circa 1995
Number of inhabitants[16]	1959: 391,745 = 100% 2014: 257,651 = 65.8% 2015: 262,834 = 67.1%	1995: 96,214 = 100% 2015: 87,495 = 90.9%
Degree of shrinkage	1959 – 2014: -134,409 = 34.2% 1959 – 2015: -128,911 = 32.9%	1995 - 2015: -8,719 = 9.1%
Problems[17]	- Vacancy - Decay - High unemployment - Ageing population - Outdated housing stock - Commercial wasteland - Substitution of quality retail by one-euro-shops - Industrial facilities as barrier - Poor quality of schools	- Vacancy - Decay - High unemployment - Ageing population - Outdated housing stock - Mono-functional neighbourhoods - Low regional income - Departure of high-educated, young people
Goals[18]	- Quality improvement of housing stock - Adjust social, cultural and technical infrastructure to changing needs - Preserve neighbourhoods - Stabilisation of inner city's older neighbourhoods - Temporary use of areas - Stimulate local economy - Social integration	- Quality improvement of housing supply - Create a city that is able to respond to the changing needs of society in a flexible manner - Maintaining quality of amenity level - Being the centre municipality of Parkstad - New employment possibilities
Measures[19]	- IBA Emscher Park - Extending traffic network - Ecological revitalisation - Employment - Industrial monuments - Labour and qualification - Promoting use of state housing support - Improvement of urban landscape by use of housing and garden programme - Redevelopment of playgrounds - Improve educational quality - Integration - Stabilise and improve supply of amenities	- IBA Parkstad Limburg - Housing - Urban renewal - Economic structural transformations - Safety - Smart Services Hub - Redevelopment of housing stock - Thinning out of the housing stock by demolishing dwellings

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[15] Gelsenkirchen: Urban (2008); Heerlen: *Structuurvisie Heerlen 2035* (2015)

[16] Gelsenkirchen: "Bevölkerungsstand und -bewegung" (n.d.) Heerlen: "Inwoners Parkstad Limburg" (n.d.); *Kerncijfers Heerlen 2010-2011* (2011)

[17] Gelsenkirchen: Feldmann et al. (2007); Feldmann et al. (2015) Heerlen: *Herstructureringsvisie voor de woningvoorraad Parkstad Limburg* (2009); *Intergemeentelijke structuurvisie Parkstad Limburg, "ruimte voor park & stad"* (2009); *Structuurvisie Heerlen 2035* (2015)

[18] Gelsenkirchen: Feldmann et al. (2007); Heerlen: *Structuurvisie Heerlen 2035* (2015)

[19] Gelsenkirchen: Feldmann et al. (2007); Feldmann et al. (2015); Urban (2008); Heerlen: *Herstructurering in Heerlen, Passart* (2013); *Herstructureringsvisie voor de woningvoorraad Parkstad Limburg* (2009); *Masterplan Smart Services Hub* (2014); *Overzicht Projecten Centrum* (2012); *Structuurvisie Heerlen 2035* (2015); "Wat is IBA Parkstad?" (n.d.); *Wijkactieplan MSP* (2008)

6.4. Comparison of the effects

This paragraph compares the effects of the measures in Heerlen and Gelsenkirchen. This is done by comparing the outcomes of the Leefbaarometer and the Städteranking, the outcomes of the surveys and the indicators.

6.4.1. Comparison of the Leefbaarometer and the Städteranking

While Heerlen has a liveability score under the average liveability score of the Netherlands, there are cities with a lower liveability score. In the Städteranking, Gelsenkirchen is the worst performing city. It is however, not possible to say that Gelsenkirchen is performing worse than Heerlen. This is because the results of the Leefbaarometer and the Städteranking are not achieved by using the same method and indicators.

6.4.2. Comparison of the survey results

When comparing the effects achieved in Heerlen with the effects achieved in Gelsenkirchen, there are indications that the residents of Heerlen are more satisfied with their living environment than the residents in Gelsenkirchen. In Heerlen, respondents were more satisfied with the population composition in their neighbourhood. The respondents in Heerlen consider their city relatively safe, clean, modern and more pleasant than the respondents in Gelsenkirchen consider their city. In both cities, most respondents indicated they feel that extra attention is needed for their neighbourhood but in Heerlen respondents indicated that they experienced more improvement because of the measures than the respondents in Gelsenkirchen. Because of the low response rate in both cities but especially in Gelsenkirchen these outcomes are not statistically relevant but they are an indication of the opinion of residents of both cities.

An overview of the differences and similarities in the responses can be found in Table 8 and Table 9.

Table 8. differences in the outcomes of the survey in Gelsenkirchen and Heerlen

	Gelsenkirchen	*Heerlen*
Satisfied with population composition	Disagree	Agree
City is safe – dangerous	Majority dangerous	Majority neutral
Amenities missed in neighbourhood		More amenities missed
City clean – dirty	Majority dirty	Majority neutral
City pleasant-unpleasant	More unpleasant	Majority pleasant
City modern – old-fashioned	Old-fashioned	Modern
Move out of neighbourhood if possible	Yes	No
Improvement noticed because of extra attention	Majority no	Majority little improvement

Table 9. similarities in the outcomes of the survey in Gelsenkirchen and Heerlen

	Gelsenkirchen	Heerlen
Buildings are attractive	Neutral	Neutral
Lot of contact with neighbours	Agree	Agree
Sociable neighbourhood	Agree	Agree
Feel partly responsible for liveability	Agree	Agree
Well accessible	Positive	Positive
Lots of green	Agree	Agree
Feel at home	Agree	Agree
Annoying to live in neighbourhood	Disagree	Disagree
Extra attention needed for neighbourhood	Agree	Agree

6.4.3. Comparison of the indicators

The density of dwellings is higher in Gelsenkirchen. Also the vacancy rate in Gelsenkirchen is slightly higher. In Gelsenkirchen, the unemployment rate is higher as well but the average household income is also higher. The share of immigrants is lower in Gelsenkirchen than in Heerlen and Gelsenkirchen had a positive migration rate in 2014 while Heerlen had a negative migration rate in 2014. In Gelsenkirchen, the house price increased while in Heerlen the house price decreased. This can be seen in Table 10. It can also be seen that for the indicators vacancy rate of dwellings, unemployment rate and share of immigrants, Heerlen is representative for the region Parkstad Limburg.

Table 10. Comparison of the indicators of Gelsenkirchen, Heerlen and Parkstad Limburg of the year 2014

Indicator	Gelsenkirchen	Heerlen	Parkstad Limburg
Density dwellings [dwellings/km²]	1,315 [20]	1,009 [21]	580 [22]
Vacancy rate dwellings (2012)	6.3% [23]	4.3% [24]	3.9% [24]
Unemployment rate	17.4% [25]	9.9% [26]	9% [27]
Household income (2012)	€ 15.749 [28]	€ 28,200 [29]	
Share of immigrants	15.3% [30]	27.8% [26]	24.9% [31]
Share of non-western immigrants		9% [26]	5% [31]
Migration rate	+ 0.2% [32]	-0.6% [24]	
House prices (Gelsenkirchen, 60m² average per m², Heerlen WOZ, average)	€ 684,91 [33] (increase)	€ 123,000 [34] (decrease)	€ 149,100 [24]

[20] "Gebietsstand: Gebietsfläche in qkm - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte" (n.d.); "Wohngebäude- und Wohnungsbestand - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte" (n.d.)
[21] CBS (2014a)
[22] "Parkstad in Cijfers" (n.d.)
[23] "Privathaushalte - kreisfreie Städte und Kreise - Jahr" (n.d.); "Wohngebäude- und Wohnungsbestand - Stichtag 31.12. - regionale Tiefe: Kreise und krfr. Städte" (n.d.)
[24] van de Ven et al. (2015)
[25] "Arbeitslose nach ausgewählten Personengruppen sowie Arbeitslosenquoten" (n.d.)
[26] *Kerncijfers Heerlen 2013-2014* (2014)
[27] "Werkzoekenden (oude definitie t/m 2014)" (n.d.)
[28] *Verfügbares Einkommen der privaten Haushalte seit 2005 Tabellen* (n.d.)
[29] "Particulier besteedbaar huishoudinkomen" (n.d.)
[30] "Bevölkerungsstand: Bevölkerung nach Geschlecht, Nationalität und Altersgruppen (21) - Stichtag 31.12. - (ab 2011)" (n.d.)
[31] "Inwoners Parkstad Limburg" (n.d.)
[32] "Bevölkerungsstand und -bewegung" (n.d.)
[33] "Immobilienpreisspiegel Gelsenkirchen 2016" (2016)
[34] "Gemiddelde WOZ-waarde woningen Heerlen" (n.d.)

7.   Reasons for effects

While there is not much change noticeable in the liveability in both cities when it comes to either the Leefbaarometer (liveability indicator, the Netherlands) or the Städteranking (city ranking, Germany) there are some effects noticeable. In Heerlen, for instance, the score on the dimension physical environment improved slightly. This could be because of the projects for the public space that the municipality executed. In Gelsenkirchen, the number of crimes has decreased which is something that could be because of the social engagement the municipality of Gelsenkirchen tries to achieve.

In Heerlen, residents indicate that they notice some improvements in their neighbourhoods because of the extra attention of the municipality for the various neighbourhoods in Heerlen. The reason that the residents notice improvement, might be because of the way in which the municipality involves the residents in the process of the redevelopments. For instance, at the Laurierstraat where flats have been demolished, residents were involved in the design of the park and children of the primary school in the street were also involved by planting flowers for instance. In MSP, plans have been made to change many things. A large share of these plans, such as the development of a new neighbourhood shopping centre, have not been implemented while other measure, such as the demolishment of the apartment buildings that were in the location of the new shopping centre, have been executed. Because part of the plan has been realised but the new development is not realised, this creates an "undefined" space in this neighbourhood. Furthermore, residents in this neighbourhood, especially the youth does not always feel heard by the municipality.

When it comes to the fact that many respondents in Heerlen indicate they do notice slight improvement but not clear improvement might be because residents are hesitant to get too enthusiastic about the improvements because they do not know for how long it will be better. Another reason might be that it takes time for residents to notice improvement.

In Gelsenkirchen, on the other hand, it is possible that people do not notice any improvement because of the many projects that are executed and the amount of time that the projects take. This makes that there is always something being built or changing which causes nuisance for the residents. Another reason might be that there is much unemployment and poverty in the city and it is likely that people that have financial problems, have a more pessimistic view on their life and their surroundings.

8. Possibility to apply measures in the other city

When it comes to the possibility to apply measures of one city in the other, it was expected that measures from Gelsenkirchen could be applied in Heerlen because of the more extended period of time that Gelsenkirchen has acknowledged its shrinkage. From this research, however, it seems that Heerlen has achieved more improvement than Gelsenkirchen has. While it might be that there is more improvement noticed in Heerlen because the residents are highly involved in the process of the redevelopments, Gelsenkirchen involves its residents in this process as well.

It might be, that the municipality of Heerlen has executed projects that are more rigorous than the projects of the municipality of Gelsenkirchen. In Heerlen, for instance, there have been more building blocks demolished than in Gelsenkirchen. The only neighbourhood in Gelsenkirchen where there has been demolishment of a high number of apartments was in Tossehof. In this neighbourhood no complete buildings were demolished but the amount of floors of the apartment buildings has been reduced which has a completely different effect on the perception of people. For the municipality of Gelsenkirchen, it could be that more improvement could be achieved when more rigorous demolishment of dwellings would be executed. The space that becomes available could be redesigned with the residents in order to create a connection to their neighbourhood.

9.   Conclusion

In order to cope with shrinkage, Municipalities take measures on various areas. Most measures concern hardware and software elements of a city.

In Heerlen, measures include redesign of the public space, demolishment of dwellings and improving the safety in the city. Other measures are the realisation of the Smart Services Hub which facilitates businesses and organising activities to involve residents in the neighbourhood.

In Gelsenkirchen, the housing stock has been redeveloped and the public space is redesigned. There are also state programmes which can be used for improvement of real estate. The use of these programmes is stimulated by the municipality. The municipality also established neighbourhood centres in each neighbourhood.

It is difficult to determine the effect of the individual measures in both cities. In general, there is no change in the liveability. In Heerlen there has been some improvement in the Leefbaarometer (liveability indicator) on the dimension physical environment. This could be the result of the measures taken in the public space such as the redesign of squares and streets and the demolishment of dwellings. In Gelsenkirchen, the number of crimes decreased which could be caused by engaging residents in the redesign of the public space which makes residents more attached to their neighbourhood. The reason there is no improvement in the liveability in general in Gelsenkirchen could be because the execution of the projects causes much nuisance which does not weigh up to the positive effects of the measures.

It is also possible that the liveability in both cities did not change because the focus of the measures is not on aspects that are of much importance of the inhabitants.

Furthermore, since it is expected that when doing nothing, the liveability situation decreases, it is likely that there have been measures that have a positive effect on the liveability. It is also possible that besides measures with a positive effect, there have also been measures with a negative effect.

However, it remains, with this research, not possible to determine what the effect of the individual measures. This is caused by the difficulty to assess the change in liveability in both cities and because in both cities many of the measures are implemented simultaneously.

The measures that are taken in both cities are, to a large extent, similar. One of the most similar projects is the IBA Parkstad Limburg. During an IBA, the region gains extra attention because of the projects that are executed. When IBA ends, it is possible that the municipalities lose momentum because there is no more central organisation to motivate projects. The region shoud maintain attention of the public by, for example, organising activities. Furthermore, the cooperation between municipalities in a region remains important. When IBA Emscher park ended, municipalities made their own plans without considering the region. When this happens, the municipalities in the region are back to square one because shrinkage affects the region rather than one city. In Parkstad Limburg less likely to happen because municipalities already cooperated before the IBA but it is an important element which needs attention.

In Germany, there is more attention for shrinkage from higher authorities such as the national government. In the Netherlands, the national government could give more attention to shrinkage. In the Netherlands, there used to be the possibility to establish a WGR-plus region with several municipalities. The WGR-plus region had several legal obligations. Since 1 January 2015, the WGR-plus region does not exist anymore which makes it more difficult to establish a cooperation between municipalities in which municipalities have certain obligations towards each other.

10. Recommendations for further research

In this research, two shrinking cities were studied. In order to get more insight in the problems in shrinking cities and the measures that can be taken, other cities could be studied as well. In England there has been an extensive policy concerning shrinkage under the labour government. One component of this policy was the Housing Market Renewal Pathfinder for which extra funding was available. It could be studied what the effects are when there is extra funding available. Also, cities in the United States of America are experiencing shrinkage or have experienced shrinkage in the past. One example is Detroit. In Detroit it became visible what the effects of shrinkage are when hardly any interventions take place. One of the interventions that takes place in Detroit is the maintaining of several corridors and leaving the rest of the city for what it is. In Parkstad Limburg it might be that when the shrinkage persists and the nature in the region is restored because of the demolishment of dwelling, this brings a special quality to the region which might attract a group of people that would like to live in a rural area.

Besides studying other cities, it is also possible to study the various IBA's in Germany more into detail. Also, the IBA's could be evaluated more thorough. Special focus should be on the IBA's in shrinking areas such as the IBA Emscher Park and IBA Sachsen-Anhalt. Also, it might be that by performing more in-depth interviews it is possible to gain more insight in the reasons for people to be under the impression that no results have been achieved by the implemented measures.

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Appendix A – Survey Heerlen

This survey was made for residents of Heerlen. The questions were in Dutch but are translated for this report.

For my graduation research at the faculty of Architecture of the Technical University in Delft, I examine the opinion of residents about their city and their neighbourhood. This research focuses on cities that are experiencing population decline. The survey will take approximately 10 minutes to complete. Your answers will be processed anonymously. If you have any questions, please let me know.

1. **What is your gender?**
   ☐ Man
   ☐ Woman

2. **What is your age?**
   ☐ < 18
   ☐ 18 – 30
   ☐ 31 – 45
   ☐ 46 – 64
   ☐ > 65

3. **Which of the following situations applies to you?**
   ☐ single person household
   ☐ single parent household with children at home
   ☐ couple with children at home
   ☐ household with children which moved out
   ☐ two- or more person household without children

4. **Which of the following categories best describes your employment status?**
   ☐ Employed 1 till 19 hours per week
   ☐ Employed, 19 or more hours per week
   ☐ Entrepreneur
   ☐ Unemployed, looking for a job
   ☐ Unemployed, not looking for a job
   ☐ Retired
   ☐ Disabled/unfit for work
   ☐ Student/Scholar
   ☐ Other, namely: _____

The image below shows the neighbourhoods in Heerlen.
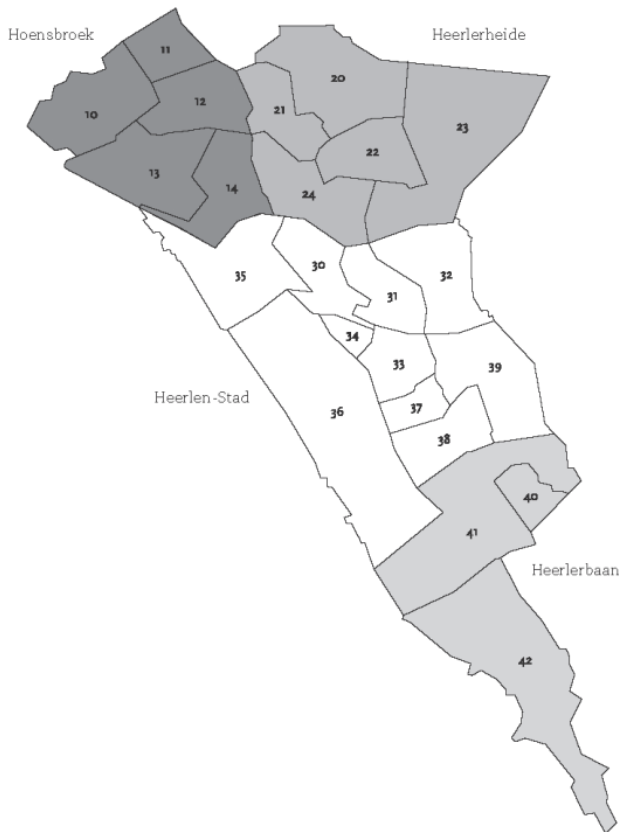
1. Stadsdeel Hoensbroek
   - 10. Maria Gewanden-Terschuren
   - 11. Mariarade
   - 12. Hoensbroek-De Dem
   - 13. Nieuw Lotbroek
   - 14. De Koumen

2. Stadsdeel Heerlerheide
   - 20. Vrieheide-de Stack
   - 21. Heerlerheide-Passart
   - 22. Heksenberg
   - 23. De Hei
   - 24. Rennemig-Beersdal

3. Stadsdeel Heerlen-Stad
   - 30. Zeswegen-Nieuw Husken
   - 31. Schandelen-Grasbroek
   - 32. Meezenbroek-Schaesbergerveld
   - 33. Heerlen-Centrum
   - 34. Eikenderveld
   - 35. Woonboulevard-Ten Esschen
   - 36. Welten-Benzenrade
   - 37. Bekkerveld-Aarveld
   - 38. Caumerveld-Douve Weien
   - 39. Molenberg

4. Stadsdeel Heerlerbaan
   - 40. Heerlerbaan-Centrum
   - 41. Heerlerbaan-Schil
   - 42. De Beitel

5. What is your place of residence?
☐ Heerlen (continue with question 6)
☐ Other, namely: [   ] (continue with question 15)

6. Why do you live in Heerlen?

7. In which neighbourhood do you live?

8. How long do you live in your current neighbourhood?
☐ < 1 year
☐ 1 year
☐ 2 years
☐ 3 years
☐ 4 years
☐ 5 – 10 years
☐ 11 – 20 years
☐ > 20 years

The following questions concern your neighbourhood

9. **Pleas indicate to which extent you agree with the following statements.**

	Totally agree	agree	neutral	disagree	Totally disagree
The buildings in this neighbourhood are attractive	☐	☐	☐	☐	☐
It is annoying to live in this neighbourhood	☐	☐	☐	☐	☐
If possible, I will move out of this neighbourhood	☐	☐	☐	☐	☐
I feel attached to this neighbourhood	☐	☐	☐	☐	☐
I feel at home in this neighbourhood	☐	☐	☐	☐	☐
I have a lot of contact with my direct neighbours	☐	☐	☐	☐	☐
I feel a partly responsible for the liveability in the neighbourhood	☐	☐	☐	☐	☐
I am satisfied with the composition of the population in this neighbourhood	☐	☐	☐	☐	☐
I live in a nice neighbourhood with a lot of solidarity	☐	☐	☐	☐	☐

10. **Please mark the amenities that are available in your neighbourhood.**
    ☐Supermarkets
    ☐Specialist shops such as a bakery, greengrocer or butcher
    ☐Other shops
    ☐ATM
    ☐Hospitality
    ☐Playground
    ☐Public transport
    ☐Coffeeshops
    ☐Vacant shops
    ☐Multicultural amenities such as tea houses or ethnic stores
    ☐Phone- and internet shops
    ☐Schools
    ☐Other, namely: _____
    ☐None of the above

11. Please mark the amenities which you are missing in your neighbourhood.
- ☐ Supermarkets
- ☐ Specialist shops such as a bakery, greengrocer or butcher
- ☐ Other shops
- ☐ ATM
- ☐ Hospitality
- ☐ Playground
- ☐ Public transport
- ☐ Coffeeshops
- ☐ Multicultural amenities such as tea houses or ethnic stores
- ☐ Phone- and internet shops
- ☐ Schools
- ☐ Other, namely: [   ]
- ☐ None of the above

12. To what extent are you satisfied with your current living environment?
- ☐ Very satisfied
- ☐ Satisfied
- ☐ Not satisfied, not dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

13. Please indicate which of the following situations applies to you.
- ☐ I am not planning to move to another city within 5 years (continue with question 15)
- ☐ I am planning to move to another city within 5 years (continue with question14)
- ☐ I am not planning to move within Heerlen in the next 5 years (continue with question 15)
- ☐ I am planning to move within Heerlen in the next 5 years (continue with question 14)

14. Which of the following aspects have influenced your decision to move within 5 years?
- ☐ Employment possibilities
- ☐ Lack of amenities (such as shops and hospitality)
- ☐ Quality of the dwelling
- ☐ Quality of the public space (for example parks and playgrounds)
- ☐ Educational possibilities
- ☐ Drugs nuisance
- ☐ Nuisance by youth
- ☐ High crime rate
- ☐ Solidarity in the neighbourhood
- ☐ Other, namely: [   ]
- ☐ Don't know/none of the above

The following questions concern the city of Heerlen. Please indicate in the following tables which applies best.

15. Heerlen is …

Boring	☐	☐	☐	☐	☐	Exciting
Pleasant	☐	☐	☐	☐	☐	**unpleasant**
Modern	☐	☐	☐	☐	☐	**Old-fashioned**
Expensive	☐	☐	☐	☐	☐	**Cheap**
Safe	☐	☐	☐	☐	☐	**Dangerous**
Clean	☐	☐	☐	☐	☐	**Dirty**

16. In Heerlen I feel …

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Lonely	☐	☐	☐	☐	☐
Happy	☐	☐	☐	☐	☐

17. Heerlen is/has …

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Good accessible	☐	☐	☐	☐	☐
Veel openbaar groen (bijvoorbeeld parken)	☐	☐	☐	☐	☐

The following questions are about projects that have been executed in the neighbourhood Passart in Heerlen.
At the Laurierstraat three flats have been demolished in 2013. The space that became available has been made into a park.

18. What was the effect of the demolishment of these flats on the neighbourhood?

Positive	☐	☐	☐	☐	☐	Negative

19. What is your opinion about the park that is realised at this location?

The municipality wanted to demolish six vacant buildings at the Plataanplein but residents of Passart stopped the demolishment of these buildings. The buildings now have a -temporary- social function

20. What is your opinion on the situation described above?

21. Do you use the functions at the Plataanplein?
☐Yes
☐No

The municipality of Heerlen redeveloped the city centre and is still redeveloping the city centre. Various buildings have been renovated, new benches have been placed and the city centre is made more green.

22. **What is the first thing that comes to mind when thinking about the developments city centre?**

23. **What is your opinion on the developments in the city centre?**

The municipality of Heerlen is making the nature in the municipality more visible and accessible. New parks have been constructed which are connected with the existing green structures and brooks such as the Geleenbeek and the Caumerbeek are made visible again.

24. **Did these developments make you go into the nature more often?**
☐ Yes
☐ No
☐ Don't know

25. **To what extent do these developments influence your living environment?**
☐ Not at all
☐ Slightly
☐ Very much
☐ Don't know, no opinion

The past years there has been more attention for the improvement of various neighbourhoods in Heerlen.

26. **What is your opinion about the fact that there is more attention for the improvement of your neighbourhood?**
☐ Not necessary at all
☐ Not necessary
☐ I do not mind
☐ Necessary
☐ Very necessary
☐ Don't know / no opinion

27. **Do you notice that this extra attention leads to improvements in your neighbourhood?**
☐ Yes, clearly
☐ Yes, slightly
☐ No

Thank you for filling out this survey. You helped me a lot with my research. If you have questions, please do not hesitate to contact me via: i.m.dieleman@student.tudelft.nl

Appendix B – Survey results Heerlen

Table 11. Age of respondents in Heerlen.

Age	Frequency	Percent
<18	1	5.0
18-30	5	25.0
31-45	4	20.0
46-64	8	40.0
>65	2	10.0
Total	20	100.0

Table 12. Households of the respondents in Heerlen.

Type of Household	Frequency	Percent
One-person household	5	25.0
One parent household with children at home	2	10.0
Couples with children at home	4	20.0
Household with children out of the house	1	5.0
Two- or more person household	8	40.0
Total	20	100.0

Table 13. Employment situation of the respondents in Heerlen

Employment situation	Frequency	Percent
loondienst <19 u/wk	1	5.0
loondienst >19 u/wk	7	35.0
zelfstandig ondernemer	2	10.0
Niet in loondienst. op zoek	2	10.0
Niet in loondienst. niet op zoek	2	10.0
gepensioneerd	1	5.0
Arbeidsongeschikt/ niet in staat te werken	3	15.0
studerend/schoolgaand	1	5.0
anders	1	5.0
Total	20	100.0

Table 14. attractiveness buildings

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	8.3	8.3
	eens	4	33.3	**41.7**
	neutraal	6	**50.0**	91.7
	oneens	1	8.3	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 15. Annoying to live in neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	neutraal	4	36.4	36.4
	oneens	4	36.4	72.7
	zeer oneens	3	27.3	100.0
	Total	11	100.0	
Missing	System	9		
Total		20		

Table 16. If possible, move out of neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	9.1	9.1
	eens	1	9.1	18.2
	neutraal	2	18.2	36.4
	oneens	4	36.4	72.7
	zeer oneens	3	27.3	100.0
	Total	11	100.0	
Missing	System	9		
Total		20		

Table 17. Feel attached to neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	eens	6	54.5	54.5
	neutraal	4	36.4	90.9
	oneens	1	9.1	100.0
	Total	11	100.0	
Missing	System	9		
Total		20		

Table 18. Feel at home in neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	8.3	8.3
	eens	7	58.3	66.7
	neutraal	4	33.3	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 19. Lot of contact with neighbours

		Frequency	Valid Percent	Cumulative Percent
Valid	eens	6	50.0	50.0
	neutraal	4	33.3	83.3
	oneens	2	16.7	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 20. Feel responsible for liveability in neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	9.1	9.1
	eens	5	45.5	54.5
	neutraal	3	27.3	81.8
	oneens	1	9.1	90.9
	zeer oneens	1	9.1	100.0
	Total	11	100.0	
Missing	System	9		
Total		20		

Table 21. Satisfied with population composition

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	8.3	8.3
	eens	6	50.0	58.3
	neutraal	4	33.3	91.7
	oneens	1	8.3	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 22. Sociable neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	eens	6	50.0	50.0
	neutraal	5	41.7	91.7
	oneens	1	8.3	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 23. Amenities present

		Responses		Percent of Cases
		N	Percent	
aanwezige voorzieningen[a]	A_coffeeshop	3	4.0%	25.0%
	A_lege_winkel	5	6.7%	41.7%
	A_multiculti	4	5.3%	33.3%
	A_bel_internet	2	2.7%	16.7%
	A_school	8	10.7%	66.7%
	A_anders	1	1.3%	8.3%
	A_geen	1	1.3%	8.3%
	A_supermarkt	8	10.7%	66.7%
	A_speciaalzaak	7	9.3%	58.3%
	A_winkels	5	6.7%	41.7%
	A_pinautomaat	8	10.7%	66.7%
	A_horeca	6	8.0%	50.0%
	A_speeltuin	7	9.3%	58.3%
	A_OV	10	13.3%	83.3%
Total		75	100.0%	625.0%

a. Dichotomy group tabulated at value 1.
De andere voorziening die genoemd worden is een sportschool

Table 24. Missed amenities

		Responses		Percent of Cases
		N	Percent	
missen_voorzieningen[a]	M_supermarkt	3	14.3%	25.0%
	M_speciaalzaak	3	14.3%	25.0%
	M_winkels	3	14.3%	25.0%
	M_horeca	1	4.8%	8.3%
	M_coffeeshop	1	4.8%	8.3%
	M_multiculti	1	4.8%	8.3%
	M_bel_internet	2	9.5%	16.7%
	M_anders	2	9.5%	16.7%
	M_geen	5	23.8%	41.7%
Total		21	100.0%	175.0%

a. Dichotomy group tabulated at value 1.
Andere voorzieningen die genoemd worden door respondenten bij de vraag welke voorzieningen gemist worden in de buurt zijn postkantoor, brievenbus, politiebureau en musea.

Table 25. Satisfied with living environment

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer tevreden	2	16.7	16.7
	tevreden	6	50.0	66.7
	neutraal	3	25.0	91.7
	ontevreden	1	8.3	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 26. opinion of respondents on Heerlen, boring or exciting

		Frequency	Valid Percent	Cumulative Percent
Valid	saai	2	15.4	15.4
	meer saai dan spannend	3	23.1	**38.5**
	neutraal	5	**38.5**	76.9
	meer spannend dan saai	3	23.1	100.0
	Total	13	100.0	
Missing	System	7		
Total		20		

Table 27. Opinion of respondents in Heerlen, pleasant - unpleasant

		Frequency	Valid Percent	Cumulative Percent
Valid	aangenaam	2	14.3	14.3
	meer aangenaam dan onaangenaam	5	35.7	**50.0**
	neutraal	5	**35.7**	85.7
	onaangenaam	2	14.3	100.0
	Total	14	100.0	
Missing	System	6		
Total		20		

Table 28. Opinion of residents on Heerlen, modern - old-fashioned

		Frequency	Valid Percent	Cumulative Percent
Valid	modern	2	15.4	15.4
	meer modern dan ouderwets	5	38.5	**53.8**
	neutraal	6	**46.2**	100.0
	Total	13	100.0	
Missing	System	7		
Total		20		

Table 29. Opinion of residents about Heerlen, cheap - expensive

		Frequency	Valid Percent	Cumulative Percent
Valid	neutraal	8	**66.7**	66.7
	meer goedkoop dan duur	3	25.0	91.7
	goedkoop	1	8.3	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 30. opinion of residents of Heerlen, safe - dangerous

		Frequency	Valid Percent	Cumulative Percent
Valid	meer veilig dan gevaarlijk	2	16.7	16.7
	neutraal	7	**58.3**	75.0
	meer gevaarlijk dan veilig	2	16.7	91.7
	gevaarlijk	1	8.3	100.0
	Total	12	100.0	
Missing	System	8		
Total		20		

Table 31. Opinion of respondents of Heerlen, clean - dirty

		Frequency	Valid Percent	Cumulative Percent
Valid	schoon	2	15.4	15.4
	meer schoon dan vuil	2	15.4	**30.8**
	neutraal	8	**61.5**	92.3
	vuil	1	7.7	100.0
	Total	13	100.0	
Missing	System	7		
Total		20		

Table 32. Feelings of respondents, loneliness

		Frequency	Valid Percent	Cumulative Percent
Valid	neutraal	9	**69.2**	69.2
	oneens	3	23.1	92.3
	zeer oneens	1	7.7	100.0
	Total	13	100.0	
Missing	System	7		
Total		20		

Table 33. Feelings of respondents Heerlen, happiness.

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	7.7	7.7
	eens	4	30.8	**38.5**
	neutraal	5	**38.5**	76.9
	oneens	3	23.1	100.0
	Total	13	100.0	
Missing	System	7		
Total		20		

Table 34. Opinion of respondents on accessibility.

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	5	33.3	33.3
	eens	6	40.0	**73.3**
	neutraal	4	**26.7**	100.0
	Total	15	100.0	
Missing	System	5		
Total		20		

The majority of the respondents feel that Heerlen is easily accessible. Slightly more than 25% of the respondents are neutral to the statement "Heerlen is easily accessible".

Table 35. Opinion of respondents, green

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	6	42.9	42.9
	eens	3	21.4	**64.3**
	neutraal	3	**21.4**	85.7
	oneens	2	14.3	100.0
	Total	14	100.0	
Missing	System	6		
Total		20		

Table 36. Opinion of respondents on need for attention for their neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	niet nodig	2	13.3	13.3
	neutraal	3	20.0	33.3
	nodig	5	33.3	66.7
	heel erg nodig	4	26.7	93.3
	weet niet/geen mening	1	6.7	100.0
	Total	15	100.0	
Missing	System	5		
Total		20		

Table 37. Noticeability of improvement in the neighbourhood of the respondents

		Frequency	Valid Percent	Cumulative Percent
Valid	ja. duidelijk	2	13.3	13.3
	ja. een beetje	8	**53.3**	66.7
	nee	5	**33.3**	100.0
	Total	15	100.0	
Missing	System	5		
Total		20		

Appendix C – Survey Gelsenkirchen

This survey was made for residents of Gelsenkirchen. The questions were in German but are translated for this report.

For my graduation research at the faculty of Architecture of the Technical University in Delft, I examine the opinion of residents about their city and their neighbourhood. This research focuses on cities that are experiencing population decline. The survey will take approximately 10 minutes to complete. Your answers will be processed anonymously. If you have any questions, please let me know.

1. **What is your gender?**
   ☐ Man
   ☐ Woman

2. **What is your age?**
   ☐ < 18
   ☐ 18 – 30
   ☐ 31 – 45
   ☐ 46 – 64
   ☐ > 65

3. **Which of the following situations applies to you?**
   ☐ single person household
   ☐ single parent household with children at home
   ☐ couple with children at home
   ☐ household with children which moved out
   ☐ two- or more person household without children

4. **Which of the following categories best describes your employment status?**
   ☐ Employed 1 till 19 hours per week
   ☐ Employed, 19 or more hours per week
   ☐ Entrepreneur
   ☐ Unemployed, looking for a job
   ☐ Unemployed, not looking for a job
   ☐ Retired
   ☐ Disabled/unfit for work
   ☐ Student/Scholar
   ☐ Other, namely: _____

5. What is your place of residence?

☐ Gelsenkirchen (continue with question 6)

☐ Other, namely: [   ] (continue with question 15)

6. Why do you live in Gelsenkirchen?

[   ]

7. In which neighbourhood do you live?

[   ]

8. How long do you live in your current neighbourhood?

☐ < 1 year
☐ 1 year
☐ 2 years
☐ 3 years
☐ 4 years
☐ 5 – 10 years
☐ 11 – 20 years
☐ > 20 years

The following questions concern your neighbourhood

9. Pleas indicate to which extent you agree with the following statements.

	Totally agree	agree	neutral	disagree	Totally disagree
The buildings in this neighbourhood are attractive	☐	☐	☐	☐	☐
It is annoying to live in this neighbourhood	☐	☐	☐	☐	☐
If possible, I will move out of this neighbourhood	☐	☐	☐	☐	☐
I feel at home in this neighbourhood	☐	☐	☐	☐	☐
I have a lot of contact with my direct neighbours	☐	☐	☐	☐	☐
I feel a partly responsible for the liveability in the neighbourhood	☐	☐	☐	☐	☐
I am satisfied with the composition of the population in this neighbourhood	☐	☐	☐	☐	☐
I live in a nice neighbourhood with a lot of solidarity	☐	☐	☐	☐	☐

10. Please mark the amenities that are available in your neighbourhood.

☐Supermarkets
☐Specialist shops such as a bakery, greengrocer or butcher
☐Other shops
☐ATM
☐Hospitality
☐Playground
☐Public transport
☐Vacant shops
☐Multicultural amenities such as tea houses or ethnic stores
☐Phone- and internet shops
☐Schools
☐Other, namely: [   ]
☐None of the above

11. Please mark the amenities which you are missing in your neighbourhood.

☐Supermarkets
☐Specialist shops such as a bakery, greengrocer or butcher
☐Other shops
☐ATM
☐Hospitality
☐Playground
☐Public transport
☐ Multicultural amenities such as tea houses or ethnic stores
☐Phone- and internetshops
☐Schools
☐Other, namely: [   ]
☐None of the above

12. To what extent are you satisfied with your current living environment?

☐Very satisfied
☐Satisfied
☐Not satisfied, not dissatisfied
☐Dissatisfied
☐Very dissatisfied

13. Please indicate which of the following situations applies to you.

☐ I am not planning to move to another city within 5 years (continue with question 15)
☐ I am planning to move to another city within 5 years (continue with question 14)
☐ I am not planning to move within Heerlen in the next 5 years (continue with question 15)
☐ I am planning to move within Heerlen in the next 5 years (continue with question 14)

14. Which of the following aspects have influenced your decision to move within 5 years?
☐ Employment possibilities
☐ Lack of amenities (such as shops and hospitality)
☐ Quality of the dwelling
☐ Quality of the public space (for example parks and playgrounds)
☐ Educational possibilities
☐ Drugs nuisance
☐ Nuisance by youth
☐ High crime rate
☐ Solidarity in the neighbourhood
☐ Other, namely:
☐ Don't know/none of the above

The following questions concern the city of Heerlen. Please indicate in the following tables which applies best.

15. Gelsenkirchen is …

Boring	☐	☐	☐	☐	☐	Exciting
Pleasant	☐	☐	☐	☐	☐	**unpleasant**
Modern	☐	☐	☐	☐	☐	**Old-fashioned**
Expensive	☐	☐	☐	☐	☐	**Cheap**
Safe	☐	☐	☐	☐	☐	**Dangerous**
Clean	☐	☐	☐	☐	☐	**Dirty**

16. In Gelsenkirchen I feel …

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Lonely	☐	☐	☐	☐	☐
Happy	☐	☐	☐	☐	☐

17. Gelsenkirchen is/has …

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Good accessible	☐	☐	☐	☐	☐
Veel openbaar groen (bijvoorbeeld parken)	☐	☐	☐	☐	☐

The following questions are about the redevelopment of the neighbourhood Tossehof.

> The measures have been the following:
> Demolishment of 60% of the dwellings in the Kopernikusstraβe
> Modernising of the other dwellings
> Redesign of the public space
> Establishing a neighbourhood centre
> And many more measures

18. What was the effect of the measures described above on the neighbourhood Tossehof?

Positive	☐	☐	☐	☐	☐	Negative

19. What is your opinion about the redevelopment of the neighbourhood Tossehof?

The municipality of Gelsenkirchen has executed many measures in the city centre. For example, the redesign of the squares and streets in the centre like the Heinrick-König-Platz and the Ebertstraβe

20. What is the first thing that comes to mind when thinking about the developments city centre?

21. What is your opinion on the developments in the city centre?

In Gelsenkirchen, there are many parks (for instance the Nordsternpark, Consolpark, Wissenschaftspark).

22. Which park do you visit most often?

23. Why do you visit this park most?

24. What is your opinion of this park?

Over the past years, there has been more attention for the improvement of various neighbourhoods in Gelsenkirchen.

25. **What is your opinion about the fact that there is more attention for the improvement of your neighbourhood?**
    ☐ Not necessary at all
    ☐ Not necessary
    ☐ I do not mind
    ☐ Necessary
    ☐ Very necessary
    ☐ Don't know / no opinion

26. **Do you notice that this extra attention leads to improvements in your neighbourhood?**
    ☐ Yes, clearly
    ☐ Yes, slightly
    ☐ No

Thank you for filling out this survey. You helped me a lot with my research. If you have questions, please do not hesitate to contact me via: i.m.dieleman@student.tudelft.nl

Appendix D – Survey results Gelsenkirchen

Table 38. Age of respondents in Gelsenkirchen

Age		Frequency	Percent
Valid	31-45	2	33.3
	46-64	4	66.7
	Total	6	100.0

Table 39. Households of the respondents in Gelsenkirchen

Type of household		Frequency	Percent
Valid	One-person household	3	50.0
	One parent household with children at home	1	16.7
	Couples with children at home	1	16.7
	Household with children out of the house	1	16.7
	Total	6	100.0

Table 40. Employment situation of the respondents in Gelsenkirchen

Employment situation		Frequency	Percent
Valid	loondienst <19 u/wk	2	33.3
	loondienst >19 u/wk	2	33.3
	zelfstandig ondernemer	1	16.7
	gepensioneerd	1	16.7
	Total	6	100.0

Table 41. Attractiveness buildings

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	16.7	16.7
	eens	2	33.3	50.0
	neutraal	3	50.0	100.0
	Total	6	100.0	

Table 42. Annoying to live in neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	eens	1	16.7	16.7
	neutraal	1	16.7	33.3
	oneens	3	50.0	83.3
	zeer oneens	1	16.7	100.0
	Total	6	100.0	

Table 43. If possible, move out of neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	3	50.0	50.0
	eens	1	16.7	66.7
	oneens	1	16.7	83.3
	zeer oneens	1	16.7	100.0
	Total	6	100.0	

Table 44. Feel at home in neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	Missing	1	16.7	16.7
	zeer eens	3	50.0	66.7
	eens	2	33.3	100.0
	Total	6	100.0	

Table 45. Lots of contact with direct neighbours

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	2	33.3	33.3
	eens	1	16.7	50.0
	neutraal	2	33.3	83.3
	oneens	1	16.7	100.0
	Total	6	100.0	

Table 46. Feel responsible for liveability in neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	2	33.3	33.3
	eens	2	33.3	66.7
	neutraal	1	16.7	83.3
	oneens	1	16.7	100.0
	Total	6	100.0	

Table 47. Satisfied with population composition

		Frequency	Valid Percent	Cumulative Percent
Valid	eens	2	33.3	33.3
	neutraal	1	16.7	50.0
	oneens	3	50.0	100.0
	Total	6	100.0	

Table 48. Sociable neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	16.7	16.7
	eens	3	50.0	66.7
	neutraal	1	16.7	83.3
	zeer oneens	1	16.7	100.0
	Total	6	100.0	

Table 49. Amenities present

		Responses		Percent of Cases
		N	Percent	
A_Voorzieningen[a]	A_supermarkt	6	13.3%	100.0%
	A_speciaalzaak	5	11.1%	83.3%
	A_winkels	2	4.4%	33.3%
	A_pinautomaat	5	11.1%	83.3%
	A_horeca	4	8.9%	66.7%
	A_speeltuin	4	8.9%	66.7%
	A_OV	6	13.3%	100.0%
	A_lege_winkel	2	4.4%	33.3%
	A_multiculti	3	6.7%	50.0%
	A_bel_internet	2	4.4%	33.3%
	A_school	5	11.1%	83.3%
	A_anders	1	2.2%	16.7%
Total		45	100.0%	750.0%

Table 50. Amenities missed

		Responses		Percent of Cases
		N	Percent	
M_Voorzieningen[a]	M_multiculti	1	16.7%	16.7%
	M_geen	5	83.3%	83.3%
Total		6	100.0%	100.0%

a. Dichotomy group tabulated at value 1.

Table 51. Satisfied with living environment

		Frequency	Valid Percent	Cumulative Percent
Valid	tevreden	4	66.7	66.7
	neutraal	2	33.3	100.0
	Total	6	100.0	

Table 52. Opinion of residents Gelsenkirchen, boring - exciting

		Frequency	Valid Percent	Cumulative Percent
Valid	saai	3	50.0	50.0
	meer saai dan spannend	1	16.7	66.7
	neutraal	1	16.7	83.3
	meer spannend dan saai	1	16.7	100.0
	Total	6	100.0	

Table 53. Opinion of residents Gelsenkirchen, pleasant - unpleasant

		Frequency	Valid Percent	Cumulative Percent
Valid	meer aangenaam dan onaangenaam	1	25.0	25.0
	meer onaangenaam dan aangenaam	3	75.0	100.0
	Total	4	100.0	
Missing	System	2		
Total		6		

Table 54. Opinion of residents Gelsenkirchen, modern - old-fashioned

		Frequency	Valid Percent	Cumulative Percent
Valid	meer modern dan ouderwets	1	20.0	20.0
	meer ouderwets dan modern	2	40.0	60.0
	ouderwets	2	40.0	100.0
	Total	5	100.0	
Missing	System	1		
Total		6		

Table 55. Opinion of residents Gelsenkirchen, cheap - expensive

		Frequency	Valid Percent	Cumulative Percent
Valid	duur	1	20.0	20.0
	neutraal	2	40.0	60.0
	goedkoop	2	40.0	100.0
	Total	5	100.0	
Missing	System	1		
Total		6		

Table 56. Opinion residents Gelsenkirchen, safe - dangerous

		Frequency	Valid Percent	Cumulative Percent
Valid	neutraal	2	40.0	40.0
	meer gevaarlijk dan veilig	2	40.0	80.0
	gevaarlijk	1	20.0	100.0
	Total	5	100.0	
Missing	System	1		
Total		6		

Table 57. Opinion residents Gelsenkirchen, clean - dirty

		Frequency	Valid Percent	Cumulative Percent
Valid	schoon	1	20.0	20.0
	neutraal	1	20.0	40.0
	meer vuil dan schoon	2	40.0	80.0
	vuil	1	20.0	100.0
	Total	5	100.0	
Missing	System	1		
Total		6		

Table 58. Feelings of respondents, loneliness

		Frequency	Valid Percent	Cumulative Percent
Valid	neutraal	1	33.3	33.3
	zeer oneens	2	66.7	100.0
	Total	3	100.0	
Missing	System	3		
Total		6		

Table 59. Feelings of respondents, happiness

		Frequency	Valid Percent	Cumulative Percent
Valid	eens	2	33.3	33.3
	neutraal	4	66.7	100.0
	Total	6	100.0	

Table 60. Opinion of respondents, accessibility

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	16.7	16.7
	eens	4	66.7	83.3
	neutraal	1	16.7	100.0
	Total	6	100.0	

Table 61. Opinion of respondents, green

		Frequency	Valid Percent	Cumulative Percent
Valid	zeer eens	1	16.7	16.7
	eens	3	50.0	66.7
	neutraal	1	16.7	83.3
	zeer oneens	1	16.7	100.0
	Total	6	100.0	

Table 62. Opinion of respondents on need for attention for their neighbourhood

		Frequency	Valid Percent	Cumulative Percent
Valid	helemaal niet nodig	1	16.7	16.7
	nodig	2	33.3	50.0
	heel erg nodig	1	16.7	66.7
	weet niet/geen mening	2	33.3	100.0
	Total	6	100.0	

Table 63. Noticeability of improvement in the neighbourhood of the respondents

		Frequency	Valid Percent	Cumulative Percent
Valid	ja. duidelijk	1	16.7	16.7
	ja. een beetje	1	16.7	33.3
	nee	4	66.7	100.0
	Total	6	100.0	

Appendix E – Interview with Mr Meertens

20 Oktober 2015

Dhr. Meertens heeft van 2003 tot maart 2014 als stedenbouwkundig ingenieur gewerkt voor de gemeente Heerlen. Vanaf maart 2014 werkt hij bij IBA Parkstad.

Als stedenbouwkundig ingenieur hield dhr. Meertens zich voornamelijk bezig met "ingrepen op projectniveau en later ook ingrepen op gebiedsniveau". Als stedenbouwkundige adviseerde dhr. Meertens colleges omtrent ontwikkelingen. "Het valt mij op in Heerlen dat het vaak heel erg korte termijn dingen zijn waar de stad zich mee bezig houdt". Er was zelden sprake van lange lijnen voor de komende 20 of 30 jaar. "Het was vaker de vraag van goh, dit hoekje of die straat, wat kan daar of wat moeten we daar doen".

In het begin van de 21ᵉ eeuw hadden veel ontwikkelaars nog grond in Heerlen waar zij nieuwbouwwoningen wilde realiseren want de overtuiging was dat Heerlen ging groeien. Pas in 2006, 2007 is de kentering gekomen van krimp, waar iedereen erg aan moest wennen. Er waren mensen die niet geloofden in krimp. Pas een aantal jaren later kwam het besef dat krimp geaccepteerd moest worden en dat is ook de tijd geweest dat de gemeente met meer gebiedsontwikkelingen, vooral in Heerlen Noord, het slechtere deel, Hoensbroek en Heerlerheide, begon.

Binnen de IBA Parkstad Limburg gaat dhr. Meertens zich vooral "bezighouden met het zoeken naar toonaangevende projecten die binnen 5 jaar, dus voor 2020, gerealiseerd kunnen worden". Vervolgens gaat IBA proberen die projecten te "initiëren, te vervolbrengen en te begeleiden tot het eind". Belangrijk is wel te realiseren dat de IBA zelf geen opdrachtgever is. Gemeenten, de maatschappij, burgers zijn opdrachtgevers. De IBA is een aanjager. Dhr. Meertens hoopt dan ook dat "wij [de IBA] versnelling brengen door te smeren en te oliën. Dingen snel op de band te krijgen zeg maar".

Dhr. Meertens vertelt dat eind jaren 90 het Glaspaleis opgeleverd is en ook het Corio centrum, een winkelcentrum, is toen gerealiseerd. Ook aan de noordkant van Heerlen waren toen tal van ontwikkelingen. Noord van het spoor, bijvoorbeeld, in Stadspark Oranje Nassau waren plannen voor een nieuwe wijk. Ook Jo Coenen was daar mee bezig maar dat werd alsmaar minder. Het kwam niet van de grond. Het Glaspaleis en ook het Corio Centrum is gerealiseerd net als wat herbestrating in de binnenstad. "De binnenstad heeft toen een lichte opleving gekregen".

Verder is er veel gewerkt aan de beken. De Geleenbeek is net opgeleverd. De Caumerbeek wordt nu ontkluist. Dat is al op meerdere plekken gebeurd. Daarmee wordt de landschappelijke drager, de landschappelijke structuur, veel sterker gemaakt. Dat is een belangrijk wapenfeit. En er wordt aandacht gegeven aan slechte wijken. "We zijn echt met wijkvernieuwing bezig, zoals in Hoensbroek". Ook Heerlerheide is gerealiseerd en de binnenring in de stad is gerealiseerd en er wordt nu gewerkt aan de buitenring die over drie jaar gereed is. Volgens dhr. Meertens zit de gebiedsontwikkeling en de wijkvernieuwing vooral in Heerlen Noord.

Er wordt gevraagd of de zojuist genoemde ontwikkelingen gerelateerd zijn aan de bevolkingsafname in Heerlen.

Dhr. Meertens denkt dat de bovengenoemde processen er ook waren geweest als er geen krimp was geweest aangezien de feitelijke krimp tot dusver niet heel schokkend is geweest. Er is nog niet zo veel voelbaar geweest van de krimp. Wel een beetje, maar dhr. Meertens denkt dat de grote schok komt als de babyboomers overlijden en er weinig personen voor terug komen. Dhr. Meertens denkt dat het losse projecten zijn. "Elke stad investeert volgens hem in infrastructuur, grote leisureparken of woonboulevards en natuurlijk in de wijken van de stad en het opknappen van het centrum is ook voor vele steden een thema".

Er wordt gevraagd wat dan de reden is geweest voor bovenstaande projecten. Dhr. Meertens verteld dat Heerlen de afgelopen 20-30 jaar geen beleid had wat ze met de stad wilde. Het is volgens hem ook

kenmerkend voor Heerlen dat ze nooit eerder een structuurvisie heeft gehad. De afgelopen jaren is voor het eerst in Heerlen een structuurvisie tot stand gekomen.

Het Maankwartier, het stationsproject, is nu in aanbouw. Dat hoort als belangrijk project bij het centrum en is door een kunstenaar geïnitieerd. Dhr. Meertens kan geen andere stad noemen waar een kunstenaar de ruimte krijgt om een hele stad boven het spoor te bouwen. 50.000 m² kantoren, wonen, leisure etc. In geen enkele stad krijg je dat gedaan, behalve in Heerlen. "Blijkbaar is het fundament van het nadenken over de stad een soort van collectieve agenda". De stadsontwikkeling wordt niet beheert vanuit een centrale agenda maar door "incidenten".

Ook laat dhr. Meertens weten dat het ontbreken van een duidelijk beeld voor de toekomst voor Heerlen en Parkstad de regio nog steeds parten speelt omdat er nog steeds niet echt een collectief idee is voor de regio. Er zijn wel een paar aanzetten gedaan. Bijvoorbeeld met de structuurvisie voor Parkstad. Parkstad Limburg is zo'n 15 jaar geleden opgericht en deze organisatie bepaalt het hoofdbeleid voor Parkstad. Volgens dhr. Meertens is dat an sich goed geweest en de organisatie heeft geprobeerd om uitvoering te geven aan het beleid, wat met acht gemeenten wel heel lastig is. "Dus ja, er zijn aanzetten door middel van de organisatie Parkstad Limburg die is opgezet. Heerlen die een structuurvisie heeft opgebouwd. Maar het is nog lang niet krachtig en sterk genoeg om dat het fundament te laten zijn voor de toekomst".

De woonstrategieën, de woningmarktprogrammering en het woonbeleid van Parkstad Limburg zijn vooral kwantitatief ingestoken maar de laatste jaren ook meer kwalitatief ingestoken. Dhr. Meertens verteld dat hij nog mee heeft gemaakt, zeven of acht jaar geleden, dat de gemeente Heerlen nieuwbouw van ongeveer 10.000 woningen op de stapel had liggen terwijl er cijfers waren dat Heerlen ging krimpen en er geen nieuwe woningen meer nodig waren maar ontwikkelaars hadden nog ontwerpen en afspraken met de gemeente over de nieuwbouw. Toen is met Parkstad een lijst opgesteld van een aantal categorieën, een categorie die waarschijnlijk nog uitgevoerd ging worden, een categorie waar nog mee gewacht ging worden en een categorie met projecten die niet uitgevoerd zouden worden. Afgelopen jaar heeft de provincie Limburg toch in moeten grijpen omdat gemeenten weer dingen mogelijk gingen maken. De provincie heeft toen een algeheel verbod op nieuwbouw ingesteld. Het wordt dus steeds moeilijker om oude plannen doorgang te laten vinden tenzij deze zeer vernieuwend en exclusief is.

De projecten werden soms toch uitgevoerd omdat gemeenten bang waren voor claims van ontwikkelaars maar ook omdat wethouders het bijvoorbeeld onfatsoenlijk vonden om na jaren van overleg zomaar de stekker uit een project te trekken "en dan gaat zo'n project door en voor je het weet is het te laat". Zo zijn er veel plannen die toch door gegaan zijn die half gerealiseerd zijn en dat is funest. Het is daarom goed dat de provincie ingreep. Dit was nodig, anders ging het helemaal mis. Dhr. Meertens laat ook weten dat verschillende partijen hun verliezen moesten nemen. Er zijn partijen die gronden gekocht hebben en dachten rijk te worden van de ontwikkeling. Dat kon een keer niet en dat is nog nooit geweest maar dat hoort ook bij ondernemen "soms maak je miljoenen winst en soms moet je miljoenen af gaan boeken". De onderhandelingen hierover zijn nog bezig en volgens dhr. Meertens duurt dat proces nog wel 10-15 jaar en dan heb je nog steeds niet de kwaliteit. Er zijn dan nog steeds wijken die half af zijn, of half af, of half gesloopt. Heerlen is een stad die vanuit de historie al moeilijk aan elkaar hangt met allemaal buurten met verschillende identiteiten.

De buurt Overbroek in Hoensbroek daar waren meer woningen gepland dan er nu staan. De helft is nu gebouwd. Dat er in de buurt van de sportvelden niet gebouwd wordt is volgens dhr. Meertens prima maar op andere plekken is dat wel vervelend. Het is nu de kunst hoe een stedenbouwkundige ontwikkeling die het mogelijk maakt om gedeelten te realiseren. "Dat je in feite het landschap het landschap laat en dat je bouwt hoe ver je komt". Hier speelt de flexibilisering van de woningbouwmarkt maar ook de stadsontwikkeling is meer gericht op het mengen van de korte en de lange termijn. "Uiteraard wil je weten waar je met de lange termijn naar toe wil maar tegelijkertijd willen we wel 100 woningen bouwen maar laten we beginnen met 10 en dan nog eens 5 en dan leggen we een lusje aan en de rest blijft landschap".

Volgens dhr. Meertens is de huidige structuurvisie een goed begin maar is het nog niet volkomen duidelijk waar de gemeente Heerlen naartoe wil en wat prioriteit heeft. Dit komt ook omdat het ingewikkeld is om vanuit het niets een goede structuurvisie te maken. Daar is ervaring voor nodig. Dus pas over 20-30 jaar kan er een goede structuurvisie gemaakt worden. Het is wel duidelijk dat Heerlen een centrumgemeente wil worden maar hoe daar vorm aan wordt gegeven en welke plekken prioriteit krijgen, en of er budget gereserveerd is om dat mogelijk te maken, dat zit nog niet in de structuurvisie.

Zo'n 4-5 jaar geleden is begonnen met de structuurvisie. Het kon ook niet anders want Heerlen heeft te maken met veel verschillende problematieken. Sociale problemen maar ook de krimpproblemen en Heerlen ligt aan de grens. Er moest een koers vastgelegd worden. Als het aan dhr. Meertens ligt, moet dat niet een koers zijn voor elke afzonderlijke gemeente maar voor heel Parkstad Limburg. Dhr. Meertens hoopt dat de IBA een katalysator, een aanleiding is om over 5 tot 10 jaar te zeggen, we gooien alles op één hoop, één club. Want als de verschillende gemeenten gaan concurreren omdat iedereen een woonboulevard en een goed lopend centrum en een zwembad wil dan werkt dat niet. Iedereen moet zijn verliezen nemen terwijl niemand dat wil. Terwijl dit volgens dhr. Meertens wel een sterker verhaal zou zijn, dat iedereen beter af zou zijn, als alle gemeenten samenwerken want eigenlijk, als je naar de kaart kijkt, is het gewoon één stad. Een hele bijzondere stad met veel groen en dus ook veel kwaliteiten, maar het is één gebied. Er is geen ontkomen aan om dit als één gebied te zien. Zeker met de aanleg van de ring.

Volgens dhr. Meertens was het krimpbeleid in het begin moeilijk om te accepteren. Veel mensen dachten dat je daar geen toekomst op kon bouwen. Twee tot drie jaar later kwam de wereldcrisis en toen ging de discussie ook daarover, dat de gemeente niet meer ging groeien. Niet alleen qua inwoners maar ook op het gebied van de economie. Nu is iedereen zo ver dat ze zeggen dat het niet erg is om niet meer te groeien. "Ik bedoel, krimp hoeft helemaal niet erg te zijn alleen houdt krimp voor een deel ook in dat je minder geld hebt". Krimp is vooral ook een financieel vraagstuk. "Dus om te krimpen, die woningen uit de markt nemen en sloop, ja dat moet gedaan worden. Dat gebeurt niet vanzelf". Krimp is niet erg als het maar zo georganiseerd wordt dat de stad er zelfs beter van wordt, want volgens dhr. Meertens is dat mogelijk. "Dat je zegt, alle rotte plekken, die strepen we eruit. Dan houd je een goede stad over". Maar dat is niet hoe het werkt. Nu is de krimp vooral nog kwantitatief ingestoken maar er is nog geen verhaal over waar je zou willen krimpen als stad. Dhr. Meertens hoopt dat ook daar de IBA aan bij kan dragen, een nieuw stadsmodel. En dat er ook een consensus is vanuit het bestuur over een lijn waarlangs de krimpopgave de komende jaren vorm kan krijgen. Tot dusver heeft de krimp vooral plaatsgevonden bij woningcorporaties. Maar door de algehele crisis kopen mensen minder snel een huis, dus ook in parkstad wordt meer gehuurd dus corporaties hebben al hun woningen verhuurd en gaan dus ook niet meer slopen. Verder hebben woningcorporaties al veel gedaan. De leegstand verplaatst zich dus naar de particuliere markt en dat is volgens dhr. Meertens een nog groter probleem want "particulieren gaan hun eigen woning niet slopen". Dat kost geld. Er zit nog waarde in de woning. Misschien 10 of 20% minder dan waarvoor het ooit is gekocht, maar daar valt nog wel overheen te komen.

Dhr. Meertens geeft aan dat een maatschappelijk fonds een oplossing zou kunnen zijn. Een fonds waaraan alle mensen die nieuw gaan bouwen geld doneren. Een andere beweging die dhr. Meertens ziet is het inponden. Dat woningcorporaties weer woningen opkopen, opknappen en nog een aantal jaar door exploiteren waarna de woning gesloopt wordt. Dat je een businesscase maakt met de corporaties en de overheden zodat de woningcorporatie geen verlies heeft. Dit duurt alleen wat langer.

Het zou ook mogelijk zijn om als gemeente woningen op te kopen of op te knappen maar daar is wel geld voor nodig en dat is er niet. Maar als de gemeente geld zou krijgen van het rijk omdat Heerlen een serieus krimpgebied is zou de gemeente dat wel kunnen gaan doen. Maar Heerlen is één van de armste gemeenten van Nederland. "We zijn al ontzettend bezig om ons hoofd boven water te houden met vooral sociale problematiek in de regio om de economie op gang te houden, grote bedrijven naar de regio toe te trekken".

Er wordt gevraagd of het naar de regio toe trekken van grote bedrijven werkt. Dhr. Meertens geeft aan dat het in ieder geval gaat om het "zorgen dat er werkgelegenheid is". Het is wel zo dat de grote bedrijven

naar de metropoolregio's gaan maar de gemeente is bezig met het maken van een smart service hub waar het CBS zit, de belastingdienst, pensioenfondsen. Allemaal bedrijven met big data. Het is wel zo dat de ontwikkeling van deze smart-hub niet gaat met de ambitie die er toen was maar dat was begin 2000. Maar iedereen ging naar Maastricht. Het is trouwens wel zo dat Aken een enorm groeiende stad is die 15 km van Heerlen ligt.

Er was ook het idee om studenten uit Aken naar Heerlen te krijgen. Dit gaat wel moeilijk want waarom zouden de studenten uit Aken in Heerlen gaan wonen, Heerlen heeft niet zo'n aantrekkingskracht. Het zou alleen kunnen als het aanzienlijk goedkoper is maar dan nog is de bereikbaarheid per trein rampzalig. Wel zijn ze bezig om de intercity vanuit Eindhoven door te trekken naar Aken maar daar moet wel veel voor worden gedaan. Er zijn wel veel Duitsers die naar de woonboulevard komen en op bepaalde dagen komen ze naar het centrum van Heerlen en dat is ook goed. Maar dat is vooral recreatief. In koopsferen en zakendoen overzees, daar komen ze ook voor over de grens maar dat gebeurt maar weinig.

Hoewel er niet altijd een relatie is tussen de verschillende projecten en krimp, is die relatie er de afgelopen jaren wel meer gekomen. Zo zijn er bijvoorbeeld aan de Laurierstraat twee flats gesloopt maar ook in MSP is veel gesloopt. MSP is wel enorm gegroeid en er is een mooie fietsroute aangelegd en groene parken. Ook in Hoensbroek, het Alderhofpark zijn ze bezig met een operatie waarin gezocht wordt naar de juiste balans tussen vergroening en verstedelijken. Wel is het zo dat corporaties ooit gezegd hebben dat ze terug zouden bouwen maar dat niet doen. Soms zijn er dus grote open terreinen in wijken waarvan nog onduidelijk is hoe daarmee omgegaan gaat worden. Dhr. Meertens vindt Meezenbroek een mooi voorbeeld van hoe een krimpwijk een enorme slag kan maken. In veel wijken in Nederland moet verdicht worden en deze wijk is voor dhr. Meertens zeer succesvol vergroend. Op de plek in MSP waar vroeger flats stonden is nu een moestuin en een park met fruitbomen. Er is een fietsroute aangelegd dwars door de wijk die uitkomt op de Brunssumerheide. Eén fietspad in één materiaal. Een hele mooie wijk met pocketparkjes op verschillende plekken, uitgevoerd door kunstenaars. Ook daar moesten woningen voor gesloopt worden. In de hele wijk zijn zo'n 300-400 woningen gesloopt en daar is ruimte en kwaliteit voor teruggekomen.

Dit project was mogelijk omdat er een plan was gemaakt in 2005 waarin het ging om verdunnen van de woningvoorraad. De basis was dus sloop en terugbouw. De corporatie zou 700 woningen slopen en 350 terugbouwen. Uiteindelijk zijn er 400 woningen gesloopt en is er niet teruggebouwd. Maar doordat er een plan was, is het gelukt. Wel is het volgens dhr. Meertens ook omdat de woningcorporatie dacht dat ze veel geld terug zou krijgen door de nieuwbouw en dat is niet gelukt. Er is gezamenlijk, door de gemeente, woningcorporaties en zorginstellingen wel €150 miljoen geïnvesteerd. Dit project was niet alleen een succes omdat de corporatie dacht dat ze geld konden verdienen maar ook omdat de corporatie wel inzag dat er geïnvesteerd moest worden omdat het zo ook niet beter wordt.

Op sommige plekken wordt onbestemd gesloopt en dat leidt dan tot vreemde plekken. Het is dan ook een belangrijke opgave om een goed idee te hebben waar je gaat slopen en welk soort woningen en wat het oplevert. Het gaat er uiteindelijk om dat de leefbaarheid op wijkniveau maar ook op stadsniveau vergroot wordt. "Dus als je erin zou slagen om, even heel simpel gezegd, de rotte plekken weg te nemen, heb je gewoon een betere stad". Dan krijg je wel te maken met grondpolitiek. Volgens dhr. Meertens zou het wel goed kunnen dat het straks op bepaalde plekken in de stad onleefbaar wordt omdat er te veel leegstand is. Dat is nog niet maar het is wel de verwachting dat dat gaat komen.

Er wordt dhr. Meertens gevraagd welke projecten of initiatieven volgens hem uitgevoerd moeten worden om de stad te verbeteren. Dhr. Meertens geeft aan dat de projecten van de IBA uitgevoerd moeten worden. Er zijn ook mensen die niet in de IBA geloven "maar het is wel zo dat als het kan, kan het nu en als het komt, komt het nu, met Jo Coenen als voorvechter". "Als het niet lukt, als de IBA over twee jaar omvalt, dan weet ik het niet meer".

Dhr. Meertens gaat ervan uit dat de IBA met al haar partners, de gemeenten, want de IBA heeft geen geld om te investeren, dingen voor elkaar krijgt die de regio beter maken. Het gaat dan om projecten maar

ook het uitzetten van de langere lijnen. Daarvoor is wel ook een visie en beleid nodig vanuit de gemeenten want de IBA is geen beleidsclub.

Wat je nu ziet is dat Parkstad niet gedragen wordt door de gemeenten van Parkstad. Sommige gemeenten vinden dat Parkstad te veel invloed heeft en vinden dat lastig. Er is dus geen gemeenschappelijk idee dat wat Parkstad doet goed is en dat de gemeenschappelijke visie goed is. Dhr. Meertens vindt het soms wel pijnlijk om te zien dat door het individualistische denken van de gemeenten het gemeenschappelijke verhaal niet van de grond komt en dat het grote verhaal nu niet klopt. Wel geeft dhr. Meertens aan dat er ook goede dingen gebeuren in Parkstad maar dat de bestuurlijke samenwerking momenteel een groot probleem is. Als Parkstad niet één wordt, dan krijgen ze het nog moeilijk want alle regio's worden groter dus Parkstad moet met het grote verhaal mee.

Het is ook een stukje marketing maar dat komt op de laatste plaats. Wel heeft de IBA ook te maken met marketing en beeldvorming. Bijvoorbeeld in tijdschriften en kranten waarin gepubliceerd wordt over de initiatieven en projecten in Parkstad.

Dhr. Meertens geeft aan dat de IBA nu probeert het grote verhaal van Parkstad te creëren door middel van projecten en Parkstad probeert dat middels beleidslijnen te verankeren binnen de gemeenten en uiteindelijk is er de hoop dat Parkstad straks één grote club wordt in plaats van gefragmenteerd. Bestuurlijke samenwerking is dus belangrijk.

Appendix F – Interview with Mr Kröger

19 November 2015

Mr Kröger has been the programme leader the programme leader for the urban renewal area Gelsenkirchen City since 2009. In Gelsenkirchen there are various areas for urban renewal and there is a coordinating body called coordination body Urban renewal. This coordination body is integrated in the urban planning department.

The structure of the municipal government is as follows:
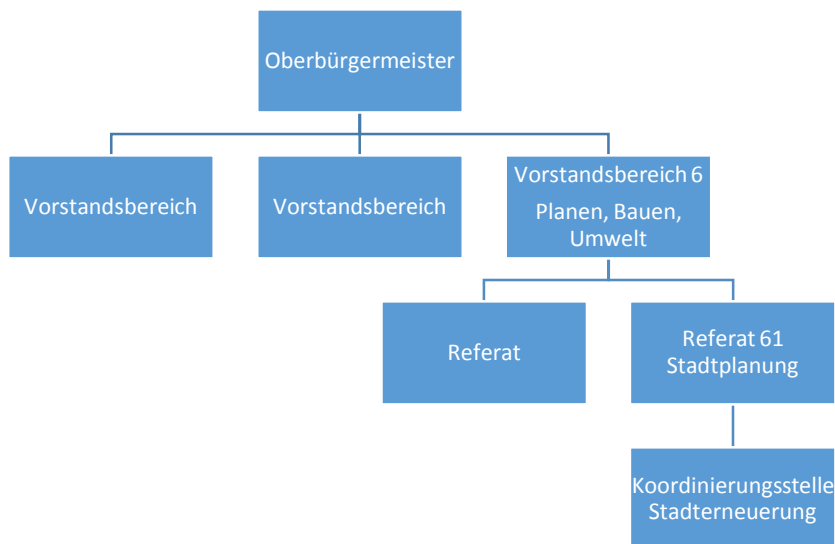
In the coordinating body there are various areas and for every area there is a program leader. There is also a representative leader for the coordinating body.

Currently it is discussed whether this structure should be altered since urban renewal is an important theme in Gelsenkirchen and it is currently very hidden in this large structure. It is discussed if the coordinating body should be placed directly under the "Vorstandsbereich" in order to improve the collaboration between the various departments.

In the urban renewal areas, there are district bureaus which is a local bureau in the area about the urban renewal. The persons at the district bureau are on site in order to have direct contact with the actors that are involved in the projects in that area.

When it comes to the type of projects, the city of Gelsenkirchen has executed building projects as, for example, the renovation of the Hans-Sachs-House but high-rise projects and projects such as the renovation of the public space, school playgrounds and schools. The reasons school playgrounds are renovated is that there is the possibility to use the playgrounds after school hours. Schools are renovated as well. This mostly considers meeting places in the schools and the technical facilities.

According to Mr Kröger, shrinkage has influenced the type of projects because in the 1960s, Gelsenkirchen had 400,000 inhabitants and now there are approximately 260,000 inhabitants which is a clear reduction. The city has much living space. Both dwellings and public squares but also the subway and the tram. Many of these things were built after the war with the idea that there are many inhabitants and there would be more. Therefore, many projects concern, amongst others, demolition. Dwellings are demolished in order to reduce the number of dwellings since there are less people that need a house which also results in vacancy of dwellings. Furthermore, public squares are not meeting the requirements of today. There are less people but more different groups of people and, for example, the accessibility, when you are in a wheelchair or blind or when you have a pram or something else, this was not a theme

in the 1960s or 1970s and now we attempt to improve the accessibility by removing steps for instance and to configure the public space in a way that it fits the current situation better.

Shrinkage has had a great influence. "We have, for example here in Hassel a flagship project that concerns the conversion of a church. In that area, there are many churches that are vacant and man has to see what to do with these churches. Not all churches need to be maintained while not every church is as beautiful but there are many possibilities for the churches". But you can also imagine that it is hard to decide what to do with the churches because there are enough dwellings, enough retail space and there is plenty vacancy.

The projects are selected by use of the action plan that explains which projects need to be undertaken. Per area it is studied what is the most important in that area. Which projects are the most important. What is the urban situation but also what is the social situation. The action plans are influenced by the citywide report of 2007. These researches and concepts are created by planning bureaus but also by other involved actors. There are small-scaled sub-concepts created.

With these projects, the municipality of Gelsenkirchen tries to improve the liveability in the city and to maintain the quality of the city but also to stop the shrinkage.

According to Mr Kröger, the programme has not changed much. The changes are mainly connected to the subsidies. All projects are financed with subsidies of which 80% of the subsidies are from the national government and the Nordrhein-Westfalen government and 20% is from the community itself. At the start of the urban renewal the city would get money and could do with that money whatever they wanted and that is no longer possible. Now it is the case that a subsidizer needs to see the plans and a prioritising of the projects and the city gets money per project. That has changed, although when it comes to the projects itself, not much has changed. The focus of the projects has become broader. Building projects are now more combined with social-integrative projects. This also has to do with the fact that there are more people from all over the EU coming to Gelsenkirchen. There are many different groups with various potentials and various problems which means there is room to work even more with the people.

Also, a problem with this is that in the ruhr area there always have been many immigrants from all over Europe and the world. There live many different nationalities here because of the mining industry people from Italy and Turkey and other places came which is not new but the social environment has worsened as well as people earning less money, education is often a problem and conflicts between different ethnicities are apparent. There are areas in which the social problems have increased and Mr Kröger believes this has become stronger in the past years which means the strategy has to focus more on integration.

According to Mr Kröger, the shrinkage did not influence these changes. Gelsenkirchen is already shrinking for a long time and at the start of these programmes shrinkage was already here so the shrinkage did not influence the changes.

Mr Kröger thinks that the majority of the projects has been successful.

According to Ms Reicher and Mr Blase in "Soziale Stadt Gelsenkirchen" was the neighbourhood Bochumer Straße one of the projects in the framework of urban renewal but did the problems not decrease because of the interventions. It was asked what reasons there could be for this.

Mr Kröger explains that before, the neighbourhood Bochumer Straße was part of social city south-east and in the area south-east there were many urban but also social problems furthermore, the area consists of many different neighbourhoods with different problems so because of the size of the area, there was not enough focus. Therefore, the neighbourhood Bochumer Straße is now a separate action area where it is possible to focus on.

In the Bochumer Straße there are many problems. Most of the stores are vacant and the tram rides through there and the real estate is in a very poor state. It is a loud area and it is really unattractive.

Reasons for projects to be less successful have, according to Mr Kröger, to do with the fact that there is not much dynamics in the real estate market. The number of inhabitants is shrinking and there are many dwellings and there is much vacancy. Because of this, the lease prices for dwellings are low thus as a real estate owner without a tenant or with a tenant but with a low lease price, the willingness to invest decreases and therefore the decay of the real estate worsens.

Another issue is that many people from Bulgaria and Romania moved to the Ruhr area and to Gelsenkirchen whom have very little money and very little education which does not improve the situation.

Successful projects are projects in the inner city because the municipality has been able to give important impulses and there is always something special in the city centre. There is culture, the city hall and shopping. Everything is central and with the projects it was possible to motivate owners to invest in their real estate. Furthermore, it was possible to strengthen the area and the shopping. The city brand is also important. there are great building projects and there is a future, there is change, not everything is grey and broken anymore and the city invests and that is worth it and important and also successful.

It was asked if projects are successful if owners of real estate are willing to invest in their real estate. Mr Kröger agrees with this but it is also important that people who live in the city identify themselves with the city and owners of real estate are a group but the people living in the city also get an impuls and can make something and get involved and are more connected to the area which means that they hopefully do not move out which are, according to Mr Kröger two aspects that make a project successful.

Mr Kröger is also asked for the reasons there is not really a nightlife in Gelsenkirchen while there are young people living in Gelsenkirchen. According to Mr Kröger there are three main reasons for that. The first reason is that there are not many young people and while there is a university, it is located far from the city centre. Another reason is that Gelsenkirchen is just one city of the Ruhr area and if you want to go to a movie theatre or cafes or discos it is possible to take the train to Essen, Bochum or Dortmund where there is much more to do. For a small city as Gelsenkrichen it is difficult to maintain that many activities. Furthermore, the purchasing power in Gelsenkirchen is not so high so people do not have the money to undertake activities such as going to the movie theatre.

When it comes to the projects that should be done Mr Kröger feels that there should be more activities on the theme of demolishment. Demolishment of dwellings, because otherwise there is no momentum so the vacancy needs to be reduced. This is very important but also very difficult because it is an uncomfortable topic. People do not like to talk about it.

Furthermore, there is the question of the value of the houses that need to be demolished.

Mr Kröger indicates that that is only possible with funding. The owner would like something for his house if it is being demolished which means the municipality has to give the owner money for the value of the house but also for the actual demolition and that is very expensive. It is however, very important because there are more and more empty flats and there is an increasing amount of vacant retail space.

Appendix G – Governmental structure in Germany

In order to provide a better understanding of the governmental structure in Germany, this will be explained in this appendix.

In Germany, there is the government of the country as a whole which is called the Bund. Germany consists of 16 states which are called 'Bundesländer'. Within the 'Bundesländer', there are so-called 'Kreise' and 'Kreisfreie Städte'. A 'Kreis' can be best described as a district and consists of several municipalities. A 'Kreisfreie Stadt' is an autonomous city. Both 'Kreise' and 'Kreisfreie Städte' have the same level of authority (Borck & Bappert, 2008). This is visualised in the image below.
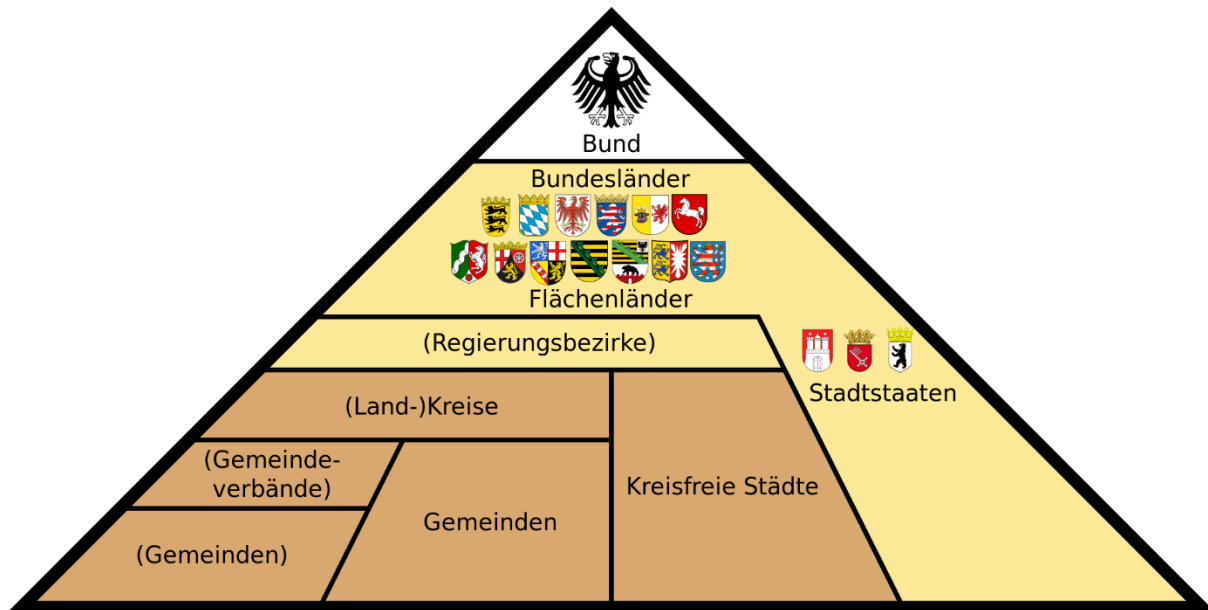
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