LAB XX

Opting for the
twentieth-century belt

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Preface

Alderman Rob Van de Velde

This publication contains the work conducted by four design teams who reflected on the future of Antwerp's twentieth-century belt in the past year. This is the area outside of the ring motorway which, in addition to magnificent historical district centres and forts, also encompasses many post-war residential neighbourhoods, large industrial areas and wide open spaces and green structures. Why is the City of Antwerp currently studying this area? Isn't this our own territory and hasn't it always been here? While this is true this area is less well known than the area within the ring motorway (the city centre).

When people refer to the city they often automatically think of iconic places in the historical city centre, such as the Cathedral, the Meir shopping street and Groenplaats. But also of almost forgotten places which have recently been thrust into the spotlight again thanks to urban renewal projects such as Eilandje, the MAS, Park Spoor Noord and the Scheldt quays.

Thanks to these and other projects, the city centre's appeal has significantly increased in recent years. After years of urban flight old and new residents, entrepreneurs and real estate developers rediscovered our city centre. Renovation projects, original shops, creative enterprises and new residential developments popped up all over the city. The population explosion of recent years largely manifested itself within the ring motorway in other words.

However, this positive development also has a number of unpleasant consequences. Mobility and parking have become a problem in the city centre. Real estate is becoming prohibitively expensive for young families and entrepreneurs, who are increasingly searching for affordable real estate outside of the ring motorway. This is not a problem per se, in fact it is even good news as it is the perfect opportunity to look beyond the city centre and its increased appeal thanks to joint investments and efforts by the city, the government, residents and entrepreneurs to see how we can achieve the same development in the twentieth-century belt. Albeit in a different way.

The City of Antwerp wants people to move across the ring motorway in the margin of a positive rediscovery of the twentieth-century belt instead of being prompted to do by a new form of urban flight. The city does not want people to overlook the twentieth-century belt either. Large numbers of potential urban dwellers moving to the neighbouring municipalities will not solve the mobility and parking problems in the city. In fact, they will remain

the same or increase as these former urban dwellers continue to work or have businesses in the many amenities, shops, hospitality industry, companies and offices in the city. Fortunately so.

That is why we have undertaken this study to see how living and doing business in the twentieth-century belt can be just as attractive as doing this in the city centre without having to forego the specific assets of this twentieth-century belt. What is the potential of this space and how does it distinguish itself from the city centre and from the neighbouring municipalities?

The design teams received valuable input after the *Week of Dialogue*, which was organised in spring 2014 on the theme of *Tomorrow's City*. The City of Antwerp invited residents and civil society stakeholders to jointly discuss the assets of the twentieth-century belt and of the various neighbourhoods in this part of the city. In this framework, Antwerpers confirmed that they do not want the twentieth-century belt to be a carbon copy of the city centre.

Here green structures, public space and amenities function in other ways and on other scales and many Antwerpers appreciate this. The inhabitants of the historical city centre also use parks such as Nachtegalenpark or Rivierenhof, the schools and the hospitals in this belt. Just like Antwerpers also use green structures and other amenities in the neighbouring municipalities. Possible consequences or opportunities that arise as a result of current and future demographic trends are therefore examined from an urban-regional perspective. The city has recently launched discussions with the neighbouring municipalities on this subject.

But the studies of the design teams are also interesting for the professional sector as a whole as architects, urban planners and real estate developers will largely define the renewal of the twentieth-century belt. This is a very topical theme, also for other cities with similar areas. To date, however, not much professional literature and knowledge is available on this subject, for Antwerp or for Flanders.

The city has chosen to combine these studies and its efforts for the twentieth-century belt in a larger project called Lab XX (pronounced *Lab Twenty*). Lab XX in turn provides input for the evaluation of the strategic Spatial Structure Plan for Antwerp, the framework for the development of the entire city of Antwerp in the medium to long term. But Lab XX is mainly the business card of a twentieth-century belt that is moving forward.

It is an invitation to all current and future residents, entrepreneurs, architects, real estate specialists, developers and financiers, to invest, live, work, relax and have a business in the twentieth-century belt of the city of Antwerp.

This publication is the first result of the major quest on which the city has embarked along with all these partners. I hope you enjoy reading it.



Alderman for spatial planning and urban renewal

What is LAB XX?

Isabelle Verhaert

Lab XX is a project initiated by the City of Antwerp to explore and renew the city's so-called twentieth-century belt – the urban area outside of the ring motorway. For years, all urban renewal projects in the city mainly were implemented in the area within the ring motorway (the city centre). The past wave of urban renewal projects was a response to a long period of urban flight, which started after the 1950s. Inhabitants and businesses fled the city centre for the neighbouring municipalities (often the present-day districts), in search of space and green areas. Parts of the historical city centre and the nineteenth-century belt deteriorated as a result. Dwellings, commercial property, port and industrial areas were abandoned and fell into disrepair.

Over the years, the inhabitants as well as the various governments involved responded with their own initiatives. At the end of the Eighties a group of inhabitants founded the *Stad aan de Stroom* (City by the River) movement, organising a design competition with the city for derelict port areas such as Eilandje and Nieuw Zuid. From the mid-Nineties onwards, the European, federal and Flemish governments provided grants for urban renewal projects. The Government of Flanders drew up the Spatial Structure Plan for Flanders as well as requiring all the provinces and municipalities to draw up their own respective structure plan.

The Antwerp structure plan was named *strategisch Ruimtelijk Structuurplan Antwerpen* (s-RSA, strategic Spatial Structure Plan for Antwerp, 2006). This structure plan defined strategic areas within which concentrations of investments would provide leverage for the area's renewal. In recent years, the emphasis was mainly on restoring the run-down port areas and areas in the historical city centre. Today the time has come to evaluate the structure plan. Extending its scope, to include the twentieth-century belt, is an important part of this exercise.



Antwerp wants to examine how a new type of urban renewal in the twentieth-century belt can create urban, sustainable, qualitative and green environments. In the next few years, collaboration with the neighbouring municipalities and with the Flemish administration will be vital in this framework.



Opting for the twentieth-century belt

After years of successful urban renewal within the ring motorway (e.g. Eilandje, Park Spoor Noord, Military Hospital, and so on) the urban flight trend seems to have been reversed and the city centre has (once again) become an attractive place to live. The strong population growth of recent years was mainly noticeable in the historical city centre and the nineteenth-century belt. However now the maximum density and capacity seem to have been reached here. Increasingly developers are submitting applications for planning permits for residential units that are too small. Prices have increased in almost all the neighbourhoods and amenities such as schools and care homes are under pressure. New developments are only aggravating the shortcomings in terms of amenities and increasing the lack of parking spaces. Streets are gradually clogging up. Today the city finds itself at an important tipping point.

The renewal of the twentieth-century belt is a logical next step. There is a lot of potential in this area for combining densification and urban renewal. The city mainly wishes to accommodate the future demographic growth in the twentieth-century belt and considers this an opportunity to enhance the qualities of this area. The idea is not to merely repeat the efforts made in the historical city centre. Here the urban fabric developed in a completely different way, and other spatial conditions and scales apply. The city wants to examine how this area can provide unique forms of urbanity that make sustainable use of the urban characteristics – or the seeds thereof – that are already in place.

The twentieth-century belt is within biking distance of the city centre. In most places, public transport provides easy access to this area, or the potential for such access is present. The range of amenities here is larger and more diverse than in the neighbouring municipalities for example. If we can optimise these urban assets in a qualitative way, then we can sustainably offset future growth. That is why the city wants to join forces here, with inhabitants, developers, entrepreneurs, financiers and other stakeholders for the intelligent planning, construction, conversion, renovation, funding and development of this area. In short, the city wants to engage in urban renewal in the twentieth-century belt with all of these stakeholders.

In opting for its twentieth-century belt with Lab XX the city is also potentially creating advantages and opportunities on the city-regional and even Flemish scale. By facilitating urban growth in such a way that it manifests itself in a qualitative and affordable way within the current patterns of building, development and urbanisation, the further fragmentation of other places and municipalities is prevented. Open space can be preserved at a distance from the city while the pressure on mobility from the urban fringe will not increase.

Antwerp's ambition to accommodate as many additional inhabitants as possible within its city limits does not reduce the need for collaboration with the neighbouring municipalities. The property market will always have a regional dimension meaning policy choices must be made jointly with the neighbouring municipalities. In the coming years, collaboration with the neighbouring municipalities and with Flanders will prove to be crucial.

Opting for research by design

Lab XX combines two objectives. On the one hand, the city wants to develop strategies to compensate as much as possible for the future demographic growth in Antwerp. At the same time, the city wishes to develop a spatial vision for the twentieth-century belt. The aim is not to develop a fixed, integrated plan or a *blueprint* for the twentieth-century belt. That is why the city expressly opted in favour of design-based research as an instrument in this stage. This paved the way for an open and broad formulation of the assignment as well as allowing for several different types of results. The city wants to better understand this area and discover interesting approaches to the twentieth-century belt after which it will study them in further detail and put them into practice.

* see The spatial analysis of the urban region, p.26–43

In 2012, a city-regional analysis yielded a first *new* approach to the twentieth-century belt. The city's design team studied the historical development of Antwerp and the surrounding municipalities from a landscape-geological angle. This provided several valuable insights and hypotheses about the historical urbanisation patterns in the city-region and about the present-day shape of the twentieth-century belt.*

In the autumn of 2013, this city-regional analysis was provided as input for a competition, along with a substantial amount of environmental information and data analysis, to further develop Lab XX's dual task.

The call was formulated in a very open manner. Design firms were encouraged to choose their own perspective and to appoint teams in which the associated disciplines were represented. Four teams were selected based on the vision statements of the various design teams. Buur – bureau for urbanism focused on mobility and sustainability. Palmbout Urban Planners, De Nijl Architecten, Feddes Olthof Landschapsarchitecten and Blauwdruk stedenbouw opted for a landscape angle. Maat ontwerpers, Posad Spatial Strategies, Shinsekai Analysis and 3E elaborated a vision on amenities while 51N4E and Connect&Transform chose a financial angle.

Starting premises

The teams were given a very open-ended task. At the same time, the city provided three crucial starting premises for the competition, which had to be tested and further developed in the design teams' work.

1. Growth and densification as opportunities

Densification is a means, not an objective. We use the densification task to obtain new qualitative forms of urbanisation in the twentieth-century belt. Priority shall be given to densification in those areas where high-quality urban environments can be created with a high level of amenities, a good accessibility profile, qualitative public space and so on. New inhabitants are considered new potential in this frame. The required density and a healthy income mix will ensure that a critical mass of current and new inhabitants can live in such high-quality environments.

2. High level of amenities in terms of quantity and quality

The number of amenities will at least be maintained at the current level and where possible will be reinforced. This means that we are not only focussing on creating additional dwellings but also on supplementary amenities and workplaces. By consciously investing in a mix of functions, we can also define specific profiles and locations with their own identity in the twentieth-century belt. By integrating amenities such as heating networks, public transport, bicycle or car sharing, renewal through densification can also force a breakthrough in the ambition to create a sustainable city.

3. Reconversion of the existing fabric

The open space is considered the most important identity carrier and quality of the twentieth-century belt. So our aim is the reconversion of the already developed urban fabric. Initially no additional areas will be converted. Instead we focus on the re-use of (vacant) buildings, vacant lots and brownfields. Moreover we will focus heavily on stacking and the multiple use of spaces to compact the existing buildings in specific places.

Method

The four teams further elaborated on their vision statements as of December 2013. An advisory group of the city provided guidance and direction for the research by design during four workshops to contribute as much local knowledge as possible. The city architect (*stadsbouwmeester*), who also provided the impetus for the research project, played an important coordinating role in this framework. Additionally Lab XX also had the support of a sounding board group of academics from different disciplines. This approach allows for a knowledge transfer between the various design teams, the city services and external experts.



The discussions during the workshops often proved laborious, and always searching but they contributed to turning Lab XX into a qualitative assignment by pushing back the boundaries of a quantitative challenge.



An important part of the challenge during the workshops consisted of further developing the job at hand. While the motive for the research by design was clear, the area and the task were part of the research. What are the characteristics and the identity of the twentieth-century belt and how can one intervene in this? How should we deal with the urgency and figures? What can a government initiate, what must it facilitate?

At the same time, the demarcation of the assignment in terms of the desired output was also closely monitored. In the past ten years, Antwerp has accumulated a lot of knowledge in terms of area management (Groene Singel, Eilandje and so on) as well as developing the tools and the capacity to supervise the development of brownfields and new residential areas. The teams in Lab XX were asked to develop new strategies and ideas, adapted to the challenges of the twentieth-century belt.

The discussions often proved laborious, and always searching but they contributed to turning Lab XX into a qualitative assignment by pushing back the boundaries of a quantitative challenge. Instead of looking for the space to build sufficient dwellings and amenities for a specific number of new inhabitants, Lab XX in addition to research by design also prompted a rich debate and insight into potential collaborations, financial strategies and processes.

Possibility study

The teams' research highlights various ideas and possibilities for a more tangible and detailed discussion about the future of the twentieth-century belt. The four teams developed cases for specific locations in the twentieth-century belt, without therefore effectively defining the future of these sites. Often this is impossible even, because this involves private property. The cases illustrate the teams' views on the challenges posed and on their task. They also show what is possible in various locations in the twentieth-century belt, from different perspectives.

The research by design thus has the status of a *possibility study*. This does not mean that this research does not imply certain choices. In fact, the research clearly shows that selectiveness is very important for tackling the spatial development of the twentieth-century belt.

Moreover, every team has specific ideas about what this selectiveness should entail. This constitutes valuable input, which will have to be checked and discussed with policy-makers, other authorities, the inhabitants, civil society and professionals.

The next phase of Lab XX will thus be a vision statement and an action plan, to be drafted by the end of 2016. As Lab XX and the research by design of the four teams are also part of the update of the strategic Spatial Structure Plan for Antwerp, which constitutes the reference framework for the city's spatial development in the medium to long term, Lab XX's implementation on various levels and within various time frames is assured.

Demographic change in Antwerp

Virge Smets

A turning point in the demographic evolution

The four teams started from calculations about the future need for housing, amenities and jobs in the city of Antwerp for the research by design of Lab XX. These calculations, in turn, are based on figures about the demographic evolution and projections for the city and the wider Antwerp region.

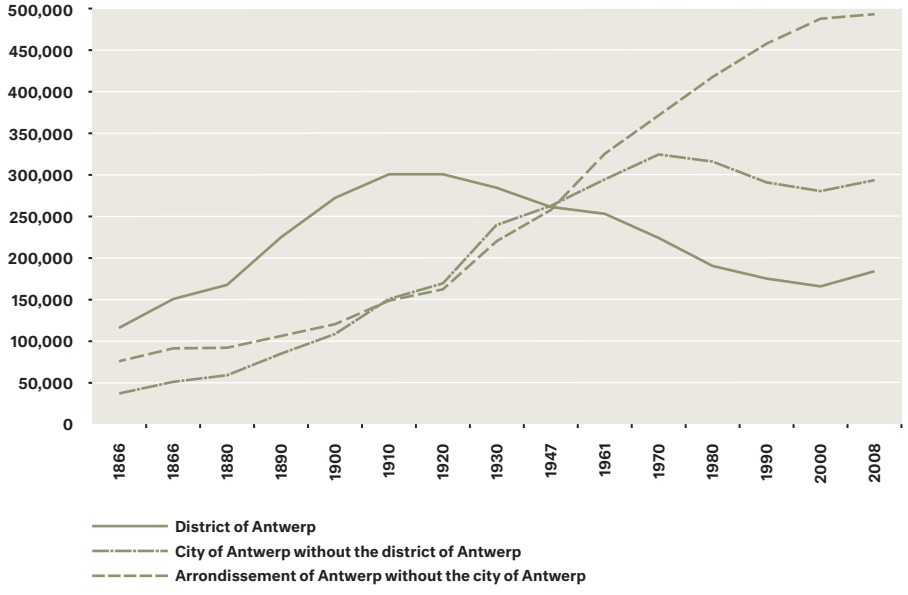
History

In 2000, the demographic evolution experienced a turning point. In the district of Antwerp (roughly Antwerp within the confines of the ring motorway) a long trend of population decline started in 1920, which was apparent across Antwerp from the 1970s onwards. In 2000, however, this changed, with a strong population increase within the ring motorway and a slower population growth outside the ring motorway. The arrondissement of Antwerp without the city, on the other hand, experienced accelerated growth from 1920 onwards, while this growth levelled off from 2000 onwards.

Projections

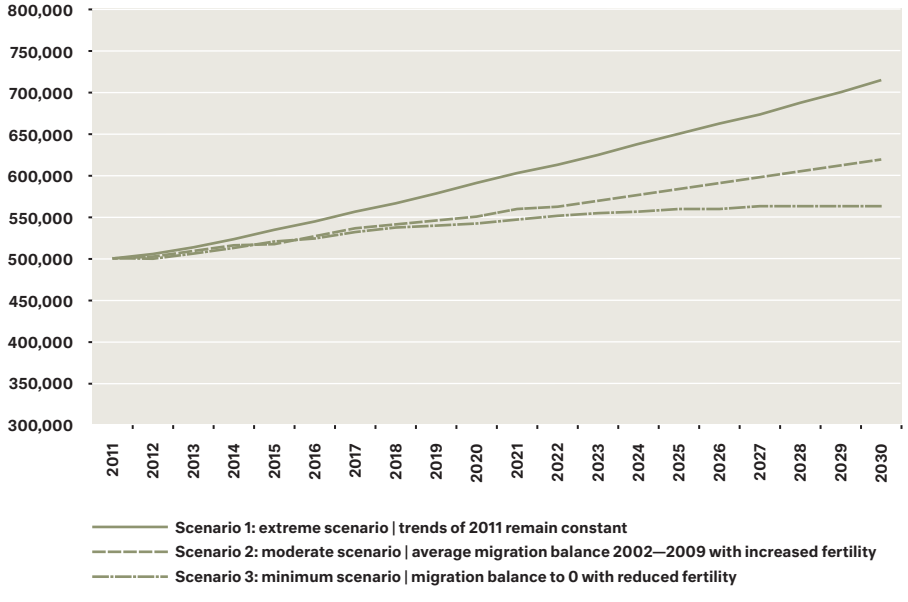
Since 2006, the research department of the City of Antwerp every year draws up a population projection in collaboration with the University of Antwerp and the research department of the Government of Flanders. This projection is always finalised in March and is based on current information from the city's register office of the previous year. It also contains data from the central register of foreign nationals and takes into account specific trends that only occur in cities or are specific for Antwerp, such as increased fertility.

Three scenarios are elaborated based on the projection: an extreme scenario, a moderate scenario and a minimum scenario. The three scenarios each make a breakdown by age and origin. As for the forecast for 2013, all the scenarios indicate that the population is growing. Lab XX set to work with the moderate scenario, which predicts a population increase of 100,000 inhabitants by 2030.



Evolution of the number of inhabitants
In the district of Antwerp, a long trend of population decline started in 1920, which was apparent across Antwerp from the 1970s onwards. In 2000, however this reversed, with a strong population increase within the ring motorway and a slower population growth outside the ring motorway. The arrondissement of Antwerp without the city, on the other hand, experienced accelerated growth from 1920 onwards, while this growth levelled off from 2000 onwards.

Source: City of Antwerp



Forecast for the number of inhabitants of the city of Antwerp
Three forecasts are elaborated based on the projection: an extreme scenario, a moderate scenario and a minimum scenario.

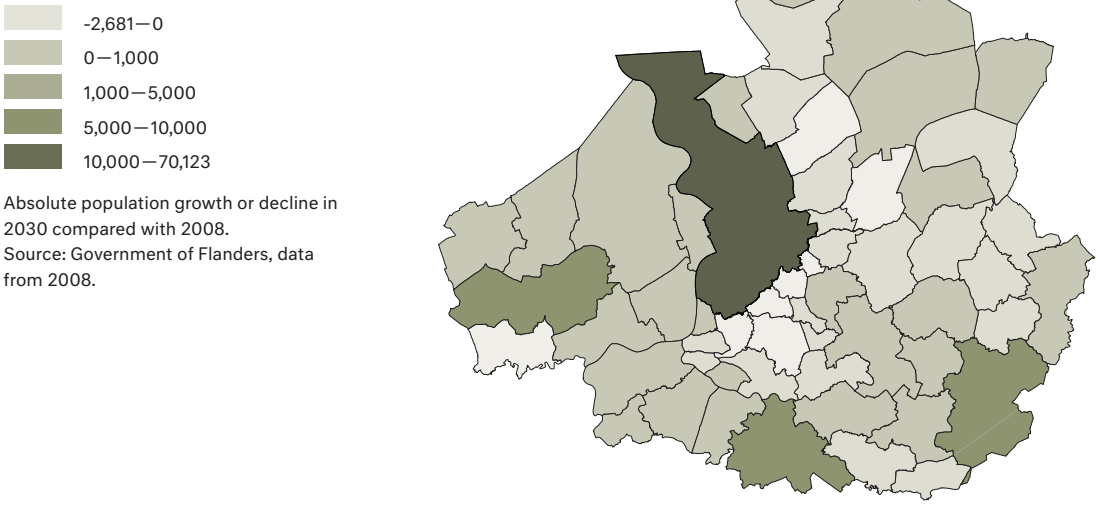
Source: City of Antwerp, data from 2013

Comparisons

If we compare the projections for the city with those of the neighbouring municipalities, we see that the population growth in the city of Antwerp is offset by a stagnation of the population in the rest of the region. However if we look at the projection by municipality the view is much more nuanced.

While Antwerp posts the strongest growth, the population also grows in municipalities such as Stabroek and Essen, whereas a population decline is predicted in municipalities such as Brasschaat, Mortsel and Edegem. This decline has much less of an impact than the predicted population growth, consisting of a total of 1,600 dwellings. In view of the regional aspect of the housing market and the fact that the projections stop at the border the newly available dwellings will thus soon be occupied by inhabitants from the neighbouring municipalities. Therefore, a stagnation is the only likely assumption in this framework.

Population projection
Arrondissement of Antwerp in 2030



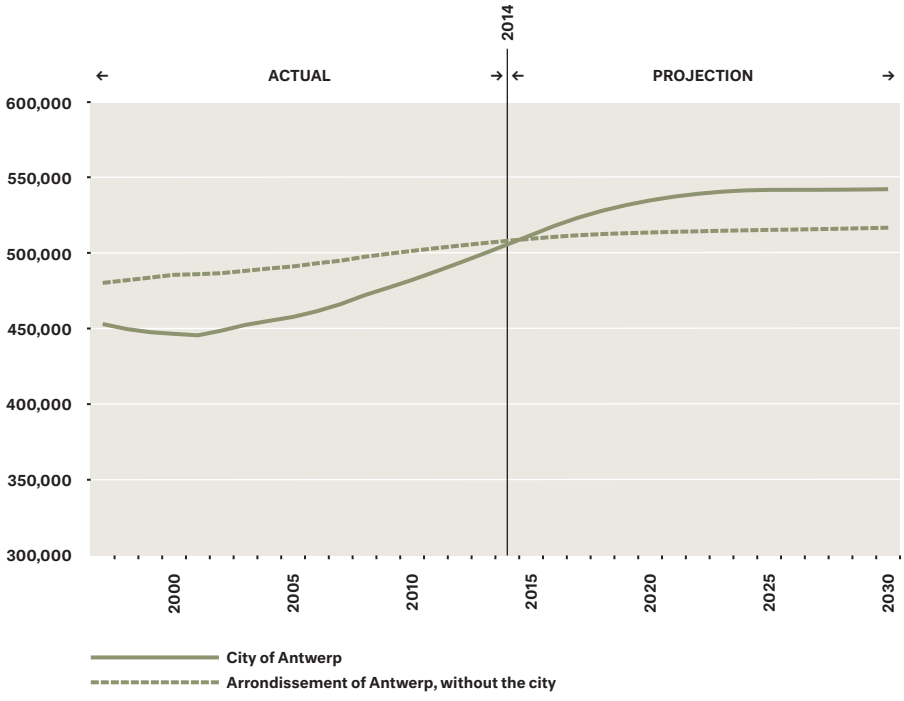
Absolute population growth or decline in 2030 compared with 2008.
Source: Government of Flanders, data from 2008.

Demographics

In addition to population growth there is also a demographic shift. Every year about 25,000 people leave the city and the same number of people move to the city, meaning the composition of the population can rapidly change. The same applies to the internal composition of the population of the city and its districts. Every year about 50,000 moves are recorded here. This continuous demographic shift, with 50,000 internal and 50,000 external moves a year is typical of Antwerp and a number of larger cities.

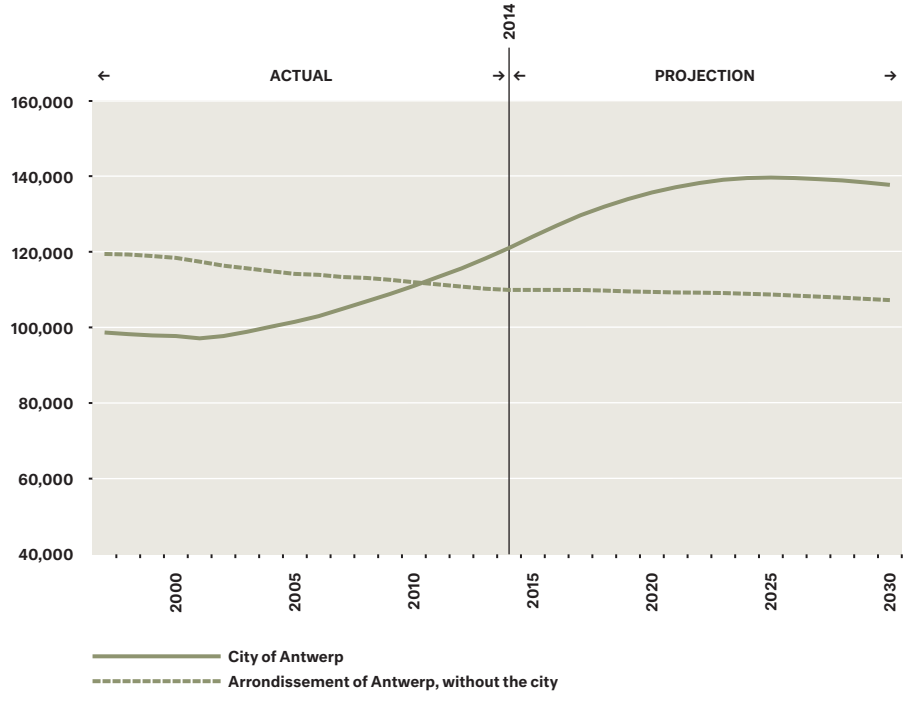
The number of young people has significantly grown in recent years in Antwerp, mainly in the age group of the 0 to 9 year-olds whereas there is a gradual decline in the suburbs.

The working-age population in Antwerp has also risen sharply in Antwerp, while a decline is now apparent in the arrondissement of Antwerp.



Forecast of number of inhabitants in the city and arrondissement of Antwerp (complete population)
If we compare the forecast for the city with that of the neighbouring municipalities we can see that the demographic growth in the city of Antwerp is offset by a stagnation of the population in the rest of the region.

Source: Government of Flanders



Forecast for the number of young people in the city and arrondissement of Antwerp (under 20s)
The number of young people has increased substantially in recent years in Antwerp, especially in the age group of the 0 to 9-year olds. We notice a gradual decline in the neighbouring municipalities.

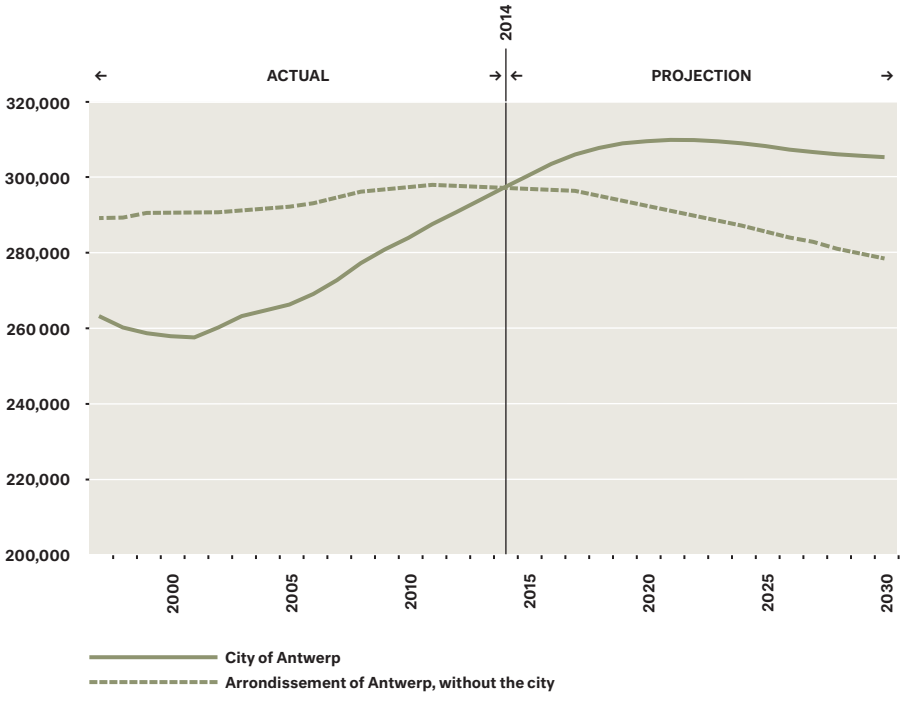
Source: Government of Flanders, data from 2012

These are important figures because there are the people that are members of associations and clubs as well as filling the job openings.

At the same time, we notice that ageing is not a problem in the city, unlike in the rest of Flanders. If we break down the bottom graph on page 19 by age then you can see that there was a temporary increase of inhabitants over 80 in the past years as well as a decline of the over 65s. This can be explained by the fact that the urban flight from the city was a selective exodus from the Seventies onwards. It was mainly the baby boom generation that left the city at the time.

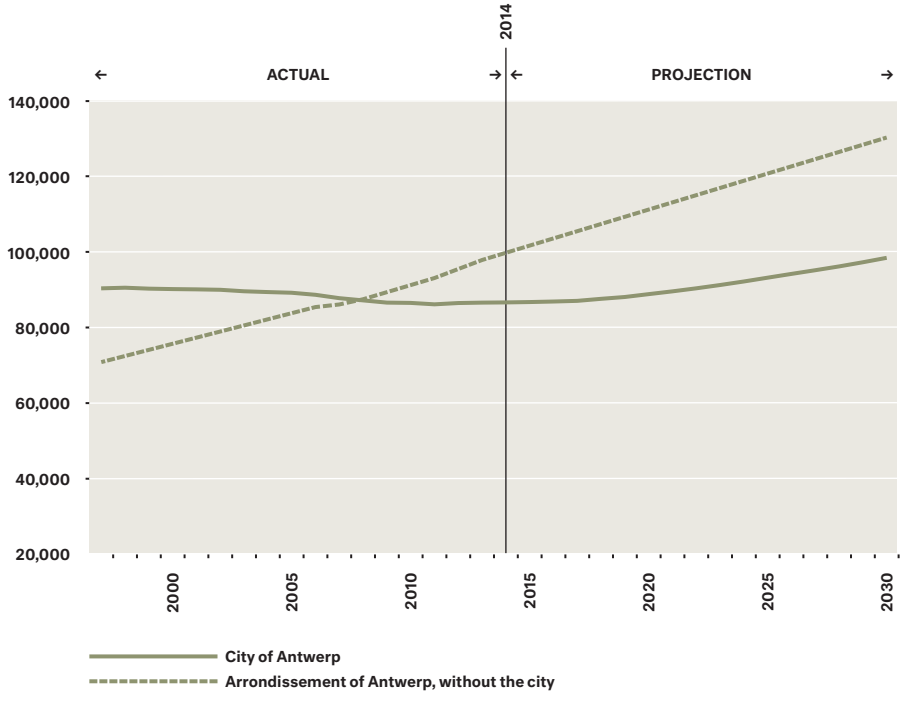
Antwerp is becoming increasingly diverse and as such is comparable with a number of other global cities like Paris, London or New York, not in terms of population numbers but of the composition of its population. As a result of its international port the number of nationalities living in the city is very diverse. There are up to 170 different nationalities, making the city more diverse than say Paris or Brussels.





Forecast for the working-age population in the city and arrondissement of Antwerp (20 to 64-year olds)
The working-age population has also sharply risen in Antwerp while this population group is experiencing a decline in the arrondissement of Antwerp.

Source: Government of Flanders, data from 2012



Forecast for the number of senior citizens in the city and arrondissement of Antwerp (over 65s)
At the same time, we notice that no ageing occurs in the city, compared with the arrondissement and the rest of Flanders.

Source: Government of Flanders, data from 2012

Calculations

For the middle growth scenario, we calculated which impact the forecast has on the needs in terms of housing, amenities and workplaces in the city.

Housing

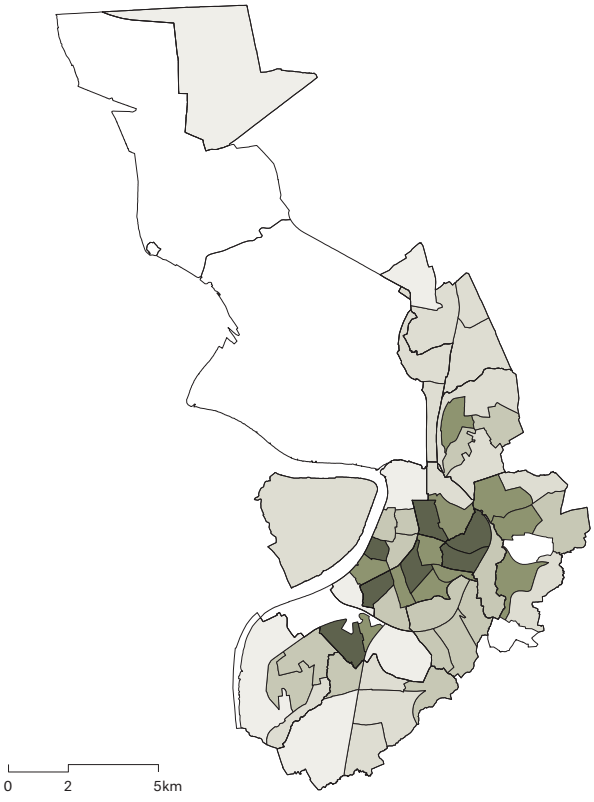
In order to forecast the housing needs we determine a range based on the average size of the Antwerp households in 2013 (2.11) and the prognosis of the future average size of the Antwerp household in 2030 (2.24). From these numbers we deduct the number of dwellings that are already planned or have already been built and will become available in the next few years, i.e. houses in projects such as *Nieuw Zuid*.

We also examine the forecasts of the Government of Flanders for the neighbouring municipalities as a population decline is predicted in some of the neighbouring municipalities. If we deduct the number of vacant buildings and plots from this, we still end up with a housing need of between 15,000 and 30,000 new dwellings in the next 15 years.

By average family size	2.24	2.11
	min	max
Number of additional dwellings projected for 2030	**32,112**	**47,161**
Housing stock		
Number of planned dwellings	10,785	10,785
Number of vacant plots	1,439	1,439
Number of vacant buildings	410	410
Number of available dwellings on the fringe	1,800	1,800
Additional to be built	**17,678**	**32,727**

The population growth of the past ten years was mainly absorbed within the ring motorway, in the areas of the city that already have the greatest population density today. There are two explanations for this. The population decline which started as of 1920 in the neighbourhoods within the ring motorway resulted in vacancy and underutilisation. As a result the housing stock could be *stretched*. Moreover, the number of 0 to 9-year olds has sharply increased in the past ten years. This is partly due to an evolution towards larger families, but this does not necessarily mean more dwellings.

Today we see that the central districts of the city are clogging up. This is among others apparent in the increasing real estate prices and applications for building permits for residential units that are too small. That is why, as a city, we need to lead the future population to the twentieth-century belt, where additional investments provide opportunities for the urban renewal of this area.

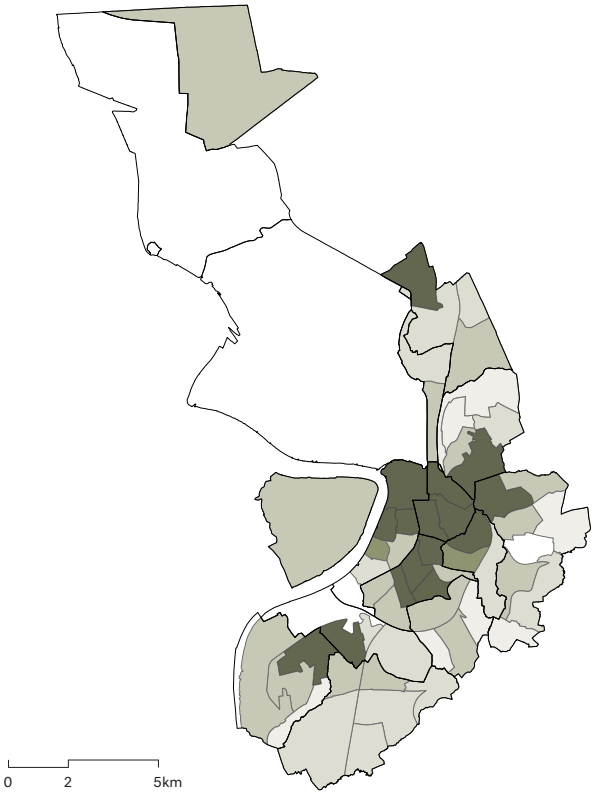


Population density in 2014

- 1—15 inh/ha
- 16—55 inh/ha
- 56—95 inh/ha
- 96—135 inh/ha
- 136—220 inh/ha

Inh/ha = inhabitants per hectare
The city average is 45 inh/ha

Source: City of Antwerp, data from 2014
We have left the neighbourhoods with less than 100 inhabitants blank.



Demographic growth 2000—2014

- decline
- growth up to 5 %
- growth up to 15 %
- growth up to 20 %
- more than 20 % growth

Percentage growth of the population from 2000 until 2014

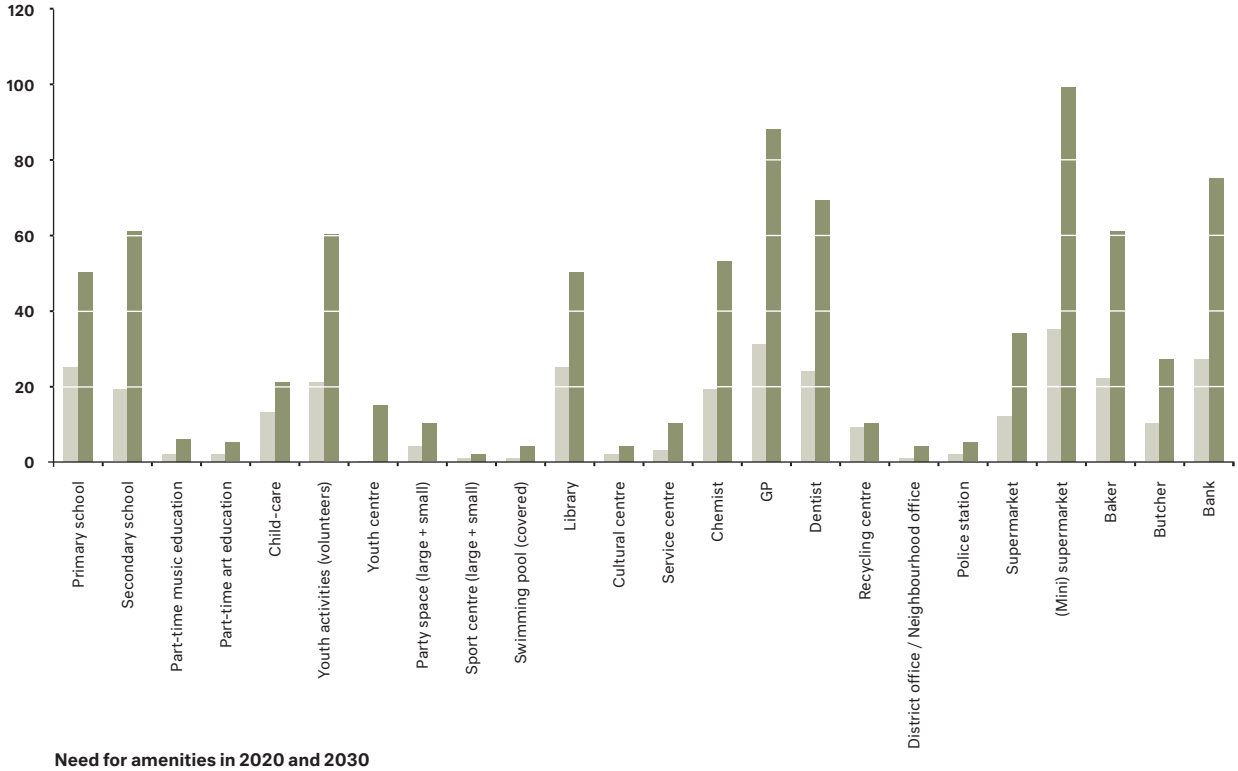
Source: City of Antwerp, data from 2014
We have left the neighbourhoods with less than 100 inhabitants blank.

Amenities

The breakdown of the forecast by age allows us to calculate the need for age-related amenities, from day-care facilities to residential care centres. Thanks to the registration system used in kindergarten and primary education we have current data every year. This is important because the schools in the city are also used for example by children of people commuting into the city and children from neighbouring municipalities, but the opposite also applies.

For the other amenities we rely on standards such as the Bloso standard for sport and the Barcelona norms for day-care centres or the norm is determined by policy decisions about the desired offering, such as the norm of 10 sq.m. of playing space per child. Where no norm is available, the city average is used. Based on these norms and averages we can calculate the impact of a population forecast for the need for amenities, in number and in surface area.

Finally, the city also takes into account the spread of amenities, to be able to monitor the proximity of neighbourhood-based amenities, such as primary schools and to indicate for new projects where there is a specific shortage in the neighbourhood.



Need for amenities in 2020 and 2030
if the current level of amenities is to be maintained.
The forecast of 2020 is more certain than the long-term forecast for 2030.

in 2020
in 2030

Source: City of Antwerp



Jobs

In terms of the figures for jobs, the available basic information is not as good. The self-employed for example register at their home address, instead of at their workplace, which results in an underestimation of the number of jobs.

For an idea of the currently available figures, there were 247,650 positions (on the payroll) in Antwerp in 2010. There are an additional 27,704 self-employed living in Antwerp. In 2014, there were 93,724 businesses in Antwerp. There is a concentration of workplaces in the city centre.

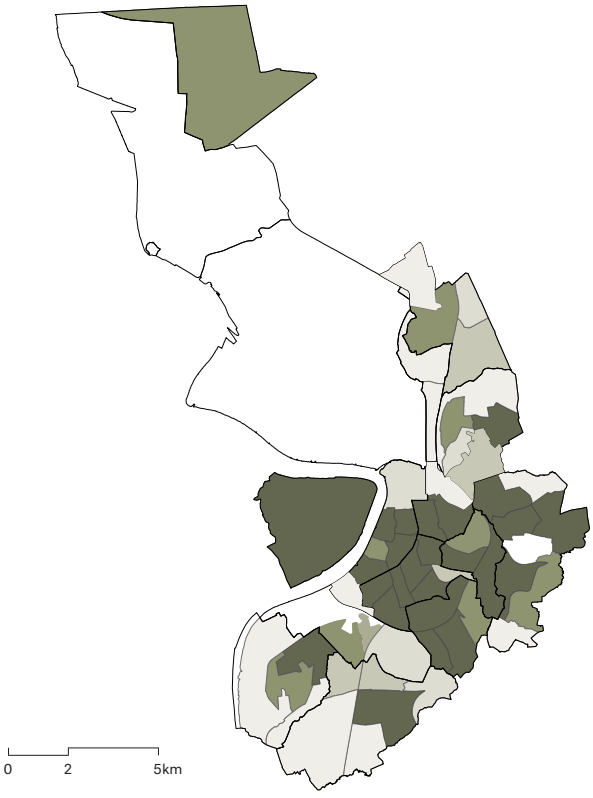
The city will further examine this to obtain more detailed data from the National Social Security Office.

Flexibility and monitoring

Obviously, projections never provide absolute certainty about the expected evolutions. That is why various scenarios are used to offset this uncertainty in part. Because the demographic projections are split by age as well as in time we can see for example that in one of the scenarios the number of 0 to 9-year olds will decline after 2022. So the city's amenities will have to have some measure of flexibility to respond to the continuously changing composition of the population.

These figures and calculations are also always underpinned by policy decisions (about how standards are determined or about the desired standard) and uncertainties (projections). That is why the actual population growth and the need for amenities are monitored yearly. For example the population figures for 2013 show a decline in the external migration for the first time in 20 years. This could mean that the population might grow more slowly than indicated in certain scenarios. However, no statistical conclusions can be drawn from the figures for one year so monitoring continues to be important.

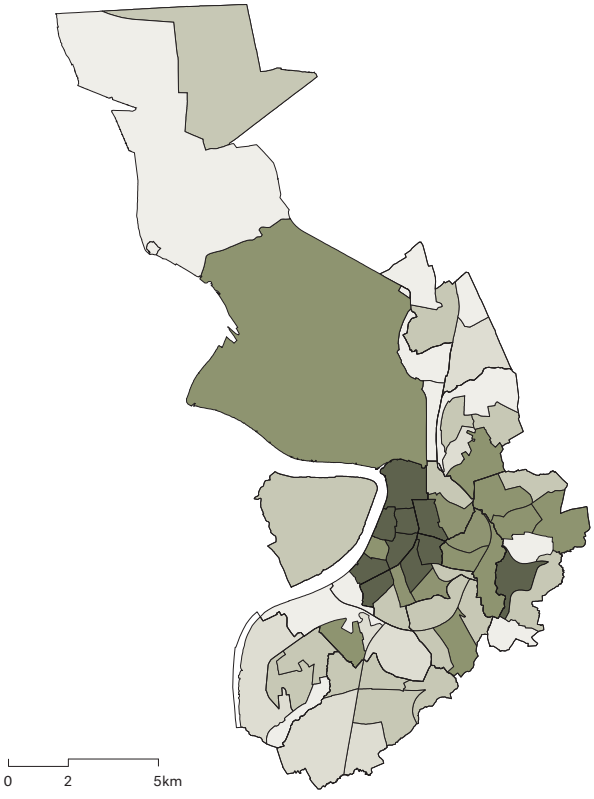
This text was co-authored with Reinhard Stoop and the research department of the City of Antwerp.



Number of self-employed per neighbourhood

- < 200
- 200 < 300
- 300 < 400
- 400 < 500
- ≥ 500

Source: Crossroads Bank for Social Security, data from 2011
Areas under the threshold value have been left blank.



Number of businesses per neighbourhood

- < 500
- 500 < 1000
- 1000 < 1500
- 1500 < 2000
- ≥ 2000

Source: Enriched Crossroads Bank for Enterprises, data from 2014

In 2014, there were 93,724 businesses. The concentration of businesses in the city centre is apparent.

A spatial analysis of the city region

Michiel Dehaene and Toon Vanobbergen

In 2012, the city's spatial planning department conducted a comprehensive spatial analysis of the morphological development of Antwerp on the city-regional scale. This spatial analysis highlights the close interaction between the historical development of the urban settlement structure and the region's physical-geographical structure. The analysis argues in favour of concentrating the further development in those areas that are already structurally most developed as these areas are better prepared to absorb new development as well as having the potential to grow from urban spaces with minimum amenities into mature spaces with a high level of amenities thanks to the intelligent combination of densification and renewal.

A quick glance at the map of the city region around Antwerp reveals a division between the urban structure to the north and south of the city respectively. The urban expansion first and foremost took place on the south side of the city. This is related to a clear difference in terms of the region's physical structure. In the north, we can distinguish polders and Brabantse Wal[1]. This landscape, which extends from the Kempen region to the city centre, is thinly settled.

In the south, there are cuesta[2] landscapes, intersected by lowland rivers with a developed settlement structure along the waterways. Like the northern polders and Brabantse Wal, the area to the west of Antwerp (Wase cuesta) is not densely settled and is characterised by spacious land plots and stereotypical ribbon development.

The area to the south-east of Antwerp constitutes the central cuesta. The development in this region is much more intensive. The area extends from Hoboken to Deurne like a belt between the barriers of the River Scheldt and Albert Canal and further expands towards Lier. Historically speaking this area has always been more built up and also more heterogeneous. Over time, a closely meshed spatial structure developed here. This urban structure, which already has good amenities, is well suited to further urbanisation, while other areas require a lot more investments to accommodate significantly densification. The area is better equipped, it is also centrally located within the Flemish Diamond on the Antwerp-Brussels axis. Below we will examine the main stages in the historical development of the city-region from 1800 onwards, in terms of building, infrastructure and open space. We will discuss the development in more detail, and specifically focus on the central cuesta.

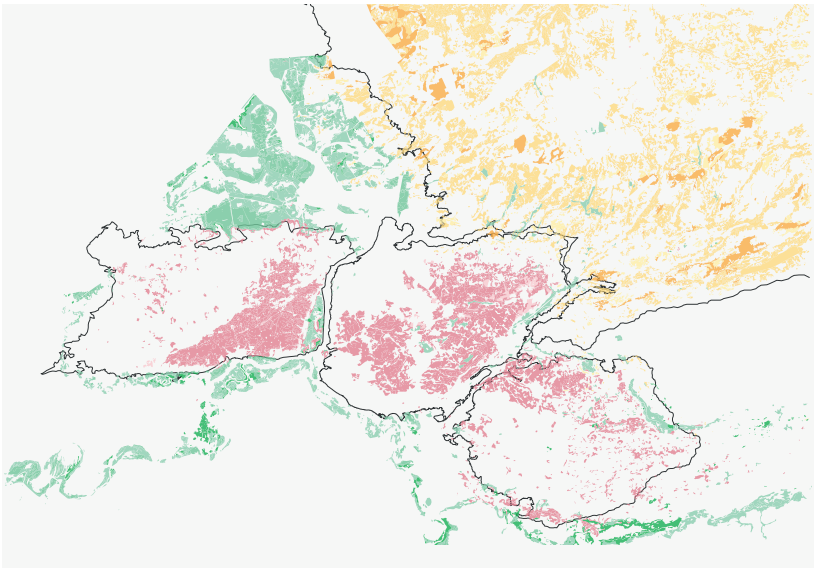
1 *Brabantse Wal* is a landscape of higher situated sandy soil, which extends from the *Kempen* region to the Netherlands and Germany.

2 In geology *cuesta* refers to an asymmetric mountain or hill. In Flanders, cuestas often have a sandy-loamy subsoil.



1 Wase cuesta
2 Brabantse wal
3 Central cuesta
4 Polders

Soil conditions
sandy
sandy loam
clay



Development

Rapid urban expansion

From 1798 until 1845, Antwerp's population almost doubled as a result of the industrialisation, whereas the percentage of dwellings only increased by 30%. Large sections of the city centre became impoverished neighbourhoods. To tackle the housing issue and poor hygiene conditions the city decided to develop what is currently roughly described as the nineteenth-century belt, namely the urban expansion area between the Spanish city walls and the Brialmont fortifications.

At the same time as this concentrated development was taking place in the centre of the city-region the industrial revolution staked a claim on the outskirts of the city. Brickworks, textile mills, oil mills, soap works, breweries and other small industrial establishments whose activities often consisted of processing agricultural products, established themselves in between the historic villages. They found a place in the land along the waterways or along a newly built railway line. The brick industry along the River Rupel experienced a heyday. It also helped shape the development of small cores such as Boom and Rumst in the south of Antwerp. Meanwhile the main roads to Lier and Mechelen were further urbanised.

In addition to the smaller industries, large industrial installations also were established outside of the nineteenth-century belt: the Cockerill yard in Hoboken, the Agfa Gevaert site in Mortsel. Around these plants as well as near the Albert Canal in Merksem and Deurne Noord working-class houses were quickly built. A loosely woven pattern of overgrown village centres and smaller cities on the edge of the central cuesta thus developed along the Antwerp-Brussels-Charleroi axis – Belgium's economic backbone.

Before World War I, the more affluent classes already migrated to the suburbs. The first suburban development was located just outside the Brialmont fortifications. A good example is the *Nieuw Park* neighbourhood around Den Brandt Castle. This subdivision was built in 1910 in Antwerp

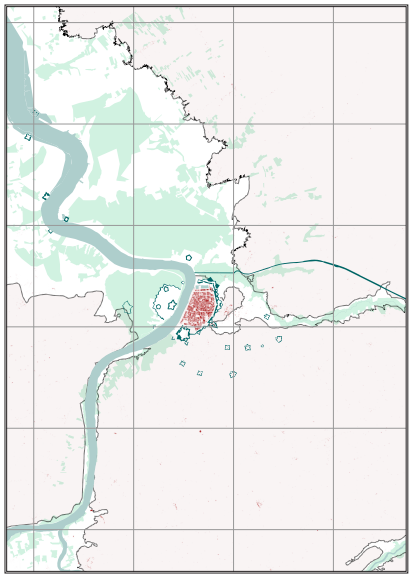
territory but outside the city walls, as a result of a covenant between the Antwerp city council and the owner, della Faille. The covenant among others set out the width of the streets and pavements, the nature of the road surface, the height of the buildings, the width of the façades and the construction of the public domain and the gardens.

As of 1919, the state also provided housing. As a result, Antwerp established several public housing companies. In the early 1920s, these companies built several garden suburbs in Antwerp, although more modest than the original *Nieuw Park*. Sometimes these housing companies searched for remote locations, which were often difficult to reach, where the land prices were low, among others in Hoboken, Merksem, Deurne and Edegem. These garden suburbs, which were isolated residential enclaves, continued to be heavily dependent on the city centre, including in terms of employment.

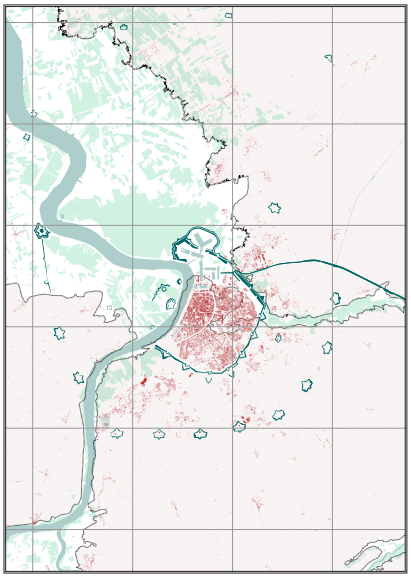
Private development soon followed, with residential subdivisions and residential parks near these garden suburbs, which took advantage of the new development and infrastructure. The notorious and well-known Conforta project in Deurne is a good example of this. From 1925 until 1928, a whopping 1,000 affordable dwellings were built here. Although these badly constructed houses were small and the housing was of poor quality a lot of people were convinced to move beyond the city walls. This is an indication of the often deplorable housing quality within the city walls as well as highlighting the lack of options and the fact that workers were highly dependent on these dwellings, which were available in the immediate vicinity of the new plants.

By contrast, the situation was relatively quiet in the Waasland region and to a certain extent also in the Kempen region.

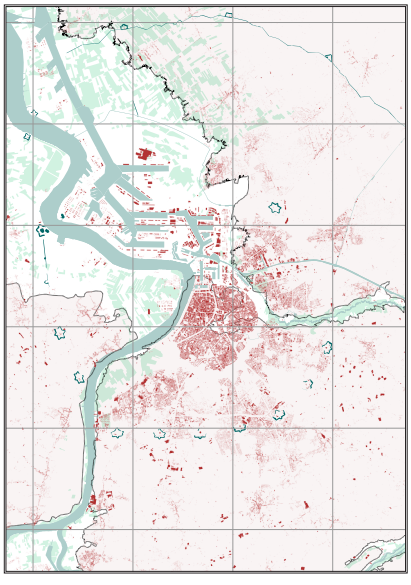
Evolution of construction



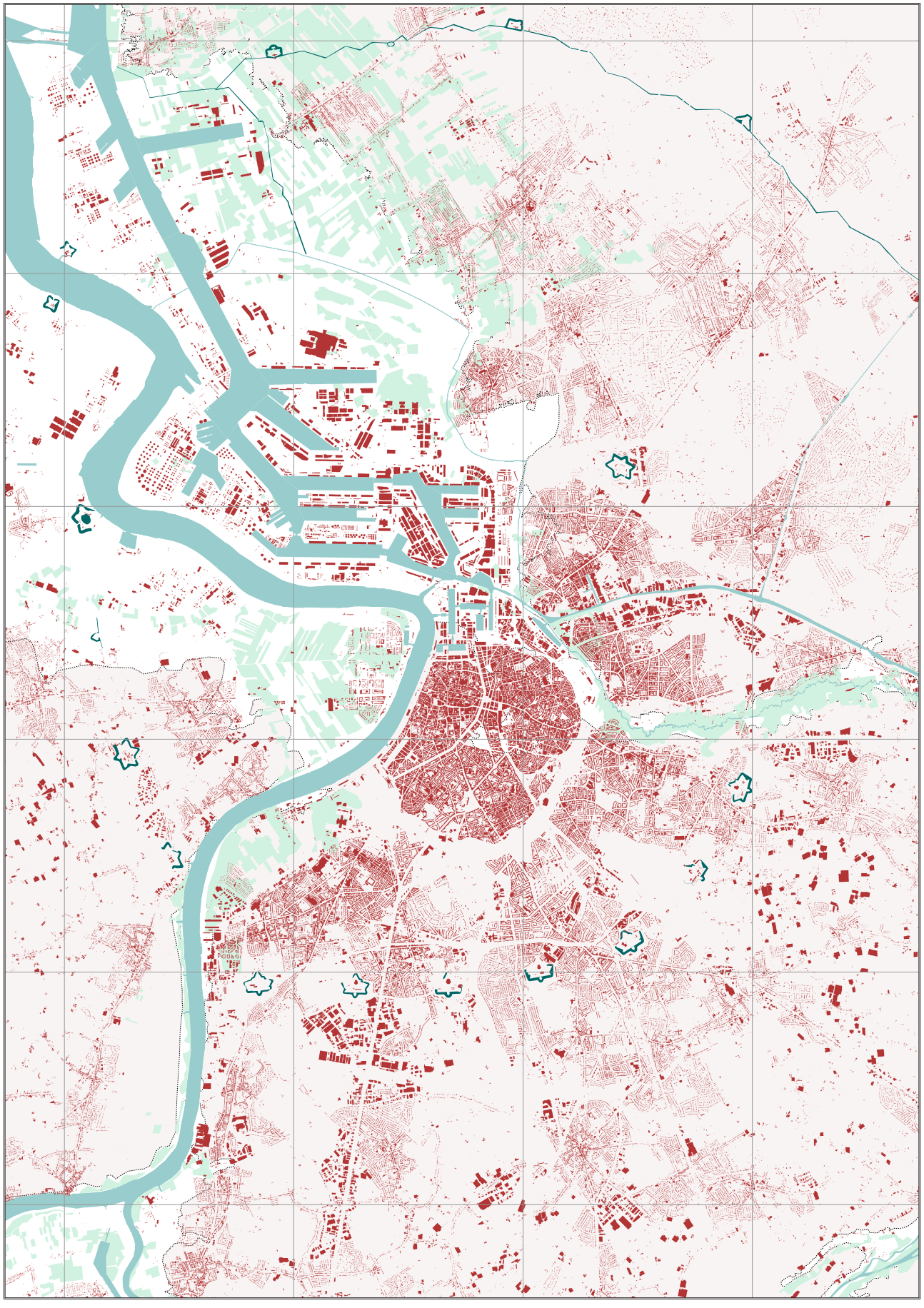
± 1850



± 1930



± 1970



± 2000

We note a provisional intensification and growth of the old patterns, such as villages on steep sides[3] and the first traces of ribbon development. For the time being, there were no manifestly new structures, radically different living environments or large-scale space consumption.

3 A steep side is an abrupt transition from elevated sandy soil to lower alluvial polders.

Post-war building boom

During the second half of the twentieth century, this dispersal policy changed. The suburban development sharply increased. The boundaries for urban development had literally been lifted and the sprawl invaded large parts of the territory in an unprecedented manner. Now more than ever the attention shifted to building housing. Commuter towns were developed on a large scale, dominated by detached houses on individual plots.

The housing shortage after World War II led to a first peak in housing production. From 1946 until 1948, *National Yards*[4] were launched in function of the reconstruction. But these districts were not a great success due to the lack of quality. Some of the better examples include the National Yards of Borgerhout and Deurne, with buildings by the architect Renaat Braem.

4 *National Yards* is the name given to a number of modest newly built neighbourhoods which were built for people who had lost their house during World War II.

In the wake of the National Yards, two opposing views on housing were formulated: the De Taeye Act (1948) which emphasised the individual home and the Brunfaut Act (1949), where the emphasis was more on the collective living experience.

The De Taeye Act represented the Catholic principles and wanted to encourage people to buy or build a home of their own with a premium or a loan with a state guarantee. The government had clearly changed tack. It no longer invested in National Yards, choosing instead to provide support for purchasing power and influencing demand. A house became a commodity, a prized consumer good, the purchase of which came to symbolise a new modern lifestyle, along with that of a car and a growing arsenal of household appliances. With its rules about surface area, use and the amenities in these spaces, the legislation also established the criteria for a *good home*.

The success of the De Taeye Act exceeded expectations. In Antwerp, there are large numbers of De Taeye homes in the twentieth-century belt. Villages and small municipalities that were further abreast also saw more houses being built. In the Kempen region especially former landed properties in woodland areas were parcelled at a rapid pace.

The De Taeye Act laid the foundation for a housing model that was mainly geared towards an owners' market, which was increasingly popular with a widening middle class. At the same time, this new housing also freed up space at the bottom end of the market. The smaller houses within the ring motorway became affordable (rental) housing in the post-war period. Affordability was mainly organised through a grey residential circuit of poorly equipped, terraced houses, which needed to be renovated and which had been abandoned by the population that left for the suburbs. The rule of thumb in the twentieth-century belt seemed to be to move forwards, and only recycle afterwards. As a result, new areas were parcelled up but at the same time certain areas suffered from vacancy and underutilisation.

The Brunfaut Act provided an alternative view on housing. In contrast with the vision underpinning the De Taeye Act, it did factor in a central role

for the government. This legislation set out the framework for the financing of infrastructure for public housing.

Modernist architects appreciated the ideas that underpinned the Brunfaut Act, which focused on collective housing around the public domain and on developing a social fabric. Examples include the apartment buildings in Kiel, the neighbourhood along Jos Van Geellaan and the Arena neighbourhood. The developments in Linkeroever and in Luchtbal were also built under the Brunfaut Act.

> The rule of thumb in the twentieth-century belt seemed to be to move forwards, and only recycle afterwards. As a result, new areas were parcelled but at the same time certain areas suffered from vacancy and underutilisation.

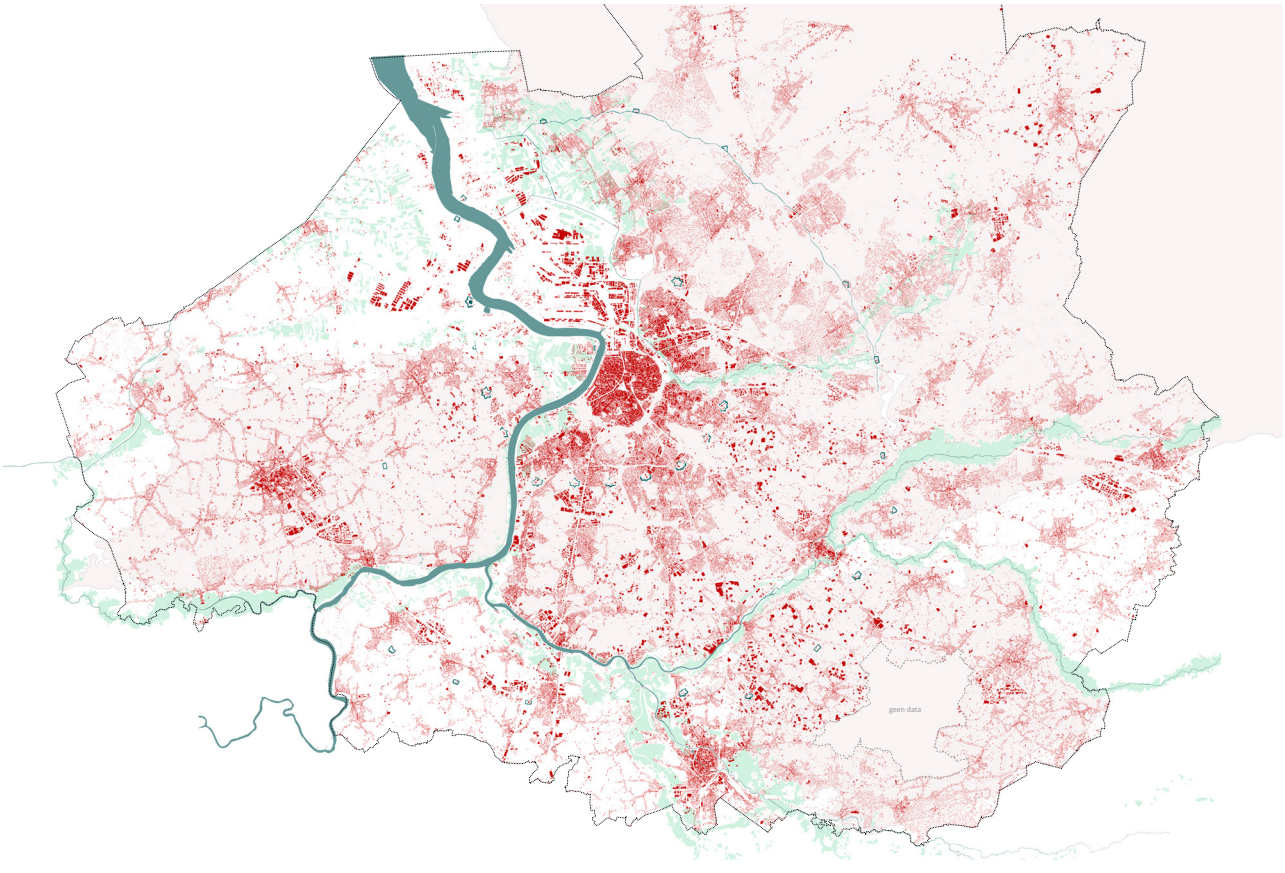
Private apartment building also took off more or less at the same time. Property developers such as Amelinckx and Etrimo ensured a stable housing production with a significant proportion of high-rises. These apartments were built in a buyer's market, which soon would transform into investment property. More than ever, houses were standardised products. But Amelinckx and Etrimo opted in favour of a sensible location policy as real estate developers. Their building blocks are typically in easily accessible locations along the tram axes. They provide the basis for a good level of amenities because of their critical mass. Here and there, the result is an exceptional ensemble such as the subdivision around Fruithoflaan. This seamless housing production thus was the exception to the dispersed living that continued to develop during the post-war period

From 1930 until 1970, the building boom on the central cuesta gave rise to a strong conurbation from Wijnegem all the way to Hoboken. The outcome is a heterogeneous urban carpet, with the exception of some parks and larger lobes such as the airport, with fragments from different periods and of a very different nature. To the south of the city from this period onwards, it became very difficult to distinguish where the city ended or started. During this period the once clear transition between the central cuesta and the Kempen region also became somewhat difficult to distinguish. And yet we can still sense that there are two clearly different spatial environments on the regional level, with a tipping point somewhere near Albert Canal. In the Waasland region, agriculture, more than anywhere else, was able to resist the widespread building boom. In comparison with other sub-areas, the impact here was limited and large contiguous agricultural areas continued to exist.

Peripheral sprawl

From the 1970s onwards, the *economic* fabric mainly expanded. Waasland-haven was built on the left bank. The new tools for urban planning (i.e. the law on urban planning of 1962), the drawing up of regional plans, the investment programmes for infrastructure and the systematic construction of industrial parks were designed to create the framework for further industrialisation. The regional plans created a land reserve that would suffice until the end of the twentieth century. Zoning plans were used to facilitate development rather than control it.

From 1970 until 2000, the general urbanisation slowed down. Most additional building mainly took place in the periphery during this period. In the Kempen region, the forests continued to make way for endless subdivisions. The subdivisions on lower-lying land that were added during this period are equally remarkable. They include Polderstad near Hoboken or the subdivisions on polder clay in Merksem and Ekeren. The once pure congruence between topography, landscape and urbanisation faded, giving rise to water-related problems.



Evolution of construction ± 2000

In the Sixties suburbanisation and urban flight resulted in a lack of investments in the city and even real deterioration. Whereas in the Sixties this provided a basis for a tough approach to urban renewal aimed at demolition and new-builds, in the Seventies this created the context for a renewed interest in the city and a forceful plea in favour of urban renewal. In 1973, Antwerp once again took the required steps towards an integrated approach by conducting an urban planning survey and drawing up a structural outline for the historical city centre. Subsequent initiatives such as the drawing up of the Global Structure Plan Antwerp (1990) and the strategic Spatial Structure Plan for Antwerp (2006, s-RSA) put the city into a more attractive light once again.

Infrastructure

The development history of the twentieth-century belt tells a story of building and urban development as well as the story of the transition of a country, structured by railways and canals, into a car country. In the nineteenth century Belgium was a pioneer in the field of railway development, discovering the power of railways for contributing to industrial development early on. Railways were used for logistics as well as for commuting long distances. Around tram stops, we often find small concentrations of working-class houses. The national railways as well as the regional tramlines created an intricate network that transformed our country into a country of commuters in the nineteenth century.

The regional tramlines essentially followed the structure of the trunk roads that had been built a hundred years earlier. These paved trunk roads were initially built under Austrian rule and later by the Belgian nation state. Once again, we see that the bundled development of these trunk roads mainly took place to the south of Antwerp, with roads to Mechelen, Lier, Boom and Brussels. The urbanisation grafted itself on these trunk roads. On the outskirts of the city, between the meshes of these axes, various residential neighbourhoods were built in the twentieth-century belt.

All in all Belgium's infrastructure had survived World War II relatively unscathed. For a long time the government mainly chose to focus on upgrading the existing road network. Once cars became increasingly widespread, a large part of the traffic used these historic trunk roads. As a result, the roads were widened and paved, the trees along them disappeared. Systematic building occurred along these well-equipped roads, resulting in ribbon development.

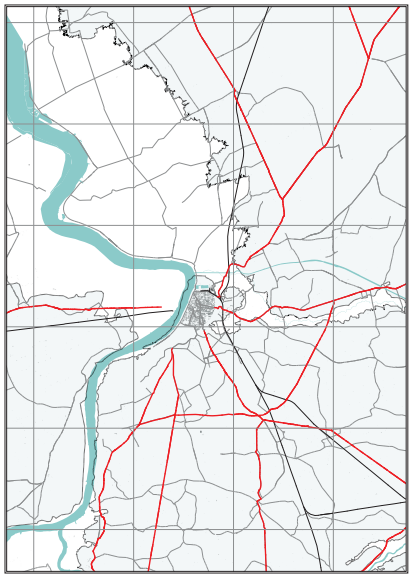
The road network of the southern cuesta was largely a borrowed road network that developed as a result of the upgrading of a historical rural road network. A number of major avenues were however systematically developed nearer to the city. In the period between the two wars, Jan Van Rijswijcklaan was already built on the city's territory. In the period after World War II, Engineer Mennes developed a series of connected avenues, in consultation with the neighbouring municipalities (the present-day districts), such as Fruithoflaan, Dascottelei and Ruggeveldlaan. Today these avenues still constitute the trunk road network of the twentieth-century belt to the south of Antwerp.

The systematic development of motorways only started in the Seventies. The small ring motorway was built in Antwerp whereas the large ring motorway (R2) was never built. As a result even today the major supra-local traffic which has to pass through Antwerp still has to do so relatively close to the city, adding pressure on the urban areas along the motorway. The development of the road network ensured that even the farthest outposts became accessible. At the same time, a building boom took place in the periphery and completely car-dependent urban areas were developed in the Kempen region.

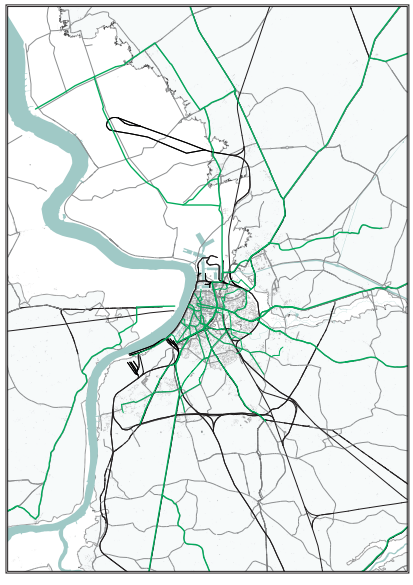
From the Seventies onwards the city also invested in the conversion of urban public transport with tramlines. This project was put on hold for a long time during the Eighties but a city-regional bus network was developed during this period. Following the construction of the Brabo Tunnel in 1990 – and the subsequent inclusion of the *railway city* image in the strategic Spatial Structure Plan – the tramline project was relaunched, including the completion and commissioning of unfinished sections of pre-metro lines from the Seventies.

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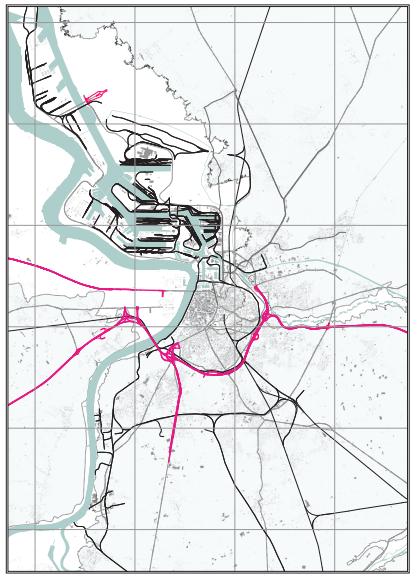
Evolution of infrastructure



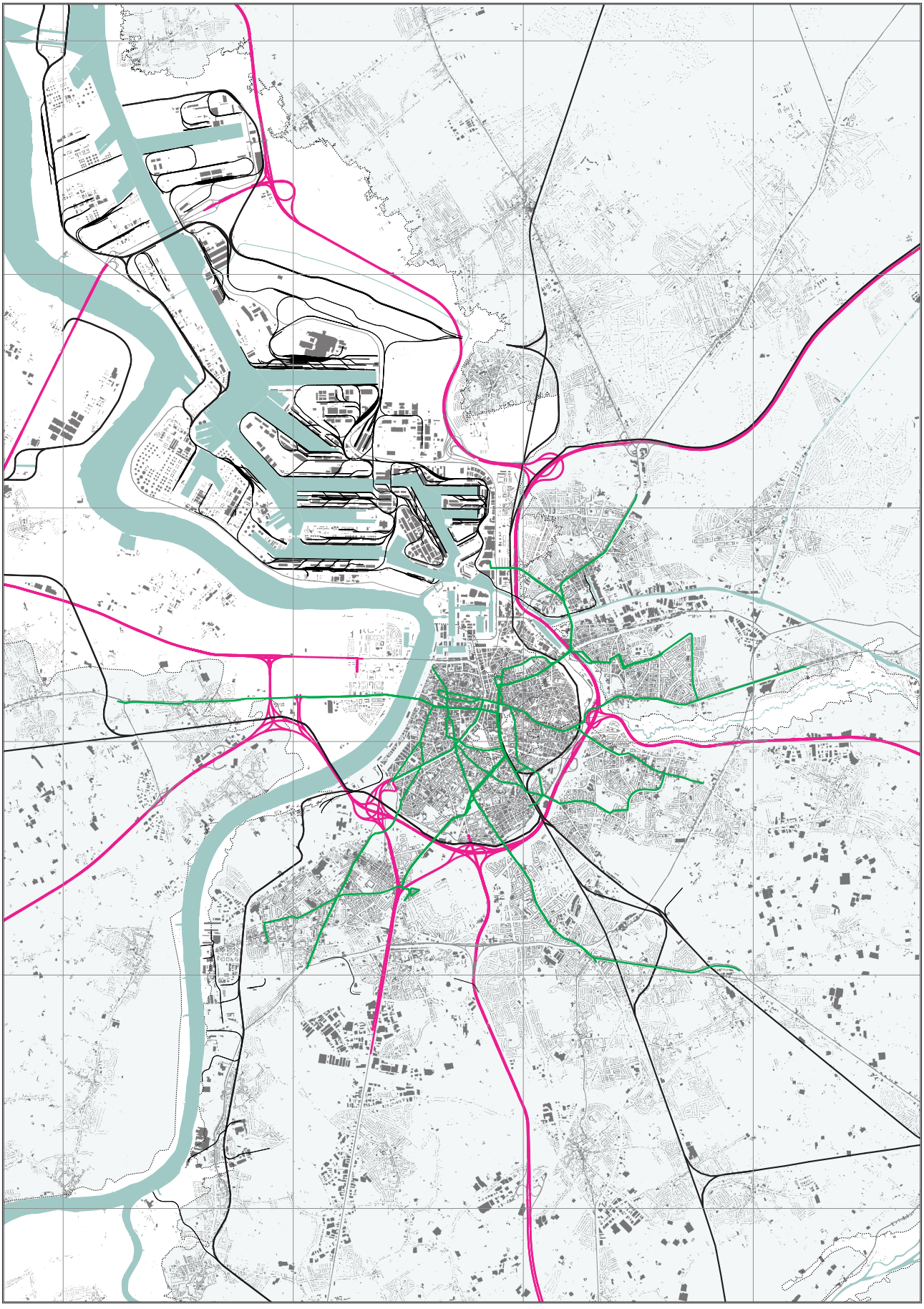
± 1850
— trunk roads
— railways



± 1930
— regional and urban tramlines
— railways



± 1970
— motorways



± 2000

trams
motorways
railways

Open space

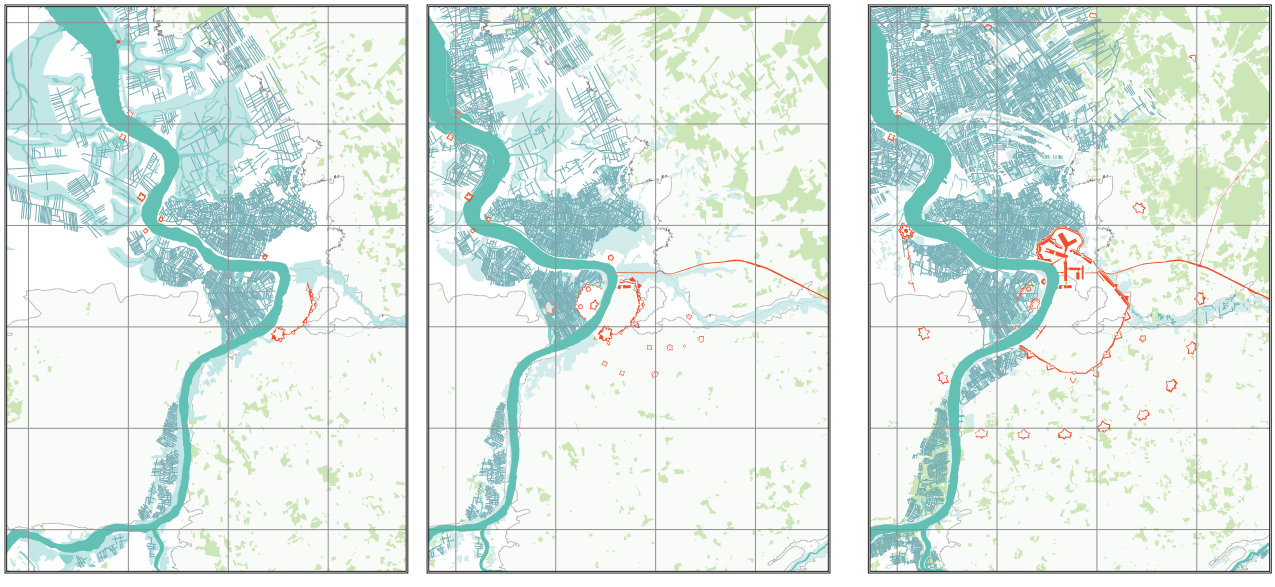
The twentieth-century expansion of the city involved a very space-consuming form of urban development. The urbanisation of the twentieth-century belt is a process of systematic conversion from rural to urban areas. Important open space structures were however also safeguarded in this process as they structure the twentieth-century belt and contribute to its identity. The hydrography largely defines the formation of these open space structures.

In the nineteenth century, a major network of forts was built to the south of the city. *Vlaams Hoofd* in Linkeroever was also fortified. Forts 1 through 8 are located close to the city. Together with Krijgsbaan they form a special urban figure. In recent history, the various forts were given very different new uses. At the same time, they have a strong significance as landmarks and in Hoboken, Mortsel or Wilrijk the result are some magnificent parks. Fort 1 was blown up in 1959 to straighten Turnhoutsebaan. Wijnegem Shopping Center was subsequently built in this location.

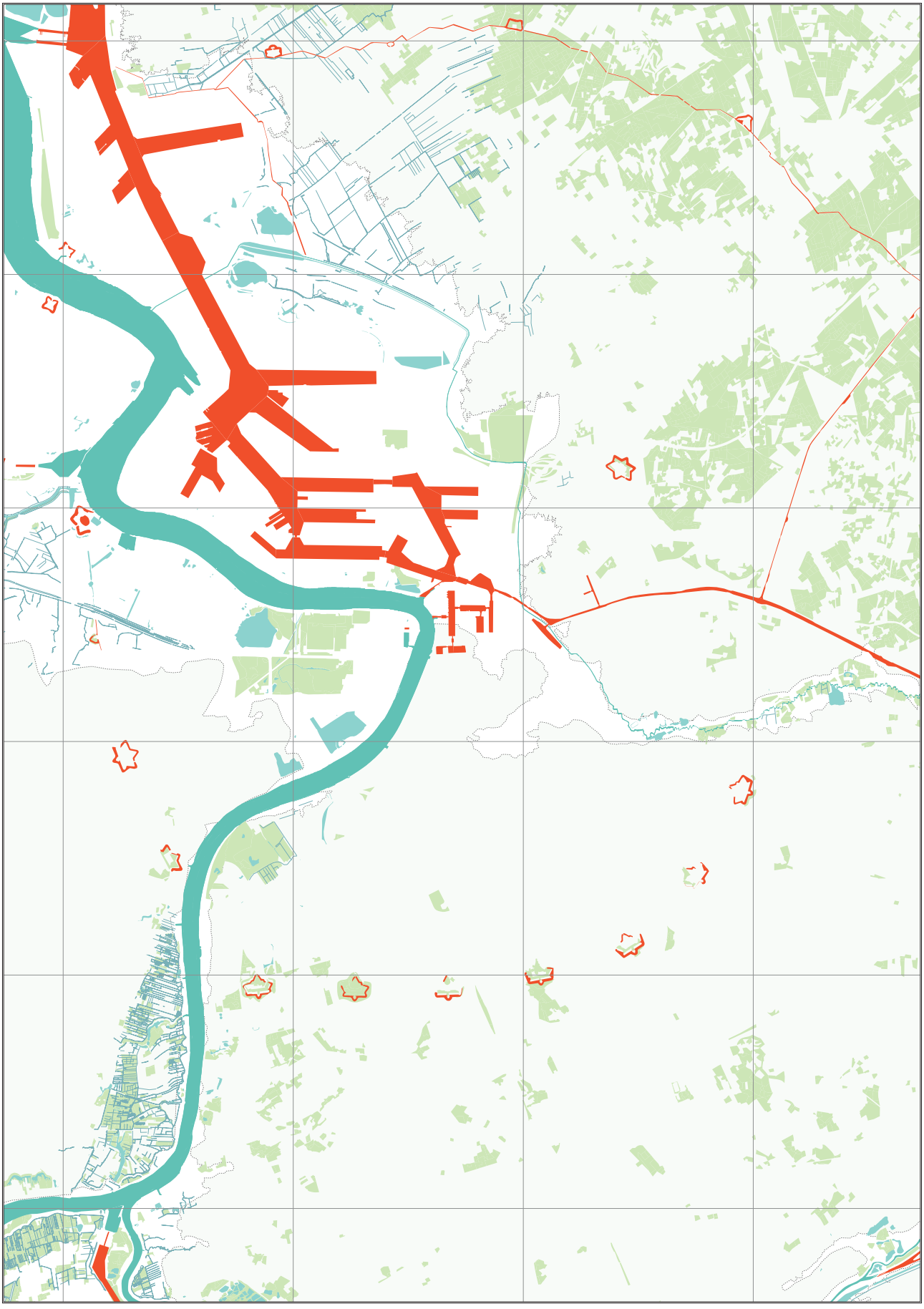
Major infrastructural fault lines run to the north and south of the city, which confirm the separating function of the Schijn Valley. The old Kempen canals, which were dug from 1830 (Belgian independence) onwards and the predecessors of Albert Canal, facilitated the connection between the port and the industries in Liège. The construction of Albert Canal started in 1930. Subsequently this canal provided for the required industrial development as well as serving as a corridor in the urbanisation process and an important barrier.

forests
wet soils
canals – ditches
polders

Evolution of open space



±1770 ±1850 ±1930



± 2000

A turning point for the twentieth-century belt

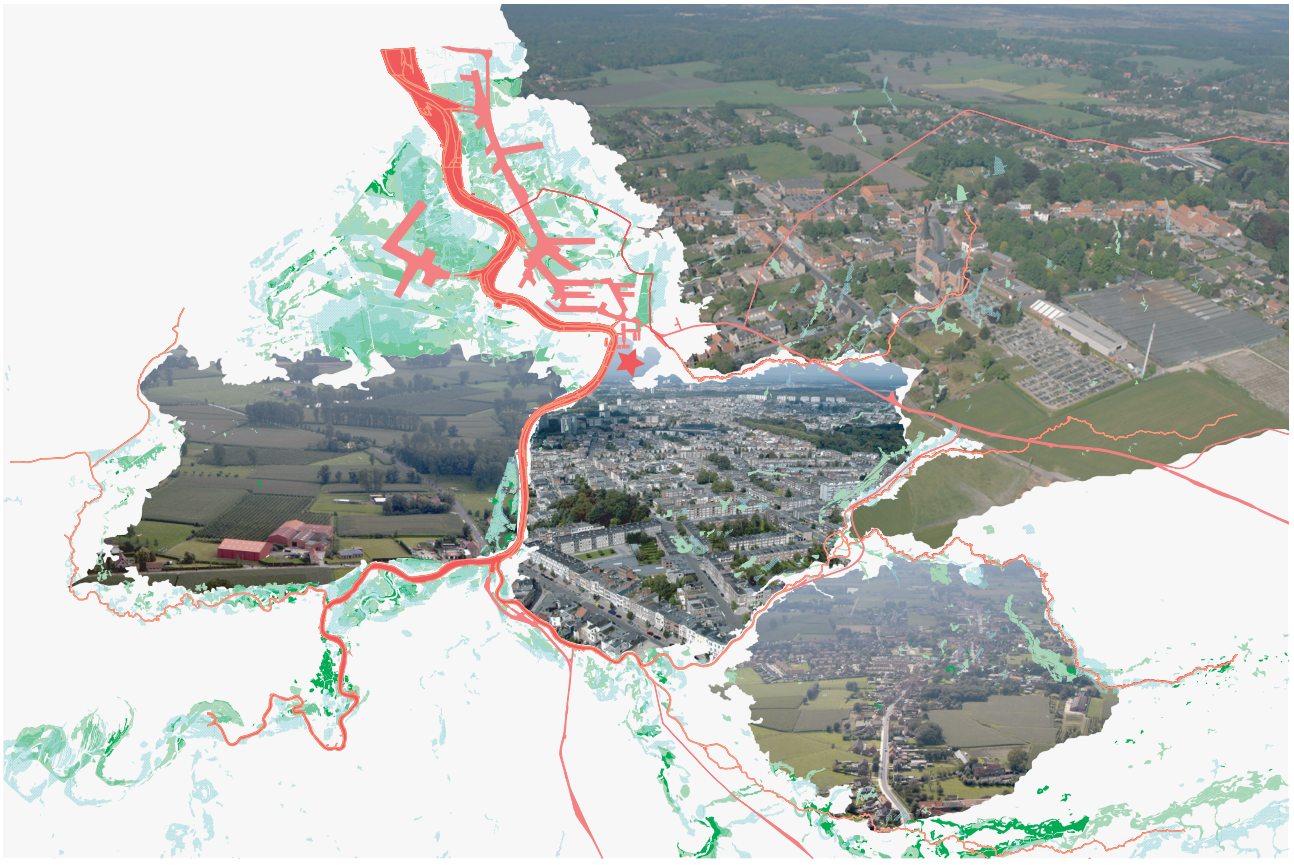
The regional analysis shows how the urbanisation of the twentieth-century belt spatially crystallises by increasingly grafting itself on those locations which were already densely built up. Development follows from the development of infrastructure. New development, in turn, requires more infrastructure. The space of the twentieth-century belt is not a blank page. The history of this space facilitates certain things as well as making them impossible, creates opportunities as well as problems. In this spatial analysis, the twentieth-century belt reveals itself as an assignment that has to be organised based on these path-dependent reasoning.

Lab XX is about intelligently reflecting on both paths, about cultivating opportunities as well as breaking through logics when the current development is stuck in a rut. This includes the pressure on open space, the dependence on cars and the related congestion. It also is about seizing opportunities that developed historically. The substantial historical meshing as well as the rich presence of attractive landscape structures and the relative concentration of supra-local amenities and the concentration of jobs are all part of this.

The spatial analysis argues in favour of continuity as well as of a selective change in the trend. If we look back at history, we can see that the urbanisation process mainly occurred in the city's southern flank. As a result, this space is literally a strategic space that is ready to be used, where urban renewal can make the difference and where Antwerp can further embed itself in the network city. At the same time, the analysis also shows how urban development came to equate spatial consumption after 1950. This development reasoning led to a certain measure of prosperity. The many lots that were systematically made available for large and small investments in space are the historical playing field of broad social participation in a collective investment project. Each individual lot became a ticket for many people to also enjoy this prosperity.

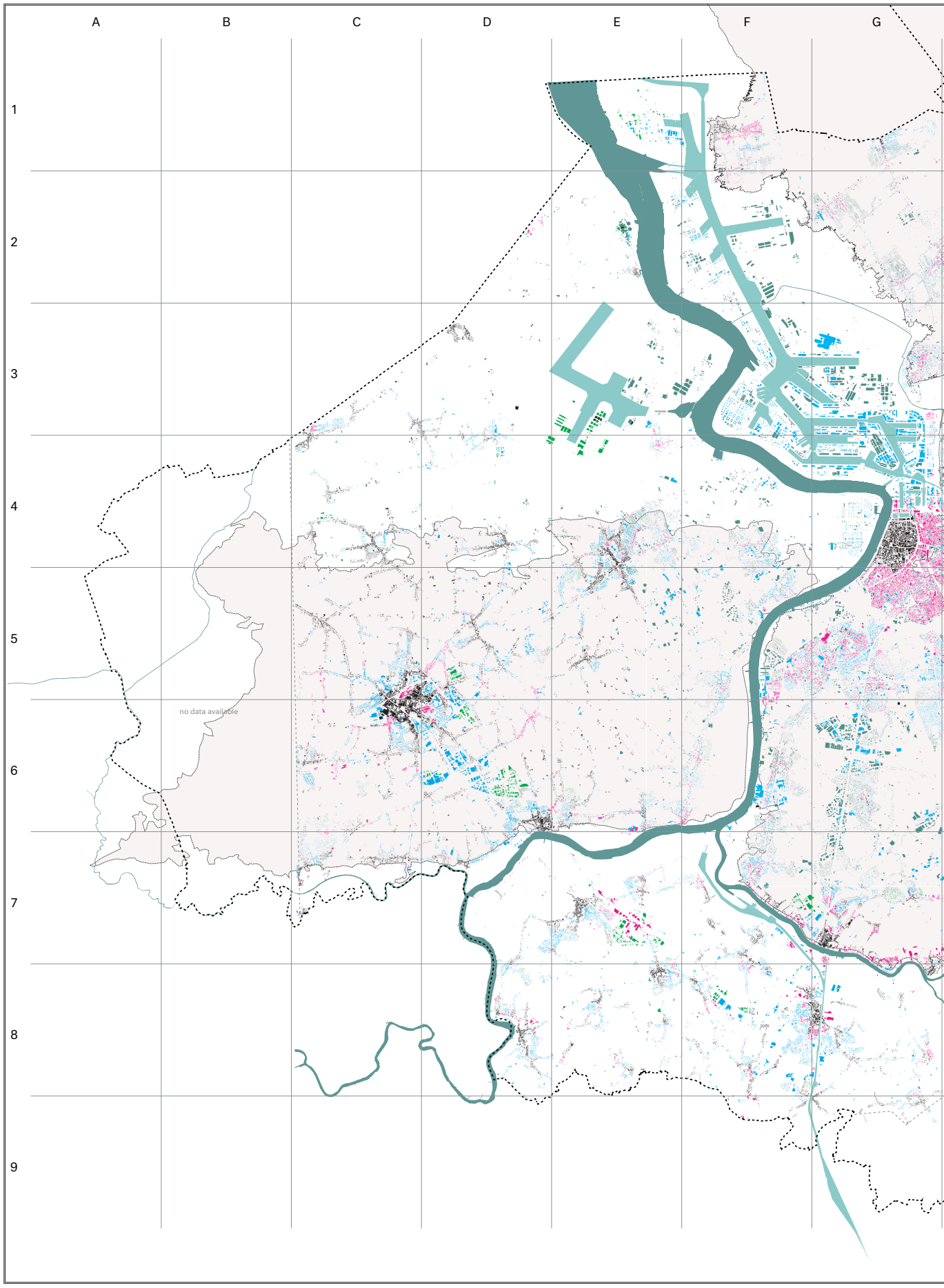
Today it has become clear that we cannot endlessly continue to follow this logic. We have used up all our space in Flanders. Moreover, we are facing the rising societal cost of a social dispersal policy. The twentieth-century belt then becomes the place where spatial consumption can be exchanged for reuse, reconversion and recycling. The space where suburbanisation first occurred is ready for a second layer of urbanisation. Lab XX has opted in favour of a new dynamic that values the existing development. At the same time, however, we refuse to settle for the current status quo, purposefully choosing a new and more sustainable form of spatial development instead. This reconversion task is not a project of Antwerp alone. However, the twentieth-century belt is one of the most important key areas where Antwerp can make a difference. By actively developing this area, it can become an attractive area that is structurally embedded in the urban network of the most urbanised part of Flanders.

You can find further information about Lab XX's preliminary research on this website:
www.ruimtelijkstructuurplanantwerpen.be
Analysis of the city region (Tom Broes and Toon Vanobbergen, City of Antwerp)



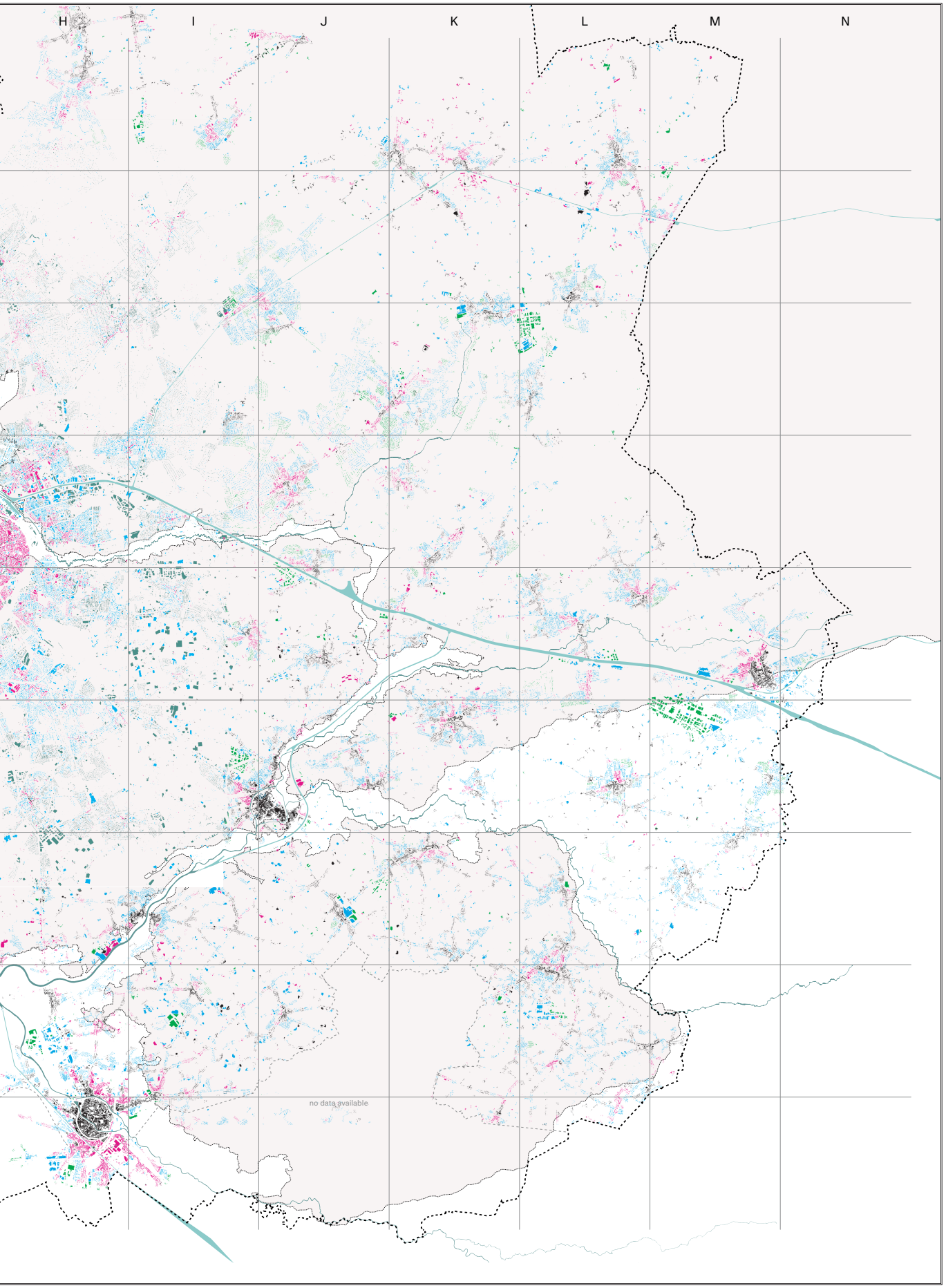
The region's physical-geographical structure has led to the development of various area types, where building, infrastructure and open space all evolve in a different way.

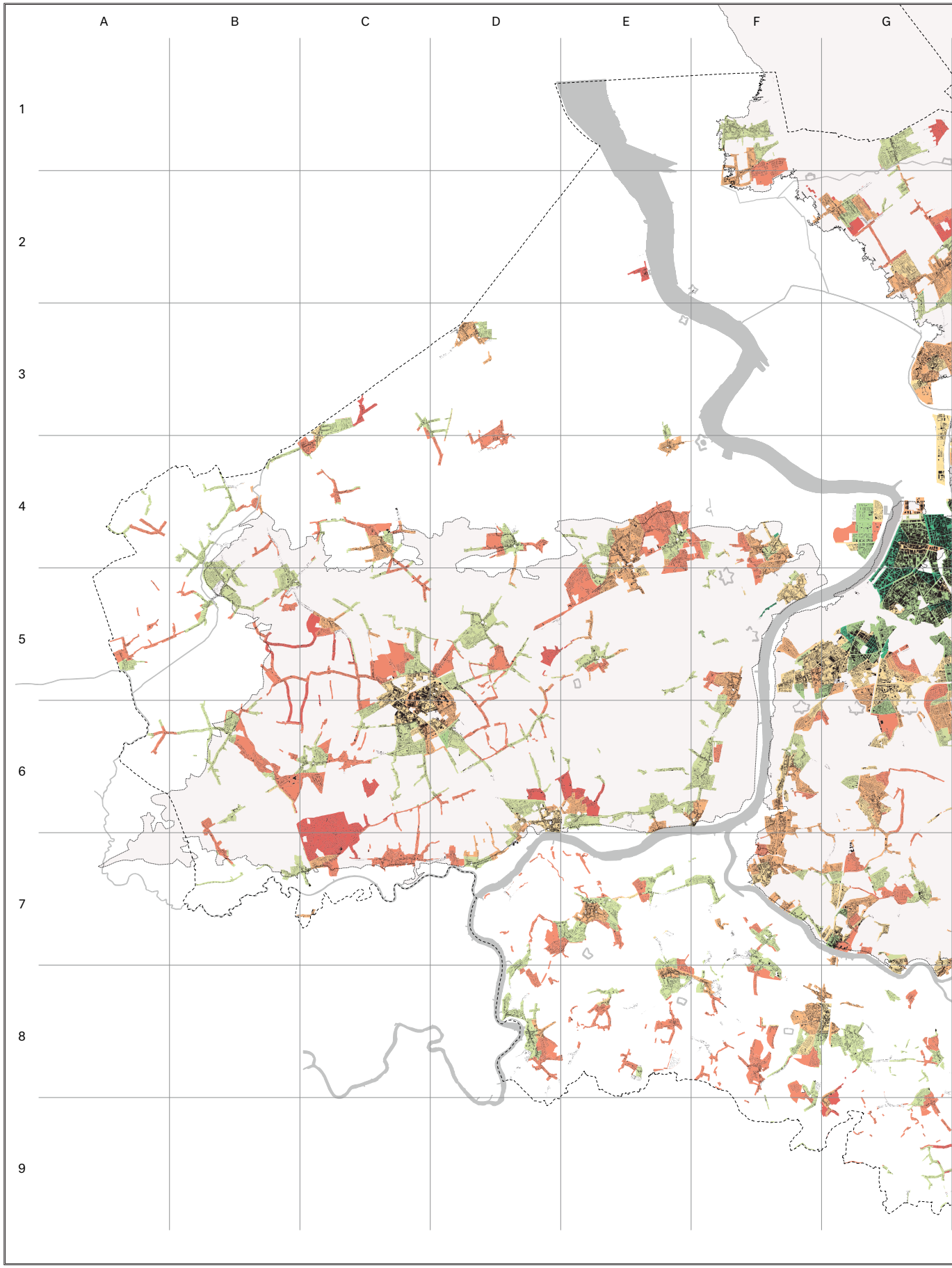
The twentieth-century belt then becomes the place where spatial consumption can be exchanged for reuse, reconversion and recycling. The space where suburbanisation first occurred is ready for a second layer of urbanisation.



Phasing of construction

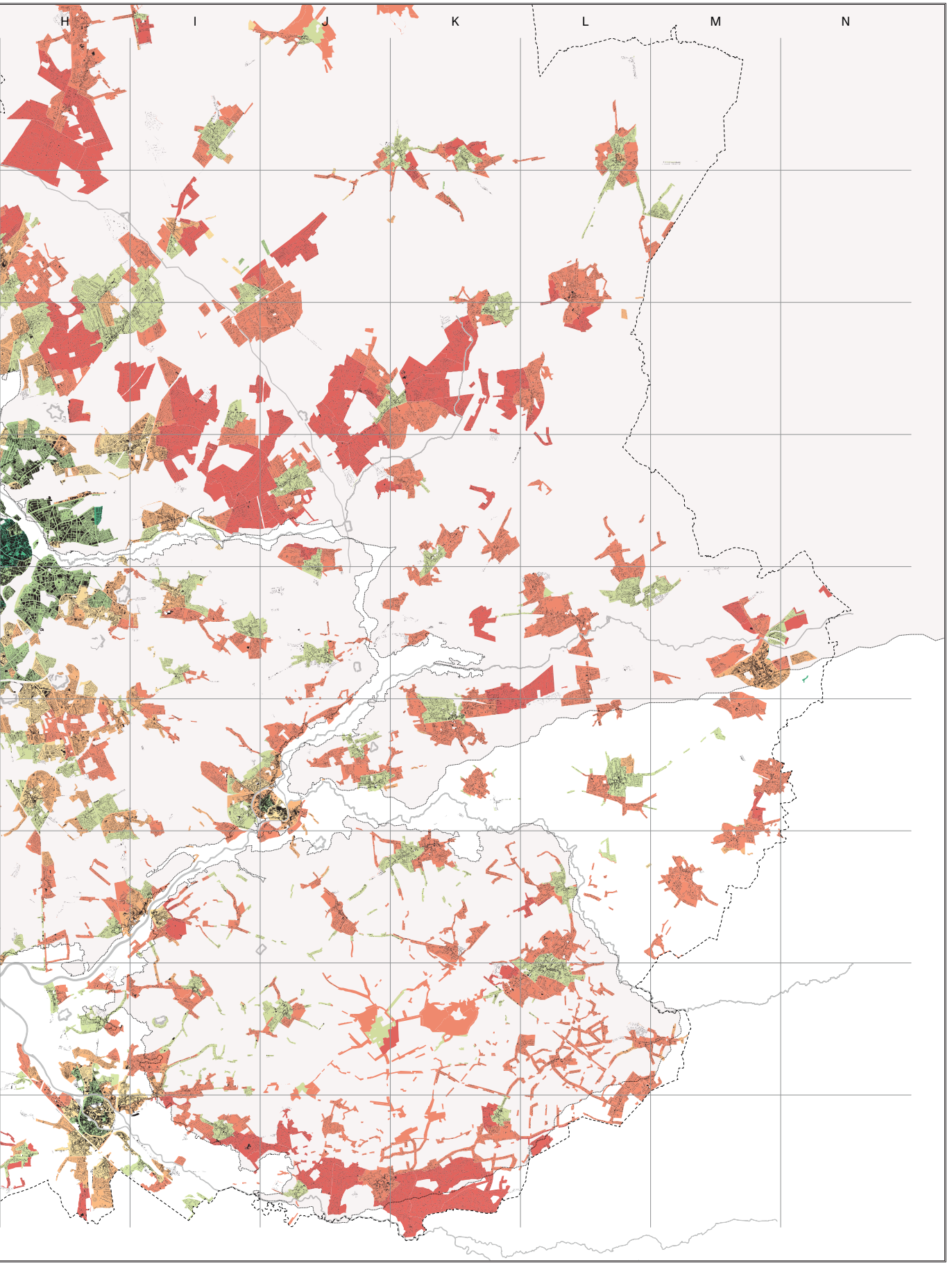
- ± 1850
- ± 1930
- ± 1970
- ± 2000


H
I
J
K
L
M
N
no data available



Residential density in a residential area

- < 5 res/ha
- 5—10 res/ha
- 15—25 res/ha
- 25—45 res/ha
- 40—55 res/ha
- 55—75 res/ha
- > 75 res/ha


H
I
J
K
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N

The suburbs are growing

Tom Naegels

Badran Al Kasham laughs. His slip of the tongue caused him to switch the order of a joke ruining the punch line in the process. He should have said that he was the 'Chinese volunteer', after which Tatjana Andrejeva, who is sitting at a small Formica table in front of him, would have had to correct him by saying 'No, you are an Iraqi volunteer'. But because he already said 'Iraqi', Tatjana had no way of replying.

Badran, who is 21, has one of the most difficult and most comical roles in the play they are rehearsing here. Although he has only lived in Belgium for three years and his Dutch reflects this he plays a pedantic Dutch teacher, a language purist who continuously corrects his colleagues in the teacher's room – the majority are newcomers just like he – and who uses idiomatic expressions. The fact that he is also an Iraqi with a very noticeable accent, only adds to the general hilarity. They are rehearsing a traditional Flemish popular play, a madcap burlesque full of misunderstandings and puns, albeit in a multicultural setting. The Flemish headmaster of a school with mainly immigrant pupils has retired, half of the staff are originally foreigners and the new headmaster is a Congolese man with a Flemish name.

'What would you say to a Turkish father who lets his daughter wear a headscarf?', enquires the retiring headmaster during a job interview with one of the Russian teachers.

'Fuck off', he exclaims all too enthusiastically. In my imagination, I can already hear the ho-ho-ho of the audience in the local parish hall.

I am in a small office upstairs in *De Mess*, a pub in *Merksem Dok* which is also used as a parish hall and a multipurpose venue. To be fair, I am biased. I don't know Merksem that well and I could write my own multicultural farce with the associations that I make with

the district: poor, bleak and run down but without the metropolitan excitement and cross-pollination that is usually associated with it. No people on the streets, no counterculture, no urban identity which you can use in hip-hop video clips. Instead a provincial version of the multicultural drama: empty, silent and depressed.

But what do you know. Maybe it is due to the exceptionally warm summer weather but as I bike into the somewhat protected neighbourhood between the bridges over Albert Canal groups of Merksem residents are happily chatting away on the pavements in and around the community centre. (Evening! Outside!). The amateur theatrical society has moved upstairs because the stand-up comedian and local boy Jeron Dewulf is giving a performance downstairs in their usual rehearsal room, in the gym. I hear some music from a living room down the street. I wouldn't say that it is exactly swinging – that would be exaggerating – but you could say the atmosphere is somewhat convivial.

The districts outside of the Antwerp ring motorway in the so-called *twentieth-century belt* of Merksem in the north and Hoboken to the south will soon undergo a major change. Population projections forecast that Antwerp's population will grow by about 50,000 to 150,000 inhabitants by 2030. The city of Antwerp, which has chosen the golden mean of 100,000 as a guideline, expects that about 45,000 new dwellings need to be built. These will almost all be situated outside the ring motorway. In the past decades, the city invested so heavily in the renewal of the historical city centre and the nineteenth-century belt, in the neighbourhoods between Leien and the ring motorway that they are now full. The districts outside the old city walls are still largely untapped territory.

And not just from an urban planning perspective either. Mentally too. Whereas most Antwerp districts inside the city walls (Zuid, Seefhoek, Dam, Oud-Berchem, Eilandje to name but a few) have a distinct personality the districts in the suburbs languish, feeling a vague nostalgia for their village past and traumatised by the urbanisation process, which was too fast but was never quite completed. 'The setting is the last neighbourhood shop of Merksem Dock.' This is the first phrase of the script of the last comedy that the amateur theatrical society wrote, namely the much praised *De Chicagodokken*, which drew a full house two evenings in a row in 2011. It almost seems like a still from a film which itself has stopped in time. A time document of 1985 or even today. The last neighbourhood shop, the pubs that are no longer there, natives and immigrants who make beelines around each other like magnets with the same poles, which results in comical misunderstandings… Clichés, which are stereotypical enough to be included in the repertoire of popular comedies. But it is still too early for a new story.

'This has always been a poor district', says Christel Vermeulen, the co-director of the theatrical society and the president of the neigh-

bourhood committee. She has lived in *'t Dokske* for over 40 years. 'You can't ignore this fact. Poor people also need a place to live. And those who find something better move. As you can see. The Belgians who bought a house here after World War II, skippers who wanted to live near the water… who have since died or moved to an apartment… well, their children move to the other side of Bredabaan. Here you can find a house for 140,000 euros, sometimes even less. On the other side of Bredabaan, you easily pay 170,000 euros, sometimes even more. The children of the immigrants also buy homes there now. And now the Africans and Eastern Europeans are moving in.'

She discusses immigrants with the characteristic hesitation of a Fleming, who is afraid to be misunderstood. Which is strange, given that she is volunteering in a multicultural amateur drama society – there are not that many like this, are there. 'It is not easy to establish contact with them', she explains. The neighbourhood committee has been making an effort for several years to engage the newcomers. This theatrical society, a spin-off of the language classes for newcomers, does help.

She herself is a good example of the evolution she just discussed. After 40 years, she has finally sold her house (or rather her mother's house) and moved to the other side of Bredabaan. A young family, which used to live in the Seefhoek neighbourhood, moved in. 'We see more and more young people moving here'. He is Greek-Flemish, his wife Flemish-Flemish. 'You also see more and more mixed couples'. I immediately decide to have a chat with them too.

One of the problems in the development of the twentieth-century belt is that this is such a large and chaotically structured area. The many busy traffic axes and interchanges, the abrupt transition between residential dwellings around parks, village centres, industrial parks, real poverty and soulless housing developments make it difficult to create a sense of belonging for every place in this huge chunk of city. As an inhabitant, you need to be lucky when it comes to the location of your house: some places have a remarkable sense of unity, but turn the corner and that unity may have completely disappeared. It's as if you have entered another city.

An example. When my house in oud-Berchem was being renovated a year ago, I spent a few months living in Deurne. My house was located on the fringe of the district, where Herentalsebaan no longer is the wide four-lane road (with a double tram track in the middle) that it is near the ring motorway. Here on this cobblestoned road trams and cars fight for priority and cyclists barely manage to stay upright on the errant cobbles. And even there we did not live in the first part of this section, the popular shopping street which defines the identity of this neighbourhood for the older residents of Deurne, but farther abreast, where it almost crashes into aptly named *Autolei*, in the delta of entry and exit routes, on the outer limits of the city.

This area had many assets for a young family like ours. There were three parks within biking and even walking distance: Rivierenhof, Boekenberg Park and Te Boelaer Park. There was even an open-air theatre in Rivierenhof. During my youth it was a somewhat dullish place that was mainly famous for its dancing fountains. In recent years, however it transformed itself into the most charming concert venue of the city. (And there is also a mini golf course here). The open-air swimming pool in Boekenberg Park, where finding a place to put your towel already proved difficult in the Eighties and Nineties and where the young kids with whom I grew up (but not me) would climb over the fence at night to go skinny-dipping and more, had become a hip and trendy open-air swimming pool 2.0, a swimming pond with plants in it. On hot days we would head over to Te Boelaer Park with the kids for the poor man's version of it, a swimming pond 0.0, a fountain with a bit of stagnant water in it, in which small children would splash around in the summer and their parents would sit back and enjoy the sun on the small patch of grass around it until the police stepped in and put an end to the fun for reasons of hygiene. And *De Ekster*, opposite the entrance to Boekenberg Park, is still one of the cosiest Flemish brasseries in the neighbourhood. And you have to agree that there is something cute about the houses in the Unitas neighbourhood?

Yes. Only. All these nice places seemed to be routinely scattered around with no logic to them. When I would bike from our flat to Boekenberg Park, a distance of just 1.5 kilometres, I had the choice to bike through a vast residential area with hundreds of similar houses and not a store in sight or through the canyon of Dascottelei, between the imposing apartment buildings, where you never saw anyone on the street. We were separated from Rivierenhof (2.5 kilometres) by Boterlaarbaan, Ruggeveldlaan and one motorway. The farm I could see out of my rear window and Autolei-Boterlaarbaan-Herentalse-baan which I knew was to my right were just a few hundred metres from one another. Two separate universes. Shopping meant biking a long way across those wretched cobblestones or going to the Colruyt supermarket by car. If you lived near one of these parks, I'm sure the situation was quite different – I have friends who live there, they really like Deurne. But for us, mentally, they were very far away. And there was no centre anywhere!

'There you go', Walter Verbruggen curses. 'That was our plan. That was the plan we had.'

We are standing in front of Verbruggen's house, an example of Neue Sachlichkeit in stately Venneborglaan in Deurne-Oost. It is obvious from the wide row of trees in the middle and the detached houses on either side of the street that this avenue was clearly intend-ed to culminate in a park, Rivierenhof. Autolei is very far from here. At the top end of the green median strip, opposite his front door, I see a large banner with an old photo of the avenue. Somewhat statelier

and greener, with a castle in the background. ‘That was Venneborg Castle’, says Verbruggen, an amateur local historian and the former alderman for public works (Green party) on the district council of Deurne. ‘It has been mentioned on maps since the thirteenth century. Parcelled in the Sixties.’

The photo is also a landmark. Since 2008, the (former) district council is trying to help this enormous district, the largest in Antwerp with 80,000 inhabitants, shake off its identify of ‘suburbia through and through’ (a quote of Verbruggen’s successor on the new district council, Tjerk Serkeris of the right-wing New Flemish Alliance). A study was commissioned from the University of Antwerp to map the (dis)satisfaction of the inhabitants. One of the results of the study was that the district was simply too large to feel a commitment with it, the differences between the various neighbourhoods – impoverished Deurne-Noord, rich Deurne-Oost, the industry around Sportpaleis or the tranquillity of Riverenhof – were simply too great. So it was subdivided into twenty neighbourhoods, of maximum 6,000 inhabitants each. ‘That is the maximum number with which a person can engage’. A landmark, a building or artwork that symbolised the neighbourhood was chosen for each subdivision. It could be an existing monument, like Drie Torekens, or a statue, or more modestly, a photo like this one. ‘And then we went in search of inhabitants who wanted to be the ambassadors of their neighbourhood’.

‘Did it work?’, I ask.

Verbruggen shrugs. ‘In some cases better than others.’

In Deurne Dorp, for example, the neighbourhood around Cogelsplein and St. Fredegandus Church (landmark: a red heart) it works. The narrow, car-free streets create a sense of community, the history also helps. This is where Deurne always used to be, until it exploded in the twentieth century, becoming a suburb instead of a village. This is also where the now non-existent centre of the district is located in one of the two master plans that were simultaneously developed. The people of Deurne-Noord and Deurne-Zuid would then be able to use this future centre as a mental orientation point. This is where they can go out, do their shopping, where there is culture and tranquillity.

Some of the stages have been implemented: the corner of Rivierenhof and Turnhoutsebaan and Singel has been cleaned up, the car park is a lot smaller and the space it created is now used for a play area. Bike and walking trails run from Turnhoutsebaan into the park and the extension of the bike trail along the ring motorway to Merksem has also been completed. But the major interventions have yet to be implemented and to date Cogelsplein is not an ‘18-metre wide square’, as planned and as its name suggests but simply a part of Turnhoutsebaan, albeit with wider pavements. Frank Craeybeckxlaan and Hooftvunderlei, which were designated as the *central axis* between the district office and the Amelinckx apartment building, a lively and car-free *city square* with greenery and benches, the *Ramblas of Deurne*, where the market would be held and where a new cultural centre and

a larger library would be built, still looks the same as when I used to take the bus to the Sarma department store here with my gran.

And yet the master plan was already approved on 15 July 2011 by the (previous) coalition. 'From 2012 the changes will also really become apparent and Deurne will gradually become a real centre, worthy of Antwerp', the brochure reads. According to Verbruggen, whose party ended up in the opposition after the elections, this is due to a lack of political will.

Tjerk Serkeris, the current district alderman for public works, emphatically denies this. 'We are definitely planning to implement this plan. It is a good plan, I don't have any qualms about admitting this. But it is very ambitious. It involves interventions in the range of 5 to 6 million euros. The budget of the district of Deurne is 3.7 million euros. This is the total annual budget for the entire district, with which we need to do everything, not just rebuild the roads. It is not easy to have third parties co-fund this. So no, to date we have not implemented any interventions of the master plan. But we hope that the centre will be completed by 2018.'

It is a complaint that it is also voiced in the other districts outside the city walls. The website of the City of Antwerp lists seven master plans, all in the twentieth-century belt. They each try to infuse new life in the suburbs again, increasing their appeal for the expected newcomers. But in almost all of the cases the districts need to bear the cost for this alone, which represents quite a burden for their modest budgets.

The general sense here is that the districts feel that they are being treated rather shabbily. One of the other district aldermen I interviewed says: 'Just take a look at the brochures when the city organises a major event, like the *Summer of Antwerp* for example. Suddenly Antwerp becomes the Antwerp of the Spanish period. It ends at the Leien. If they really want us to be part of the city, then they need to let us feel like we are.'

'Preferably not in Tir', says Mike De Ridder. We are standing in the rain in front of Brasserie Charif, one of the branches of the popular Moroccan bakery chain, on Sint-Bernardsesteenweg. But the baker is closed. This is not really the kind of weather to dawdle so I suggest heading over to the brand-new shopping centre because I know there is another brasserie in the rear. I don't care, we are here to discuss the new Kiel district anyway, the only part of Antwerp – Antwerp that is outside the city wall, a remnant of the world expo, just above Hoboken. De Ridder had suggested meeting here, at the top of the once legendary shopping street called Abdijstraat. But he hesitates: 'I just don't feel at ease there', he says.





“I don’t care that there is no nightlife here. I feel sufficiently connected with the city to live just a few kilometres outside of it. And it’s not that difficult to find a school here.”

Steve (38)





Mike De Ridder is the Antwerp speaker of the quadrilingual (English, French, Arabic and Antwerp dialect) hip hop collective *NoMoBS Entertainment*. They are Kielenaars at heart. In 2012 they were voted the *Kiel inhabitants of the year*, when their first video clip *Zehma*, was all the rage. They represent 2020. Much like the new shopping centre should represent 2020, I thought. But apparently the two are incompatible.

De Ridder: 'They tried to revive the old Abdijstraat, with a roof over it. Too many of the white stores were leaving and now they have bundled them all in there.'

He has good memories of the old Abdijstraat however. 'It used to be like a small Meir (ed: Antwerp's main shopping street) here. It was as if the entire city came to our local fairs.' De Ridder, who works as a freelance video maker, has a Flemish dad and a Moroccan mum. Until the age of six, he grew up with his Moroccan grandparents, who taught him the language and the faith, 'although I recently realised, on a trip to Morocco, that my vocabulary never evolved beyond that of a kid.' Is he about to tell me that he too struggles with the typical indigenous nostalgia for the heyday of this local shopping axis, which the locals generally remember as before the night shops, phone shops and Turkish grocers (but actually the shopping centres) ruined it? 'No, of course not. I don't mean the white stores. But the old atmosphere. This is synthetic, commercialised.'

'In Moroccan we have an expression: *to smear henna on lice*', says another band member, NoMoB Said Boumazoughe, who has joined us. We ended up going to Bakkerij Bart, where we are enjoying a coke and two doughnuts. 'It is a typical thing that planners do. Let's build a nice new building and everything will be fine. But this is not an alternative for the young kids in this neighbourhood.'

Boumazoughe :'When I was a little boy I used to go play behind *den Tir*. Now this space is no longer there, it has been completely built up. When will they build something for the young people here? A few days ago, there was a big concert here at den Tir. They had booked a bunch of schlager singers. Do Moroccan kids listen to this kind of music? Kiel has a youth centre called Zappa. They just programme rock or dance. Do Moroccan teens listen to rock or dance?' (I have to admit that the promotional photos on the homepage of Zappa, which feature a full concert hall with dancing young people shows only white people. And the programme for the next months is clearly aimed at a hip white audience. While the Neighbourhood Monitor indicates that 63.2% of the people who live in Kiel are either foreigners or Belgians with immigrant roots.)

As I wander through den Tir, past the chains you typically find in these shopping centres – the H&Ms, Hemas and Kruidvats of this world – I ponder this: they want to reinforce the identity of the neighbourhoods in the suburbs , but which identity? Whose identity? Sometimes the experiences and expectations of the inhabitants are miles apart. What some might find familiar may be alienating for

others. The suburban neighbourhoods with the strongest identity, in which the city recently invested, are the old village centres and the residential streets around green areas. Neighbourhoods with an identity that was developed in the time before the districts became part of the city. The post-war history of the fast (sub)urbanisation and migration may have left several traces (often in the form of injuries, frustrations, nostalgia). But to date it has not given rise to a strong, new culture, which is shared by large sections of the population and which is sufficiently mature to be expressed in buildings, squares, bridges or streets.

I myself am a child of suburbia. My mother's family lives in Deurne. I spent my childhood in the border area between Deurne-Zuid and Borgerhout outside the city walls. Like so many children of my generation, I left here after graduation. I considered it a blind spot, a built-up area without identity or assets, where time gradually had a debilitating effect. A place for old people, where they lived but did nothing more. The city centre, and more specifically those neighbourhoods that were blind spots for our parents – Borgerhout, Antwerpen-Noord, oud-Berchem, whose decline started during their youth – promised us that we could be part of a meaningful project.

You would have to be blind not to notice that things are gradually changing. In the neighbourhood where I grew up – more specifically the local *central axis*, Gitschotellei – you can clearly see the double movement which has been going on for quite some time within the ring motorway: encroaching migration of newly arrived immigrants, which is visible in the arrival of evangelical houses (there were hardly any Turks or Moroccans here in my youth) and encroaching gentrification, as evidenced by the arrival of hipper restaurants on the corner of te Boelaer Park (where you could only find traditional Flemish, popular brasseries in my youth). It looks more exciting, more diverse, more interesting than in my youth. Many of my acquaintances, of the same age and class, recently moved to the suburbs. Because the tranquillity and emptiness that used to oppress them so much in their early twenties is much more appealing now they have children.

Not everyone spends so much time fretting about identity or the possible lack thereof. Many of the people with whom I spoke in the course of my research for this report were very positive about their life in the suburbs. Like Steve (38), who moved into the newly built neighbourhood De Veldekens in Berchem (outside the city walls).
'I don't care that there is no nightlife here. I feel sufficiently connected with the city to live just a few kilometres outside of it. And it's not that difficult to find a school here.'

My own mother who has been living in Borgerhout *extra muros* since 1978 says: 'I never really was a city child. We always lived on the fringe of the city. Why? Because there is much more greenery here, more space. The streets are wider here, which gives you a sense of tranquillity. And going into the city centre is very easy by public transport.'





'Merksem is close to *'t Stad* (ed: the locals' name for Antwerp), where my heart is. I live just five kilometres from work. And the neighbourhood... I grew up with foreigners, I'm a foreigner myself. I don't really care. And everything is nearby: Lidl, Aldi, Colruyt, McDonald's *(laughs)*."

Antonios (27)

Or like Petrov (41) with whom I chatted in Merksem Dok, while he was painting the façade of his house. He had bought it three years ago. He arrived in Antwerp the year before that, from Bulgaria. He used to rent a house in the Seefhoek district but was much happier here: a school across the street, which his son attended and his daughter was picked up by a school bus to go to school in Deurne. And not that busy either!

And I also hear it when I visit Antonios, who has bought Christel Vermeulen's house with his wife, also in Merksem Dok. I visit them while they are tearing the wallpaper of the walls together with the grandparents (they have three young children). 'Where else can you find a house with a large garden, with sun all day, that is affordable. 'Merksem is close to *'t Stad* (ed: the locals' name for Antwerp), where my heart is. I live just five kilometres from work. And the neighbourhood… I grew up with foreigners, I'm a foreigner myself. I don't really care. And everything is nearby: Lidl, Aldi, Colruyt, McDonald's (*laughs*). It seems like there is nothing here because of the many busy roads, but outside the rush hour it's okay.'

A city is a sum of various experiences. Whether you feel good in the neighbourhood where you live depends on so many factors: your general personal happiness, the phase of your life, your relationship with your neighbours, whether a sufficient number of your acquaintances live in the area, whether you mind taking the car to go to the supermarket… or even the vicinity of a green area, schools, nightlife or a bus. Depending on what you focus on, the twentieth-century belt has quite a lot to offer.

Personally I also notice that I often come to the suburbs. My oldest son plays basketball in the Rooi sport centre, next to the the recently built Veldekens. I recently spent a wonderful afternoon with both of my children in the new Neerland park in Wilrijk. I go jogging along the bike trail next to the ring motorway, from Berchem to Merksem or to the south of the city, to Hoboken. In the summer, I enjoy picnics in Den Brandt park. Again, the tranquillity, the greenery, you appreciate it more when you have children.

I still do not see myself *living* here. But who knows – the day the city centre becomes hopelessly gentrified and unaffordable, a bastion of insufferable rich people who like to boast about how they saved a popular neighbourhood from social decay a long time ago – my children may end up playing leapfrog with the ring motorway again.

By then it'll be 2030, I expect.

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BUUR - bureau for urbanism

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Radial city. The urbanised fringe of Antwerp still largely follows the historical structure of the radial main roads from the city centre, along which village centres developed in the past.

Urbanisation, open space and mobility as a trifecta for the urban renewal of the twentieth-century belt.

BUUR - bureau for urbanism

Radial city

The urbanised fringe of Antwerp still largely follows the historical structure of the radial main roads from the city centre, along which village centres developed in the past. The trunk lines of the public transport network are predominantly radial. They largely cut through consolidated fabric and are heavily geared towards the needs of the historical city centre. Naturally, the main arteries were simultaneously transformed, initially as a prestigious residential location, subsequently as ideal access roads to the urban area, which became increasingly congested. A consequence of this growth along the radial roads however is that there are not many interrelations between the *villages* of the twentieth-century belt (Merksem, Deurne-Noord, Deurne-Zuid, Borgerhout, Berchem, Kiel, Wilrijk, Hoboken) and that the access to the available amenities is only limited.

On the other hand, the densification along the main arteries has contributed to certain larger-scale infrastructure (railways, motorways and so on) and programmes (UZA, Middelheim, Campus Groenenborger ...) now finding themselves in the *intermediary space*. As a result, they are not part of the network. Consequently, the twentieth-century belt today resembles a juxtaposition of local, rather homogeneous cores and more heterogeneous intermediary areas. Isolated district centres surrounded by monotonous neighbourhoods that lack an identity, combined with industrial and business areas, transformed historical district centres, beautiful landscaped parks, undefined residual space, remnants of the rural landscape and so on.

Although there currently are very few synergies and complementarities, we can also conclude that all of the ingredients are already present for a qualitative urban environment: housing, open space and parks, economy and employment, local historical cores and urban amenities. Moreover, the substantial presence of important attractors on the urban and regional level is also very typical and remarkable for this area.

Rocade

The team studied the potential of a new tangential public transport corridor in the middle of the twentieth-century belt using research by design. A tangential north-south link connects Hoboken (and by extension Linkeroever) with Merksem like a *rocade*. The structuring ability of such a new north-south link is amazing. The rocade is integrated within the existing urban fabric and contributes to the further meshing of the existing urban structure, creating opportunities for densification and renewal.

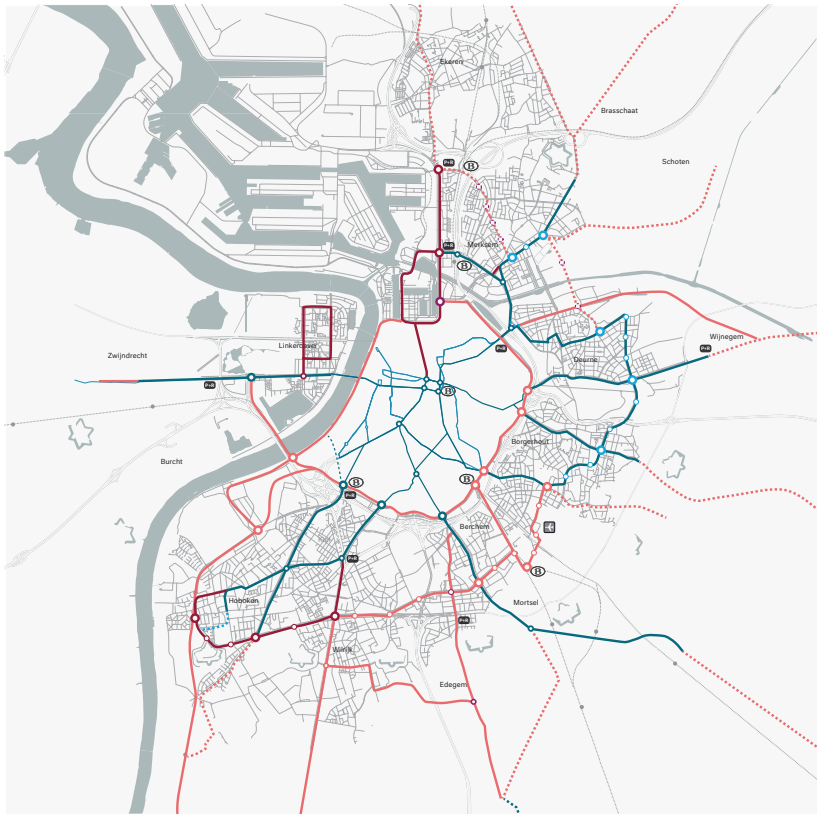
New tramlines

The proposed optimisation of the public transport network comprises 17,639 metres of lines (the existing segments are not included in this figure). It goes without saying that the development of this rocade requires a viable and phased implementation. As a result, the existing cores and amenities will also gradually become more accessible, and access within the urban region will also be increased. Consequently, the rocade from the start will provide important added value for the current urban structure of the twentieth-century belt.

At the same time, it is important to emphasise that the proposal is not an alternative to proposed or planned lines, such as a tram along the Singel or certain tram extensions. It is an and-and story. The rocade however shows that the meshing of the existing radial public transport network must take priority over the extension of the existing tramlines.

Phased integration.
The *rocade* is not an alternative to already proposed or planned lines such as a tram along the Singel or certain tram extensions. It is an and-and story. It shows that the meshing of the existing radial public transport network should take priority over the extension of the existing tramlines.

- Short term
- Medium term
- Long term
- Existing tramlines





Urban and regional attractors.
The large presence of major attractors on the urban and regional level is a typical and remarkable feature of this area.

The *rocade* offers development opportunities in the heterogeneous areas, but multimodal access to the current cores and attractors also becomes a reality.



Left
Existing tramlines
84 stops
11% nodes
Right
Proposed tramlines
157 stops
22% nodes

From stops to nodes

Under the proposed scenario for the future, the tram stops in the twentieth-century belt will be significantly increased. More importantly, the proportion of nodes – stops along two intersecting lines – will also substantially increase. These nodes have a higher service level than a stop along a single line because you can reach a larger number of directions. So this is a case of efficient meshing and urban accessibility.

Where new tramlines or improved multimodal connections are built, the potential of the surrounding area for urban development is also increased. Urbanisation and public transport can engage in a strong interaction in this framework: the presence of the public transport network increases the development potential in the areas surrounding it, which in turn increases support for the public transport network. Transportation networks thus have a significant impact on a region's spatial structure and can be used proactively to purposefully stimulate development and (re)structure urbanisation.

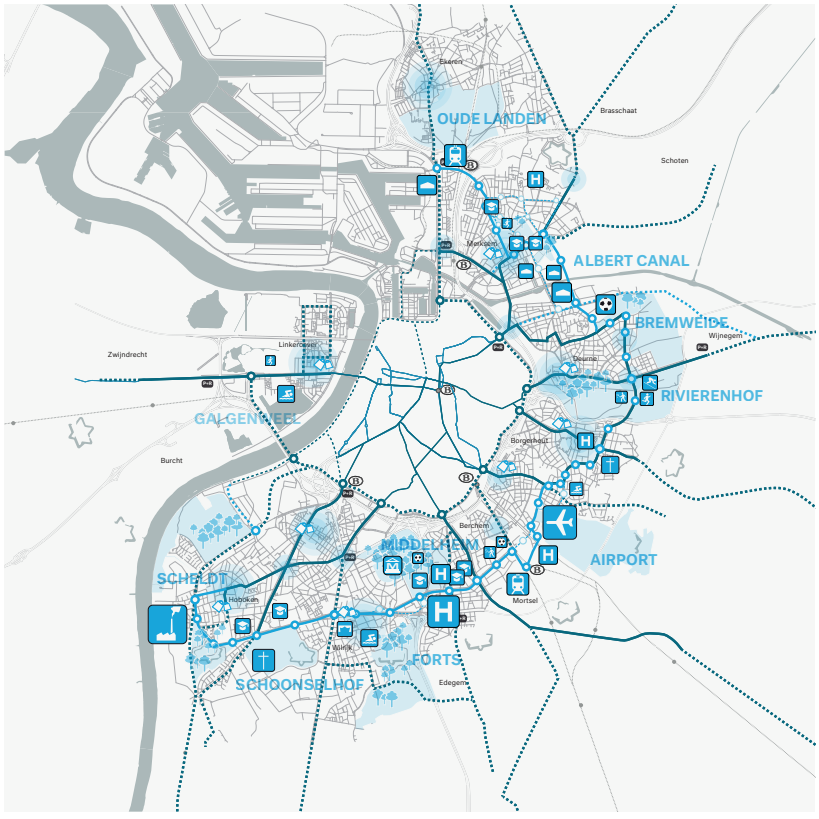
Interaction between densification and public transport

The rocade and the nodes create opportunities for the adjacent areas, whether already urbanised or still to be developed. Conversely, certain locations are perfectly suited for the passage of the rocade. The success of public transport infrastructure and the places where it stops is thus the result of interaction. One does not automatically constitute a guarantee for the other.

The rocade as a catalyst for urban renewal

The rocade strategy helps attract new developments to the city and making the benefits of urban living accessible to a larger group. The belt with its many urban poles and parks offers unique spatial conditions, which can provide significant added value through better accessibility to Antwerp's city centre, as well as supplementing it. The rocade supplements the urban fabric that developed to date along the radial arteries making the diversity and (green) quality of the intermediate areas tangible. Districts that are now isolated are interwoven while the open space is preserved as much as

possible. Moreover, the gradual expansion of the transport system offers an alternative to car use, reducing the pressure on the city centre.



Structuring capacity of the *rocade*. The *rocade* and nodes with existing tramlines create opportunities for neighbouring areas, whether already urbanised or still to be developed.

The rocade offers development opportunities in the heterogeneous areas but multimodal access to the current cores and attractors now also materialises. The number of amenities can be increased, while economic areas can grow without increased car use. Consolidated cores, major attractors and the intermediate areas can be selectively tapped as locations to be densified in the medium to long term where new-builds and renovated properties can be strategically combined with each other along the route.

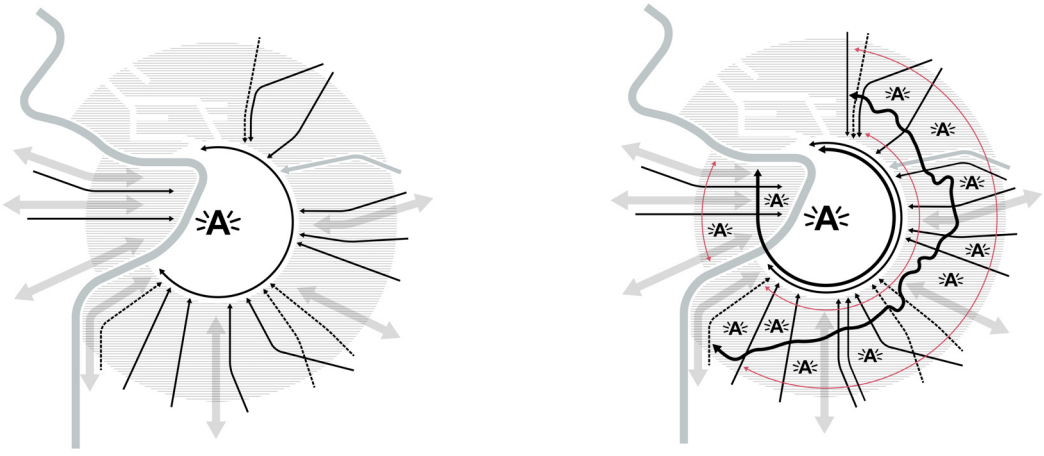
Urban renewal as a catalyst for public transport

Whereas car access to the belt in general is already quite good today and the ability to travel by bike can and must be improved everywhere, future developments will be greatly influenced by public transport and the multimodal accessibility of a development location. The concentration of the programme increases the support for amenities, strengthening the transport potential as well as protecting public space against further development.

The opportunities for developing high quality public transport (i.e. in its own separate lane), however, are limited, both in terms of space and budget. In our proposal, we combine the new development around the public transport infrastructure. As a result, its operation becomes more profitable and there is an indirect return on the investment through tax

revenue for example from the new residents. The densification of the belt is a catalyst for the further development of the public transport network. In that sense, the densification generates significant added value for the existing inhabitants, businesses and amenities, because their multimodal accessibility will also be significantly improved.

From a radial city to a full-fledged network city



Creating qualitative urban environments: four cases

Examples in Flanders and even along the existing tram arteries of the twentieth-century belt have taught us that qualitative urban environments do not automatically develop alongside high quality public transport nodes. The greatest challenge is therefore to create these environments. Based on four case studies along the rocade, we examine where urban densification and renewal is possible and how these areas can be structurally developed.

We selected the following areas for these case studies: Kiel – Hoboken, Wilrijk – Slijkhoek, Berchem – Borgerhout – Mortsel and Merksem – Deurne-Noord. Various options were developed for the concurrent arrival of the rocade with an improvement of the built-up fabric, the green structure and the transversal connection of the bicycle network. The assumptions for each case are summarised below.

Case 1 | Kiel – Hoboken

Hoboken and Kiel have become one entity connected with the centre of Antwerp via Sint-Bernardsesteenweg and Antwerpsesteenweg. Although there are various densification opportunities in the existing consolidated cores of Hoboken and Kiel, the greatest potential, however, is on the fringes of these conurbations. The transformation of a number of run-down areas near infrastructure can effectively create the space for new urban centralities, with new features that are complementary to the historic cores.

These areas can also become important stepping stones in the future, from the cores to the qualitative open space in the area (Hoboken polder, the River Scheldt, Schoonselhof, Fort 8, Hollebeekvallei and so on). The neighbouring employment areas of Petroleum Zuid and Umicore furthermore benefit from the proximity of these new centralities.

The *rocade* with the improvement of the built-up fabric, the green infrastructure and the bicycle network in **Kiel – Hoboken**.



High-quality urban environments near Zwaantjes



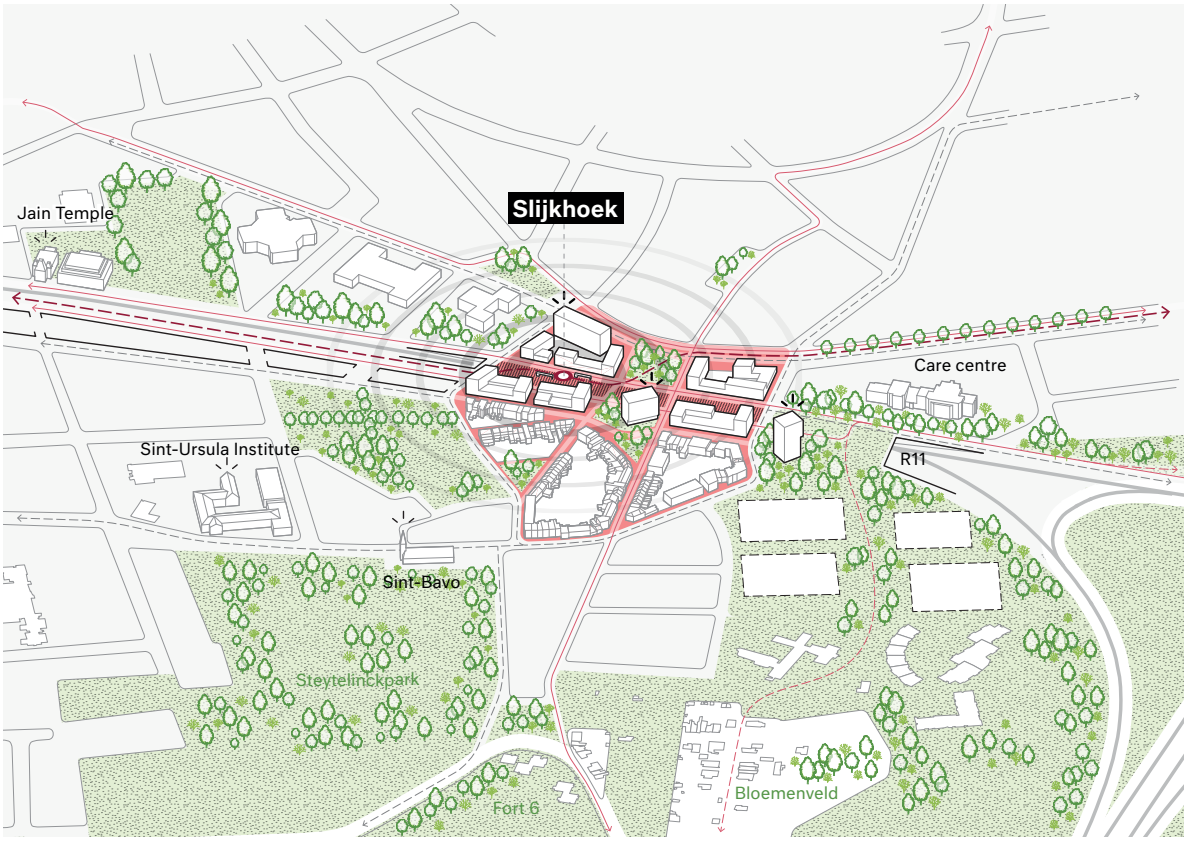
Case 2 | Wilrijk – Slijkhoek

A specific feature of the Wilrijk-Slijkhoek area is the presence of numerous large-scale urban and regional functions, such as the University Hospital of Antwerp, ZNA Children's Hospital, Middelheim Museum, Campus Groenenborger and so on. There are a lot of large green spaces in this area, such as Nachtegalenpark, Den Brandt Park and Steytelinck Park. However, the area does not seem to have a recognisable identity. An important reason for this is the R11, a major thoroughfare, which forms a large barrier.

To give the area more consistency and better mesh it with the surrounding fabric east-west relations are created on the one hand so the area and all its available assets becomes a pleasant segment along the connections (by tram and by bike) between the cores of Wilrijk, Edegem and Berchem. On the other hand a strong north-south relationship is also a necessity to mitigate the barrier – formed by the R11) and cluster the various components into one strong identity with a regional impact (e.g. a campus focussing on the theme of care). The combination of these two reasonings is situated near the intersection where Jules Moretuslei crosses the R11.



High-quality urban environments
near Slijkhoek



The *rocade* with the improvement of the built-up fabric, the green infrastructure and the bicycle network in **Slijkhoek, Wilrijk.**

Examples in Flanders and even along the existing tram arteries of the twentieth-century belt have taught us that qualitative urban environments are not automatically created along high-quality public transport nodes.



The *rocade* with the improvement of the built-up fabric, the green infrastructure and the bicycle network in **Berchem – Borgerhout – Mortsel.**

Case 3 | Borgerhout – Mortsel

The studied area is a combination of large-scale urban entities with more traditional fabrics and is connected by large-scale traffic arteries such as Grotesteenweg, Fruithoflaan and the R11. The large-scale infrastructures of the three railways together form significant barriers here. Three thematic transversal arteries are suggested. The tangential tramline ensures that the existing densely built-up areas and large-scale urban poles become more accessible. It can also be an incentive for the upgrade of Groenenborgerlaan, Ringlaan and Fruithoflaan. A green artery that runs from Middelheim to Deurne connects the parks of Pulhof, Rooi, Berchem sport park, Prieel and Te Boelaer Park creating one coherent structure. A third axis, from the airport to Fort 5, connections various heterogeneous transformation areas into a coherent potential breeding ground for new forms of urban economy and housing in green surroundings.

These new arteries introduce a new hierarchy and spatial logic to the area. They merge near the station of Mortsel and near the airport, lending greater significance to these places. The development potential, the underutilised qualities and great accessibility position these areas as potential new centralities, both locally and regionally.



High-quality urban environments near Deurne/Antwerp Airport.

Case 4 | Deurne-Noord – Merksem

Merksem is a rather introverted residential core, surrounded by large-scale infrastructures. Bredabaan forms the main connection with the city centre of Antwerp. The large-scale industrial areas along the canal are also part of the territory but interfere the core's relationship with the canal and Vaart-kaai. Deurne-Noord is a densely built-up residential area with a limited range of amenities and qualitative meeting places.

The main structural axes in the area of this case study are traffic axes that currently do not contribute much to the qualities of the urban fabric: Bischoppenhoflaan, Merksemsesteenweg which crosses the canal... Bosuil Stadium, next to the municipal Bremweide park, is the tip of a green finger which penetrates into the green fabric of the twentieth-century belt. Today however a qualitative relationship is lacking between this open space and the urban fabric.

Bouckenborgh Park is rather unilaterally oriented towards Bredabaan while the other four sides have less appeal and are less accessible. We think the potential for urban renewal is mainly situated in the (vacant) industrial sites in the area between the residential fabric and the consolidated large-scale industrial areas along the canal.

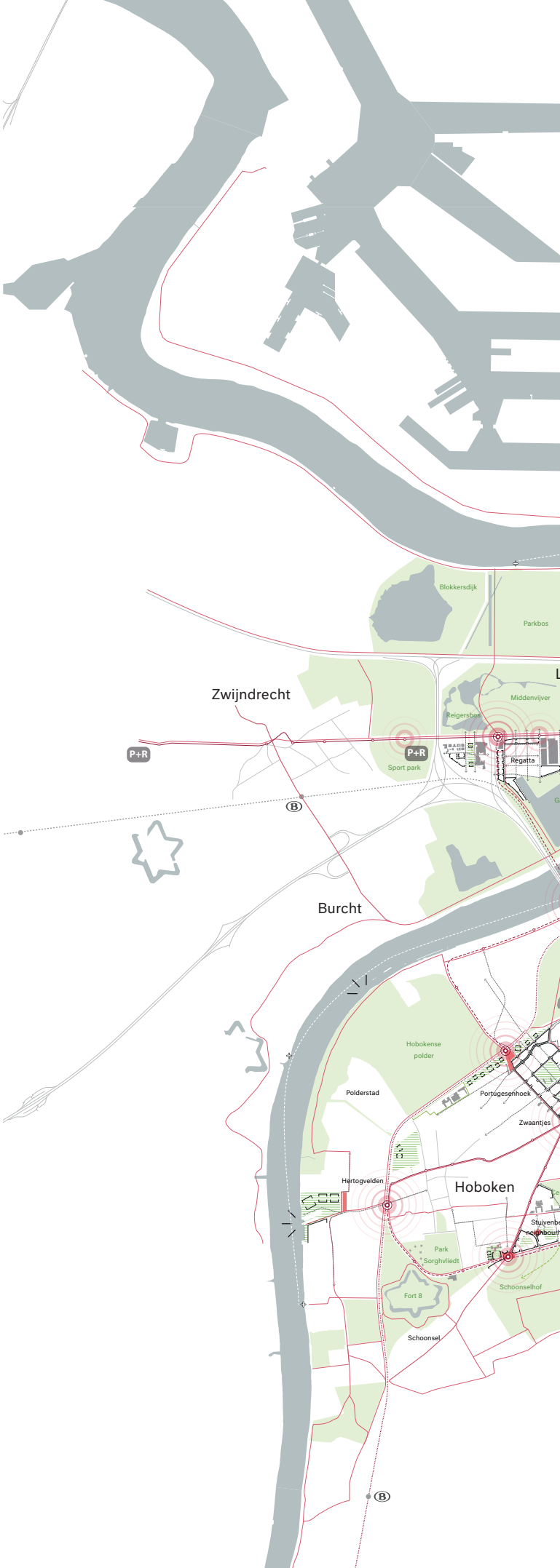


High-quality urban environments along Bisschoppenhoflaan.



The *rocade* with the improvement of the built-up fabric, the green infrastructure and the bicycle network in **Deurne-Noord – Merksem.**





Summary:
From a radial city to a network city


Ekeren
Brasschaat
Schoten
Oude Landen
Rozemaai
P+R
Fort of Merksem
Luchtbal
Runctvoort Park
Park of Merksem
Merksem
Bouckenborgh Park
Cogels Park
Municipal park of Schoten
Vaartkaai
Albert Canal
Bosuil
Sint Anna beach
Marina
Bisschoppenhof
Lakbors
Municipal park Bremweide
Wijnegem
Linkeroever
Ertbrugge
Deurne
Sint-Fredegandus
Ruggeveld
Rivierenhof
Drie Koningen
Borgerhout
Arenahal
Fort 2
Menegem
Eksterlaar
Te Boelaer Park
Deurne
Groenenhoek
Waasdonk
Mastvest
Kiel Park
Kiel
Berchem
Antwerp Airport
Fort 3
Nachtegalen Park
Schom
Rool
Den Brandt Park
Pulhof
Campus Groenenborger
ZNA
Agfa
Valaar
Valaar Park
Middelheim
Hollebeek
Sint-Augustinus hospital
Mortsel
Molenveld
Brem
Bist
Fort 4
Fort 5
Wilrijk
Steytelinck Park
Fort 6
Fort 7
Elsdonk
Campus Drie Eiken
Oversnes
Edegem
UZA
Edegem Golf

Micro-centrality as a strategy for densification and renewal.

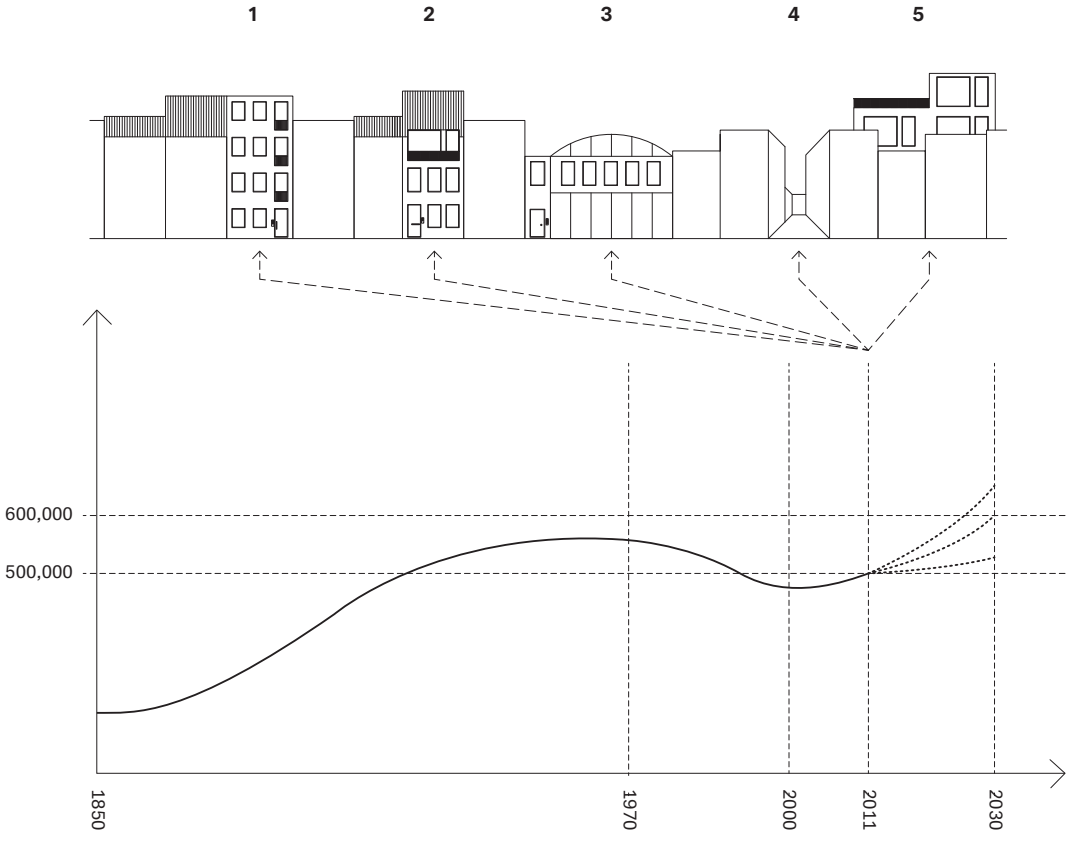
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Shinsekai Analysis | 3E

The need to improve quality

The challenge of accommodating demographic growth and the associated densification is not some way off. Instead it is already taking shape every day in various *infill projects*: the building of apartments (1), the splitting of dwellings (2), the reallocation of vacant industrial sites (3), the further development of residual plots (4) and the parcelling of the last larger inner areas (5). The result is a gradual and rather injudicious densification of the existing built-up fabric. Each opportunity is seized, each unbuilt plot developed. As such apartment conversion projects have often demonstrated the result is a few additional - often smaller – residential units but they do not contribute to making the urban structure stronger. Densification, it's happening but we urgently need a holistic approach that absorbs this demographic growth and tackles the built-up fabric in a sustainable and urban way. The quality clearly needs to be improved.

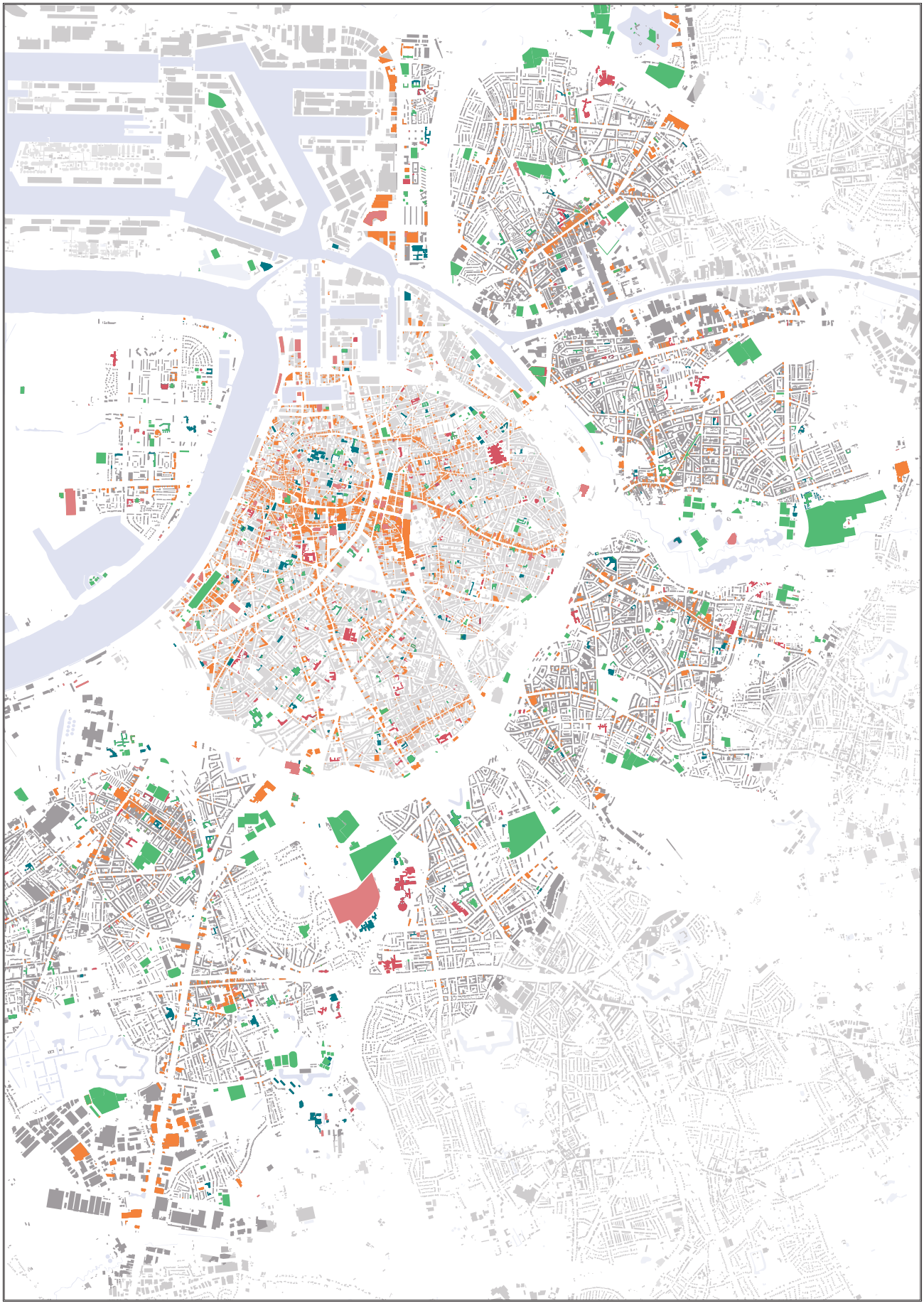
The city has already succeeded in improving the quality in the city centre and in the nineteenth-century belt. This ambition consisted of a *renovatio urbis*, namely the renovation of the existing urban structure while infusing new meaning into this structure. The semi-consolidated context of the twentieth-century belt, however, is grappling with a bigger structural deficit. In the context of the densification assignment, we see an opportunity for making the structure richer and denser.

The twentieth-century belt thus is more of a *reconvertio suburbis*. The aim is to further develop the hesitant urbanity of the twentieth-century belt as well as incorporating the required additional development – albeit selectively – in this area. Densification can thus provide the leverage for urban renewal and expressly requires an approach that focuses on the quantitative aspect as well as on the qualitative aspect: how to develop an attractive living environment that can compete with the city centre and the green urban fringe.



Quick wins
Densification is already latently happening. Various infill projects are already absorbing part of the additional demand.

1 The building of apartments
2 The subdivision of dwellings
3 The repurposing of vacant industrial sites
4 The further development of residual plots
5 The parcelling of the last larger inner areas



We believe that the key to the further urbanisation of the twentieth-century belt involves maintaining and even strengthening the level of available amenities. This can be achieved by effectively focussing on a mix of functions, which also define specific profiles and places in the city fringe.

Focussing on amenities

Compared with the green fringe, the twentieth-century belt today has a well-developed range of amenities and space for various forms of employment. Although the twentieth-century belt mainly tends to be a monofunctional residential area, at the same time it also has a fairly high offering of daily amenities (from schools to simple commercial functions). This is not the case for example in the subdivided villages in the green fringe, which tend to serve as commuter villages.

We believe that the key to the further urbanisation of the twentieth-century belt involves maintaining and even strengthening the level of available amenities. This can be achieved by effectively focussing on a mix of functions, which also define specific profiles and places in the city fringe. Taking into account the changing needs and composition of Antwerp's population during the planning of all these amenities is an additional challenge.

The city must anticipate on demographic changes such as the population's rejuvenation, the growing number of people aged over 80 and the greater variations in terms of cultural, ethnic and religious backgrounds. At the same time, the city also faces economic challenges, such as attracting production back to the city again, as well as various forms of knowledge economy and city services. And finally, there is also the growing public concern about making the city more sustainable, by searching for alternative ways of travel, generating energy and developing more sustainable consumption patterns.

Targeted functional densification can thus be used to create a more sustainable model for the urban renewal of the future. Densification, meshing and renovation can be durably linked.

Amenities.
Today the twentieth-century belt already has a well-developed range of amenities.

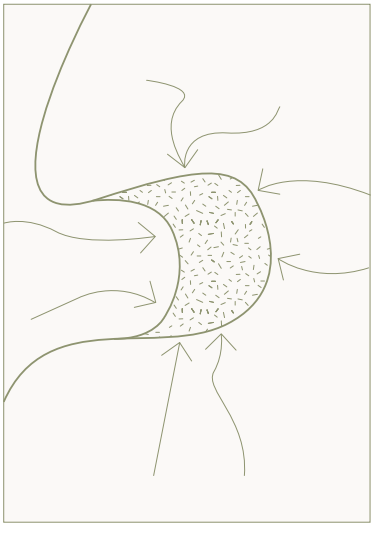
- sports facilities
- care facilities
- educational facilities
- cultural facilities
- commercial facilities

A network of micro-centralities

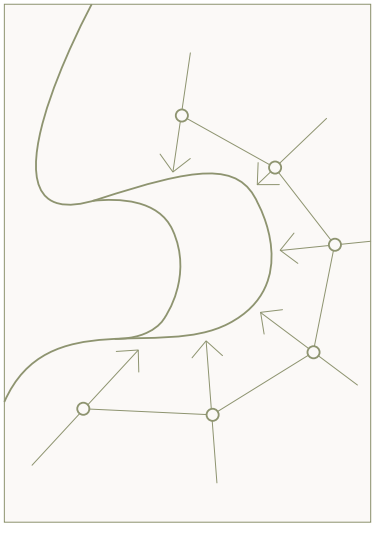
The expected demographic growth can be used as leverage to upgrade the monofunctional residential areas in the twentieth-century belt and to develop a novel system of amenities. At the same time, this can also help introduce a new spatial and functional structure on the urban level.
By focussing on functional densification and renewal, we introduce a spatial condition of micro-centrality. In practice, this means the spread, rather than the concentration of new densification projects with additional housing and amenities in the twentieth-century belt.

On the one hand, this micro-centrality breaks through the mono-functional character of the residential areas in the twentieth-century belt. On the other hand, it capitalises on the area's existing fragmented structure. Instead of grafting itself on the large urban structures, the new densification pattern grafts itself on the pattern of dispersed functions and on the criss-cross movement between these fragments. Some of these fragments overlap with the old centres but others with places on the city fringe that currently are not very significant.

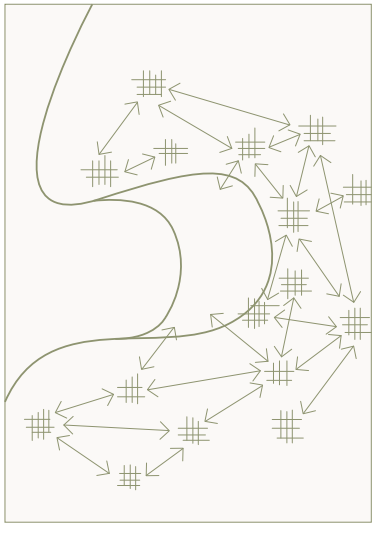
We use micro-centrality as a concept to identify situations that lend themselves to a strategy of further urbanisation, to environments that may give rise to an urban renewal in which functional and residential densification go hand in hand. The acupunctural densification projects in the peripheral urban fabric aim to improve the twentieth-century belt, making it denser as well as generating new forms of collectivity and solidarity.



Mono-centrality



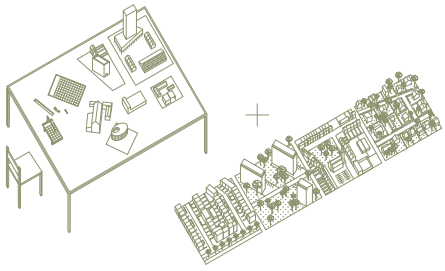
Poly-centrality



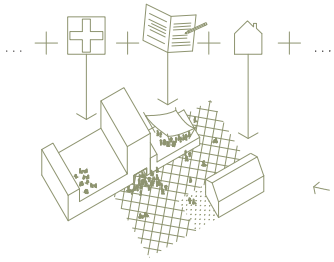
Micro-centrality

Six parameters for micro-centrality

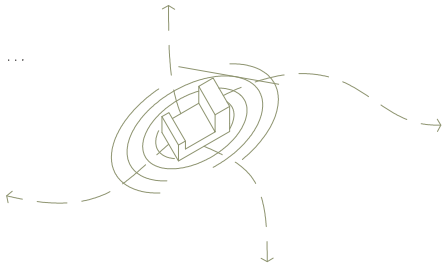
What is the difference between merely adding housing and a leverage project for urban renewal? When does a project become a micro-centrality? We use the design-based research we conducted as a starting point to formulate parameters that are essential for defining the character of a densification project. These parameters guarantee that a new sustainable development structure is established on the scale of the city fringe and on the scale of the densification project and its immediate surroundings. Together they constitute six well-defined prerequisites for achieving the condition of micro-centrality:



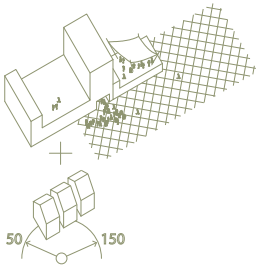
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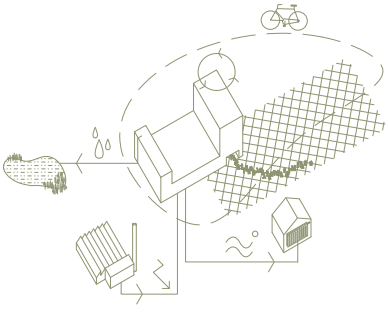
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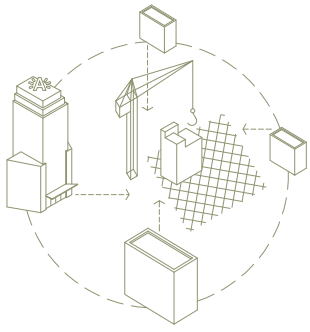
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4



5



6

1 Residential densification. As a basic condition and as leverage: the densification of the available housing.
2 Dynamics. Creating dynamics with a mix of additional amenities.
3 Embedding. The qualitative embedding of the densification project in the existing fabric.
4 Intermediary scale. Focussing on a project scale that clearly opts for an intermediary scale of 50 to 150 dwellings.
5 Supplier. Becoming a supplier of urban services in the field of energy, mobility, water, public space and so on.
6 Development methodology. Elaborating a development methodology that focuses on the project mode and on transformation mechanisms.

Parameter 1 | Residential densification

A densification project focuses firstly on building additional housing. The densification is considered leverage for building much more than just housing. The supply of marketable dwellings offers a basic return that can facilitate other investments, for example in amenities and city services. The greater level of densification also provides potential support to residents for setting up these amenities and services. At the same time, a greater concentration of inhabitants results in a more interesting public space with more public life. Consequently, densification is the prerequisite for the renewal of the existing urban fabric.

Densification also allows you to remediate errors in the existing building structure. Densification strengthens the environment's spatial structure and can repair and supplement local problems in the building pattern, such as fractures, abrupt transitions, back-to-back conditions and vacant sites. Spatial structures that were never put together judiciously in the first place but were randomly created by the juxtaposition of various projects and expansions can thus be supplemented.

The case of Valaar

The existing barracks of the *gendarmerie* will be redeveloped into a strongly mixed residential-work project. Dwellings are built on top of larger volumes. As a result the available housing consists of stacked (on top of each other) or interlinked (side by side) dwellings, on top of other functions. The linked dwellings reprises the size of the nearby compact building blocks, but combines the developments in one building. The result is a new, special typology called the *gebouwblok* or built-up block.

The typology of the *gebouwblok* focuses primarily on combining various scales into one built-up unit: large work, sport or logistics halls with smaller functions and dwellings. Various forms of stacking create a very pronounced compact typology. The adjacent public housing neighbourhood can also be transformed in the process. The existing density is very low and the buildings are very old. If buildings are replaced here then the emphasis should be on a higher density and on a mix of types, with houses instead of apartments.



Valaar. The existing barracks of the gendarmerie will be redeveloped into a strong mixed residential-work project. Dwellings are built on top of larger volumes. The result is a new, special typology called the *gebouwblok*.

Parameter 2 | Functional dynamics

A densification project adds a new dynamic by combining various (collective) functions. A diverse range of new and existing amenities will create a mix of users who also spread their use in time. As a result, the densification project does not focus on one group of users or on one period of intensive use. The wider range of amenities will increase the support for the development of the range of amenities. The various functions enhance each other precisely because of their concentration. This also allows for the sharing of certain functions, spaces and amenities, such as specific mobility solutions, shared parking, public space or energy supply.

By increasing the functional dynamics, clearly distinguishable places are created in the twentieth-century belt that can play different roles within the concept of micro-centrality. The action radius of the different functions can vary. The dynamic of certain functions can be felt on the neighbourhood level. Other, more specific functions have an impact on the district level or even throughout the entire twentieth-century belt.



Het Rooi. By using recreational functions differently in a network, inhabitants, recreational users and tourists can interact with one another around specific functions. Het Rooi combines various supra-local recreational functions with each other and with the local residential environment. The mix of living and recreation has been continued down to the block level, creating effective meshing.

The case of Het Rooi

With the exception of the large provincial parks (such as Rivierenhof), recreation is a strongly dispersed system, which targets very specific groups and as a result, is barely mixed itself. By using recreational functions differently in a network, inhabitants, recreational users and tourists can interact with one another around specific functions. Het Rooi combines various supra-local recreational functions with each other and with the local residential environment. The mix of living and recreation has been continued down to the block level, creating effective meshing. Here the functional densification consists of the diversification of the recreational offering and a better use of the available programme.

The densification of the centrally located subdivision involves only adding a modest volume to the public space of the sports fields in Het Rooi. About 150 dwellings and 1,000 sq.m. of public programme are added, in combination with the already available programmes of tennis courts, a sauna, a spa and a restaurant. These functions are incorporated and dwellings added. The existing amenities are improved and expanded. The entire site of Het Rooi has the potential for building 600 to 800 dwellings within the sports park, with the same development.

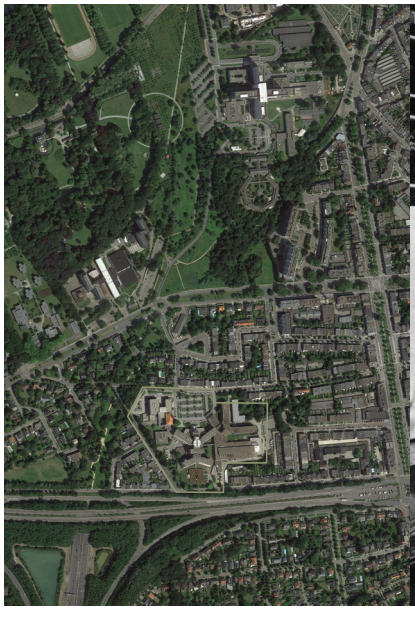
Parameter 3 | Embedding

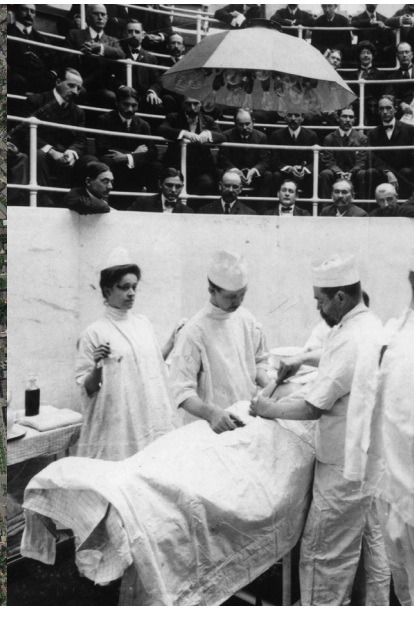
A densification project of dwellings and amenities aims to achieve strong embedding in the district. This embedding implies interaction and an impetus for the improvement of the environmental quality. The project wants to have a clear impact beyond the project perimeter, i.e. on the scale of the neighbourhood in which it is located. The densification project enters a clear social and functional commitment. These are not infill projects that only offer qualities for the inhabitants of the densification project. The type of environment determines the shape of the interaction between the densification project and the surrounding environment.

The case of Sint-Augustinus. A care centre as a community centre

Specific public functions such as school campuses, healthcare institutions, hospitals and recreation areas are often located in the twentieth-century belt because of their relatively largely footprint. They have a supra-local, sometimes even regional scope and action radius. At the same time, there is virtually no relationship with their immediate environment. Sint-Augustinus Hospital established itself on the outskirts of the city of Antwerp and the residential area subsequently developed around it. The hospital still operates as an island.

Sint-Augustinus Hospital established itself on the outskirts of the city of Antwerp and the residential area subsequently developed around it. The densification project turns the hospital inside out, so it becomes the heart of the neighbourhood.





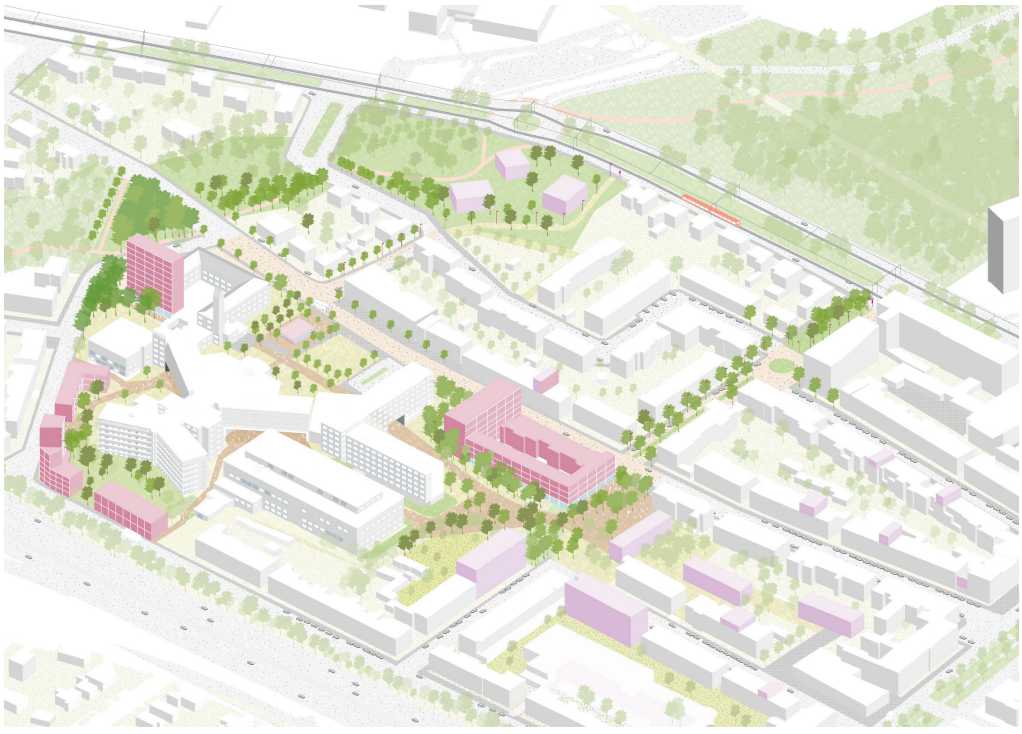
The densification project turns the hospital inside out, so it becomes the heart of the neighbourhood. It does this by making available *internal* amenities such as a dry-cleaning service, a restaurant, a pharmacy, a GP and so on to the neighbourhood. The project comprises 150 dwellings on the hospital site, 100 dwellings in the surrounding area and 4,000 square metres of space for new amenities in the plinth of the buildings. The new volumes constitute a modest addition to the hospital's existing building volume but constitute a substantial addition in terms of the space for public amenities. The presence of dwellings in the hospital grounds, the additions to the programme and the introduction of building volume shape the public area establishing a connection between the neighbourhood and the hospital.

Parameter 4 | Intermediary scale

Although the available space can vary greatly from project to project, a densification project envisages a clear intermediary scale. The project should not be too small. Otherwise the leverage or the support might become too limited for developing the proposed amenities and achieving the transformation and densification in the surrounding fabric. Projects that are too large become very independent too soon and fully rely on their own development.

The intermediary scale uses an approach that is tailored to the user/occupant, which can serve as the prerequisite for participatory processes and co-production. This concerns a large project scale of

Sint-Augustinus
grounds: 3 ha
150 dwellings
4,000 sq.m. of functions
+ hospital
+ transformation of the neighbourhood with 100 dwellings



50 to 150 dwellings and various functions, involving different stakeholders, institutions, networks and so on. The intermediary scale can enhance the fragmented urban structure of the twentieth-century belt through a frequent repetition of the strategy, but in a different way each time.

Economies of scale

Focussing on the intermediary scale in which a large number of dwellings and amenities are combined with an investment in public space and in various networks provides some economies of scale.

Green areas and ecology. The larger scale means stronger green fragments can be introduced, with a higher ecological experience as well as an improved user and amenity experience, compared with that of many very small gardens that are pushed together in the city fringe. Such larger entities can easily play a significant role in the green structure on the scale of the city fringe.

A living environment with diverse typologies. The upscaling allows for the combination of different types of housing which would not be feasible in smaller housing projects. This also creates a social mix as well as being a prerequisite for various forms of collective initiatives. The project is therefore not limited to one co-housing project or a collective initiative (the optimum scale of which is in the range of 10 to 20 households). Instead, it allows for the combination of a number of these initiatives. One living environment thus offers different housing types and concepts.

Finally really different amenities. The upscaling of a densification project means that you can take a different approach to the amenities. The scale allows you to add and combine completely new amenities. So not just a primary school with some dwellings but a school that provides different types of education, combined with workshops and a community utility centre, where contemporary industry is meshed into the city thanks to 3D printing for example. Pop-up industry really, which does not have an impact on living or on the environment. An essential aspect of setting up such functions involves providing sufficient critical mass for the intended dynamics.

Energy and mobility networks. Functions with complementary energy requirements can be consciously linked to each other in the densification projects, e.g. in offices or in a school with dwellings. The intermediary size also has the advantage that there is sufficient critical mass present to launch networks, which can subsequently be further developed with the neighbourhood (such as heat networks). The presence of specific heat requiring elements within the project (a care institution, a swimming pool) means a base-load can already be taken into account in the project in terms of energy requirements, making investments in larger, collective installations for generating energy and heat logical and feasible. The same applies to an underground car park or parking building, which the neighbourhood can also use and to alternative mobility systems, such as (electric) car sharing, bike sharing or collective public transport.

Parameter 5 | Supplier

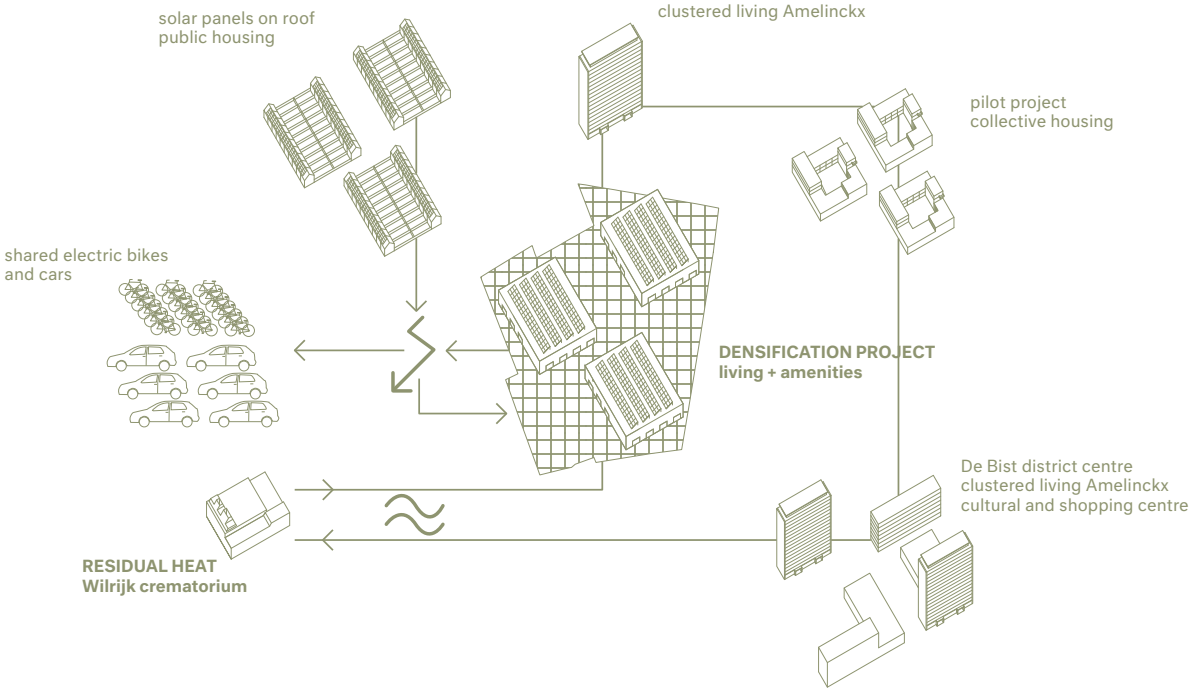
A densification project supplies services such as energy, mobility, water, public space, green areas, food and more. The project offers these services sustainably and to a wider environment. At the same time various networks are developed, which actually facilitate these services. An energy network, green network, network for soft mobility or a system of public space is thus developed, fragment by fragment, out of the densification project, throughout the neighbourhoods. Various densification projects thus develop a new structure in the twentieth-century belt.

Supplier networks

The densification project can automatically provide different interpretations of the function of supplier. Examples of networks that can be developed within the micro-centrality strategy include energy, mobility and social networks.

Energy networks. Micro-centrality – the densification and integration of amenities in the surroundings – also creates opportunities for renewable energy production. Several intelligent interactions are possible between the densification project and its immediate surroundings, which can connect and strengthen the various spatial layers and layers of amenities. The interaction between the two is essential. The densification project offers the neighbourhood a service, and, in exchange, is allowed to build in a denser manner. When a new development project connects with a heat network or contributes to its development, this creates the possibility for denser or higher building than is currently the case, under the urban planning regulations. In other words, allowing for the *reimbursement* of an investment in the city's CO_2 neutrality in more levels of spatial freedom paves the way for more creative thinking about spatial planning in interaction with other fields.

Mobility networks. Working with a scattered pattern of smaller centres allows us to think about new forms of mobility. These consequently do not have to be based on moving large groups of people to one centre (such as the tram to the city centre) or covering great distances with individual transport (car in the green outskirts of the city). These new forms of mobility can be grafted onto various forms of collective transport that are meaningful over a shorter distance – crisscross movements from densification project to densification project, e.g. with electric car sharing and shared bikes. The densification project thus becomes the charging and collection point for this form of mobility. They are connected through a local network of bike paths and roads. The city fringe, after all, is a very porous fabric. Such modes can be incorporated in the local energy network and require significantly less investment in large-scale infrastructure or public transport. In addition, the scale allows for the integration of some expensive investments, which become feasible, such as the construction of an (underground) parking. In other circumstances, such projects are barely financially feasible in the city fringe, as is demonstrated by the absence of the proposed projects in the districts.



Valaar. The densification project serves as a hub in the neighbourhood. It distributes the residual heat of the nearby crematorium among the large functions on the site: the new dwellings, the existing large residential buildings (Amelinckx) and possibly also to the residential area with public housing. The roofs of the large sheds of the workshops, studios, etc., can be maximally used for installing solar panels, supplying the power directly to the users themselves. The roofs of the adjacent residential area may also be used for this purpose. The densification project also acts as a mobility hub. It is located at the junction of public transport lines (potential of radial and tangential lines) and near the ramps to the E19. The hub can also organise the transfer between public transport, car and bike. New connections and a parking building facilitate the transfer. The densification project adds public space, establishing green connections across Boomsesteenweg and through the neighbourhood.

Social interaction. Various new amenities, coupled with housing and specific public or collective outdoor spaces create the space for encounter, between different groups of residents within a residential fabric, which currently does not really provide the space for this. This can be done on various scales: from the traditional small neighbourhood park to a food bank, repair café or co-working space. Such trends are consistent with the objectives of transition neighbourhoods, in which the bond with the neighbourhood is strengthened and a strong social network is created by promoting the exchange of knowledge and residents' skills. Moreover, a number of cycles can also be closed as a result. The intention is not to remove amenities from the public sphere and to privatise them, but rather to make them collective or public, starting from the private sphere. The city authorities no longer have to organise an amenity in other words. Various national and foreign projects show how the civic economy can serve as a cornerstone for such developments.

Parameter 6 | Development methodology

The densification and strengthening of the existing fabric aims to implement a dual realisation strategy, namely that of the initial densification project and the further urbanisation of the transformation field. A large vacant site or a site that must be redeveloped becomes the starting point for integrating the initial densification project. The approach for the initial project is not or barely any different from the traditional urban development projects. The objective is the transformation of the immediate surroundings, whether simultaneous, or as a result of the initial densification project (see embedding). These are rather small-scale projects, which supplement the existing urban fabric. These two densification operations together form the preliminary conditions for achieving local densification and innovation, but they must be explicitly connected with each other. The objective of the proposed infill projects within the *reconvertio suburbis* is to explicitly link the two with each other and to distribute the benefits and burdens among the various interventions.

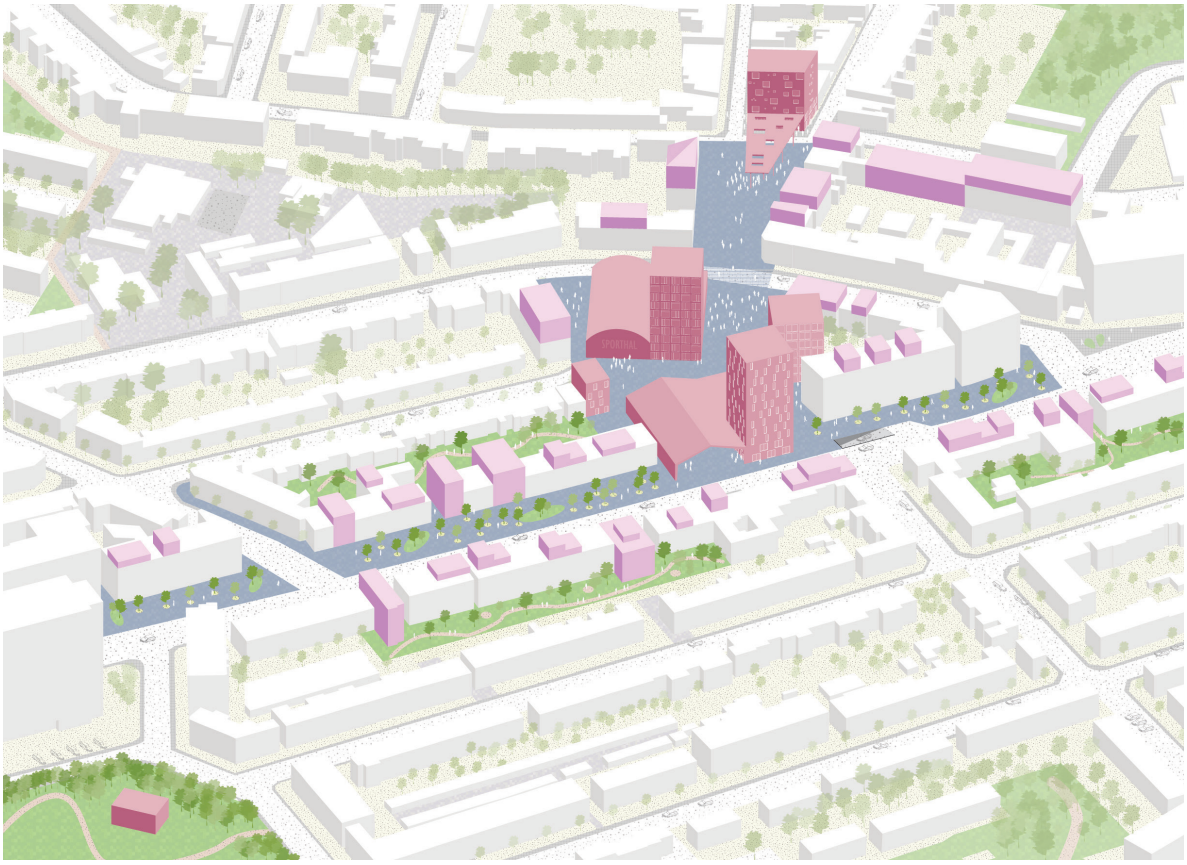
The case of Merksem

The densification project is realised on a site that is up for redevelopment, which is owned by the local authorities. The site can be sold to a private developer *under conditions*. As a result, the benefits for the site's development are not transposed into high land prices. Instead the project gives rise to various investments in the project and surroundings, such as the construction of a neighbourhood car park, heat network and the reorganisation of the public outer space. As a result of this initial project the surrounding area can become even denser. Neighbourhood residents are granted deviations from the existing building heights and depths if they connect to the heat network and if they exchange their own private parking spaces and boxes in the inner area for the neighbourhood parking facility. The existing parking spaces in the plinth create the space for functions or residential expansion, the garages make way for collective gardens.

A new cityscape

Project by project. That is how we describe the intended densification of the twentieth-century belt. The densification takes place gradually, and the new structure of micro-centrality is steadily created. The final image shows an urban model, in which transversal movements from micro-centre to micro-centre (or district centre) supplement the primarily radial model, which is oriented towards the city centre. New connections and pokes are thus created in the twentieth-century belt, supplementing places like Rivierenhof or Middelheim, which currently already function in this way. By connecting small local networks for energy, mobility, green spaces and public space, a network is created on the city's scale. A network that introduces a new logic in the twentieth-century belt as a whole.

The transformation of the urban fabric can thus be implemented in a phased manner. The project's intermediary scale does not require very large (preliminary) urban investments in additional infrastructure or contiguous open space. The densification does not rely on essential interventions set to work. The phased approach is not sequential. The projects do not rely



Merksem. The densification project is realised on a site that must be redeveloped and is owned by the local authorities. As a result, of this initial project the area can be further densified. The authorities grant deviations to the neighbourhood residents in terms of building height and depth, if they connect to the heat network and trade in their private parking for the neighbourhood parking.

on each other for their implementation but gradually form a densification structure. Consequently, a proper planning of which project will be built where and at what time, is less important. A project can be initiated by the local authorities or follow from the initiatives of stakeholders. The condition of micro-centrality can be achieved either bottom-up or top-down. The main objective is to ensure that each densification project contributes to the twentieth-century belt's densification and renewal.

By enforcing the listed parameters, the city authorities can control the social quality or the leverage of each project. Densification projects can be purposefully spread based on the available opportunities. These can be city properties, or the properties of partners or of crucial private stakeholders. In this way, the available potential and capital in the twentieth-century belt can be activated faster. The spread can thus gradually increase density in the twentieth-century belt. Own initiatives can thus be used as a signal in the various districts to inform residents that the planned further urbanisation is about to start. Densification is thus shaped step by step and finally results in a consciously controlled new image of the city.

Densification and meshing. An argument in favour of the intermediary scale.

Palmbout Urban Landscapes, De Nijl Architecten, Blauwdruk Stedenbouw, Feddes Olthof Landschapsarchitecten

Identity

It is not easy to pinpoint the identity of the twentieth-century belt. A patchwork of different morphological fragments. An open city, without the iron logic of streets and building blocks that is so typical of the closed city within the ring motorway. A diffuse city, which Bernardo Secchi and Paola Viganò qualified as a *territory of inhabited places with problems of decay, ageing and segregation* a few years ago.

Given that Antwerp will continue to grow and the nineteenth-century belt is becoming more expensive, we have to better position Antwerp outside of the ring motorway as an alternative to the old city. The diffuse city must acquire an identity, with recognisable places where life is pleasant. Along with Secchi and Viganò we think that public space is the primary place where differences can meet. Our approach for Lab XX consists of improving a cohesive structure of (new) public spaces, which is more in line with the wishes and needs of the future population. It is of strategic importance that this structure is used as an identifier of the twentieth-century belt or the *Intermediary City*.

Green lobes

We want to highlight the amazing potential of the green lobes. These are remnants of old landscapes, where the backs of the urban development converge. They are the Green Fingers in Antwerp's planning concept of a regional Finger City. From a cultural-historical perspective, the landscape here has always been a rich landscape, with old country estates, monumental farmsteads and the remains of the National Redoubt Antwerp. Often there are stream valleys here with potentially substantial ecological value. There are forts and green functions such as parks, sports fields, cemeteries and so on in the offshoots of these lobes.

Nowadays this landscape is fragmented. The agricultural use is under pressure. The remaining land is poorly managed, spatial relationships have often become fragmented. Yet the green lobes with their offshoots signifi-





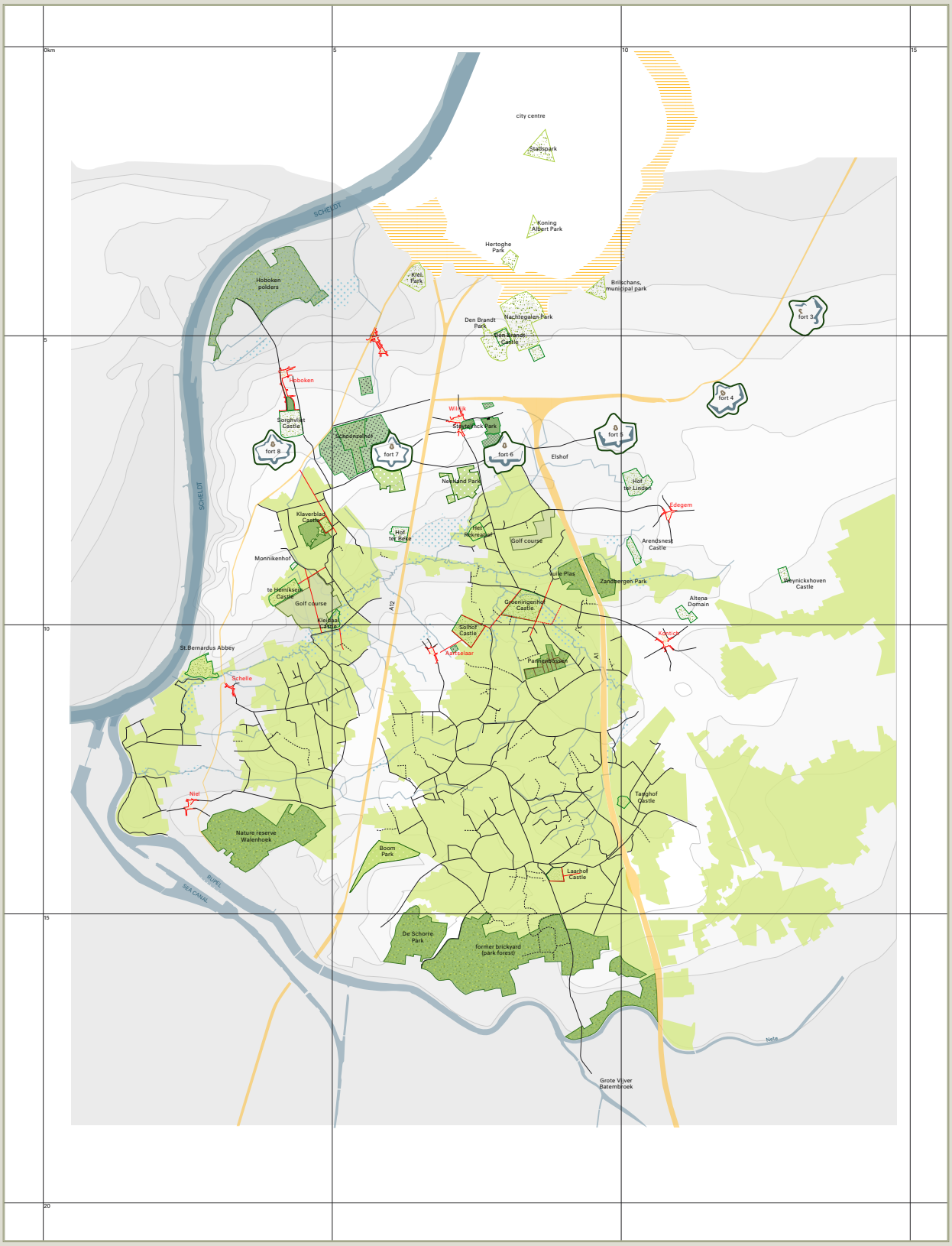
cantly determine the appeal of Antwerp outside of the ring motorway. The densification of the twentieth-century belt allows for a better meshing of this latent green structure with the urban area.

We have examined how we can upgrade these old landscapes and mesh them with other green functions into a new urban green structure. A structure that establishes ecological connections between the city and the outer area (ecological values, biodiversity, water retention) and which creates the space for green features for the twentieth-century belt (leisure, sport, recreation, urban agriculture). A structure defined by the fronts of urban development and which is nicely meshed with the adjacent residential areas. New centralities in the open city, which contrast with the compact focal points in the closed city[1].

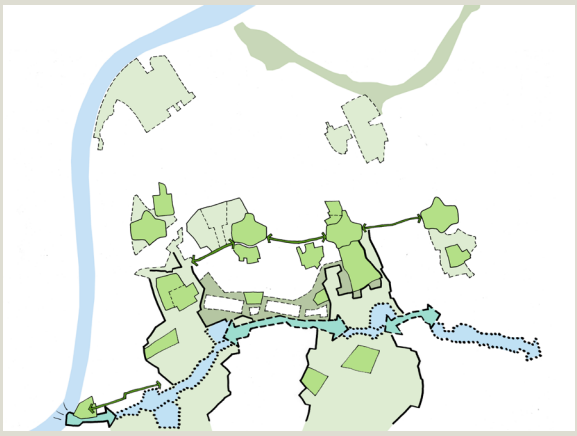
We then looked at ways of using this open space for the reconversion of Antwerp outside the ring motorway. We want to shape the urbanisation based on the landscape's potential. We must organise counterpressure, starting from the open space, which can give rise to improvement and densification of the existing fabric. Our strategy is aimed at creating more structure and spatial-functional consistency between the open space and the urban area. It consists of a combination of developmental power at four levels.

1 Landscape development.
2 The development of green-blue networks and *soft* routes.
3 Development of backs, vacant parcels of land and residual areas into urban fronts along the open space.
4 The redevelopment and densification of the existing fabric near the open space.

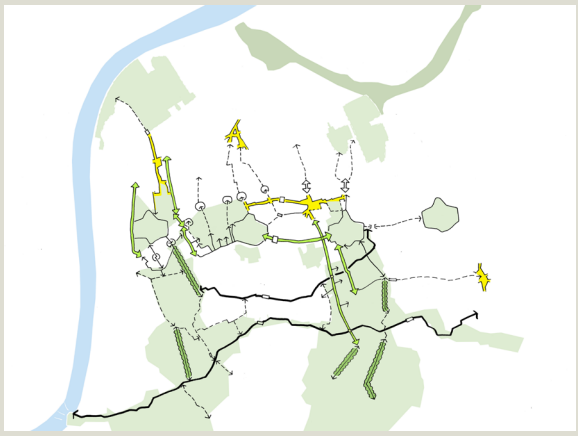
1 The relationship between the city and rural areas in urbanised areas is a known theme. We follow in the footsteps of a long-standing European tradition of 'green cores' as poles of urbanisation on the outskirts of the city. Examples include nineteenth-century Bath and Regent's Park in London (park landscapes as an identifier for densification with crescents and terraces), Frankfurt in the 1920s (transformation of landscapes into "productive public parks" with an extensive programme of urban agriculture, recreation and ecology) or, more recently, the transformation of anonymous greenbelts into connective public spaces during the renewal of the Dutch post-war city (Deventer Zandweteringpark, parks in Amsterdam Osdorp with densification along the fringe).



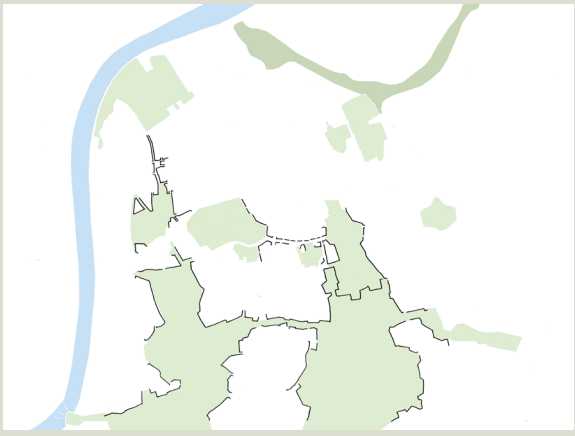
- City subcores
- City parks
- Cemeteries
- Forts
- Urban estates
- Golf courses
- Landscape parks
- Park forests & nature reserves
- Streams in the urban and landscape fabric
- Overflow areas
- Landscape subsoil = dominant over urban fabric
- System of country roads, avenues and walking trails
- Castle avenues



1



2



3

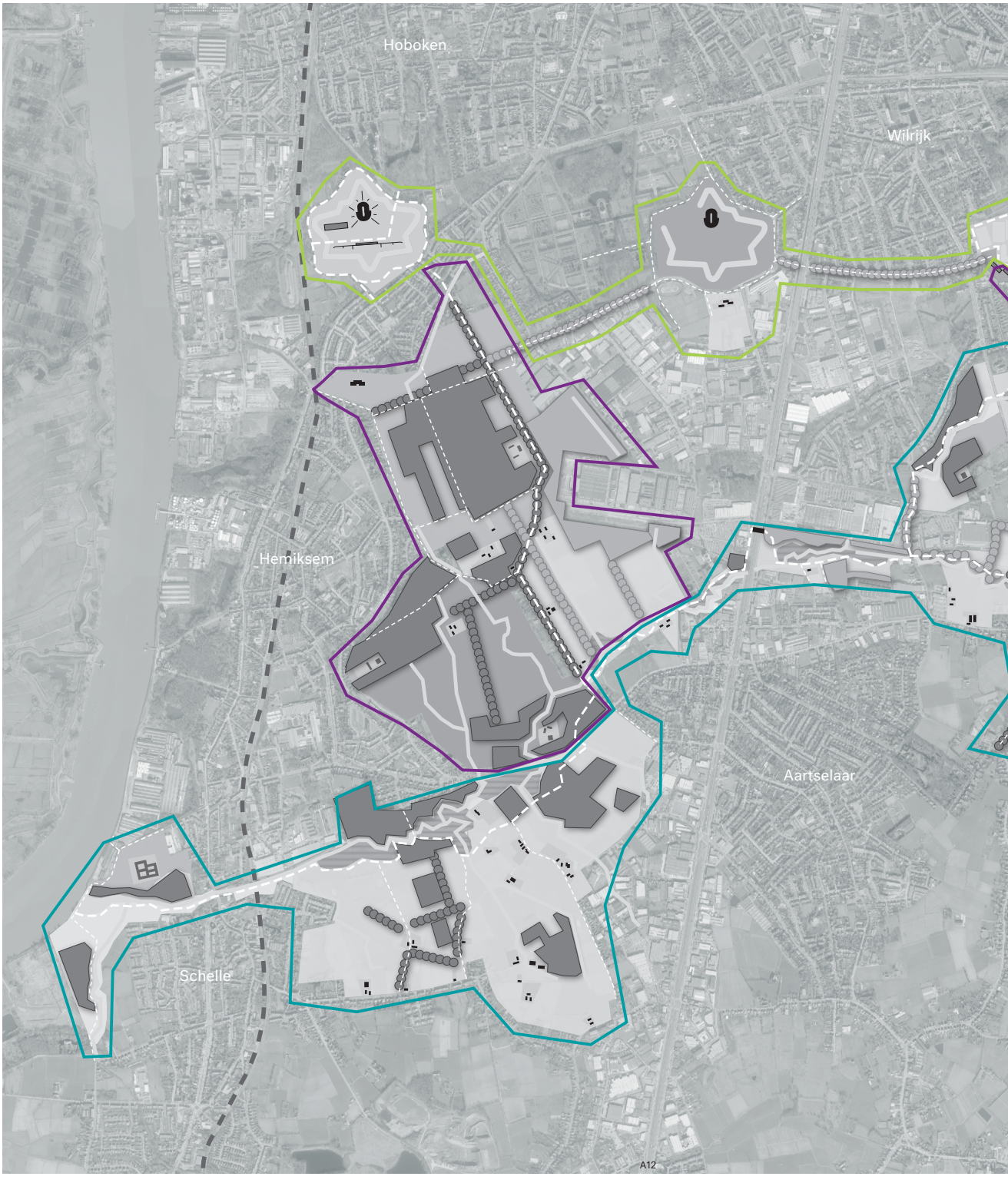


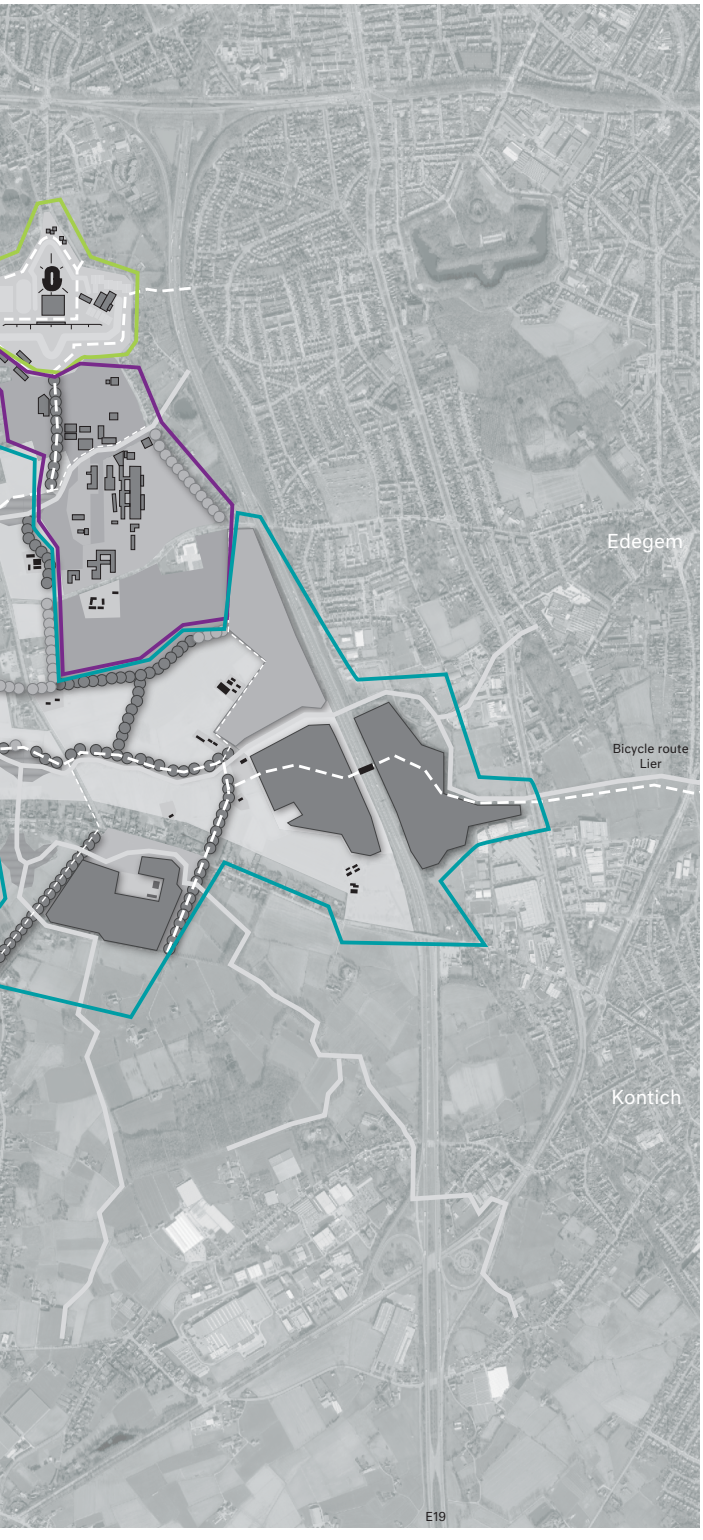
4

Strategy for open space.
Developmental power on four levels.

1 Landscape development: supplement natural systems, more coherence, improve programmatic relationships with city dwellers for example by strengthening urban agriculture and the sale of regional products.
2 The development of green-blue networks and soft routes: improve accessibility and connections, more options for unorganised sports such as cycling and walking, incentive for more diverse agriculturural activities
3 The development of the backs, vacant parcels of land, and residual areas into urban fronts near open space.
4 The redevelopment and densification of the existing fabric near the open space.

We want to highlight the fantastic potential of the green lobes. These are remnants of old landscapes, where the backs of urban developments converge.

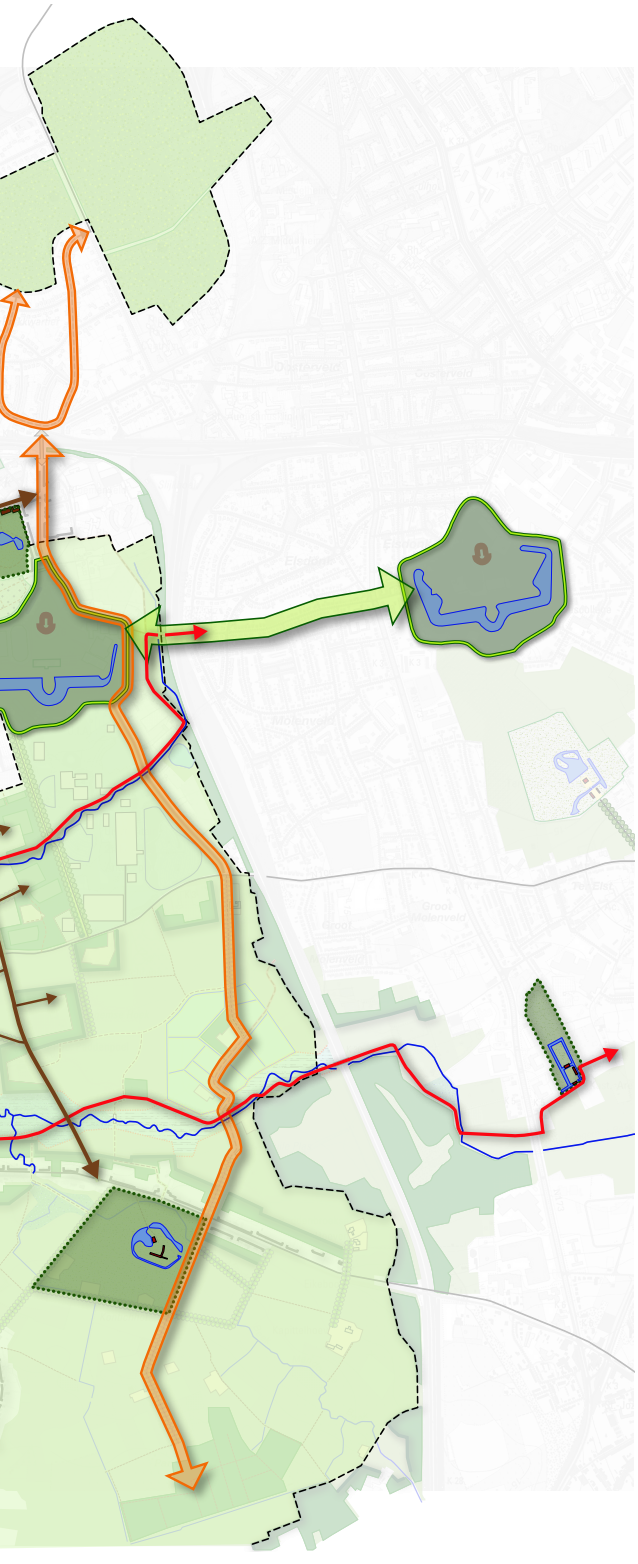

Hoboken
Wilrijk
Hemiksem
Aartselaar
Schelle
A12



Landscape development.
Three *project envelopes* for action.
Fortresses, country estates and stream valley.

- Subarea fortresses
- Subarea country estates
- Subarea stream valley





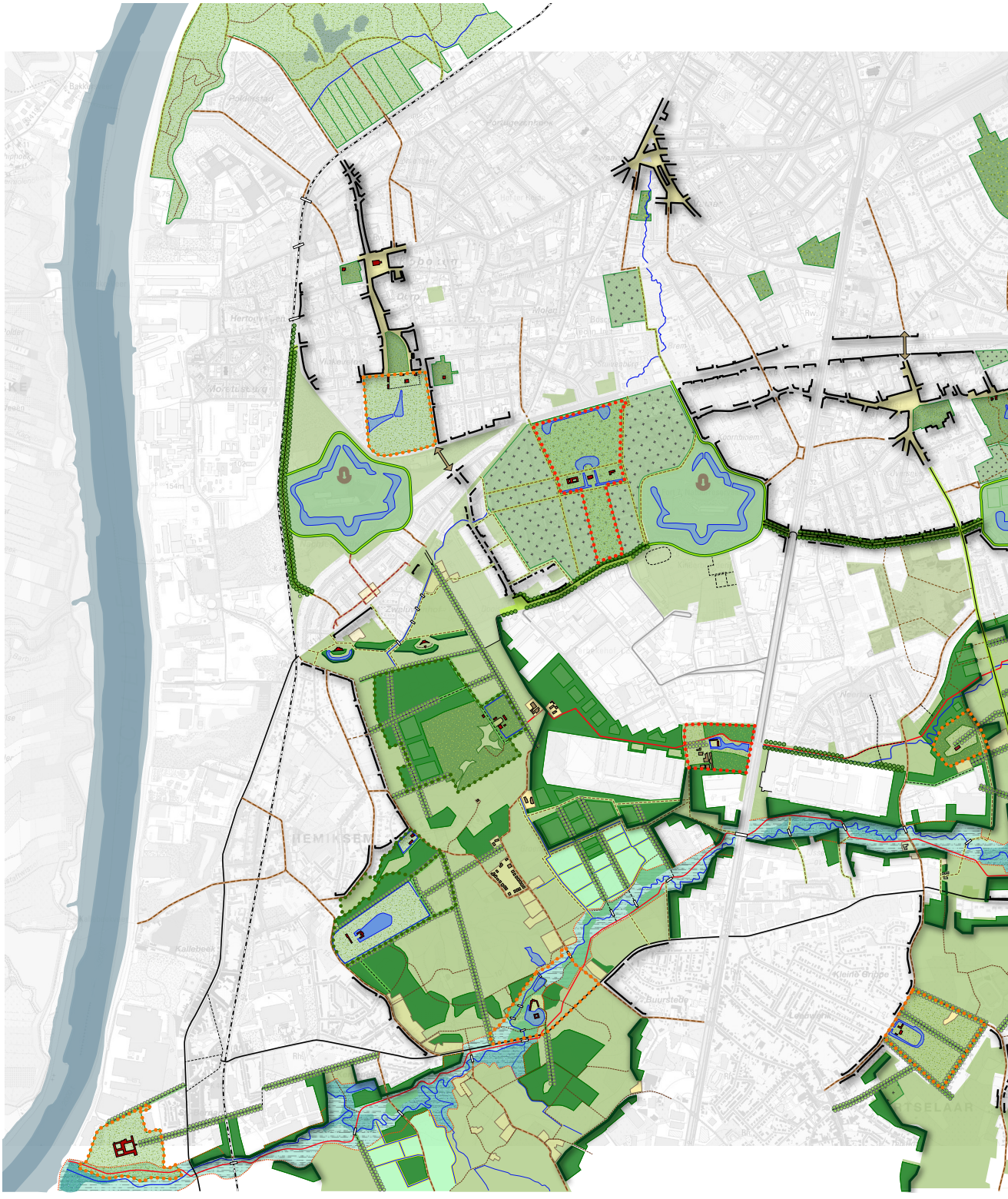
Desired situation for the development of green-blue networks and soft routes

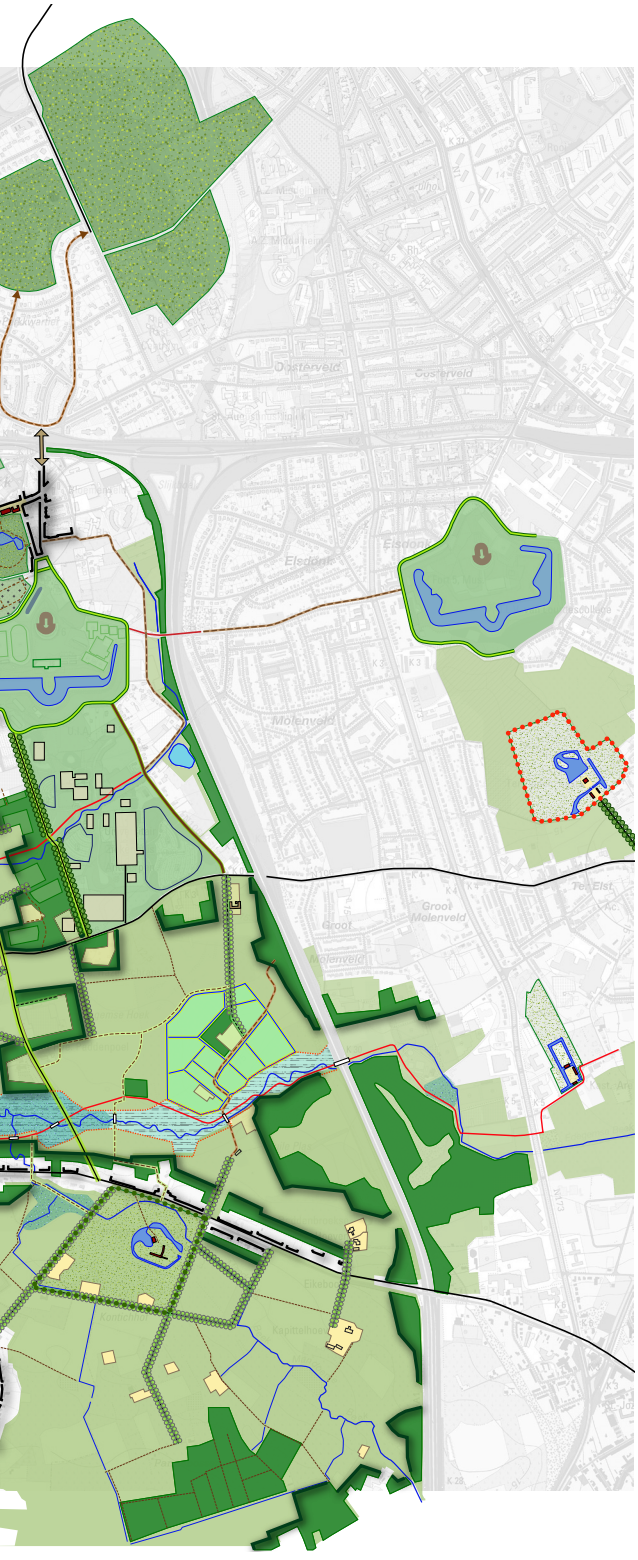
The landscape experienced by the city: from the Hoboken polders over Hoboken to the landscape around Klaverblad Castle and beyond. From Nachtegalen Park and Park Den Brandt over Wilrijk towards Groeningen Castle.

The fortress route: bike from Fort 8 over Klaverblad Estate and along Schoonselhof Cemetery and the petting farm past Fort 7, from there continue along Moerelei and Neerland Park to Fort 6, through the bike tunnel and Elshof to Fort 5.

Bike along streams and country estates: bike paths along Grote and Kleine Struisbeek.

A string of typical urban spaces: through Groenstraat and along the flanks of Hoboken, from the centre of Wilrijk and Bist along Steytelinck Park over Doornstraat towards the centre of Wilrijk - Bist.





Desired situation for open space

Urban subcore

Existing urban structure: formation of a front along open space and typical urban routes

Green Areas

Forts: to be upgraded in function of autonomous quality

City parks: improve integration in public network

Cemeteries: establish connections with the walking network

Urban estates: private property, where possible provide public access to the outer area

Urban estates with a (semi) public function: residential streets: improve connection to hiking network

Vacant urban estates: promising locations as a quartermaster for upgrading the landscape

Important route for connecting and providing access to green areas

Park lane to facilitate walking around the fortresses

Paths in parks and green areas and local residential streets: improve connection to hiking network

Landscape lobes

Reinforcement of the edges of the landscape with afforestation: provide counterpressure to the city

Green articulation of the edges of the landscape

Public access to castle avenues

Country road with a recreational-connective function

Walking trails: adding links to establish a connective network

New bike trail along Grote and Kleine Struisbeek

Bicycle bridges: to get across large infrastructure and over the stream

Delineation of the stream valley as a natural and recreational system

Existing shrubbery in the stream valley

Lower areas in the stream valley: possible overflow and/ or retention areas

Semi-natural grasslands

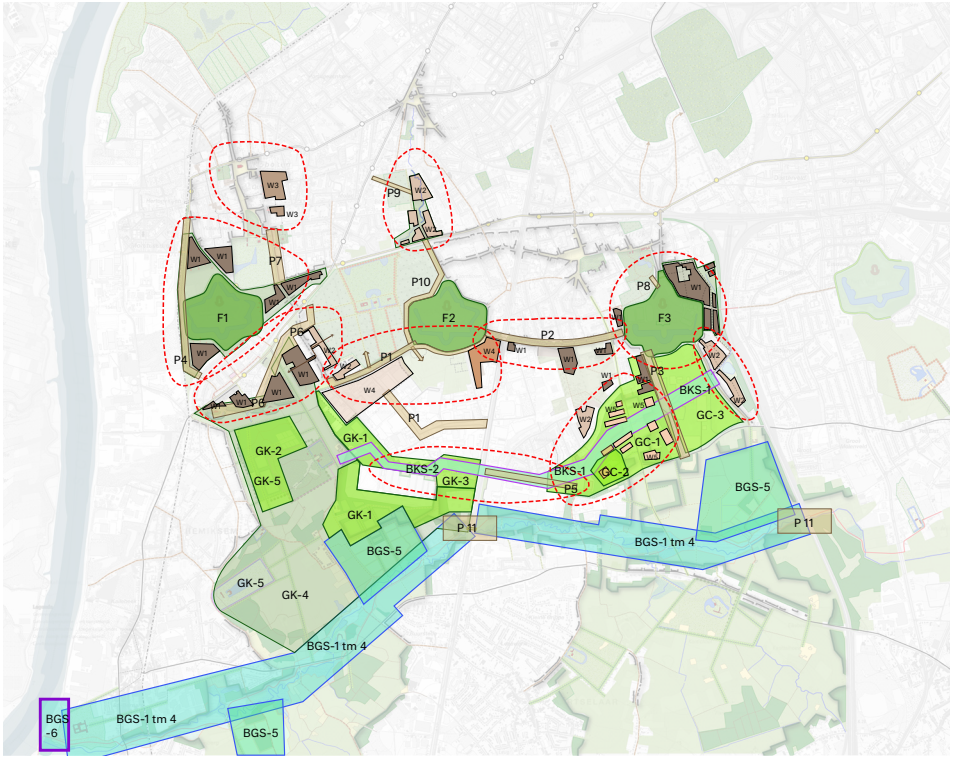
Intermediary scale

It is easy to see why introducing more structure and consistency to the open space in the twentieth-century belt is important. How can we further develop this, however, or even implement this in a next stage? The answer, on the one hand, involves good process architecture and the search for the right coalitions with the relevant authorities, companies, organisations and residents. At the same time, it also lies in the design itself and the use of the right scale. Our design-based research is founded on the concept of the *intermediary scale*: not only as a plan level, but also as a strategic tool for working with complex projects from a content, organisational and instrumental perspective.

The intermediary scale is positioned in between the master plan and structure plan. This is the plan level on which we can examine spatial relationships and structures. The intermediary scale involves a precise way of drawing, in which potential relationships between scales and sectors become plausible. Drawing on the intermediary scale does not involve making proposals for a *grand project*. The reconversion of Antwerp outside of the ring motorway will consist of an accumulative process of smaller and larger actions, as a result of landscape and urban development.

The intermediary scale provides a desired situation and a benchmark for policy coordination and initiatives. The strategy for open space and reconversion clearly shows that the challenge involves interventions on the sectoral level, and across various scale levels. Several stakeholders play a role in this process, because of their competence, their landholding or their interests in the area. Moreover various tools are used. The intermediary scale highlights a much greater common good, to which the authorities, citizens, companies and investors can relate.

An accumulative process of actions, projects and combinations.
The reconversion of the public space can be further developed through good process architecture, with the right coalitions and by using the right scale.



Our design-based research is founded on the concept of the *intermediary scale*: not only as a plan level, but also as a strategic tool for working with complex projects from a content, organisational and instrumental perspective.



Hoboken connected with Klaverblad through Sorghvliedt and Fort 8

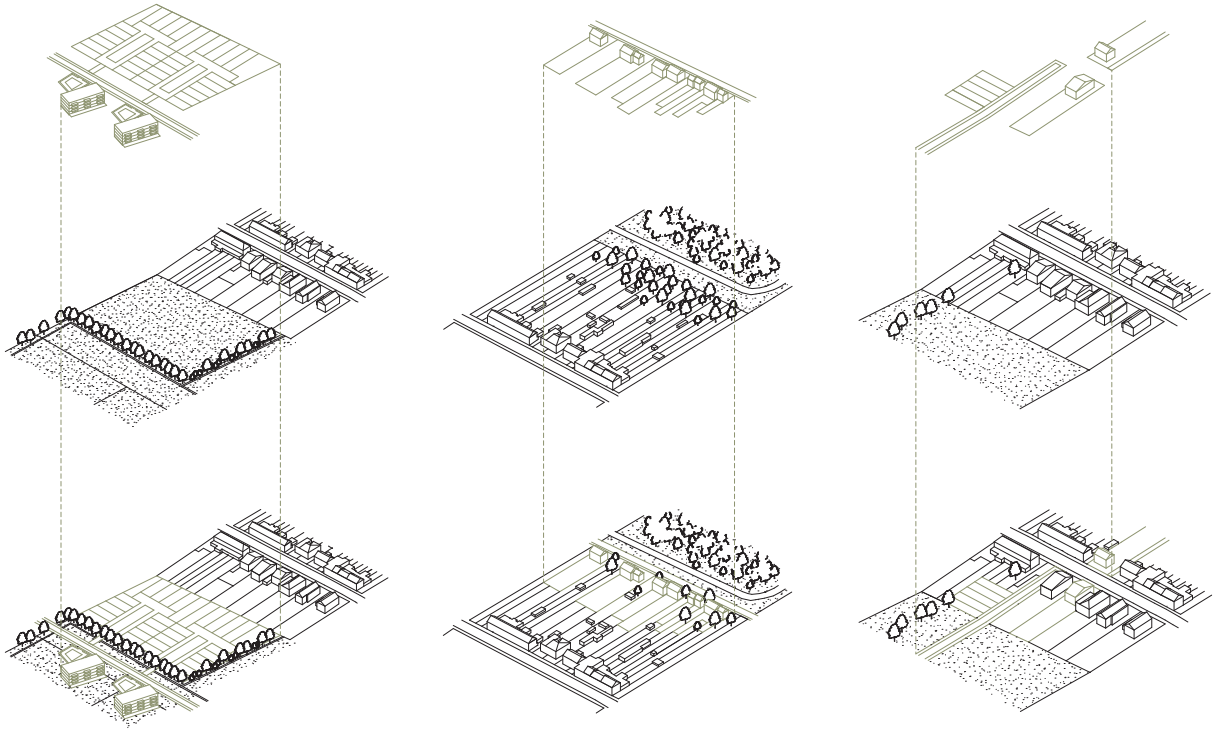
Reconversion

Densification in the existing built-up space requires action on the plot or building block level. There are vacant plots, open inner areas and residual places dispersed all over the twentieth-century belt, which can be used. Public space is very fragmented in the area studied, namely Hoboken-Wilrijk (between the River Scheldt and the A1 motorway, at the intersection of open space and urban space). The planning concept of the Finger City is barely recognisable here and the number of vacant plots is relatively high, as is the number of terrains that are being freed up.

We developed five cases. Four examples of the reconversion of urban fabric illustrate how these actions on the micro level can be oriented towards the strategy for open space. These zooms paint a picture of the intermediary scale, on which renewal and densification are implemented. The scale is similar to the scale of a building block project (somewhere in between an individual planning permit and a master plan). A fifth example of reconversion concerns landscape development along the stream valleys.

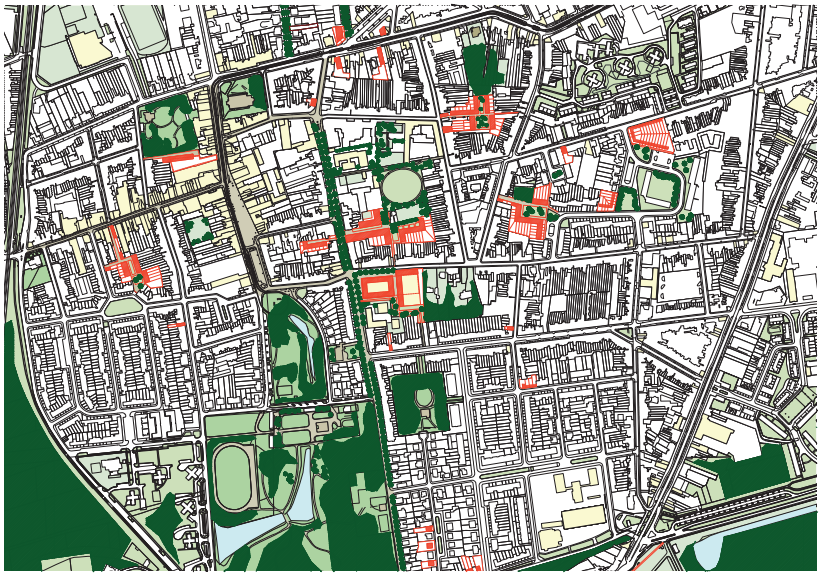
A chequered landscape | improving a green lobe

The first example, *Groenland|chequered landscape*, relates to the improvement of a green lobe, centrally through Klaverbladdreef, on the flanks as of Groenstraat and from the intersection of Sint-Bernardsesteenweg-Moerelei. This also means increasing access to and accessibility of the public space and the reconversion of the existing fabric. A combination of dwellings and amenities is plausible in this case. On the flanks, there is also a margin for the selective densification of jagged edges. Backs become fronts.



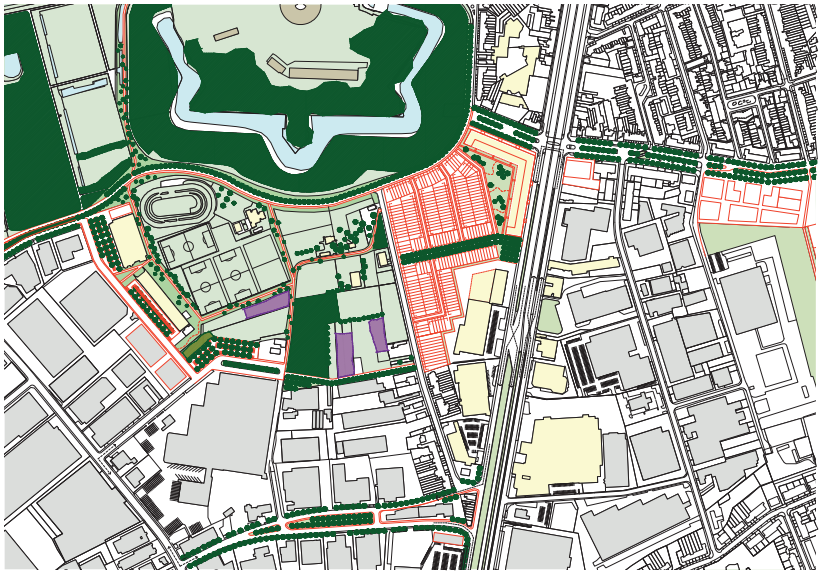
Meshed network | activation of densification locations

The second example, *Hoboken/meshed network*, involves the activation of the potential for densification locations in Hoboken, capitalising on the development of the nearby open space. Here the emphasis is on a meshed network that can connect the green qualities of inner areas with the routes to the larger, open space.



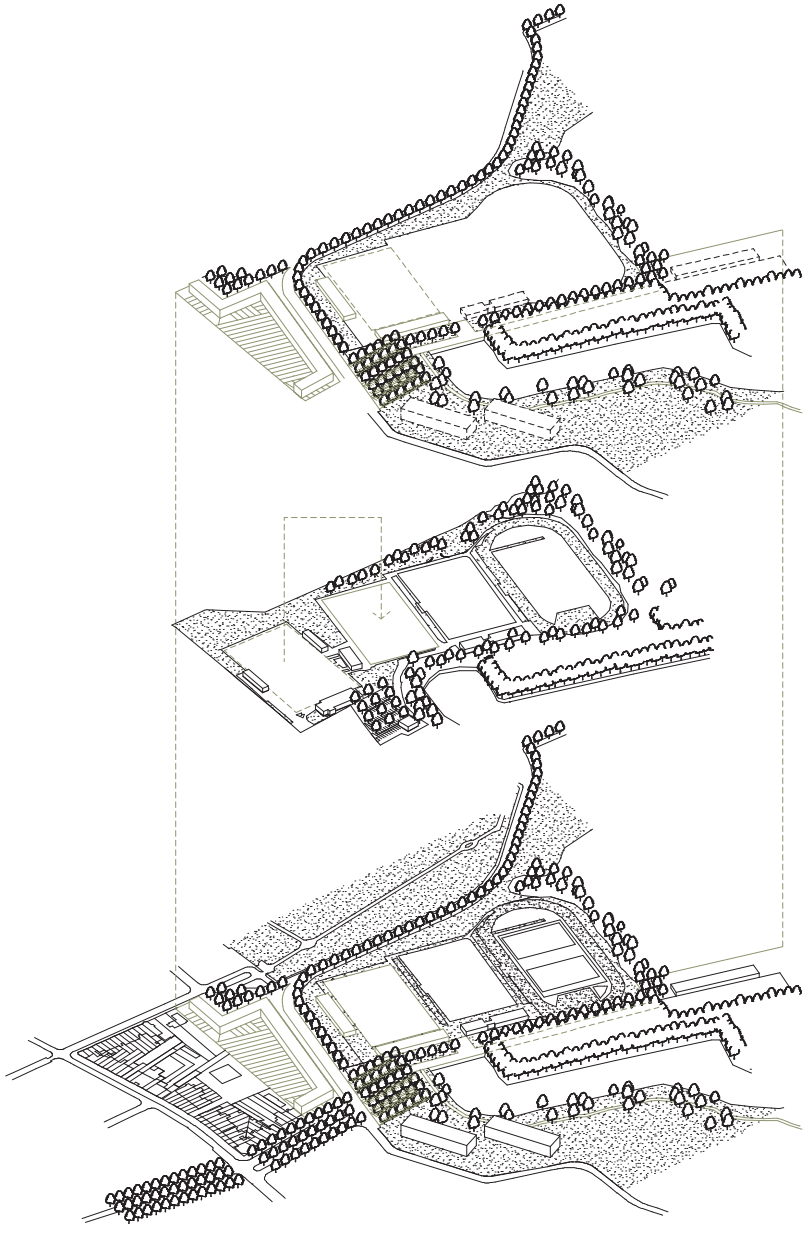
Public park | gradual conversion of a business park

Moerelei/public park concerns the development of a green setting for the gradual reconversion of a business park. Here the spatial coherence is increased with small actions, to organically create a *public park*, with a synergy between the programmes and a catalytic impact on the redevelopment of two large business lots between Oudebaan and the corner of Krijgslaan-Boomsesteenweg.



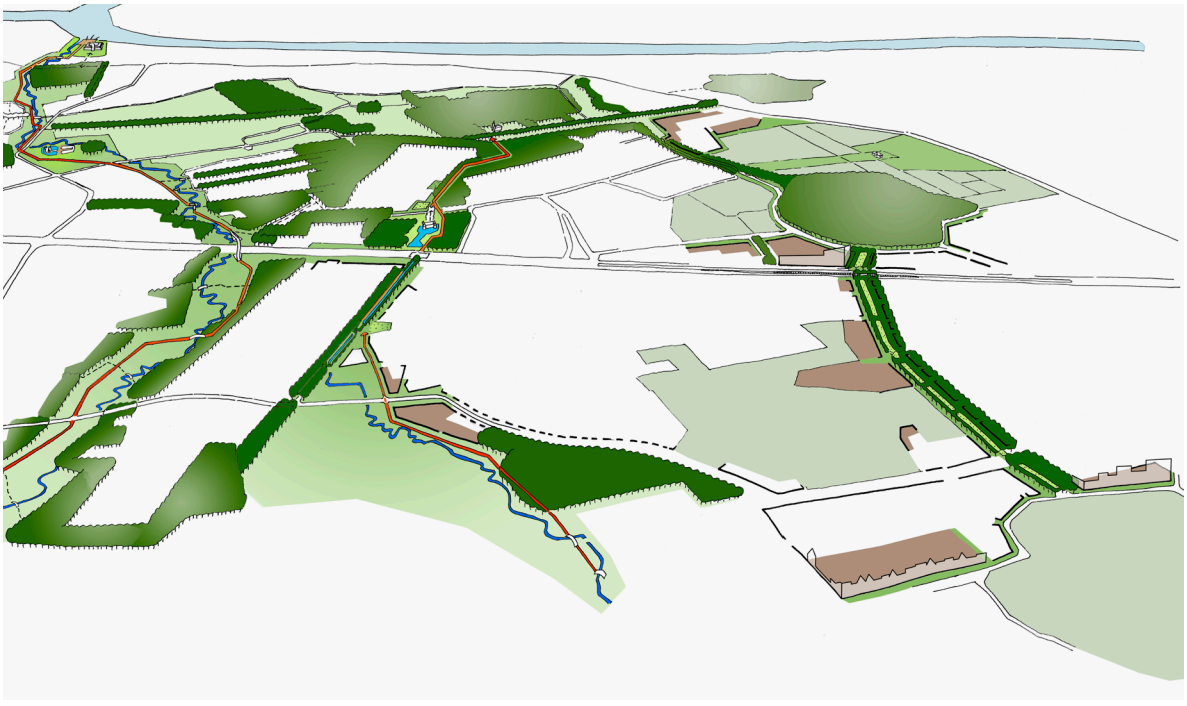
Green link | consistency between the routes and the open spaces

The example of *Krijgslaan/Fort 6* is designed to achieve better consistency between the routes and the open spaces around the fort. The objective is a connection between the park, the cemetery, the sport complex, the university campus and the top of Krijgslaan (which in turn connects various developments on the city fringe, such as Neerland Park and Moerelei).

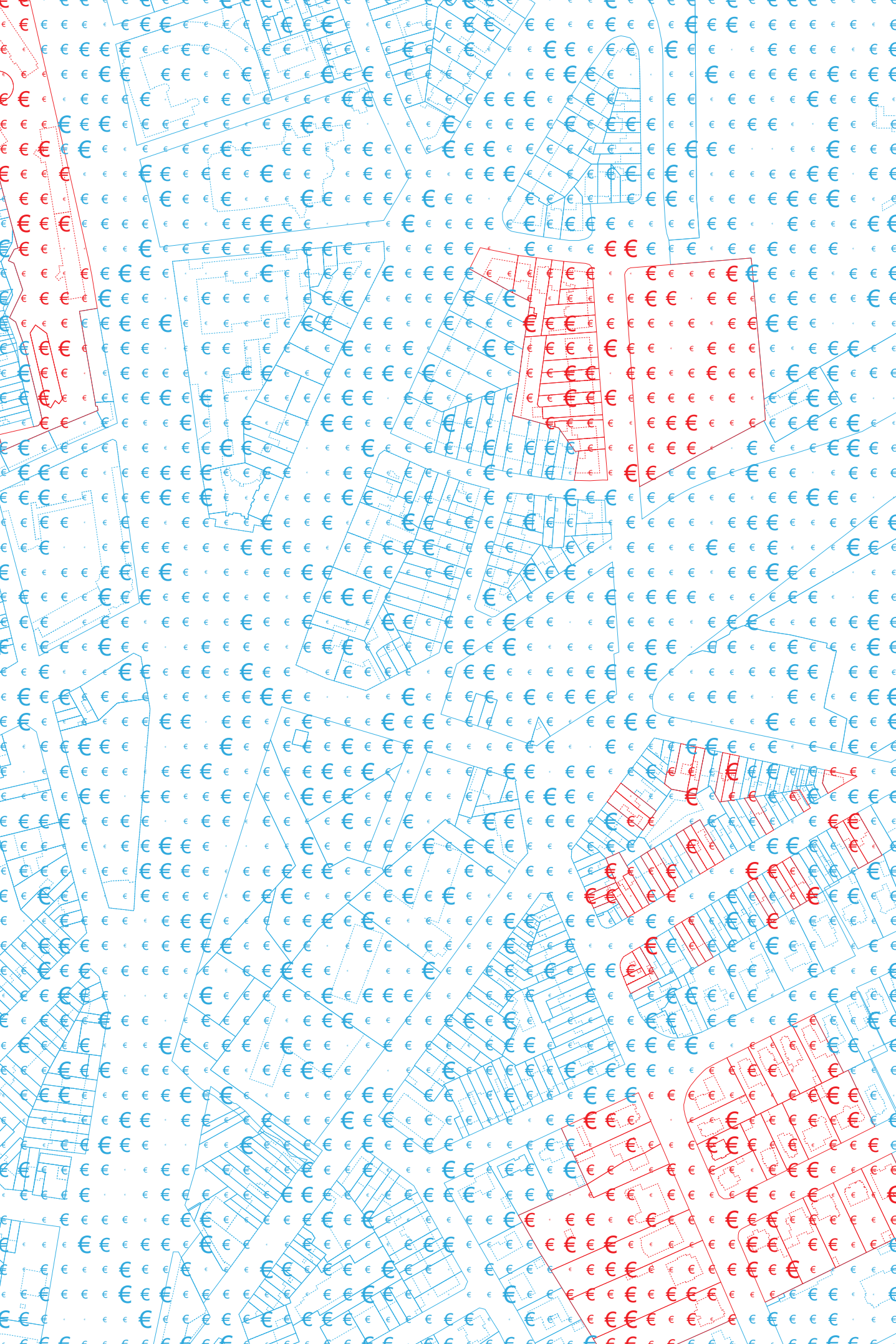


Landscape mosaic | from wet to dry

Finally, in the example of *Struisbeek and Edegemse Beek* a landscape mosaic was developed in which the entire gradient from wet to dry can be expressed. Nature-friendly banks are built along the streams, for the longest possible distance. The landscape mosaic also consists of wet grasslands, afforested banks along the streams and semi-natural agricultural land.



New connections over the A12



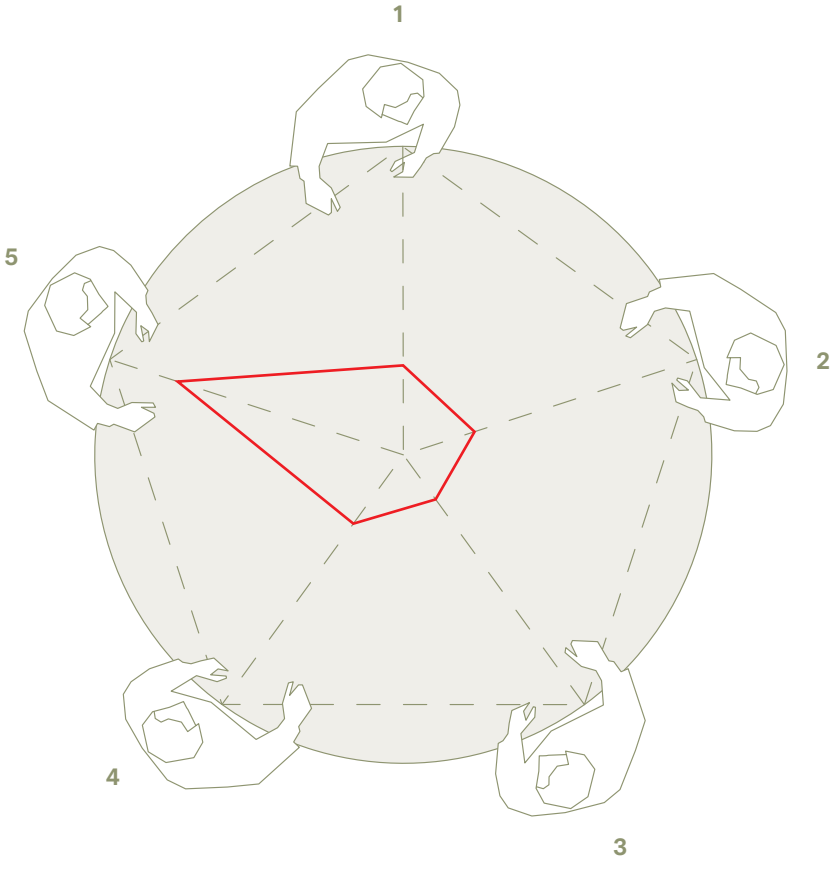
Dynamics and mechanisms for a qualitative renewal and densification.

51N4E | Connect&Transform

To absorb the further growth of the population, more dwellings, amenities and infrastructure will have to be built. While Antwerp has significant experience when it comes to urban renewal projects, a stumbling block in many of the programmes that are ongoing today is the financial feasibility of these projects. In addition, bringing together private stakeholders for projects that encompass several plots continues to be difficult. Our study examines the financial levers to achieve joint action. Which insights arise when we try to think through an urban renewal operational from the financial point of view? And how can these insights be used as instruments to develop a strategic and forward-looking policy?

For a better understanding, we need to be able to read and visualise the city as capital (*Context*) and then consider which dynamics could be possible in this framework (*Dynamics*). We also actively involved several banks in our research. As the banks ultimately provide the credit for 90% of all urban development they are very capable of looking at the city in a very analytical manner. Our first contacts also revealed that they were interested in contributing to this study.

Although the focus is on financial institutions, all the social stakeholders – a pentagon of government, citizens, the business community, knowledge centres and lenders – were invited to the discussion. Based on specific cases we zoomed in deeper on the mechanisms and potential, while the opportunities and pitfalls were checked and defined in more detail. During these discussions, we always asked the participants to think of the underlying mechanisms (*Mechanisms*) and start from specific cases (*Typical scenarios*).



1 citizens
2 government
3 companies
4 knowledge centres
5 financial institutions

Although the focus is on financial institutions, all the social stakeholders – a pentagon of government, citizens, the business community, knowledge centres and lenders – were invited to participate in the discussion.

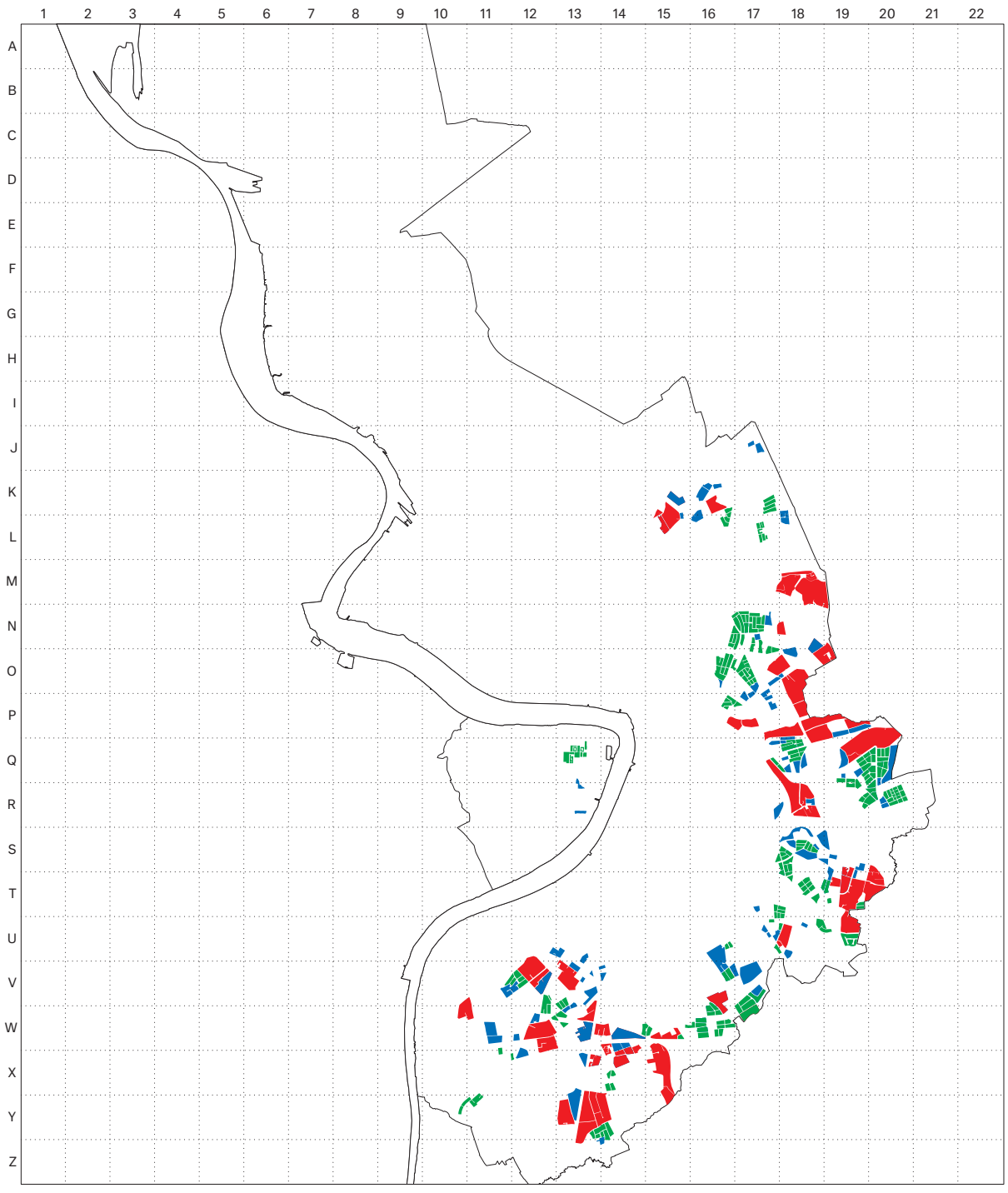
Context

The twentieth-century belt is an area which strongly developed within a short period of time, but that does not mean that it is an area without a strong historical background. The paved roads and old village centres, defences and forts are still visible and easy to recognise but in reality they no longer dominate the landscape. A heavily zoned development was undertaken at the same time as a more organic growth of the historical structures, creating substantial differences of scale in the urban fabric. The developments sometimes are very monofunctional (business parks or large clusters of services) or differ greatly in terms of scale (such as the modernist residential developments compared with the residential fabric that grew organically). In both cases, the urban components are the consequence of a serial logic, which involved repeating standard solutions. In that sense the suburb is not *designed* per se but rather a consequence of different developmental reasonings, which are more or less sensitive to the contextual potential.

The outcome is a city that reads and feels like a disorganised patchwork of differences, with unexpected relations and leaps of scale, which yields just as many strange combinations as unproductive borderline cases. It is an environment with a lot of margin that originated from a development at different times based on different expectations. By contrast with the *planned* suburbs, there is no sense that the planners worked towards a *time of completion* in the Antwerp suburbs. On the one hand the result is a chaotic overall image, but on the other hand the environment has a lot of instabilities, meaning there is a lot of capacity for redevelopment.

Paul Casaer, *Landscape Of My Personal Belongings*





The prototypical character of the cases is the consequence of the city's serial development logic:
the horizontal programme and the collage dynamics;
the hybrid building blocks and the coalition dynamics;
the Bel-Etage neighbourhoods and the chain dynamics.

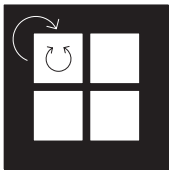
Supermarket
Hybrid building block
Bel-Etage (first floor is the principal floor of the house)

The greatest tension in the densification operations on the city-regional scale is formed by the tension between customisation and standardisation. The potential in terms of margin in the suburbs can only be tapped by proceeding in a specific and contextual manner. The city has internationally acclaimed experience with specific and quality-oriented densification operations. However, the crucial question remains how the city can succeed in this ambition, now that a larger working area must be combined with a desire for a leaner government apparatus. The question is thus how can the city encourage other stakeholders to renew the city (and not merely make it denser). Not by using standardised, pre-packaged solutions, but on the contrary, by opening a multitude of possibilities for a qualitative renewal by many different stakeholders, including real estate developers, civil society organisations, health care providers, (groups of) residents ... The city will have to precisely define its role, if it wants to combine the initiative and the intelligence of third parties with responsibility and concern for the common good.

The city will have to carefully define its role, if it wants to combine the initiative and the intelligence of third parties with responsibility and concern for the common good.

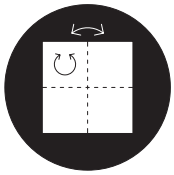
Dynamics

We think of the densification operation as a broad social movement, in which all the stakeholders take part and are heard, and in which various time frames are simultaneously defined. Depending on the situation, different stakeholders will be required to act: policy-makers or investors, real estate developers or residents can each be responsible for their own part of the problem and thus facilitate a wide range of developments. The three dynamics that are described in this chapter were defined based on this perspective. They give rise to generic mechanisms which, in turn, – depending on the final situation – can lead to solutions.



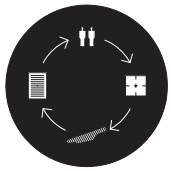
Collage dynamics

Collage dynamics means building in line with the original development of the suburb, i.e. plot by plot, development by development. The densification potential in these dynamics consists of the better use of extensively used plots, gaining time and space as a result. The development dynamics are therefore primarily founded on the logic of economic efficiency. The land can yield more: for the owner it is economically interesting to capture more residual land value. The city can act as a facilitator by adapting the regulations for these areas, making other financial margins possible. This may result in a lot of development potential in the short term for example.



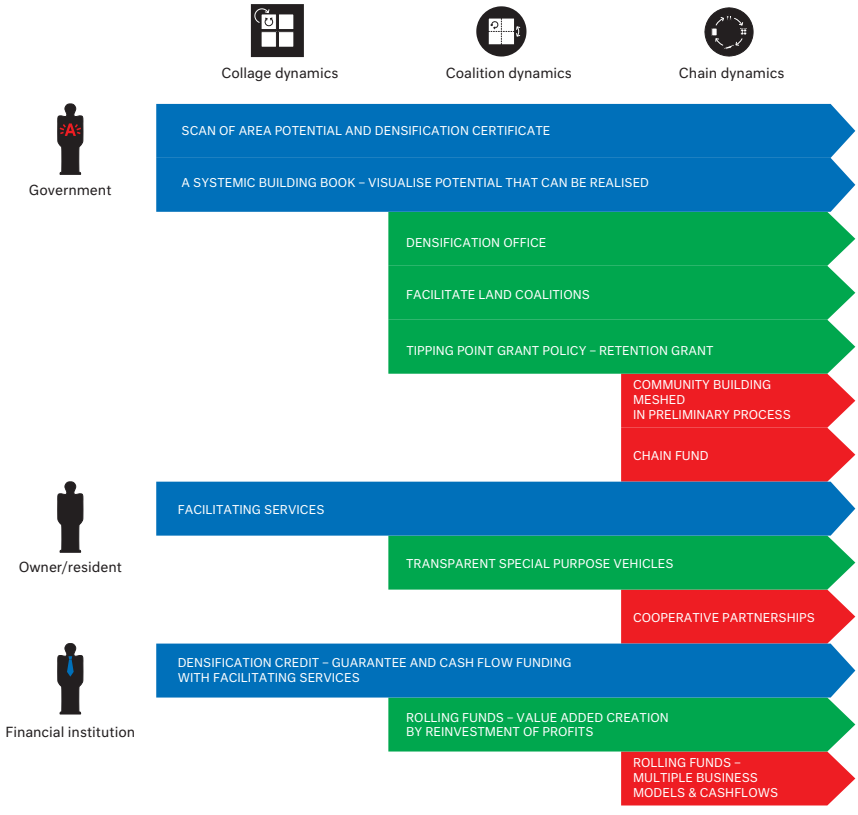
Coalition dynamics

Coalition dynamics focus on areas with a great diversity of plot sizes, users and uses. The basic objective is to install a logic that transcends plots in those parts of the city where different scales converge, and which are partly obsolete or undergoing transformation. We want to prevent the city from being subdivided into ever smaller plots. Instead the aim is to regroup and jointly develop several plots, regardless of their existing boundaries. By combining potential and developing new connections and opportunities to develop, a new reference framework is created, as well as a new perspective on value creation.



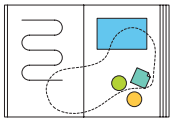
Chain dynamics

Chain dynamics involve more than a demand for densification. This renewal operation is aimed transforming the living environment and the lifestyle of the residents. The emphasis is not on real estate and the first concern is not financial gain. Instead the idea is to live the most qualitative and *rich* life possible albeit with a limited budget. In these dynamics, densification becomes attractive as it creates other uses: if the lifestyle transition is actively organised and facilitated. Although initially conceived for the homogeneous residential areas, chain dynamics can also be applied to other neighbourhoods and the city as a whole. In contrast with the two other dynamics, however, chain dynamics do not function as a closed system, but rather as an ecosystem. They transcend the boundaries of plots and even districts, which makes it possible to flexibly adapt to changing circumstances.



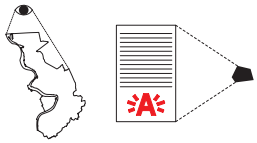
Mechanisms

Based on the dynamics, we propose a number of tools and mechanisms that can induce and accelerate the densification process. The mechanisms are aimed at engaging various promoters and partners in different types of scenarios to tackle the challenge of densification. To this end, they want to remove barriers, concerns and obstacles on three levels: that of the government, that of residents and that of financial institutions.



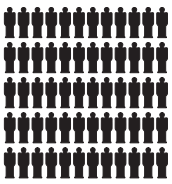
Government

The government can develop a systemic building book to visualise how densification would impact a specific place and where added value can be achieved with a specific project. Starting from typical situations in the early twentieth-century belt the building book could combine various solutions in systemic models, inspiring stakeholders to take the initiative. It could also serve as a guiding framework for the approval of development projects. In a way it would be a catalogue of typical situations in the twentieth-century belt.

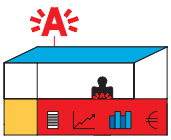


A scan of the area's potential can allow the government to create a positive momentum inviting owners to examine the potential of their own plot. Based on this, owners can then request a first assessment of their ideas. This may lead to corrective action, a stop or the issue of a certificate for densification. This confirms the presence of densification potential and limits the risk, making it easier for owners to involve partners such as financial institutions, real estate developers, municipal services and so on.

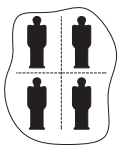
Various stakeholders (citizens, real estate developers, financial institutions ...) can be informed about the possibilities of urban densification in their neighbourhood based on such a scan. Organising a dialogue during the preliminary process of densification projects can also have a connective effect, leading to community building. Existing partnerships, associations and housing stakeholders can also be involved in this process, so they can endorse the conclusions of the scan. Other stakeholders can contribute specific know-how about types of housing, affordability, premium systems, etc. Eventually, the preliminary process will give rise to a *coalition of the willing* who can organise themselves in a *temporary workable association*.

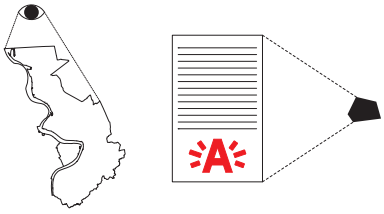


The government can also make all the information for the defined areas available through a densification office. The combined information can serve as the first step for designing a potential transformation of the living environment. It can also clarify how win-win relations can be achieved by collaborating. Various legal models can be suggested for these partnerships.

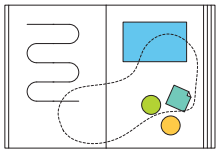


One of the legal forms of cooperation which the government can facilitate through the potential scan and the densification office is the land coalition. This contractual variation on the land bank makes abstraction of the parcel borders, but the grounds are not collectively owned. Based on a vision and a plan for the entire project area a financial institution determines how much the residual land value is increased. Then the land owners can choose whether they wish to individually or jointly develop the land or exchange it with another owner. To this end they establish a formal partnership (see below: special purpose vehicle).

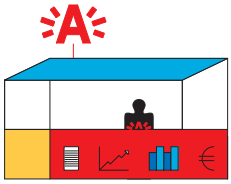




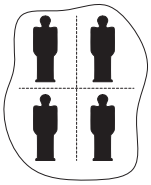
scan of area potential and densification certificate



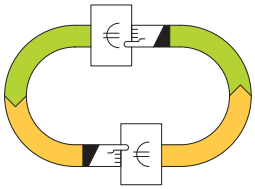
systemic building book



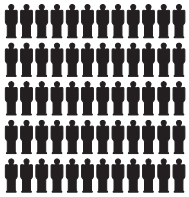
densification office



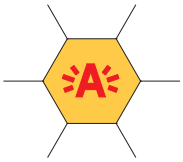
facilitate land coalitions



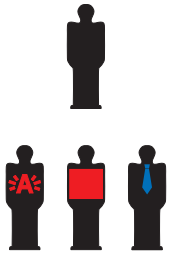
retention grant



community building



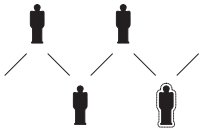
chain fund



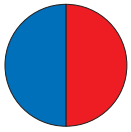
facilitating services



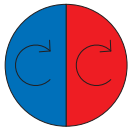
transparent special purpose vehicles



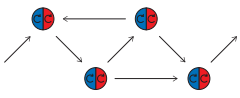
cooperative partnerships



densification credit



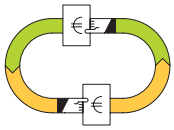
rolling funds



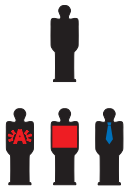
multiple business models



A chain fund on the city level can build the financial capacity for collective densification initiatives. This fund can be fed by an added value tax on all the densification initiatives in the city. As a result this added value can be used for providing support for qualitative interventions in the living environment and the development of chain initiatives that benefit the community. This can include a community centre, or a shared car park (with a car sharing company), establishing a partnership with a care service company or a greenery maintenance company and even attracting local economic activities.



The government can also control choices within a spatial planning policy by giving grants. However budgetary limits are increasingly becoming an obstacle here. That is why the retention grant was created in other countries. This grant is no longer given to the owner/buyer but linked to the property and is reused by successive owners. This mechanism is already used in Community Land Trusts. When the owner sells his property he transfers the received grant and part of the added value back to the body that granted the subsidy.

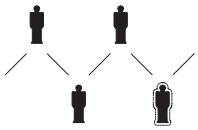


Owner

Providing facilitating services aims to make the complexity of a densification project more manageable for owners and developers. This service can be offered by several stakeholders, including real estate developers, financial institutions, the government, housing companies and urban planners. It can relate to information about densification capabilities and possible action plans, the partners with whom this can be achieved, the business model, possible funding models, organising neighbourhood participation and the legal framework within which a project could be realised.



Owners, for example, will have to structure their cooperation in a special purpose vehicle. Some preliminary principles can help make the right choice. A first principle is that of simplicity and limiting the number of legal structures. This helps keep an overview and facilitates the end-to-end decision-making. A second principle is that a clear distinction must be made between individual and collective, and between operational activities (daily operations, personnel ...) and the commercialisation of real estate (land and any buildings that are leased). If the partnership remains transparent, tensions can be avoided and investments and potential proceeds can be kept apart.

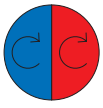


Some people will initially feel hesitation when switching from a temporary workable association to a cooperative partnership but ultimately there is nothing to worry about. On the contrary, a cooperative often starts from a common need, which can only be solved by working together. The participatory/democratic decision-making aspect is the cornerstone of the articles of association. It is a form of enterprise that is value-driven, and not purely profit driven. There are different types of housing cooperatives but no cooperatives for achieving densification for the time being. The success of such a cooperative depends on the development of a business model. Financial institutions can thus consider a rolling fund, in which the repayment capacity of members of the cooperative is increased by revenue streams from the development of chain initiatives.

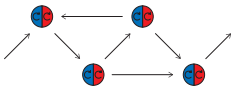


Financial institutions

A densification credit essentially is an investment credit which has been combined with a number of instruments which decrease the risk for the recipient or make the overall project cost more manageable. This can include advice from a team of specialists or support for involving the wider environment in a project. By granting a densification credit the financial institution aims to strike a balance between creating added value for the customer and the margin for the financial institution.



Rolling funds can create added value because revenue flows back and is used for new investments. The stakeholders can receive a dividend that is slightly above the market rate. A bank for example could consider establishing a new fund on the building block level, which the various project areas could gradually join. The special purpose vehicle will help control this fund and guarantee the portfolio distribution of the developments. The fund can attract credits while the financial institution also provides end-to-end support, relieving the burden. Based on the scan of the area's potential, the government could also grant a number of guarantees.



The same principle can be applied to a living cooperative and can be linked to different business models and cash flows, whereby costs for one stakeholder can become revenue for another. The participants for example can incorporate their roofs or land in a collectivity, which constitutes a rolling fund. The estimated total value is used for achieving densification and attracting densification credits. The participants are given voting rights and part of the profit (e.g. from the sale or lease of additional residential units). The living cost can be limited to a percentage (e.g. 33%) of household income. To increase the repayment capacity the bank can also think about other revenue streams (e.g. handyman services, shared use of appliances, garden maintenance services, child care, day care...) or the rental of spaces for economic activities (e.g. repair-cafés, green services ...).

The bank helps the cooperative combine these shared services and connect several business models with each other, allowing the cooperative to generate different cash flows. As a result, the rolling funds extend their financial clout and become more effective.

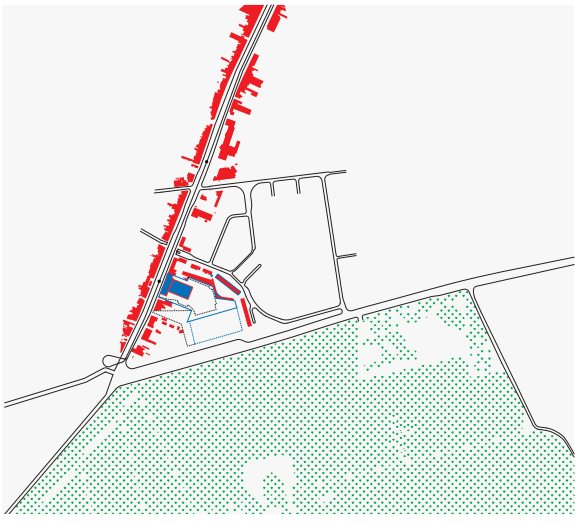
Typical scenarios

The margin and the difference that are typical of the suburb have the potential of redefinition in them. Three prototypical cases illustrate this transformation potential of the twentieth-century belt. The cases each in their own way start from instabilities in terms of space, residents and the community: *monofunctionality* of use or in terms of the composition of the population, *inefficient* use of space, *overcapacity* as a result of differences in plot size and scale, disuse, vacancy or major relocations. Some areas constitute real neighbourhoods, while others do not contribute to creating much of a connection between the residents. In each of the cases, the instability may be redefined with respect to the margin and be activated to realise new opportunities.

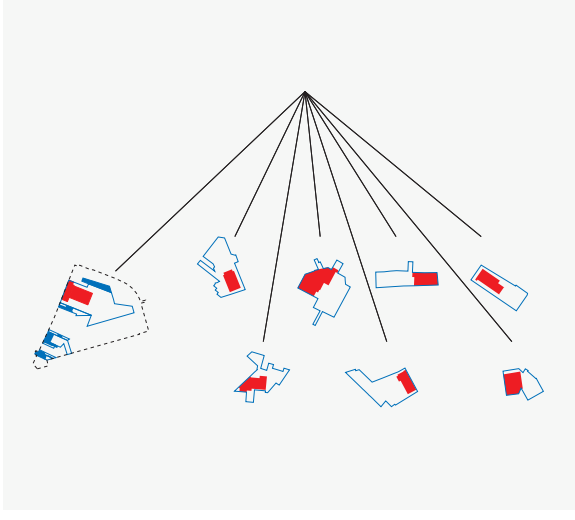
The prototypical character of the cases is a consequence of the serial development logic of the city: a logic that can be picked up again - provided a new and systemic approach is used – to encourage a new wave of development in this serial landscape.

Horizontal programmes and the collage dynamics

This scenario combines all the horizontal programmes that are not situated within residential areas. These include retail warehouses (*baanwinkels*, supermarkets in green areas and warehouses). These parcels are used in one way only, for one programme. These are the places in the suburbs where the perimeter suddenly is no longer respected and is replaced with a car park or a high wire fence. But from a densification perspective these areas have a lot of capacity, not only in terms of additional space, but also in terms of the diversity of the potential programmes. Today they are economically efficient from the user's perspective, but not from a city perspective. They are, however, located close to buildings and public transport, and can therefore better connect with the city in an obvious manner, strengthening it in the process.



The supermarket site in Hoboken is located near the terminus of the tram and opposite Schoonselhof.



The sphere of influence of a supermarket chain in the twentieth-century belt

Status quo on the supermarket site









The question that is raised here is how one dominant player can be encouraged to engage in urban densification within the existing parcel boundaries. We assume that they will start from their own financial return. We are convinced that the government can guide this process through a potential scan densification certificate and a systemic building block book. Facilitating services will also serve as an incentive for owners. Financial institutions can also facilitate this with densification credits.

Case of a supermarket, Hoboken

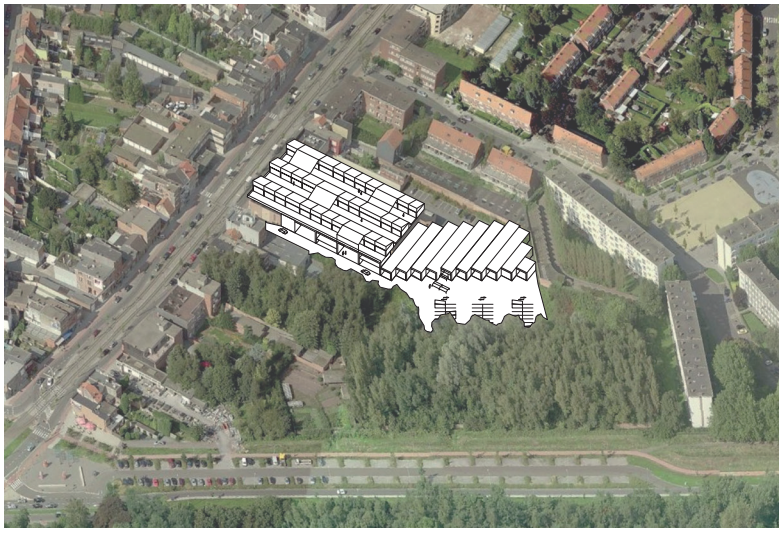
Within the collage dynamics there is space for dwellings and small additional economic functions on the supermarket's land. The site acquires a higher level of finish for users thanks to the clustering of functions. The horizontal roof surfaces and the supermarket's car park allow for the development of dwellings. The roof becomes a protected living environment with collective paths and private terraces. The homes are marketed as bonds of a densification fund and are interesting products for buyers looking for a flexible alternative to renting or buying. Due to the proliferation of supermarket chains potential customers can choose from a wider range of options.

Within the coalition dynamics the supermarket interacts with its surroundings. Schoonselhof constitutes a large green space in this framework, which allows for a higher density on its fringe. The residential environment is supplemented with a new housing concept, with a major emphasis on its collectivity, e.g. through shared heat product or waste collection, services like a gym or a day-care centre... By greening the car park and creating a shortcut, it becomes a pleasant, car-free space. When the supermarket is closed it can be transformed into a sports field or a large terrace.

Breaking the status quo: step 1

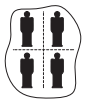


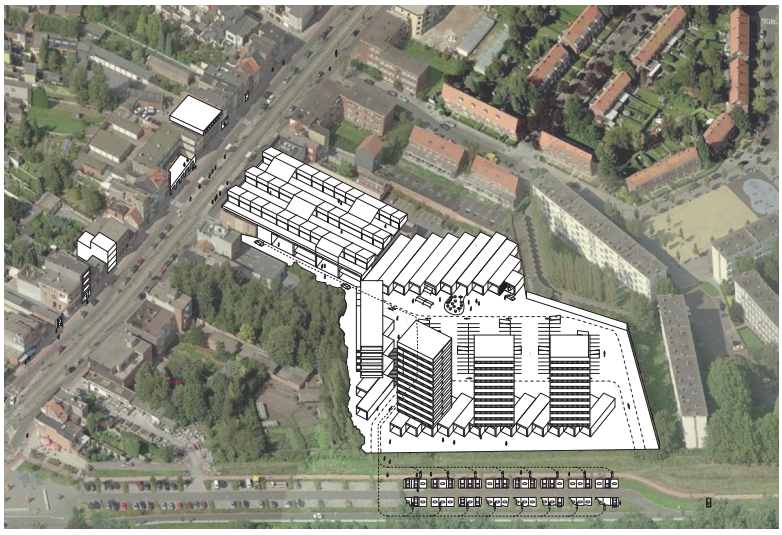




Breaking the status quo: step 2







The impact of the densification and the renewal of the supermarket site can even be enhanced by chain dynamics. The supermarket chain extends its offering with chain initiatives, in some cases in collaboration with the residents or civil society organisations. For example, by sharing electric cars, with cars also serving as an energy source for the supermarket site. The suction of the offshore player thus no longer influences the individual aspect but encourages community building.

Case of a supermarket, Hoboken. Within the coalition dynamics the supermarket interacts with its surroundings. Schoonselhof constitutes a large green space in this framework, which allows for a higher density on its fringe. The residential environment is supplemented with a new housing concept, with a major emphasis on its collectivity, e.g. through shared heat product or waste collection, services like a gym or a day-care centre...





Hybrid building blocks and coalition dynamics

Hybrid building blocks are parts of the city that grew organically and occur in areas where zones meet. Nowadays they often have a lot of margin because they are partly obsolete and are being transformed. From the perspective of energy exchange, there is a lot of potential in the large differences in scale, functions and biorhythms. These areas can contribute to a versatile and productive city, but are under threat of further fragmentation, with parts of the hybrid building blocks becoming enclosed and unusable. The greatest challenge is to activate the scale of the whole block and to establish a new user logic and connections. The other challenge consists of using the multitude of users as an asset and a development opportunity.

Coalition dynamics start from the belief that densification can be achieved by breaking free from the status quo, which prevails as a result of fragmentation. This can only succeed if partnerships are established across parcel boundaries. This is already the case, mainly because people buy fragmented parcels, and then invite the remaining owners to join forces for a collective development project. These initiatives are usually implemented in the framework of master plans that provide some orientation. The coalition dynamics are based on the assumption that a government can define an area with high densification potential based on a scan of the area's potential.

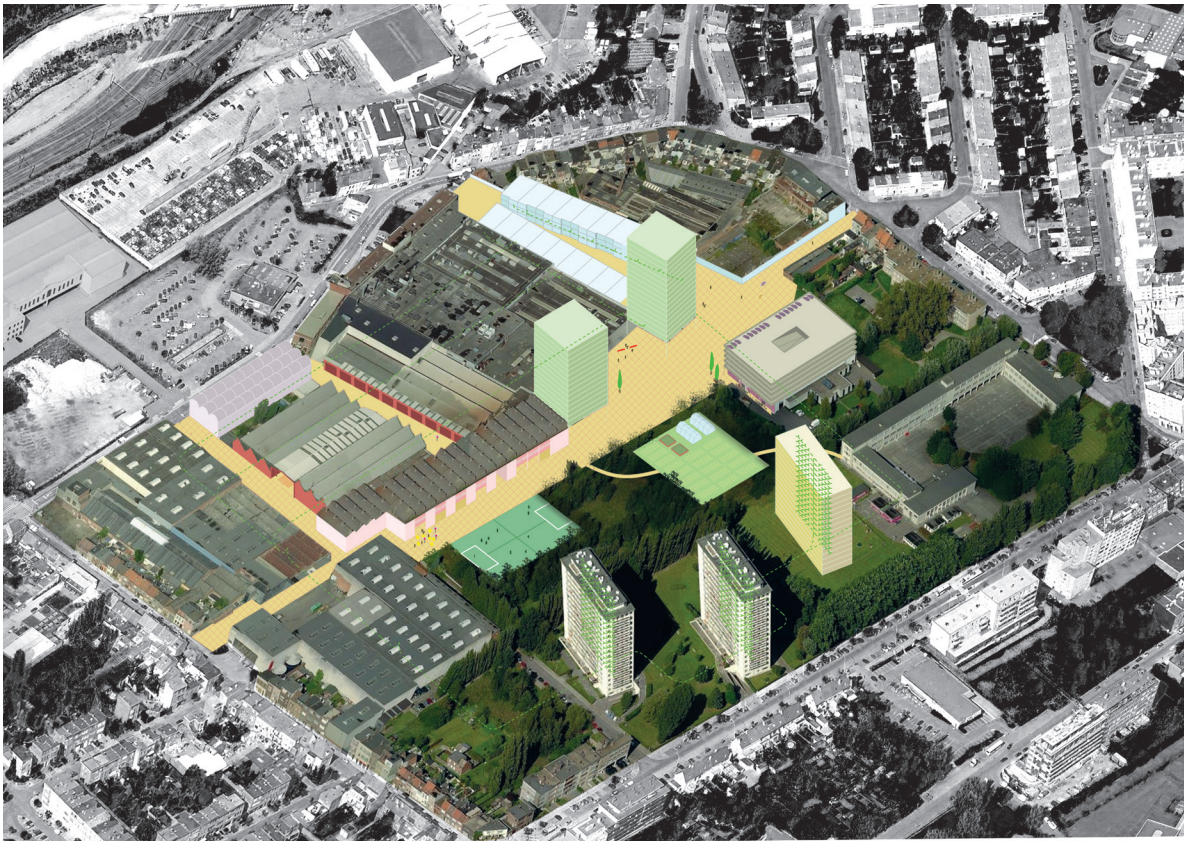
Under this scenario, the scan of block's potential will be used to establish informal contacts in a structured manner to create a land coalition. In this scenario, the facilitating services will be extended to the creation of special purpose vehicles, company types which also include framework agreements to ensure that the cooperation within such a land coalition is controlled. The authorities invite various stakeholders to become part of a habitat transformation effort, by delimiting areas and providing the necessary support. If this fails, the government can step in and proceed with implementing densification initiatives (e.g. through the expropriation of vacant buildings). Financial institutions can support the coalition dynamics by providing densification credits and rolling funding.

The case of the hybrid building block, Hoboken

The existing industrial heritage provides a scale and a spatial experience that is fundamentally different from the residential new-builds. The scale and the dimensions of the nineteenth-century hangars pave the way for collective initiatives and uses: shared parking, a sport hall, an events hall, new green industry, a green distribution centre or an exhibition space. This will depend on the residents' needs and on the ambitions of the landowners. As a result, the collision of these different scales can create added value for residents. The various building typologies, moreover, also allow for a more varied offer in terms of housing.

Unlike in neighbourhoods that are characterised by harmony and uniformity (e.g. the Bel-Etage neighbourhood or the garden neighbourhood), the differences can be magnified in the building block. A simple *repetition* of the Amelinckx tower is feasible for example. The fragmentation within the block makes it possible to achieve this high density, in relation to an open and green collective space. The hangar typology can also be contin-

The spatial interventions we propose are part of three social trends, in which this tension can be used in a constructive manner: the emerging idea of sharing, the quest for affordable housing and the growing focus on cooperative undertakings.



Case of a hybrid building block, Hoboken



ued in new-builds, as a combination of living (in the new-build structure) and working (in the original structure).

The choice for preserving the large scale in a residential environment requires spatial configurations that mediate between the different scales. The juxtaposition of different uses in the hybrid building block facilitates a different type of public domain : different types of *transshipment* areas. The goods that are delivered by truck can be stored in the space between the productive environment along Lageweg and the green inner area of the building block and then further distributed in the city with bikes or electronic vehicles. As a result, an intermediary scale is developed between the personal living environment and the city.

Bel-Etage neighbourhoods and chain dynamics

Bel-Etage neighbourhoods are often the result of the De Taeye Act. In the context of the post-war housing shortage extended subdivisions of terraced houses were developed according to a rather monotonous pattern. The infrastructure is often tailored to the scale of the car. These subdivisions were built over short periods of time and are largely privately owned. As a result, the composition of the population in these neighbourhoods is homogenous. However, today these neighbourhoods feel under pressure due to ageing and diversification.

Nowadays, the owner profiles are changing in these neighbourhoods: the houses are too large for the original ageing population and are being acquired by new Antwerpers. This transition has caused a tension and the densification and renewal of the twentieth-century belt must respond to this change. The spatial interventions we propose are part of three social trends, in which this tension can be used in a constructive manner: the emerging idea of sharing, the quest for affordable housing and the growing focus on cooperative undertakings. The better mix of the population here makes it possible to provide an even more diverse range of services to each other.

The case of the Bel-Etage neighbourhood, Deurne

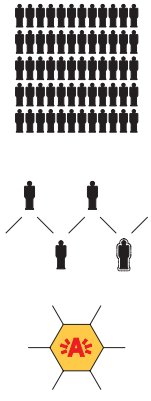
The typical wide street profiles allow for a higher density than the typical two floors of the Bel-Etage (a house in which the ground floor consists of a garage and the residents live on the first floor). This case study explores what is possible when one or more layers are added to the existing fabric in a collective strategy of adding storeys. Taking into account the ageing population in this type of neighbourhood, options that come to mind include housing with a higher density, e.g. apartments or studios, in addition to the spacious family dwellings.

In the Bel-Etage neighbourhood, the principle of ambulatory care can be translated in collective housing, combined with amenities on the ground floor level, such as a care centre, a gym, a distribution centres... The wide streets even allow for densification in the middle of the street, meaning part of it can even become a community garden. Currently the ground floor levels mainly consist of garages, but can be redeveloped into residential spaces or workshops. The investments in public space and in amenities

may be jointly conceived and funded, starting from chain mechanisms such as the revolving fund and the chain fund. Options include a shared car park, with parking spaces for shared cars, the joint ordering of groceries, care services and so on.

Lastly, the strategy of adding levels to buildings can also be used for individual developments. As more successful examples of this strategy appear in a neighbourhood, the residents will gradually come to understand the added value of this strategy. This added value is expressed in the quality of the housing (light and spacious housing) and on the financial level (making the roof profitable). However the urban planning conditions (i.e. determining the offset and height) must always be emphasised in this framework.

Case of the Bel-Etage neighbourhood Deurne



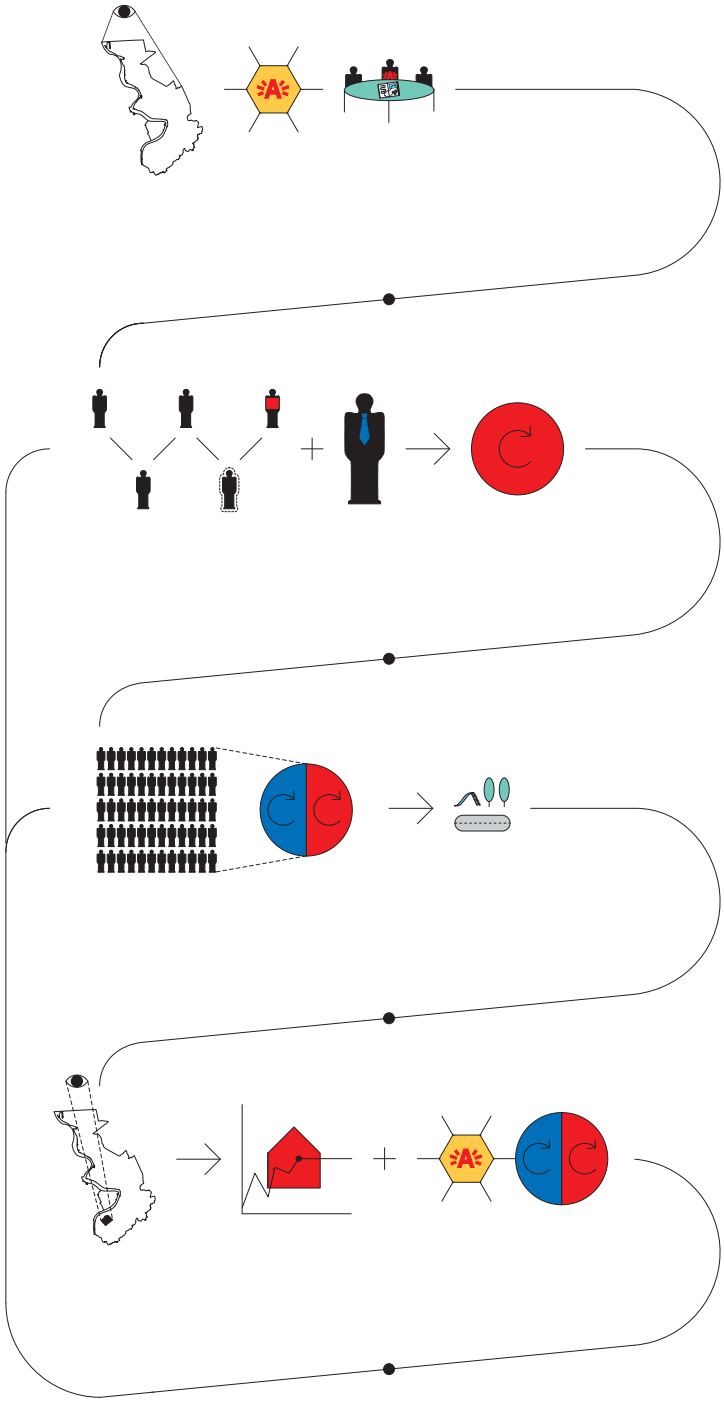


The tipping point of the paradigms

Finally, we want to discuss the need for inspiring pilot projects. Urban densification city will only become a reality if multiple storylines are interwoven: around sustainability transitions, around social justice, around spatial structure, city landscapes and identity. The city can no longer be reduced to one single story. Different storylines can find their way within a bigger story: project-based, co-creating and through various forms of cooperation and participation.

In this study, we asked about ways of accelerating qualitative densification. The main theme in the answers we formulated is that the three stakeholders will have to push the paradigm from which they start towards a tipping point. For the government, this means evolving towards a stronger, facilitating role, creating the required conditions. For owners/residents this means stepping away from the adage of development on one's own private plot. For financial institutions, this means combining their traditional credits with new tools to create broader value.

Each of these realignments is already underway, albeit that they are not systematically documented and this documentation is not made widely available. Pilot projects can be set up in each of these realignments to create examples and further highlight the potential. This study can become the first step of this process.



The chain dynamics process
An overview of the mechanisms that need to be deployed to achieve qualitative densification and renewal in the Bel-Etage neighbourhood. It shows the process for achieving the viral densification and renewal of the city.

Towards a renewal of urban renewal. A first analysis of Lab XX.

Michiel Dehaene and Kristiaan Borret

Antwerp is growing, that much is clear. We can only hasard a guess about how fast the city's population will grow in the following years but the challenge we face is significant. How can we turn Antwerp's demographic growth into an opportunity, that is the main question underpinning Lab XX.

Antwerp is not the only city that is wondering how to tackle this. The population all over Flanders will grow in the following decades. The projection for the growth rate, however, is significantly higher in the major cities than in the rest of Flanders. In the past twenty years, the major cities experienced a spectacular renaissance thanks to the far-reaching urban renewal they implemented. The urban renewal rightfully focused on the city centre and the nineteenth-century districts because they were under threat of further deterioration. Today the city centres in Flanders once again are an attractive place to live. In line with this success, however, it has also become clear that the future demographic growth can no longer be accommodated in these centrally located districts in the city. The space is limited, which is why urban areas that are located more on the edge of the city are now becoming increasingly interesting.

Large parts of the twentieth-century suburb require an update now that the first generation of inhabitants of these residential districts, which were built after the war, have disappeared. Currently there are more inhabitants in the twentieth-century belt of Antwerp than in the city centre. In other major Flemish cities, fragments of suburbs around the city centre also represent a substantial share of city living. Kraainem and Jette near Brussels, Zwijnaarde and Wondelgem near Ghent, Heverlee and Kessel-Lo near Leuven. The suburb is an intermediary area between the city centre and the urban fringe. There no longer is a strictly defined border between the city and the non-urban areas in Flanders. And the hybrid character of the suburb no longer is a handicap, on the contrary it becomes an asset in view of further demographic growth. Much like substantial investments were made in recent decades to develop

know-how to renovate the historic and nineteenth-century city centre the time has once again come to conduct pioneering work and start renewing the twentieth-century suburb. It is our responsibility to generate collective added value for the city and for anyone who lives or moves here out of the future demographic growth.

The assignment

The design-based research that was conducted within Lab XX is primarily a study of this area's potential. This means that it cannot just be used to motivate normative choices. Lab XX shows which choices we can make and what type of spatial consequences these choices will have. The outcome of Lab XX is not a final plan for how and where to compact the city. In fact, it mainly helps us understand what is feasible and how densification can be linked to qualitative urban renewal.

On the other hand, Lab XX's design-based research is not random. Antwerp's city council has formulated ambitious basic principles for Lab XX. The city mainly sees urban growth and densification as an opportunity for urban renewal in the twentieth-century belt. Secondly, it wishes to create qualitative urban environments, with high levels of amenities and a balanced income mix. Finally, the city is investing heavily in the reconversion or renewal of the already developed fabric before considering using open space for new developments. These are solid basic principles and the various design teams treated them with a lot of respect.

Besides this, the preliminary work done by the Antwerp municipal services should not be underestimated either. They collected numerous statistical data, analysing this to identify current and future trends. A comprehensive spatial analysis was made of the morphological development on the city-regional scale, which extends beyond the administrative boundaries of the territory of the city of Antwerp.

Below we compile and discuss a number of overarching findings in relation to the results of the research. One important conclusion is that the basic principles have been maintained, also in quantitative terms, i.e. the required space for future developments. The design teams have unearthed a substantial spatial reserve for new developments without having to use open space for this. In essence, the existing fabric can easily accommodate the demographic growth.

Selective densification

Initially it seemed as if the *Lab XX class* had divided itself into two movements: a movement that mainly emphasised the importance of infrastructure and public space for incorporating additional development and a movement that mainly seemed interested in unlocking the potential for densification and renewal. The former seemed to be searching for the specific historically developed spatial structures such as park landscapes or arterial roads as a framework for densification and renewal. The latter, meanwhile, was mainly interested in a line of reasoning founded on generic development, which could contribute to the redevelopment of the twentieth-century belt on the level of the individual property. One school advocated a careful interpretation of the spatial specificity of each place and an area-oriented approach. The other focused on general principles that could be replicated and widely

applied in the twentieth-century belt. One school mainly preferred a top-down approach, while the other favoured a bottom-up approach.

But the various strategies mainly show a high level of convergence. Generic or specific, universal principles or area-oriented customisation: these seem like false polarities. A much more relevant question, which the various proposals have in common, is how can we make a difference in this large area? How can we emphasise certain things? Which areas are more or less suited for a certain strategy – whether it has been formulated in a specific or generic manner? Is it possible to indicate where densification is necessary? The question mainly seems to centre on the selection of areas that are ready to make the transition from urban fringe to suburb. In that sense the work of the four teams can be considered as a selective densification exercise. The various design strategies each search for an intelligent match between potential development mechanisms and the environments to which they can apply.

The various design strategies each search for an intelligent match between potential development mechanisms and the environments to which they can apply.

The attention to required territorial selectivity was largely contained in the city-regional analysis that was conducted in the run-up to Lab XX. This analysis clearly showed how a closely meshed structure was created, mainly to the southeast of Antwerp. One of the provisional working hypotheses in the analysis was that this area, with its strategic location within the Flemish Diamond on the Antwerp-Brussels axis is eminently suited to further densification.

Likewise BUUR advocates closer meshing in those parts of the twentieth-century belt where the potential and the return of high-quality public transport are the greatest. The bureau developed this reasoning in a strategic of mobility-driven development along a new tramline, the rocade. This is a new tramline, which makes a circular movement through the twentieth-century belt, between the ring motorway and the R11. BUUR's strategy show how the transition can be made from *environments with the required tram service*, which you usually find along radial main lines, to mobility environments with multiple services. From stop to node, as BUUR called it. These nodes will be established in places where a good connection with public transport is not just justified by the future densification to be created. The critical mass of supralocal amenities that is already available which require improved accessibility is equally important. Today public transport in Antwerp is mainly organised in a radial manner. But if you live anywhere in the twentieth-century belt you cannot continue to rely on a detour through the city centre to reach popular amenities like Middelheim Hospital or Rivierenhof Park? BUUR lets Antwerp evolve from a radial city into a network city. The rocade significantly expands the potential area for future mobility-driven densification, from corridors along the main lines to a much larger environment within the grid of an intersecting tram network.

BUUR's strategy raises questions about a certain view on mobility-driven densification. The extension of the existing main lines continuously pushes back the frontier for development, to the extreme outer edge of the Antwerp agglomeration. The question no longer is how to get the urban fringe around Antwerp to use the tram. Instead, we need to ask ourselves how we can create more space in the city with these new tramlines. After all, if you extend the trunk lines as much as possible, the service in the twentieth-century belt will only suffer as a result. The tram will be full by the time it reaches the twentieth-century belt. And that is precisely where more people live, the people who need multiple trams to get around. The starting premise that everyone who lives in a residential area in Flanders is entitled to guaranteed public transport (Flemish Parliament Act on basic mobility) does not give rise to urban mobility, but to a minimum service. BUUR raises the question, preferring a selective qualitative offering instead and claims the frontier for further investment in trams and the associated densification consists of sub-urban meshing. Only there is the number of inhabitants high enough and are there sufficient supralocal amenities to maintain an economically sustainable transport service.

Palmbout/De Nijl's reasoning regarding the green arteries in the twentieth-century belt, is similar. The strategy focuses on the selection of environments where higher densities are justified because they are geared towards an open space structure that can handle these densities in the long term. The large green fingers, the remnants of ancient landscapes that are still present in the twentieth-century belt, will create the compensatory open space. The densification thus gives a larger group the privilege to live near this green area. The strategy does not create a silver lining around the green areas, but provides for a public space structure that connects the adjacent fabric with the green space: publicly accessible green space in the park fringe, fronts along the park, paths that extend from deep within the park into the built-up fabric … At the same time the green spaces are upgraded by articulating them in more recognisable manner in the urban landscape and by increasing their usability through improved accessibility and programming.

Maat/Posad goes in search of places that are on the threshold of having urban-level amenities. Here *urban* must be understood as having several options, choices and collective benefit: not one baker but two, not minimum amenities but diversity, no commuter villages but proximity to amenities, access to employment, a well-developed infrastructure, etc. Urban amenities involves much more than a programme. Maat/Posad is searching for places where densification can be linked to the systematic and sustained retooling of the suburb. Here again this involves selective densification: which places in the city are best suited for the high-quality develoment of tomorrow's utility and mobility systems? In the vast territory of the twentieth-century belt Maat/Posad defines a precisely distributed number of places that have the potential to incorporate micro-centrality. They have the critical size and scale and can contribute to the further urbanisation of the surrounding fabric with a mix of new construction and reconversion as new centres.

51N4E/Connect & Transform primarily focuses on the search for the right combination of stakeholders and factors. They put their trust in development

logics that can generate the necessary momentum and the necessary added value. While these mechanisms bring the stakeholders together, they also operate as a spatial scan which can detect areas where stakeholders must be mobilised and where the required preliminary spatial conditions have been fulfilled or can be fulfilled. In that sense, this also constitutes a selection of critical subspaces. Places where there is sufficient margin for linking innovation to densification, where sufficient mobility and dynamism exists or can be created. Subspaces that stand out because the densities are still low there now, because it is possible to establish links between complementary functions, because you can constitute financial and social capital here…

Today the densification of the twentieth-century belt is already underway. Small and large real estate developers are filling in the remaining empty plots and the vacant lots in the current residential fabric with *infill* projects. While this is usually a good thing, in some cases it has reduced the quality of life in the existing neighbourhoods in other cases. In all cases the vision is lacking to contribute to urban development in the long term and in a structural manner with the sum of these projects. If we want densification projects to make the difference in the future and create structural public added value on the scale of the belt as a whole, then some form of selectivity is required.

A new urban renewal culture

Lab XX emphatically stated that the main challenge would be to incorporate the new development as much possible within the existing fabric. This means intervening in the existing fabric, in an area that has already been claimed. When you look at the potential for densification of the twentieth-century belt, you soon realise that it is the object of a strange paradox. A purely spatial scan of the existing space shows that a lot is possible. The densities are relatively low in many areas. There are many sites that lend themselves to selective redevelopment or reconversion. At the same time, the twentieth-century belt reflects a social status quo. Not in the least because of its strongly subdivided character. A lot of densification potential is locked within the plot boundary of the highly privatised ownership structure. The site has already been occupied, positions are taken.

The key question to which all the teams formulated different answers is how to change this? How do we break this status quo? How can we mobilise things and people, knowing that the right of initiative often is not the government's prerogative? The existing residential patterns are not very flexible because they are anchored in the fragmented private ownership structure of the Flemish residential model. But larger fragments in the subdivided landscape, such as supermarkets or care sites are not – or not just – owned and ran by public authorities.

You can mobilise people with structural interventions. By creating an external impetus and new urban structural frameworks such as BUUR's rocade, the green structures of Palmbout/De Nijl and Maat/Posad's heat network. But this also involves searching for new development logics, financial products, forms of risk sharing and risk diversification. And for development mechanisms that do not reproduce the existing patterns, but rather give rise to other investment logics: new coalitions, capital formation, incentives, transfor-

mation fields … But whether you start from mechanisms or from a structure, in both cases it is about recombining, about the rescaling of the task beyond the boundaries of the land.

The search for new mechanisms to break the status quo makes Lab XX an interesting commentary on the project-based urban renewal culture that developed in Flanders and Antwerp in particular over the last 20 years. Lab XX searches for the renewal of this tradition of urban projects and its translation into a new spatial field of application. As a result, the initially known idea of what the city project should be becomes vague: its spatial definition, the cityscape which is used as a starting point for supervising the project, the precise instrumentation … At the same time, a new image gradually emerges.

> In the margin of the renewal of the twentieth-century belt we are on the verge of developing a new toolbox. On the verge of understanding what the relevant *unit* of intervention could be, by analogy with the urban building block.

The development of a new urban renewal culture takes time. In that sense, Lab XX's search process can be compared with the first experiments with urban renewal in the nineteenth-century belt in the early 1990s. It is important to remember how long it took to really get a grip on the urban renewal which now seems relatively evident, both operationally and in substance. It all started with the *discovery* of the nineteenth-century belt in response to *Antwerp 93. European Capital of Culture*. Some striking photography documented the specificity of the nineteenth-century belt. Stories about Antwerp as an open city came to life. The first experiments with urban renewal were developed. Gradually it became more clear what exactly had to be done, and over time, a trial and error method was developed from this. The current urban renewal movement in Antwerp started with building block teams with a very experimental approach. Over time this evolved to an approach that is widely adopted and embedded in the city's administration. The renewal of the nineteenth-century belt is thus an impressive collective learning exercise.

With the renovation of the twentieth-century belt, we start from the beginning again. The beginning of the exploration of the area. The beginning of the early experiments. The beginning of the development of a toolbox. We are on the verge of understanding what the relevant *unit* of intervention could be, by analogy with the urban building block. The development of a new and intelligent urban renewal approach requires new investments in a collective learning process. Here again Antwerp can play a pioneering role on the Flemish level. It's time for a new city by the river. A new building block book. A new city debate. New exemplary projects.

At the same time there is a lot to learn from the learning process. Lab XX shows that the keys for the renovation of the twentieth-century belt may largely lie in the amendment of the project-oriented urban renewal, which was

developed in the past twenty years. All four project teams are the emancipated children of the urban project. Maat/Posad and Palmbout/De Nijl both stress the importance of the intermediary scale. The intermediary scale not only refers to the medium size of the project area, as is common in urban design, but also the extent to which interventions can be explicitly defined, a medium-term development can be set, a limited number of partners identified, and so on.

BUUR follows the project-oriented logic of smart growth and transport-oriented development. By now a project has been developed for each station neighbourhood in Flanders. Some were more successful than others. This is an important laboratory when it comes to developing the necessary basic instruments, the necessary control capacity and the necessary quality control for the operational development of mobility-oriented densification. Therein also lies an important warning, because the Flemish station environment projects demonstrate that linking the typical, project-oriented operational logic and objectives in terms of urban renewal is not evident. It took a lot of wrangling to ensure that some of these station environment projects were not merely designed in function of the railways' corridor logic but also were intelligently interwoven with the urban structure, to ensure that the backs of stations become front entrances, to soften hard infrastructural fault lines.

51N4E/Connect&Transform continues the trend of public-private co-production and the negotiating design. The firm is convinced that the more relaxed public contact of the twentieth-century belt offers more freedom and space to come to creative development strategies. Strategies whereby the initiative, more than was the case in the past, lies with innovative alliances of stakeholders and new intermediary players, who provide the required credits or guarantees. The firm wants to use part of the capacity that was hitherto mainly used for spatial custom work to innovate development process.

Finally, Palmbout/De Nijl quite rightly points out that the public domain needs to be rigorously controlled, also in the future. In the twentieth-century belt, the public domain continues to be the space in which the general long-term interest can be sustainably embedded. In the twentieth-century belt, the importance of the public domain also serves as a framework for public-private interaction. Moreover, densification only increases the need for public space. The more compact our living conditions are, the more we are reliant on outdoor alternatives for activities. If the garden is not sufficiently large to play football, then the park may provide an alternative. If the flat is too small for a party, the shared, multipurpose space in a collective housing project can be a solution. Densification creates a spatial paradox: the more space you build up, the more public, open space you will need.

The absorption capacity of the twentieth-century belt

How many new dwellings can the twentieth-century belt accommodate? There is no answer to this question. Several, very different factors play a role in this and the answer also largely depends on the choices that the authorities wish to make. Lab XX demonstrates that the limiting factor in this discussion is definitely not of a spatial nature. It is perfectly possible to absorb the entire demographic forecast without having to achieve extreme densification. BUUR's figures, among others, demonstrate this. Here the reasoning over-

laps with the discussion on the Flemish level. Pascal De Decker already calculated that doubling the densification in one tenth of the plots in Flanders is more than sufficient. In Flanders, this can already be achieved by subdividing houses or granting permission for an additional unit on the same plot.

Lab XX confirms that there is quite a lot of organic densification capacity, which can (and will) be gradually incorporated in the existing fabric. However, this does not make the job any less difficult. The pressure that such a densification will exert on the existing level of amenities, mobility and public space is just as substantial. More importantly however: this organic absorption capacity is spatially spread out over a very large area in Flanders, in an exceptionally aselective manner. This aselective distribution significantly undermines the option of combining densification with renewal. The ongoing infill projects that are currently being implemented increase the population figures resulting in a higher tax return. However, they do not give rise to further investments in the urban structure. Failing selective choices, the strain on the existing buildings will have been reached without, however, taking advantage of the opportunity to create a new framework for an in-depth transformation of these existing buildings.

The twentieth-century belt is the place where a community of interest can be built, which is prepared to share the benefits and disadvantages of new development. New development that is not at the detriment of the city centre, or of the open space. This is not a monocentric development at the detriment of the fringe, nor a spread as such, at the expense of a sustainable mobility.

This consideration clearly demonstrates that the densification of the twentieth-century belt essentially is all about the conscious choice to absorb demographic growth in the urban, albeit expanded, area. If demographic growth *leaks* too much into the green urban fringe, which is further away from the city, we can expect this to lead to leaching in the suburbs, as well as a relative reduction in the level of amenities. The twentieth-century belt is the place where a community of interest can be built, which is prepared to share the benefits and disadvantages of new development. New development that is not at the detriment of the city centre, or of the open space. This is not a monocentric development at the detriment of the fringe, nor a spread as such, at the expense of a sustainable mobility.

This choice is founded on a vital change in the current *mental* mindset of this area. However, without such an urban pact this environment, which was considered the best of both worlds between the city and the countryside because of its location, is under threat of becoming a worst of both worlds. Jammed between a renewed, dynamic city centre, and a green urban fringe

that is continuously growing, which considers the city as just another commodity, as a place for fun shopping and leisure and to where you commute for work. The twentieth-century belt is an opportunity to break through this pattern and link living in the urban agglomeration with a local urban commitment. The quantitative objective in this sentence becomes subordinate to a firm commitment to choose a number of locations with significant potential and substantial added value for the city as such. The demand for new forms of urban living can be proactively incorporated in these well-connected locations.

Affordable living

Lab XX assumes that the choice for well-developed urban areas is largely separate from the question for whom you are building. The redevelopment of the twentieth-century belt has to become a breakthrough scenario in this context. The idea is to break away from a line of reasoning that is based on spread, which means people will only find affordable housing if they live farther away from the city. This land-based logic has reached its expiration date because it involves a significant social cost. It is dependent on an unending willingness to provide infrastructure and services regardless of where these people, who are fleeing the city, end up. The failure of the principle of basic mobility is a powerful illustration of this.
In the twentieth-century belt, this line of reasoning is reversed. Here the designers opted for places where these services can be justified now and in the future because they are proportionate to a critical mass of residents. It is then the government's job to ensure that these environments, which have plenty of amenities, are accessible for people with both high and low incomes and for people who choose to stay and newcomers. We need to make living in urban areas affordable, rather than living itself. We need to create high-quality mobility environments to guarantee people's mobility, rather than guaranteeing basic mobility anywhere.

The affordability of the urban environments that will be newly built is a major challenge. In the Flemish residential model, which is heavily slanted towards property acquisition, there is a loose relationship between the development of the housing product and the final settlement thereof. Real estate developers often build with a view to sale. Property owners are often individuals who are inclined to sell when they must incur costs. The advantages for the owner are often cancelled out when leasing or selling to a next person. As a result, the development of a stronger and innovative rental market continues to be the highest priority.

At the same time, the twentieth-century belt offers special opportunities to create an interesting demographic mix, with less chances of social displacement and more chances of an integrated social fabric. The urban renewal of the twentieth-century belt should not be about the introduction of new higher income groups in an environment that is now perceived as unattractive. The twentieth-century belt provides the space to break free from this kind of social conflict model, and introduce an inverted line of reasoning, among others through the selective introduction of smaller forms of housing in existing residential neighbourhoods.

In terms of affordable housing, a new type of urban renewal in the twentieth-century belt offers a lot of new potential. First, there is the large scale of the undertaking, especially if we compare it, for example, to the custom works of the houses that AG VESPA built in the nineteenth-century belt. As the plots on average are larger outside the city centre, the chances of medium- or large-scale projects with more residential units are more substantial. The systematic reproduction of the same type of densification appears to be more feasible in the twentieth-century belt, because the neighbourhoods are often very uniform. The building history is younger there. Sometimes this just involves a first layer of transformation over the first original buildings.

In contrast to the multi-layered urban fabric of the city centre, the twentieth-century belt thus provides the space for a certain scale and standardisation. There are more housing units per project, which results in a lower average cost per unit. There are also opportunities to create margin with alternative forms of development. The government can play an active role in the management of this development, in order to maintain a healthy social balance. The research by design contains interesting ideas for an innovative look at this supervisory role: new housing providers and other service providers, the idea of providing facilitating services, the relative decoupling of housing quality and exclusive property, new rental and hire-purchase formulas …

The twentieth-century belt is a space that is historically occupied because people left the city. Today, however, there is a group here that would like to live in the city centre but cannot always do this due to the lack of space. How can we make this space, which now has sub-urban occupation, available to a group with urban aspirations?

Identity

The urban renewal of the twentieth-century belt also entails a quest for a new or renewed identity. What Lab XX already makes clear, is that the twentieth-century belt will have more than one identity. The twentieth-century belt is quite heterogeneous and will not lend itself to a *one size fits all* approach. It is also clear that the twentieth-century belt is only on the mind of Antwerp in a very limited manner. Our lack of knowledge often means that we all too easily resort to referring to lack of identity, or fall back on generic metaphors such as patchwork or collage city.

Lab XX by no means is an attempt to finally define the twentieth-century belt's *identity*. Lab XX is trying to leap over the current identity and to speculate on the direction in which this environment can evolve. The starting point is that this evolution is already taking place. It is no exaggeration to state that many of the places in the twentieth-century belt will look quite different in twenty years, with or without Lab XX. This area is just on the verge of experiencing a second round of development and seeks a second wind in the process.

The area's current identity cannot be the sole starting point in such a situation. The twentieth-century belt is a space that is historically occupied because people left the city. Today, however, there is a group here that would like to live in the core city but cannot always do this due to the lack of space. How can we make this space, which now has suburban occupation, available to a group with urban aspirations?

Lab XX describes the twentieth-century belt as a part of the city with a lot of potential in the next few years. 51N4E/Connect&Transform in this regard evokes the attractive idea that the future transformation of the twentieth-century belt does not have be conceived as a process of the ever-expanding completion of the city. Instead, they envisage this process as a cyclical transformation process, focussing on continuous innovation. The ensuing urban renewal is like an urban three-field system, whereby new crops are grown in areas that were cultivated last year, and where the energy is gathered on land that has not yet been cultivated land for the renewal of the future.

However, the identity of the twentieth-century belt does not merely lie in its future. There are also clues in the existing structure. The twentieth-century belt explicitly combines local and supra-local elements, a fact that is most apparent in the green structure. Here we encounter vast parks that derive their significance from regional urban structures (the Scheldt,

the Schijn Valley, and even Struisbeek) and whose users live in the urban regional context.

Living in close proximity to these supralocal structures is a privilege. The twentieth-century belt moreover contains the bulk of the amenities that were built in the agglomeration during the decades after the war. It also contains the major infrastructure lines connect the agglomeration with the rest of the world, with all the advantages and disadvantages that come with it.

This confrontation of local and supra-local elements has a strong presence but at the same time, there is almost no underlying design or explicit theme. The large infrastructures are poorly integrated, the synergy between the supralocal amenities and living environments is limited, the interaction between the green structures and the urban development is undetermined. This last point was actively addressed by Palmbout/De Nijl. They say densification can be the key to a renewal operation which expressly links the surrounding neighbourhoods to the supralocal green structures and which lets more people enjoy the privilege of living there.

Lab XX as an invitation

Lab XX is a first exploration of the opportunities for innovation in the twentieth-century belt. It is a contribution to an emerging public debate about whom this environment belongs to, about the images projected onto it, and the steps that can lead us to an attractive future.

Lab XX primarily is an argument for seeing the twentieth-century belt as a strategic space in which a gradual change can be turned into a structural process of renewal. The research by design does not provide ready-made answers, but is an invitation to rise to the challenges that present themselves in the twentieth-century belt, and approach them with a sense of experiment. The four studies together provide a guideline for this experiment. They constitute a preliminary mapping of partial spaces in which densification and renewal can be linked.

Lab XX is forward-looking, is already mentally reoccupying a space that once developed as an alternative to the city, and which today seeks to rejoin it. It is an emphatic plea to actively make way for a new generation in the city's former suburbs. Precisely because there are opportunities here for letting these new groups share the added value of a developed urban framework. Above all, Lab XX is an invitation to both the government and the market, to citizens and entrepreneurs to invest in the twentieth-century belt, to provide the required funding as well as the necessary commitment and enthusiasm.

Densification as a social project

Stijn Oosterlynck

The belts of suburban areas around cities are increasingly attracting the attention of the professional world. The demographic growth of the cities has defined the objectives for the restructuring and the renewal of this suburban belt. Densification, the improvement and innovation of the twentieth-century belt are the watchwords in this context. Lab XX starts from the realisation that this mission of densification rises above the mere design or planning commission. The proposed research questions are evidence of the broad perspective of the renewal of the twentieth-century belt, which is why the city expressly requested multidisciplinary teams.

The various firms, however, did not rely that much on social expertise for their studies, while the restructuring and renewal of the twentieth-century belt is also a social project. This brief contribution, therefore, focuses on the social dimensions of the densification project and how they can be interpreted in the rest of the project.

Suburbanisation and the middle class

Urban researchers roughly approach the suburbanisation that is so typical of twentieth-century urbanisation processes in two ways. On the one hand, they look at the meaning that suburban residential areas have for those who live here (or want to live here). On the other hand they try to identify the political and economic motivations that underpin this suburbanisation. The first vision is founded on the work of the classical sociologist Max Weber. The main principles are signification processes and social groups' pursuit of prestige and status. Based on this perspective, the American urban historian Kenneth Fox argues that the development of suburban residential areas is linked to the formation of the middle class as a new status group in the post-war society[1]. Around the 1950s, the social class structure of Western societies, after all, underwent a profound change. A new growing middle class was created between the working classes and the upper classes. This new middle class

1 Kenneth Fox, *Metropolitan America. Urban life and urban policy in the United States*, 1940—1980. Basingstoke: MacMillan, 1985.

sought carve out its own place in society. It did this, among others, by seeking out a living environment that reflected their newly acquired wealth. The middle classes wanted to leave the city, get away from the cramped working class housing in densely built-up and unhealthy neighbourhoods. The suburban subdivisions on the green outskirts of the city became the new preferred environment to live. The spacious, detached houses with their own garden and driveway in a suburban subdivision were better suited to their new status than a small, dilapidated terraced house in the urban working class neighbourhoods. The detached house with garden in a leafy suburb, with a car in the driveway, became the symbol of the post-war success of the middle class.

However, the middle class not only fled the city as a built-up environment, but also wanted to leave the social life in the city behind it. The middle class considered these close social relationships with family, friends and neighbours in the dense urban areas as an obstacle to modern life. Henceforth, the nuclear family, with a father, mother and children, was considered the cornerstone of society and the unity with which social success was pursued. Close relations in the wider family and community were considered an obstacle to one's career. In suburban residential areas the middle class could privatise leisure and mobility. Watching TV with one's family replaced the social activities in the city and confirmed domestic life. The private garden became the preferred outdoor space, not the street or other public areas. And every family became self-sufficient in terms of mobility because it acquired its own car. In the post-war period, the suburban subdivision was the space in Western society where the middle class constituted itself as a class and reproduced.

Suburbanisation and capitalism

The other approach to suburbanisation in urban studies is based on the ideas of Karl Marx and searches for the political-economic processes that instigate suburbanisation. In this view, the suburban subdivision is the product of the pursuit of profit of capitalist entrepreneurs in the construction industry. The American social geographer Richard Walker has painstakingly described the process for the United States[2]. Investments in the built-up environment are an important way of making a profit. Walker therefore links urbanisation waves to the development of capitalism and the different stages of economic development. Whereas the industrial city in the nineteenth century was built in function of the needs of industrial capitalism, the suburban built-up environment was built in line with post-industrial capitalism. Rather than rehabilitate, restructure and renew the existing urban fabric, private investors (and the government) for most of the twentieth century opted in favour of the flight ahead. They let the old city deteriorate, withdrawing from it and concentrating instead on the development of a complete, new, built-up environment away from the city.

Landowners and entrepreneurs in the construction industry earned a lot of money with this suburban development. Moreover, this also required the development of an entire utility infrastructure and a system for automobility, which turned suburbanisation into a solid source of economic growth and profit in the decades after the war. The production of the suburban residen-

2 Richard Averill Walker, 'A theory of suburbanization: capitalism and the construction of urban space in the United States. Urbanisation and urban planning in capitalist society', in: Michael J. Dear and Allen John Scott (eds), *Urbanization and Urban Planning under Advanced Capitalist Societies*, Londen: Methuen, 1981, pp. 383—430.

tial environment was also firmly supported financially by the authorities in Belgium, with grants for building and renovating one's own house.

The restructuring of the suburbs as a social undertaking

From this dual perspective, the suburban subdivision on the one hand is inextricably linked with the rise of the middle class and with a (past) growth stage of capitalism on the other. Obviously this outline is a very generic picture of the social and economic dynamics that underpin the suburbanisation, which requires a lot of nuance and refining. Still, this does indicate that if we want to achieve the densification of the suburban subdivision in the twentieth-century belt, we should be aware of the social project behind this built-up space. That means taking into account the significance of the suburban subdivision today for its residents and how this significance is changed by a densification project on the one hand. On the other hand this means having sufficient attention for the financial and economic dimension of the densification strategies.

Densification therefore is not merely an urban development undertaking, whereby a series of spatial criteria, such as the local public transport offering, automatically determine where densification is possible. The spaces that are earmarked for densification have already been strongly appropriated and all kinds of meanings have already been projected onto them. Urban development interventions are not socially neutral. They inevitably change the identity, status and user value of spaces, to a greater or lesser extent. So there is always a real danger that residents might oppose these interventions. It is therefore wise to also examine the social characteristics of potential densification locations, in addition to spatial characteristics. This is by no means an argument in favour of only implementing densification in places where you encounter the least social residence. This in practice would mean that you only densify where the residents are least organised or capable of organising themselves.

It is however an argument to combine the design strategy with social-spatial research and a process of social-spatial appropriation. Much like urban renewal in the core city and the nineteenth-century belt requires social supervision, this also applies to any process of densification in the twentieth-century century belt. This involves much more than organising traditional forms of participation such as a residents' survey or a hearing. The social supervision of densification essentially means working towards achieving appropriation of the new urban space by old and new residents alike. Instigators of a new community life can involve the provision of social services, the development of new or refurbished public space or interventions aimed at increasing the area's environmental quality. This requires spatial designs that can be flexibly appropriated by different groups and social support for design interventions for an inclusive appropriation of the renewed built-up space. For example by organising new social services, social-artistic work and community development activities as well as programming activities in the public space.





One should not overlook the status that is associated with living in a specific residential environment however. People do not buy only a home, but also a living environment and the status that is associated with it. Part of the resistance to densification will revolve around protecting one's acquired status, and keeping out groups that pose a threat to it. Obviously, the intention cannot be to give in to such exclusion dynamics. Instead you need to deal with it intelligently. Compare this process to what is happening today with the car as a status symbol. Arguing in favour of more environmentally-friendly modes of transport and increasing congestion has led to a revaluation of the bike. This in turn leads to a revaluation of the bicycle as a status symbol, as is evident from the development of new models and the attention to the design of bicycles. Meanwhile, the status of the car in certain groups in society is being strongly eroded.

Such an, in all probability, rather slow shift from the status conferred by a residential environment will be needed to provide opportunities for the densification of the twentieth-century belt. This means that urban characteristics such as density, a wider range of public amenities and community facilities and coexistence in diversity are no longer seen as a threat. When status changes likes this, we must not lose sight of the fact that a status group is connected by its status, but that it also creates social exclusion through differentiation. Transposed to the densification context this means that the creation of high-quality, densified living environments must be an inclusive project. A project that also includes social housing as a key element in a more urban environment.

The balanced sharing of costs and benefits as a condition for densification

In recent decades, various governments have invested hundreds of millions of euros in upgrading and restructuring the city centre and the neighbourhoods in the nineteenth-century belt. Some of these investments are normal public investments in the framework of the maintenance and renewal of the urban space. Other investments, however, serve to correct the qualitative decisions of private stakeholders that were made in the past and were maybe not as durable. While these may be worthwhile investments that serve the general interest of urban dwellers and the users of the infrastructure, this also raises some questions.

Nowadays, the restructuring, improvement and renovation of the twentieth-century belt can raise similar questions. For several decades, suburbanisation was both interesting and lucrative for contractors and landowners. Large sections of the population also participated in the suburbanisation process and thus succeeded in realising their dream of owning their own home. But the cost for constructing utility infrastructure, the environmental impact of increased car use and the fragmentation and consumption of the already scarce space were not passed on. The question remains therefore whether the government should bear the full cost of a qualitative restructuring of the suburban built-up environment? Can we devise formulas that involve the private sector along in the social dimension of this problem, using part of the surplus value to pay the cost?

We must therefore maintain a nuanced and balanced view of the costs and benefits of densification strategies[3]. In past decades, a broad consensus was achieved about the notion that densification is a worthy ideal for town and country planning. The pursuit of a compact built-up environment today has almost become synonymous of the sustainable city. The sector of private developers has partially followed this consensus. Densification, after all, is underpinned by an economic logic of greater profits on smaller surfaces.

In conclusion

The densification of the twentieth century-century belt creates opportunities, both for urban renewal as well as for urban community building. Design strategies should therefore be linked to social-spatial research in combination with a process of social-spatial appropriation. The resulting social-spatial image must make it possible to control the transformation process, that is already gradually taking place in these areas, without too much planning. This means that urban spatial qualities are added, but that various groups, from both the existing population and from the newcomers, can also project their needs and aspirations on that location. It is also necessary to pursue an equitable distribution of the benefits and costs of restructuring suburban areas between public and private stakeholders. This is the only way to ensure that the responsibility for the twentieth-century belt is shared.

3 Eric Charmes and Roger Keil, 'The politics of post-suburban densification in Canada and France', forthcoming in: *International Journal of Urban and Regional Research*, 2014.

Supermarket and superdiversity: the public domain of the suburb.

Arnold Reijndorp

Antwerp's twentieth-century belt is difficult to characterise. The terms that are in vogue for this among geographers or urban planners including periphery, urban field, network city, suburb, are totally inadequate. The same applies to new concepts such as urban sprawl, void or *terrain vague*. At least if you want to describe the experience of travelling through this vast territory. So which words should we use then? Chaos? No, for there is too much order, unity, structure. A warehouse or storage facility? Possibly, but who would put together such a motley collection? Collection then? Yes, but a collection of many subsets that have been scattered.

Perhaps suburb is still the best option. However in the way this term has always been used for the area *extra muros*, in Dutch 'voorstad' and in French 'faubourg', where everything which could not or would not thrive within the city walls would end up. That feeling of being in such a suburb is only enhanced by the Antwerp ring motorway and the green areas around it. Once beyond this, you find yourself in the suburb, a city that is still in the process of becoming a city, the city's precursor. And although the same term is used, the actual suburban belt distinguishes itself in this way from the usual modern meaning of the suburb as the residential neighbourhoods for the middle classes that were built outside of the city, in reaction to the living conditions in the city. Neighbourhoods that were never designed to be urbanised, although in many cases they actually were.

Antwerp's twentieth-century belt also has such suburban neighbourhoods, which followed the trail of the country houses, the country estates and the villa neighbourhoods of the nobility and the wealthy bourgeoisie. However, they find themselves surrounded by a proliferation of businesses, shops and residential buildings along the existing roads or by paltry residential neighbourhoods in between. In addition, everything that is too large for the existing city has been moved to the suburb, including hospitals, colleges, institutions, barracks, cemeteries, factories, an airport, a large hypermarket

(Makro) and mall, the Wijnegem Shopping Center. The old villages and country estates have also been incorporated in this development.

Urbanisation and urbanity

In a certain sense the suburb has been urbanised without becoming urban. In German you can really put this in words: *Die "Peripherie" ist zwar verstädtert, aber nicht urbanisiert*[1]. The point then would be to find ways of urbanising this sprawling and conjoined suburb or intermediary city.

In which urban refers both to a sophisticated or refined environment, as to urban behaviour in the sense of courteous, polite, civilised, well-mannered. The idea would then be to civilise and domesticate this uncivilised world. At the same time, however, we realise that this is an impossible undertaking.

This realisation is prompted by the scope of the suburb – which certainly applies to Antwerp's twentieth-century belt – and inspired by the fear that this may compromise the urban qualities, the social diversity, the cultural energy and the economic dynamics. The solution therefore does not involve merely curtailing development and creating coherence throughout the entire area. Instead the scattered fragments also have to be connected and articulated within the various subsets.

This approach is also reflected in the four Lab XX studies, but with two different accents. Two emphasise the connection, either of the fragments of the landscape and the *green-blue* networks, or improving public transport. The other two focus on the articulation of fragments, while searching for new places of *centrality*, which urban planners in Southern Europe mainly equated with *urbanity* in the urban sense in the Nineties. One of the two advocates an approach that resembles urban acupuncture, the second places an emphasis on new development and financing models. All the proposals consider densification with housing an important means to achieve consistency and articulation.

Decay or resilience

After examination of the proposals one might readily conclude that we need to do it all! Strengthen the landscape by connecting the parks, the country estates, the forts, the cemeteries, the stream valleys, pastures, fields and lanes with one another. Enhance the radial transport system with a tangent and develop a selection of stops into new urban centres. Transform existing amenities such as hospitals, supermarkets and barracks and commercial premises that are becoming vacant into smaller centres, which appeal to specific groups and which constitute an intermediate layer of urbanity across the belt. Use dwellings to help shape these new centres and fill in the gaps in the landscape. Finally, design new development models and new forms of funding to achieve this. All this is possible, because the proposals do not exclude each other, in terms of their approach or their development. In fact they even supplement each other nicely.

The only thing missing is attention to the social and cultural cohesion or the lack thereof and ways of enhancing this. Here and there the proposals allude to this. Secchi and Viganò, the designers of the Antwerp structure plan, are quoted when they write about *a territory of inhabited places with*

1 Walter Prigge, 'Vier Vragen zur Auflosung der Stadt', in: Walter Prigge (ed.), *Peripherie ist überall*, Frankfurt/New York; Campus Verlag, 1998, p. 8.

problems of decay, ageing and segregation. This perception is a familiar one, it is associated with the older urban neighbourhoods and is now also used for the suburb. American literature about the older suburbs coined a term for this: it is called trouble in paradise, emphasising the sharp contrast between the idyllic setting of the suburb and the decay due to the arrival of other demographic groups. Another issue that is raised is the lack of community. A solution could be to strengthen the collective domain and jointly develop or improve dwellings.

The attention to social-cultural changes is thus limited to the neighbourhood level, more specifically to the sprawling neighbourhoods with terraced houses along bare streets. The changes that take place here are important but are mainly considered *verstädterung* or urbanisation. The question remains whether this is the right definition for the developments in the suburb, which in fact should be seen in terms of transformation, innovation, vitality, resilience and integration, in short, in terms of urbanisation and a new public domain.

Parochial spaces and the public domain

The public domain is where social and cultural exchanges take place in the city. Not between neighbours or members of the same group but between members of different groups, based on nationality, country of origin, ethnicity, or lifestyle. This exchange significantly defines the city's resilience, vitality, and integration capacity. All attempts to urbanise the suburb should focus on this instead of just focussing on the landscape or on various spatial





fragments. We should aim for the social worlds that are the outcome of the social-spatial practices of the various groups that live, work, shop, go out, relax and so on in the suburb. These worlds consist of an amalgam of very different places which form a group's parochial domain.

At the crossroads of these parochial domains, or where such domains overlap a public domain is created, a place of cultural exchange. Different groups can also use these places. They can also be dominated by one single group, which leaves its mark on it without excluding other groups. The experience of the public domain, of a foreign, unknown world is created precisely because you enter a place that is dominated by others.

The public domain is therefore created where groups encounter one another, in the old villages, in the supermarkets and superstores along the old main arteries, in the parks and in sport centres. Possibly also in hospitals, cemeteries, schools and university colleges. In any event they offer potential for the development of a public domain. This however depends on the location of these places in the urban fabrics: the proximity of specific parochial realms, in terms of distance or time.

Some places in the suburb are also significantly defined by the connections with neighbourhoods that are dominated by specific groups. Strangely enough the main arteries, the 'steenwegen', are absent in all four proposals. Sometimes they crop up, but just as obstacles. Nonetheless these old main roads organise the suburb, especially when a tram rides along them, which is usually the case. They are the most important connections, with the city and with the country. But they are also important public domains. This applies to the street and the adjacent amenities as well as to the tram as a moving public domain[2].

Structure and anti-structure of the suburb

The various worlds are dispersed. They are not evenly distributed throughout the suburb however. This is abundantly clear when you look at the maps in the "Analysis of the city-region". The south-eastern side of the twentieth-century draws much more people from elsewhere than the other side. There are also differences in terms of potential within this urban area. You need to be aware of them, even if you choose a local, acupuncture-style approach. Because that is when you need to know where the nerves and knots are.

These parochial worlds also distribute themselves in other ways across the various layers that organise the public domain of the suburb. For example in time. Firstly this is the layer of the daily social-spatial practices: the layer of the economy, of employment and commuters, of practical matters such as shopping and bringing or picking up your children from school, the Daily Urban System (DUS). Generally speaking this garners the most attention in urban and spatial planning. This is also the layer of traffic and transportation, of the network city and multimodal nodes.

Besides the DUS there is also a WUS, the layer of the WUS, of the weekly shopping, shopping on the weekend and Sunday excursions. Likewise you could also identify the MUS and YUS of extended weekends and holidays. And then there is the layer, which you hope represents an even longer interval, namely that of illness and death, the hospitals and the cemeteries. The sub-

2 Ruth Soenen, *Het kleine ontmoeten. Over het sociale karakter van de stad*, Antwerpen: Garant, 2006.

urb has something to offer in terms of all these layers, from Agfa-Gevaert to the Albert Canal, from the supermarket to Wijnegem Shopping Center, from the parks and the cycling routes to Middelheim Museum and the airport and from Sint-Augustinus Hospital and the University Hospital to Schoonselhof Cemetery.

The layers of the excursions, the holidays – and of life and death – could also be referred to as the anti-structure, the opposite of the structure of daily routine and hassle. This anti-structure is breaking free and on occasion even rebels against this structure, the layer of use and necessity, which occupies the attention of planners and traffic experts. The anti-structure represents freedom and futility, of erring and lingering, compared with effectiveness and the time schedule. It also encompasses the rituals, the funeral as well as the carnival and the fancy fair, when the world briefly comes to a standstill or is turned upside down. In this perspective the landscape, with its castles, manor houses and pleasure gardens, parks and cemeteries is so much more than a green-blue network. What does a twentieth-century belt look like, which has been designed much more in line with the anti-structure, than with the structure? I think that this is a nice challenge, and that the expertise of the designers of theme parked also must no be excluded in this.

In any event we need to take the way in which structure and anti-structure organise the suburb with different intervals much more into account. We need to understand which programmes and atmospheres are part of this process and how these can be articulated on the spatial level. This is important in any approach, whether you are strengthening the landscape, the transport system, an acupuncture of small centres or strengthening the community.

Superdiversity and new familiarity

The various worlds also penetrate the realm of everyday familiarity or conviviality, as Jan Blommaert calls it in his study of his own neighbourhood, Oud-Berchem. At first glance, this neighbourhood evokes the aforementioned notion of decay, ageing and segregation.[3] The familiarity that possibly used to exist here has fallen prey to the growing differences between the inhabitants, in terms of income, employment and education as well as position, status, the time one has lived here, lifestyle, origin, ethnicity and language. But the increased differences also create a new form of cohesion. A few years ago you could have still distinguished between established and outsiders, between the indigenous original neighbourhood residents and a group of foreign newcomers, whether of Moroccan or Turkish descent. This clear, albeit tense, situation no longer exists. We can now distinguish several groups, along a multitude of dividing lines. Young, highly-skilled residents have moved in, gentrifiers, Turkish entrepreneurs who have made it to middle class, new transit workers from Central and Eastern Europe, refugees and asylum seekers from Africa and the Middle East.

The situation is superdiverse as well as being unstable and constantly changes. There are fewer people established here, on two levels. Some groups, however, do not think of the neighbourhood as just being a transition home. They organise their life transnationally, straddling two countries, including their country origin with which they are in touch daily thanks to

3 Jan Blommaert, *Ethnography, Superdiversity and Linguistic Landscapes. Chronicles of Complexity*, Bristol /Buffalo/Toronto: Multilingual Matters, 2013.

social media. In view of this situation some would call this neighbourhood an accident waiting to happen. Actually that is the case, in Belgium and in the Netherlands. But the opposite is true. The same superdiversity generates a diverse offering of amenities, which are interesting for one's own group as well as for different groups. It also forces the people living here to speak a common language, however difficult this may be, namely Dutch. These are the elements of a new cohesion, of a light community, of a new urbanity, characterized by 'weak ties', within and between groups.

While the situation in Oud-Berchem does not apply to the entire twentieth-century belt, it sheds a different light on the social changes there. We have observed similar developments in some neighbourhoods in the suburb. The problem is, however, that these residential neighbourhoods often lack the space that old urban areas like Oud-Berchem have, which provide the space for these shops and restaurants. They establish themselves elsewhere; possibly thanks to the expansion that forces so-called etnic grocery shops that have turned into complete supermarkets and tea houses that have become large restaurants and party venues to move across the ring motorway to the suburb. Conviviality will take on a different form in the suburb and will occur in different places. On places that are suited to the new centrality on the intermediary scale as well as in vacant lots and buildings along the main arteries and in public transport. The anti-structure plays an important role in this framework: where will festivities and rituals find a new space?

Conclusion

The social-spatial practices of different groups will shape the suburb's urbanisation, on the social level as well as on the physical level, by establishing new amenities and by investing or building. The way in which this is stimulated and arranged is sometimes discussed in great detail in the proposals. They also contain an opinion on the public domain, which shall be understood at this point as the government as the representative of public concern. What is striking in this respect is that the government should mainly take measures to create more value so inhabitants, real estate developers and builders have an incentive to invest. Many of the proposals also rely on a collective approach to area development. It is not clear how public space ties in with this. How does this value increase serve as an incentive for investments in the public domain. Interesting models have been developed for this elsewhere. This is called value capturing. The strategy of Curitiba (Brazil) was based on this. Private individuals, inhabitants or businesses are given building rights but to avail themselves of these rights they must contribute to the public domain. As a result, added value is sometimes created very simply, for example by raising the building height or changing the use of a building. This is how public space was created in New York but has Antwerp not been transformed in the same way within the Leien?

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