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Exploring the Future of Suburban Neighbourhoods under Conditions of Declining Growth

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Content

Introduction: Challenges for the Future Development of Suburbia in Europe and the Unites States

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Suburban housing estates in many countries are now finding themselves confronted with challenges resulting from declining growth and an ageing population. In this publication, the authors discuss the key elements of this development, showing how planners in different parts of Germany, the Netherlands, Italy and the U.S. are dealing with this problem.

In doing so, we should of course be aware of two facts. On the one hand, suburbia takes very different forms in each of the four countries, both physically and socio-economically. On the other hand, suburban housing estates in nearly all developed countries have a number of elements in common, making it useful to compare the different situations. For example, a typical characteristic of such housing estates is that their infrastructure and the housing itself were for the most part built in the post-war years – a period where precedence was given to cars, where energy efficiency played no great role and where a need for functional separation was seen. This means that such estates are now frequently hardly compatible with current concepts of sustainable housing, characterised by a wide range of mobility choices, energy-efficient buildings and a functional mix with all facilities close at hand.

Moreover, there is the question of how to cope with an ageing population in suburbia, a problem posed some forty years after the building boom of the 1960s and 1970s. This can for example be seen in Germany, where nearly a third of the building stock in the western states is made up of single-family homes built from 1950 to 1980. With a large proportion of owners now pensioners, a generational change will take place in the foreseeable future, potentially leading to major distortions in housing markets. A further factor is the fact that due to the sudden drop in birth rates caused by the introduction of the pill the population born after the mid 1960s is much smaller than those of their parents, whose houses are now coming onto the market. In many peripheral regions hit by declining population figures, there is also a danger of the expected supply of houses from this stock exceeding demand. But the majority of urban planners in Germany have little experience in dealing with such problems in post-war housing estates. In her contribution, Andrea Berndgen-Kaiser looks at the fundamental options open to planners in association with the extent of population decline and the type of challenges. These options include strategies aimed at stabilising or enhancing an estate's attractiveness, or – conversely – restructuring measures potentially not stopping at demolishing certain buildings.

Though the cities and regions in the Netherlands are very similar to those in Germany with regard to their population density and socio-economic structure, there are also a number of differences, for example with regard to the physical structure, as seen by the greater proportion of terraced houses in estates built in the past decades. Moreover, looking at the development of suburbia in the recent past, a dominant factor has been the systematic planning of suburban estates, for instance in the context of the Vinex housing programme. These new estates are not only characterised by their size in (i.e. the number of housing units) and the ambitious plans to achieve the right social mix, but also by the high design standards and their architectural quality. By contrast, the same period saw planners in Germany focusing on increasing residential density in inner cities, while at the same time investing hardly any effort in developing design strategies for suburbia. The Dutch concepts for shaping suburbia can thus be seen as an interesting template for other countries where the discussion on the future of suburbia is still in its infancy, especially as the Netherlands are also having to face up to demographic change and the resulting new challenges in suburban housing estates. In his contribution looking at such issues, Gerd-Jan Hospers discusses the importance of an eye-level perspective for suburbia, calling for planning initiatives which study the problems of such suburban estates at local level and develop strategies for dealing with them.

In contrast to the Netherlands with its strict spatial planning laws and compact cities, suburbia in Italy is characterised by urban sprawl – or what the Italians refer to as 'città diffusa' –, reflecting problems in connecting estates to the public infrastructure and complex ownership structures, two aspects making further development difficult. On top of this, Italy faces challenges associated with generational change: having different generations living under the same roof is becoming increasingly unpopular, with younger people frequently preferring an apartment in the city. However, many of the suburban houses constructed in the second half of the 20th century were designed as multi-generation homes, with the result that they are now partially vacant. In his contribution on Italy, Federico Zanfi therefore looks at strategies for reconfiguring such houses and at concepts for increasing the population density of existing estates in the 'città diffusa', tackling problems also found in suburbia in other countries.

Turning to the USA as the fourth example, we find major challenges with regard to suburbia, but also a very advanced discussion about solutions for such problems. As prosperity came to the USA earlier in the 20th century than in Europe, the country was the first to experience the mass use of cars and the suburbanisation of major parts of the population. As a consequence, many American suburbs have already experienced a complete change of generations – with all the associated problems. In many cases, houses have been taken over by less privileged families, with the result that poverty has greatly increased recently in parts of suburbia. What is more, many of the commercial buildings in the suburbs were built in the early post-war years and are now nearing the end of their life-cycle. This has lead to a large number of derelict supermarkets or shopping malls built in the 1950s, as well as empty plots of land where these have been demolished. The inner ring of older suburbs is thus characterised by massive urban planning deficits and the need for a redesign, with the consequence that planning concepts for comprehensive restructuring are needed. In her contribution, Karina Pallagst illustrates such problems, using as examples the shrinking Rust Belt city of Flint in Michigan and the suburbs of the booming high-tech San Francisco Bay Area in California. The fact that such different regions are both facing structural problems in their suburbs illustrates the magnitude of the challenges already prevalent in suburbia on the other side of the Atlantic and – despite all differences between Europe and the USA – the wide range of problems set to face Europe in the near future.

When discussing the USA or other countries, the aim is of course not to showcase certain examples as a potential template for the future planning of regions in other countries. This is impossible due to the fact that the framework conditions in each country are too different. It is however useful to compare experiences, as – despite all country differences in the characteristics of cities and regions – suburban housing estates in nearly all highly developed countries have similar usage profiles (e.g. housing and commercial areas) and building typologies (e.g. home improvement stores and shopping centres) and face similar problems as a result of being designed for cars and for functional separation. Such problems are exacerbated by an ageing building stock and the challenges resulting from generational change – problems to be expected in one way or another in the suburbia of all the countries studied. In this vein, the following discussions of the situation in four different countries can act as an incentive to learn from each other. The publisher and authors very much hope that, through presenting a wide range of ideas and concepts, they can provide a stimulus to the international debate on similar challenges in different countries.

II. Suburban Neighbourhoods in Europe Today – A Comparative Overview

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Abstract

Suburban areas are often seen as the 'sweet donut' around the city and their development depends on the context of related centres and the particular region. They are blamed to trigger the trading-down effect of inner cores. The settlements result from population development during the last 70 to 100 years and from a growth-oriented planning approach. This approach is still common practice (Heineberg 2014: 148). Under conditions of decline these expansions inhibit or combat the general idea of inner urban development (Köhler 2011). The growth of these areas especially poses a challenge in shrinking regions. Shrinkage involves great processes of change and therefore is subject to numerous discussions and studies. In some districts the obvious effects of this development can already be seen in the form of vacancies and a declining number of inhabitants (Wüstenrot Stiftung 2012).

As a consequence, a large body of research focused on the management of shrinkage in urban areas (e.g. the European research project 'Shrink Smart', FP 7, contract no. 225193). Additionally, the economic decline of suburban areas has been of interest. In contrast, the development of the housing stock is not analysed in detail yet. However, decline can already be recognised not only in the urban areas but also in the fringe. It is evident in decreasing demand and increasing vacancy ratio. The developments differ in spatial terms and are dispersed.

The diversity of suburban living areas e.g. with regard to location, historical development, spatial / urban structure, and accessibility of an urban area, requires a complex approach and specific strategies for each site. Most concepts for urban development measures and projects are inadequate and not transferable to suburbia. Therefore, the ILS has started a new research project aiming at a comparison of the developments, a way of handling them and possible solutions of different countries in adapting the suburban housing stock to shrinkage. Comparing European and North-American developments is meant to help find a localisation and definition for suburban living areas.

This contribution gives a short overview of the development in general of both European cities and 'suburbs'. As a criterion for the spatial definition of suburbs the accessibility is examined. In a second part the current evolutions in the Netherlands, Italy and Germany are compared to provide some basics for the following papers.

1 Suburbs

In order to define the research subject more detailed, it is nessecary to understand why suburbs developed and what their characteristics are.

The term 'suburbium' (pl. suburbia) already existed in antiquity and was used, amongst others, by Cicero (Georges 1998), to describe Roman suburbs. The Latin preposition 'sub' (under) can be interpreted spacially as well as time-wise and describes a connection to a superior reference.

Therefore the prefix 'sub' implies an association of something 'subordinate' but can also be understood as 'correlated' or spacially 'close to' something. 'Suburbium' is a

Fig. 1: Carpentum of two mules pulled. Coin for Livia minted under the reign of Tiberis (14-37. Chr.). Front : Type RIC Tib. 51st, © Römisch-Germanisches Museum/ Rheinisches Bildarchiv Köln

(subordinate) suburb of the town (sub). In antique literature the term 'suburbium' describes a suburb and is connected with an "attribution of certain characteristics and a mental sense of locality" (Mayer 2005). The adjective 'suburbanus' refers to areas in the surroundings of a city (close to a city, in the municipal area, the manor) (Georges 1998). The inhabitants are called 'suburbani'.

However, a distinct spatial differentiation and definition of 'suburbium' cannot be detected (Mayer 2005). Isidor of Sevilla (6th-7th century) describes the comprehension of the term 'suburban' in the late antiquity as follows: "Suburban are the surrounding buildings of a town, as at the edge of the town" . This supposes a fluent passage from urban to suburban space. Hence, 'suburbium' describes a territory for suburban Roman villas in vicinity of a city with the following characteristics:

- An area on the periphery of the city,
- An area with urban and rural characteristics,
- An area accessible from Rome with a horse/ donkey and a waggon in one day.

Development of European cities

The history and development of suburban space in Europe is directly connected to the development of the 'European City'. Since antiquity the city developed as a place with urban lifestyles, as location of trade, services and information with inhabitants who could lead a life independent of restraints by nature and agricultural labor (Siebel 1998). While the 'urbs quadrata' represents the urban ideal model, the 'urbs romana' is the political ideal type.

The Roman town, the 'urbs quadrata', was founded with the Etruscan ritual by marking the city boundary (pomerium, sacred line) by a plow with a cow or a bull. In this way the separation of town (urbs) and country (ager) was well-defined. The centre of the town was located at the intersection of the main roads (with forum and main temple). Within and outside of the 'Pomerium' were different realms with different laws. Over time the borders usually were fixed by a rampart or wall. This way the town had a defined city boundary from which distances could be measured.

While the ancient town was fixed by the forum, streets and a wall, a 'town' during the Middle Ages was defined by lawhad a legal definition. The spatial expansion as well as the number of inhabitants are of no relevance. As a general rule Middle Age towns had a well-marked city boundary in the form of a town wall. Within the wall town laws applied, which also included urban protection. At the gates of the town the suburb consisted of small huts and country houses within gardens, orchards and rural green (Mumford 1963: 564).

There were no constantly growing suburbs during the Middle Ages. Due to the restriction of both space and the number of inhabitants within the protected and fortified towns, new towns, were founded along trade routes. The industrial revolution changed the principles of the existing urban economies. Towns which opened up to the settlement of industries grew fast because of the manpower requirements of factories. A population boom and rapid growth of industrial towns and locations lead to an urban development which destroyed the narrow borders of the preindustrial town.

Living space for workers and their families was developed as tenements and new settlements, predominantly in big cities and on the outskirts. More compartmentalised workers' settlements - primarily two-storeyed buildings - were built, mainly in the direct surroundings of new founded factories and coal mines. Those developments evolved outside of the existing structures, often on areas which had not been developed until then. For the first time new residential areas of this size were built. Those buildings are still part of suburban areas if they were not destroyed during the urban redevelopment of the 1970s.

As an answer to bad living conditions, caused by high birth rates and immigration from rural areas, the idea of a new a concept of city founding, an alternative form of settlement, evolved at that time at the end of the 19th century. The concept of 'Garden Cities', developed by Sir Ebenezer Howard (1850-1928), aims at the foundation of new cities in the surrounding land of big cities. Howard develops the ideal type of a new location for a settlement in the countryside, close to nature, as an alternative to further uncontrolled growth of new city districts at the edge of existing big cities. This way more densification and the development of slums, which resulted from it, were supposed to be prevented (Mumford 1963; Benevolo 1973). The first settlement developed with this concept was Letchworth 30 km north of London starting in 1903. More settlements referring to the concept followed, today they are included in the structures close to the city, which connect life in the countryside to urban qualities.

At the beginning of the 20th century the idea of the modern age undertakes a role model function for new urban planning. In this concept the functions of a town – working, living, recreation, etc. – are divided. This segregation is supposed to help against the densification of big cities. The separated areas were to be divided by green spaces and connected by transport axes. Numerous plans which considered the Charta of Athens in the year 1933 (Le Corbusier 1943) and the concept of modern age were implemented in Europe and North-America. Here areas and districts were car-friendly, divided by functions and developed car-friendly with extensive green spaces to fulfil the dream of living in an own house in the countryside but close to the city. This led to mono-functional neighbourhoods and living areas which are called 'bedroom suburbs'.

A high mobility enabled settlements and satellite towns further outside of town than ever before. While settlements of the 1950s and 60s were located at the edge of the city, new districts for single-family houses grew far into the suburban space.

The general principle of urban planning of the modern age changed with the European Year of the Preservation of Monuments in 1975 and the protests against the inhospitability of cities (Mitscherlich 1965) towards a pedestrian-friendly, urban city. This change was accompanied by the rediscovery of qualities of old building stock and historical building and settlement structures. A new type of urban development with compartmentalised grown structures became popular. While urban planning in Europe was shaped by measures of urban redevelopment and renewal as well as historic preservation, the development in North-America had growing number of supporters of New Urbanism (Kegler 2004).

Due to the unbridled suburbanisation at the end of the 20th century, the suburban space developed into a 'rurban space' – especially in the European agglomerations (Borsdorf 2009). The development of the "Zwischenstadt" (Sieverts 1997) is described. "The traditional, spatial, economic and social relationships and dependencies between the city and the countryside lost their validity" (Borsdorf 2009), so that one can talk about the postmodern urban landscape (postsuburbia) as chronologically following aspect of urban development (Borsdorf 2009). By now, the suburbs often fulfil central functions and become more and more urban, so-called 'Edge-Cities' (Garreau 1992).

Accessibility in history

One main driving factor concerning the development of suburban areas is the accessibility. In ancient times the way of a horse by a day (max. 40-60 km per day) or a horse carriage (about 30-35 km per day) were a comparable unit to measure distances.

During the middle ages, when towns were located and grew along trade routes in distances of a day, the term of accessibility was describing a location.

With the industrialisation urban development changed. From 1840 on, the centrality of cities was newly defined by the railway and the new traffic system all over Europe. Cities could become more central due to railways, or lost their former meaning as they were too far apart from the next railway station. As a next step inner-city traffic systems, which redefined the accessibility within a city, were established.

In the concept of the Garden City the travel distance of one hour by train also built a location criterion in dependence of the next big city.

The planning model of the modern age was based on the spread of the car in private households and the unlimited access to every place with it. This supported the idea of single-family houses in the countryside as living standard in Europe and North-America. Levittown close to New York (built 1947-1952) was the first single-family house district and therefore the prototype as well as a starting point of this development. This residential neighborhood was located half an hour away from the city of New York by car. The accessibility and mobility were fundamental aspects of this concept.

Accessibility today

Taking the criteria 'location', 'character' and 'accessibility of the city centre' as a basis for perimeter and description of suburban areas, it becomes obvious that applying them to today's situation is complicated. Today one hour from the city cannot be easily calculated since the point from which

to measure as well as the means of transport (car, train, bus, bike) have to be defined. In this project the shortest path is measured from the centre of a city using the roads data weighted by their maximum speed (based on OSM data). If the city is wide spread, there is a buffer of 10 minutes added. The network for the catchment points is based on highways and main roads.

Nowadays almost every location in a European sub-urban area and most parts of the rural space can be reached within one hour from a city. Additionally, the willingness to travel long distances on a daily basis is growing. This is supported by the commuting allowance for example in Germany and the Netherlands (distances longer than 10 km).

Acceptable time margins decreased from one day to a shorter lapse of time. The time is linked to the spatial area of interrelations between city and surroundings. Commuting ratio gives a hint of the spreading dimension. In order to find out the spreading dimension, the population (development over the last 4 years) and the commuting ratio were mapped. However, the ratio is no conclusive indicator for the spatial area of interrelations, as some city-functions are spread beyond the city (Røe & Saglie 2011). In consequence, the interrelation area differs from the functional structure of the surroundings: The more economically underdeveloped the hinterland, the wider spread the area of interrelation (Kaup et al. 2014). Nevertheless, it is no reliable indicator for an interrelation as it also includes movements between different suburban areas. Commuting habits differ between countries; while the number of commuters is higher in the Netherlands it is lower in Italy.

Further characteristics of suburbia

In addition to mobility and accessibility there are further characteristics of suburbs such as the diversification of lifestyles and social origins, of household types, preferences regarding housing styles, etc. One vital criterion is the structure of the built environment such as type of buildings, share of free spaces and density. It is assumed that the suburbs still show both urban and rural characteristics, just as they did in ancient Rome. The term 'urbanity' describes two complementary parts (Sieverts 2011): On the one hand the spatial arrangement is crucial for the urbanity, i.e. the quality of the land and space use structure. On the other hand the personal 'habitus' (i.e. the lifestyle, values, dispositions and expectation of particular social groups that are acquired through the activities and experiences of everyday life). `The´ urban person is assumed to be more cosmopolitan, cultured and educated than people elsewhere. Urbanity arose from the sophistication and sublimation of elements of the built environment (such as skyscrapers) as well as behaviour patterns (according to Elias 1994 and Senett 1992): to be different and flexible, someone else and yourself. Urban places should be interesting for pedestrians and there should be public places everyone can make use of.

In contrast, rurality is not defined since there is a wide range of different rural areas. Rural could be recognised as "a condition of place-based homeliness shared by people with common ancestry or heritage and who inhabit traditional, culturally defined areas or places statutorily" (Chigbu 2013: 815). Today, the difference between urban and rural areas in European countries is decreasing (Burdack & Hesse 2006) and an urban-rural-continuum (Borsdorf 2009) is formed. In some monitoring programmes the distinction of urban, suburban and rural is no longer nessecary (BBSR 2014). More problems of identifying suburban areas arise from measurable characteristics: While accessibility can be measurable in travel time (or distance), diversification of lifestyles as well as density and ratio of public spaces are categories which cannot be quantified automatically. Some structures of the built environment were identified from aerial images by the University of Halle (Friedrich et al. 2014), however, this approach inapplicable all over Europe.

Depending on the current general principle of spatial planning at the time of their development, residential areas from the same period are probably structured similary. Since the suburbanisation took place in a specific period of time mainly, the average year of construction is of interest. Regarding these periods differences between countries are marked: The Netherlands were predominantly surburbanised between the 1950s and the 1990s, Italy and West Germany between the 1960s and the 1990s (see ch. 3).

2 Decline

The term 'decline' describes a loss of population due to an increasingly aging population (so called Second

Demographic Transition) and emigration. Economic decline is an additional trigger as people follow jobs

As sources of urban shrinkage three main points are discussed: out-migration due to economic breakdown, an overall decline in birth rates to below-mortality rates and suburbanisation (Lang & Tenz 2003; Hannemann 2003; Bürkner et al. 2005). In some areas the trend is reversed, since many cities have managed successfully a structural change and today jobs can more often be found in cities (Bontje & Mustard 2012).

Due to the lasting population decline the spatial impact has spread from urban to suburban and rural areas. Unfortunately, the impact cannot be located precisely because decline as a process is complex and follows different paths linked to the different cities or neighbourhoods. Decline and growth can be adjacent and the actual evolution can show different manifestation depending on the analised level (region, community, neighbourhood). It is easy to define if a neighbourhood is shrinking. Understanding the complex process of shrinkage with all links, interdependencies and factors is much more difficult. Part of the challenge are uncertainties regarding the data-quality and statistical errors in the statistical data used.

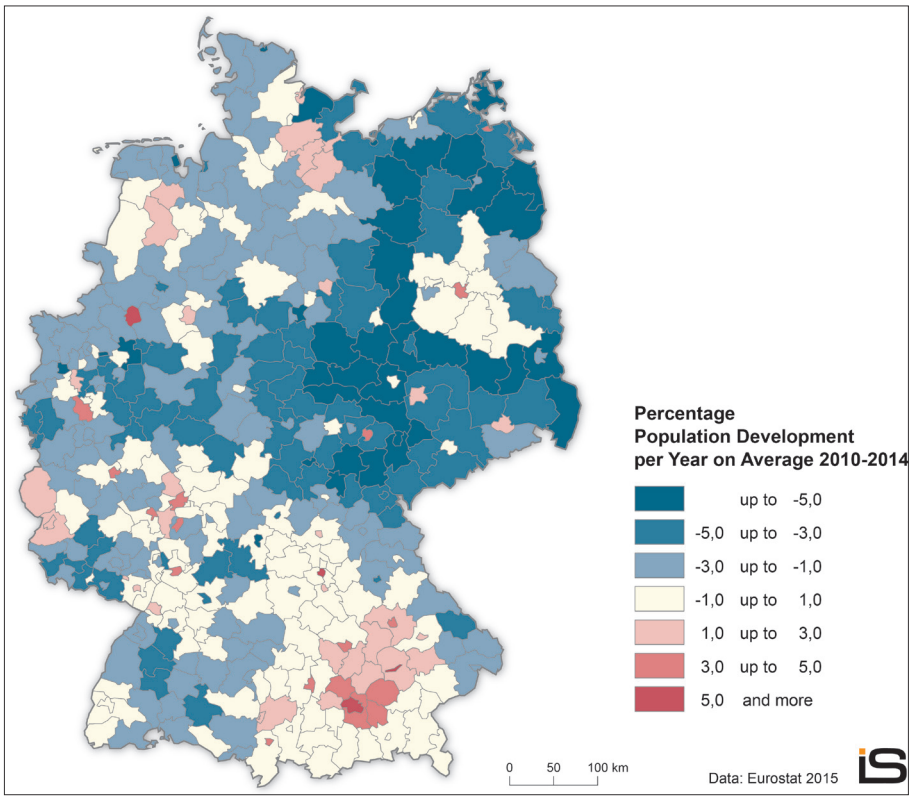

Fig. 2 : Demographic transition in Germany (2011-2013), source: calculations based on: Statistisches Bundesamt 2013/2015.

One main consequence of decline considering the built environment is the emergence of vacant houses (Großmann et al. 2008). "Empty houses – along with abandoned industrial and commercial properties – are disproportionately concentrated in many older industrial cities" (Mallach 2012: 3) and are likely to be found in their related suburbs.

Many of the problems discussed in context arise from a shrinking population, no matter what processes caused it: housing vacancies, decay of townscape, underutilisation of technical and social infrastructure and correspondingly rising maintenance costs per capita (Köhler 2011).

In addition, social changes such as increasing divorce rates and diversified life styles occur (COST Action Cities regrowing smaller (CIRES), http://www.shrinkingcities.eu/). They result in smaller households and therefor in vacant single-family housing that does not meet the demand especially in terms of quality and size. This segment is likely to be affected in particular (Wüstenrot Stiftung 2012).

3 Comparison

For the comparison of German, Dutch and Italian national statistics as well as data of Eurostat (NUTS-level III) has been used (Eurostat 2015). The compared data included the population number, crude rate of migration and the number of commuters. The crude rate of migration divides the total number of in- and out-migration in a period of 10 years by the total number of persons in the population, here in 1,000.

Germany

Germany is affected by the demographic transition in particular: More than 57% of the German communities lost population between 2011 and 2014 (calculation based on Statistisches Bundesamt 2013 and Statistisches Bundesamt 2015). A unique proposition of Germany is the dispersed development: decline, growth, poverty and wealth are mixed up like nowhere else in Europe. The map shows a patchwork of growth and decline. Only the mono-central cities such as Munich or Berlin show clear growth in the city itself and the fringe. Cologne and even Frankfurt are surrounded by both shrinkage and growth.

In Germany, the first suburbs were built in the 1920s, but the break caused by World War II can be specially recognised. After the war the eastern and western part of Germany developed very differently and this distinction is still remaining. In total the suburbanisation is slowing down, but like the shrinkage the development is very dispersed (Maretzke 2008).

After the revolution of 1989, 420,000 flats in the old neglected housing stock in East Germany were vacant because they were technically uninhabitable. By 2000, about one million flats had become vacant (Pfeiffer et al. 2000: 10, 17). A trend not found in most definitions, but contributing significantly to the evolving housing vacancies, was the state-sponsored building and refurbishment activities during the 1990s that caused a 'wave' of new buildings and sinle-family housing in particular. In Germany the main share of the building stock in general are single family-, detached or semi-detached houses (Berndgen-Kaiser et al. 2014) and most of them are located in suburban areas. Thus, due to both the preference for single family houses and the expected demographical changes, the main consequences of shrinkage and decreasing demand are expected to occur in suburban areas. In spite of the expected growing number of households (Statistisches Bundesamt 2013) as a result of the social changes (single-person-households), the total number of vacant single-family homes in the suburbs would increase (as yet not based on convincing empirical evidence).

Comparing Germany and the Netherlands, the problems are similar regarding location and building type, but the decrease in demand is likely to be more drastic in Germany.

The Netherlands

Although a first significant wave of residential suburbanisation in the Netherlands could already be observed in the early 20th century (Hoekveld et al. 1981), it did not become a mass phenomenon until the late 1950s. The development was similar to the one in Western Germany, but on a larger scale, and was focused on areas with a radius of about 30 km around the cities. The increase of suburbanisation was triggered by a rise of wages, low rent and the growing availability and affordability of the private car (Bontje 2007: 141).

An additional motivation was the poor state of maintenance of many neighbourhoods in the large cities, in particular the 19th-century city expansions. The suburbanisation slowed down with a switch to a concept of clustered deconcentration (Vermeulen & Rouwendal 2008) and compact city policy in the mid-1980s. As part of this policy the famous A-B-C-model (ABC-lokatiebeleid; Rijksplanologische Dienst 1990) was established that links economic, urban and traffic management.

The total population of the Netherlands is moderately increasing and according to the forecast of the age composition it is supposed to stay stable (www.cbs.nl). Compared to Italy and Germany the whole country is equalised regarding the net-migration. There is no clear trend in terms of re-urbanisation or suburbanisation. The differences between rural areas like the southern part of Limburg and the urban city of Amsterdam are in average negligible with a loss of 0.5% and a plus of 0.2% habitants per year (only Groningen in the north is an outlier).

At the same time the total number of households has increased since 1998 on account of the average size of a Dutch household dropping to 2.2 persons per household (CBS 2015). As more and more people belonging to the Baby-Boom generation (born between the 1946 and 1964) die, the number of single households within this demographic category is set to rise (Haccou 2014).

Considering the evolution of both, population and number of households, it is likely that the demand for one-person dwellings will increase over time. Single-family homes are likely to be affected because the demand for housing fitting for one-person households will increase. The combination of increasing in-migration to the urban areas and the rising

demand for one-person homes will naturally fuel the real estate market in the more urbanized areas of the Netherlands, while the market in the country's other regions is set to shrink. Based on research findings by Gáková and Dijkstra (2010), De Graaff et al. (2008), and Verwest (2011) the OECD concludes that 'demographic and economic decline is more likely to occur in peripheral rural regions' (OECD 2013: 56f).

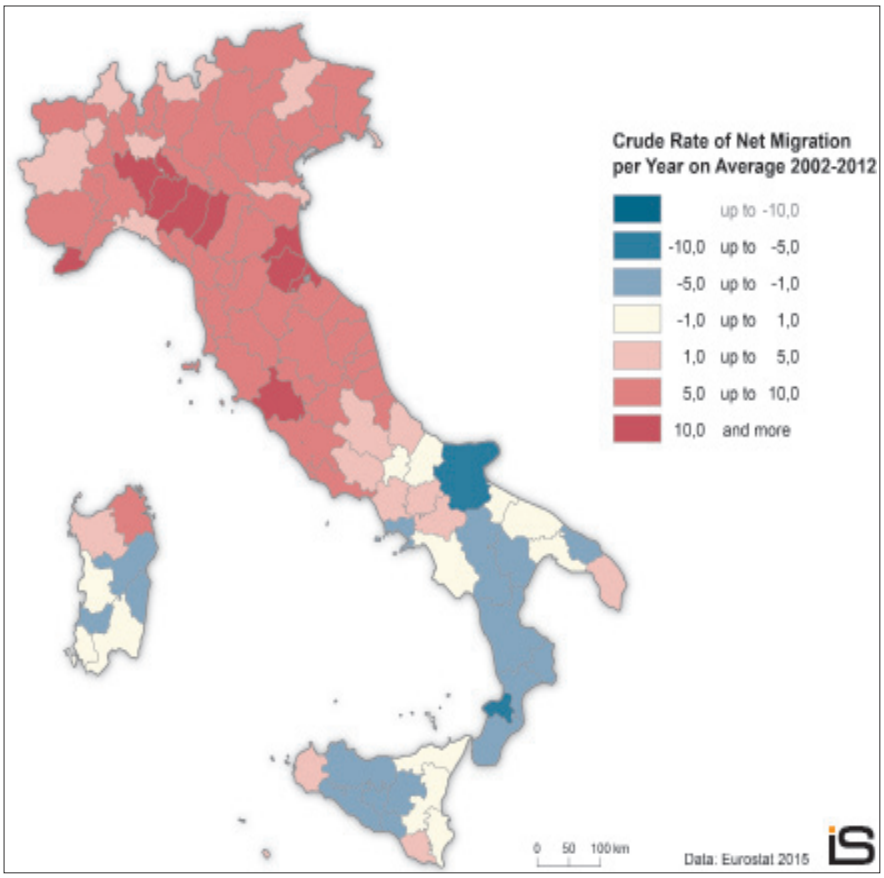

Fig. 3: Growing and shrinking regions in Italy; source: author's own graph, based on Eurostat 2015

Italy

Amongst others Italy was strongly urbanising while Switzerland, Great Britain and Belgium were already suburbanising (van den Berg et al. 1982). The suburbanisation in Italy started in the 1960s with a labour-migration from poor rural areas like the Abruzzi to the cities of the Italian industrial triangle (Petsimeris 1998) as well as the out-migration from the inner-city (EMI 2012). The most significant difference separating Italy from Germany and the Netherlands is the gap between urban and rural areas within the country. Due to this gap, the metropolitan areas have spread extremely wide and the città diffusa was born (Bruegmann 2006).

As a whole, Italy is affected by the demographic change particularly in terms of an aging population. The population in total is slightly increasing (0.46%, EUROSTAT 2015), but the fertility rate is one of the lowest in the world (ibid.). Together with the high life expectancy Italy's population is overaging. Comparing the population loss on NUTS-III-level in Italy and Germany, the Italian provinces show losses of maximum at least 0.5% in Italy while in Germany some regions lost up to 1.6% on average over 10 years.

Currently, in the industrialised cities and their suburban areas the share of people over 65 years is below the country average (EUROSTAT 2015). In addition, they benefit from immigration and counter-urbanisation (EUROSTAT 2015; EMI 2012: 6): Figure 3 depicts the growing urban areas of central and northern Italy and the losses due to migration especially in the rural areas.

The migration reflects the regional disparities mentioned before. The suburbanisation Italy is still stronger then in the other two countries, but also slowing down due to the demographical evolution. In result, it is likely that the main problems of decline will not appear firstly in the suburbs, but that the highest decline could be found in the rural areas. Like in Germany, the ratio of total number of households to population increased (Ministry of the Interior and Kingdom Relations 2010; Ando & Altimari 2006; www.istat.it). Corresponding to the migration, a high number of commuters occur in the areas with structural problems in terms of income and opportunities.

4 Conclusion and perspective

The evolution of European cities, the suburbanisation and the pursued concepts are comparable in large parts of the Netherlands, Germany and Italy. However, the economic structure and the level of industralisation as well as the transport infrastructure of places affected the actual suburbanisation process. Although 'suburb' is a historic term, the spatial definition of suburban areas by measurable indicators and as a static location is hardly possible. Urban, suburban areas, and rural areas converge and spaces is more and more becoming a continuum. To identify suburban residential areas is a challenge. In our investigation the share of built-up area and free space (density) is used as well as accessibility and the guiding principle related to the year of construction.

Regarding the today's suburbanisation, there is no clear evidence of a trend. In all of the three countries the suburbanisation especially in growing metropolitan areas is still going on. There is still a shift of jobs between the economic sectors and the accompanying suburbanisation of companies. The progress in transport and the resulting rapidity enables people to commute over long distances, and suburbia offers a pleasant environment meeting the demands of people of almost every age and social background. Though, in each of the three countries cities offer more green infrastructure in order to attract people. In consequence, the pleasant environment of suburban and rural areas become less important.

Considering the stages in van den Bergs et al. model of urban development (van den Berg et al. 1982: 3), however, Europe seems to be reaching the start of the re-urbanisation stage. Amongst others, the EU-strategy of Lisbon concentrating on the development of metropolitan areas as motors of economic renewal, and the globalisation improving the importance of the gateway-function of cities, slow down the suburbanisation process. In further studies it has to be considered besides that the car especially in Germany is not as relevant as it used to be (Lenz 2014) and that might modify the spatial development as the mobility and accessibility is one of the main enginges behind the development of suburban areas. People want to live in a place they can reach shops, jobs, friends, and other locations of every-day-life afoot or by bike.

The impacts of decline with regard to suburban areas is likely to be different in Germany, Italy and the Netherlands in terms of both national and regional level. However, the challenging process of shrinkage will affect all the three countries.

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III. How the Dutch Deal with Demographic Decline

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For the past few years, there has been much attention paid to demographic decline in the Netherlands. Initially, the shrinkage of an area's population was considered as a marginal phenomenon in the peripheral regions, such as Limburg, Groningen and Zeeland. However, now, it is recognized as an omnipresent phenomenon. According to the Netherlands Environmental Assessment Agency, up to 2030 a quarter of the Dutch municipalities will experience a population decline of more than 2.5% (PBL 2014). Furthermore, this decline will not remain limited to areas on the edges of the Netherlands. For example, villages within the Randstad conurbation are already having to deal with that now. There is also a demographic decline in the large cities such as Rotterdam and Almere. Here, we usually see that one district is growing at the expense of another.

Whether we are talking about a region, city, village or district – the threat of demographic decline is and will remain the 'ghost town'. Dutch people are familiar with images from the media of empty districts in Detroit, Liverpool or East Germany. In 2008, TV viewers across the Netherlands became acquainted with shrinkage in their own country, in the hamlet of Ganzedijk. This small village in Groningen had been nominated for demolition, with all the ensuing social disquiet. In 2009, after a visit by Van der Laan, the then Minister of Integration and Housing, to the shrinking old industrial town of Heerlen, demographic decline became part of the political agenda. Ganzedijk and Heerlen were made much of in the press and provoked a societal discussion: how should we deal with population shrinkage? Journalists, researchers, consultants and policymakers ran with the theme. Meanwhile, demographic decline is an integral part of the policy discourse in the Netherlands. In this article, we will review the phenomenon and explore how the Dutch deal with it.

Fig. 4: Thanks to the hamlet of Ganzedijk in Groningen the Dutch became acquainted with shrinkage in their own country; photographer: Marcel Oosterwijk, 2012, Wikimedia Commons

1 Demographic decline as a policy problem

There are still a few policymakers in Dutch municipalities who play down the demographic decline. Their usual reaction is that the data on population trends are incorrect or that the consequences won't be all that bad. Demographic predictions for the long term supposedly have a considerable error margin, they claim. Furthermore, the administrators often say that it is not the demographic decline but the economic decline of an area that should be the main point of concern.

If we narrow down decline to a quantitative phenomenon of decreasing population figures, then it is indeed possible to put it in some perspective. After all, the reality of population trends can always turn out differently to the forecast, certainly at the local level. This does not take away

the fact that the qualitative characteristics of demographic decline are problematic. 'Brain drain' occurs: due to the economic possibilities, young people and more highly educated people move to the large cities, in particular to the Randstad. As a result of this, the population structure changes in the regions that these people leave. The inhabitants who remain behind are generally the elderly and people with a low education, with their own story behind the figures. They see facilities disappear – for them, putting demographic forecasts into perspective does not work.

In order to understand the phenomenon of demographic decline, we must make a distinction between 'hard' and 'soft' shrinkage (Hospers & Reverda 2015). The hard aspects of shrinkage refer to the physical, visible consequences of demographic decline, such as unsold building plots, boarded-up houses, empty shops and the impoverishment of neighbourhoods. The soft aspects of shrinkage refer to the changing social structure which occurs due to demographic decline. Examples are young people and more highly educated people moving elsewhere and the consequences of this, such as associations that have to deal with a loss of members, ailing social-cultural facilities or schools that are forced to close. Usually, the soft aspects form the greatest societal problems of demographic decline. An unsold plot only affects the owner of the plot, but if a school has to close due to a lack of pupils, the whole community feels the consequences of this. In practice, both types of decline are of course closely connected. For example, water supply companies in the region of South Limburg not only have to deal with hard decline (problems which arise from the under-utilization of the pipe network), but also with soft decline (poorer water quality because, due to the aging population and the related increase in use of medicines, more harmful substances end up in the water).

Gradually, administrators in the Netherlands are realizing that growth is no longer an obvious matter. They realize that differences occur in the demand for land, houses, buildings and facilities. At the moment, the Randstad is growing and following on from this a few cities that appear to emerge from this like fingers from a palm of the hand: Amersfoort, Zwolle, Arnhem and Eindhoven (this is why it is sometimes referred to as the 'Handstad'). Many places in the rest of the country have to deal with population decline, especially areas which border with Germany and Belgium. This development is of a structural nature and requires a completely different attitude from politicians, planners, urban developers and real estate developers. This is not easy for professional groups who have been used to thinking in terms of growth since the end of World War II. Now that the economy is slowly recovering, it will appear that the demand for space is increasing in some places, but is lacking in other places. In our thoughts and actions, growth and decline will have to exist alongside each other.

2 Demographic decline and other transitions

Everywhere in the Netherlands, demographic decline goes hand in hand with transitions of a different nature, which have partly the same effects. For instance, the demand for office space in cities and towns is decreasing, not just because of the economic crisis, but also because of people working from home or working flexible hours. In addition,

Fig. 5: The Eye Film Institute in Amsterdam-Noord is a tourist magnet, but it should also generate positive effects for the surrounding district; photographer: Jvhertum, 2012, Wikimedia Commons

the need for shop space in city centres is decreasing due to overinvestments in the past and the increase in online purchasing. These phenomena are separate from the demographic decline, but in combination they lead to a considerable transformation of areas, and not to everyone's satisfaction.

The severity of the consequences of decline mainly depends on the other accompanying phenomena. In the case of neighbourhoods with demographic declines in large cities, such as Rotterdam-Zuid and Amsterdam-

Noord, it mainly concerns image problems and an accommodation offer which does not sufficiently fit with a diverse group of inhabitants. Since large cities offer more employment opportunities and social-cultural facilities than isolated villages, shrinking neighbourhoods often also benefit from the facilities in other parts of the city. In cities, in some cases it can be rewarding to invest in large projects. An iconic building or a revitalized area could have a flywheel function, which could result in the development of a city district with a demographic decline (Verheul 2013). For example, the eye-catching Eye Film Institute in Amsterdam-Noord attracts much attention, which hopefully also generates advantages for the surrounding area.

3 Combating decline with investments?

In addition to the reaction of playing down demographic decline, we have also seen other policy reactions in the Netherlands over the past few years. A familiar administrative reflex is to combat decline (Verwest 2011). "We can beat the demographic doom scenarios by the statisticians" is the thought. In this way, the existence of decline is indeed recognized, but the assumption is that it can be combated by marketing campaigns or investments in housing projects which will attract new inhabitants. A well-known example is the TV campaign 'Zuid-Limburg, je zal er maar wonen' ('Zuid-Limburg, the ideal place to live'): with low house prices, job prospects and beautiful images, inhabitants from the Randstad should be tempted to move to the very south of the Netherlands. But does it help to invest against the flow? We do not have such good experiences of that in the Netherlands. For example, the Blauwestad (2004-2010) in Groningen failed miserably as a housing project. Of the 1500 plots which were once available, barely more than 10% were sold and mainly to people from the neighbourhood. Even before the economic crisis began, this project appeared to be a wrong investment, where the parties involved suffered great losses. In the previously mentioned shrinking village of Ganzedijk, not far from the Blauwestad, the province and housing corporation tried to remove the social unrest with large sums of money and physical restructuring. Ganzedijk was saved from being demolished, but it was an expensive investment, as a result of which there was little money left for other shrinking villages in the region.

Municipalities in the Netherlands that have to deal with population decline also often make a case for investments in the economy and employment opportunities. The question is whether this works. Stimulating a declining industry such as shipbuilding on the part of the government often leads to forbidden state support. Furthermore, it usually amounts to a 'stay of execution'. At the same time, the expectations of new economic activity (for example energy, sustainability and smart industries) are usually too ambitious. The government does not have good experiences either with moving government services from the Randstad to the periphery. Decades ago, government offices and the postal services were already moved to Groningen, and the Public Sector Pension Fund and Statistics Netherlands were moved to Heerlen. Employees from the Randstad had to move then, but most of them were reluctant. The relocation of the government services is now widely considered a failure.

Policymakers in shrinking areas who invest in regional marketing, housing and economic activity ignore the fact that the inclination of Dutch people to move house over a long distance is very limited – just like other Europeans, they are home-loving. If they move house, they generally do so within their own municipality or region. Only 7% of Dutch people who move house move from one region to another: these people are often students, new graduates and single people who move to 'the big city' for their studies, work or relationship (Latten & Kooiman 2011). If regions with population decline wish to attract inhabitants, they have better chances to focus on 'return migrants': former inhabitants who are perhaps toying with the idea of returning to 'the old nest'.

4 Towards an approach of supporting decline

Chastened by the negative experiences with combating demographic decline, Dutch municipalities are gradually realizing that they will have to learn to live with shrinkage. This approach, which you could refer to as 'supporting decline', tries to mitigate the consequences of population decline as much as possible (Verwest 2011). This requires an approach 'at eye level' with relatively small-scale interventions in public space – so not architecture, but 'acupuncture'. For example, we see that in the town of Heerlen former miners' cottages are combined and flats are 'topped' by turning them into low-rise buildings.

Fig. 6: Cultural Centre Corneliushuis is a meeting point in the shrinking neighbourhood of Heerlerheide in the town of Heerlen; photographer: Hans Erren, 2012, Wikimedia Commons

Demolition is also sometimes unavoidable. The land that therefore becomes available is sometimes returned to nature, so that green zones develop in the neighbourhood. New build is possible, but only if this benefits the neighbourhood as a whole, an example of which is the Cultural Centre Corneliushuis in Heerlerheide.

However, demolition is not always necessary, as apparent a number of years ago in a declining district in the town of Dordrecht. The local housing corporation was planning to demolish the district of Noorderkwartier, until it heard from the Turkish and Antillean communities that the houses actually really suited their accommodation requirements. The upper apartments and ground floor apartments made it possible for grandparents to live above their children and grandchildren – they were therefore perfectly suited as 'kangaroo houses'. The district has been renovated rather than demolished and as a result of this the local social capital could be maintained.

Supporting demographic decline does not mean that the consequences of it are always easy to accept. Some inhabitants have had their house up for sale for years and have no prospects of the situation improving. Furthermore, they have to look on with empty eyes as facilities disappear, such as the library and the swimming pool. To try telling these people that they have to get used to this situation is a difficult message from a political point of view. Administrators in areas in the Netherlands that have to deal with demographic decline are therefore becoming increasingly aware that it is vital to not abandon inhabitants in villages and neighbourhoods to their fate. At the moment, the most frequent administrative reaction to demographic decline in the Netherlands is therefore to support inhabitants. This means, in consultation with numerous parties in the region, determining in which areas which facilities will remain and where that will no longer be possible. Clarity in this matter is important: inhabitants have to know what their situation is.

In addition, supporting population decline means helping to search for smart solutions to maintain the quality of life (Hospers & Reverda 2015). This requires creativity, for example by combining facilities, such as putting a library, cultural centre and meeting place into one multifunctional centre. There are also plenty of experiments being carried out in the Netherlands, using innovative concepts, such as mobile service points (buses travelling round), in order to bring government services to people's own neighbourhood, instead of using an expensive municipal office. Another example is the development of shrinking areas into 'laboratories' for testing new techniques to allow people to live at home for longer, with the aid of for instance automated solutions or online services.
However, when considering the quality of life in shrinking places, it ultimately concerns people. This is why in precisely these areas we see a tendency where municipalities support inhabitants in entering into social connections in the neighbourhood: participation at local level. In every area in the Netherlands with demographic decline, we find initiatives by volunteers who try to maintain basic facilities in villages and districts. This active citizenship is certainly not a miracle cure, but it can bring inhabitants together and maintain an area's quality of life. It would

be difficult for the government to impose and organize citizenship – at the most it can facilitate this. In Dutch areas that face demographic decline, more and more it seems to come down to the social resilience of people. Across the Netherlands, policymakers who wish to do something about demographic decline have learned from their mistakes: they now invest more in the human dimension of shrinkage than in large-scale projects which do not turn the tide after all.

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IV. Demography-Driven Suburban Decline – At the Crossroads: Mature Single-Family Housing Estates in Germany

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Abstract

In collaboration with IREUS, the Stuttgart Institute of Regional Development Planning and HFT, Stuttgart University of Applied Sciences , the ILS – Research Institute for Regional and Urban Development has conducted a research project (sponsored by the Wüstenrot Foundation) – analysing the quality of housing estates of the 1950s, 60s and 70s. The project's objective was to develop recommendations for local authorities to enhance their post-war housing stock. In the following article, major results of this project will be presented.

With the original owners of these houses gradually decreasing, a generation change is now taking place. The demand for certain sections of this housing stock is quite low especially in specific regions of Germany. Alongside the decline in those population cohorts previously representing the major potential for house ownership, qualitative factors are having a rising influence on demand. One observation that, due to an increasing multiplicity of lifestyles and their accompanying spatial and temporal flexibilisation, urban locations are set to gain in importance, being easier to access and offering a good infrastructure. The consequence will be that those houses in regions which are affected by demographic and economic problems as well as houses in sub-prime locations or real estates with structural or insulation deficits will suffer from a downturn in demand. This in turn signifies that in the future older houses will be more vulnerable to falling prices or even in certain cases remain vacant.

An analysis of West German municipalities led to a total of 14 municipalities being examined in five West German federal states. 13 of them are small and medium sized towns (at least 5,000 inhabitants). They supported in-depth case studies in specified areas through the provision of data. The research team conducted expert interviews with local officials and real estate experts, assessed detailed stock data of the selected areas, and asked inhabitants to answer a standardised questionnaire.

Based on the results of the empirical surveys the project pointed out a wide range of policies and potential measures for action. The research results underline the importance of a housing-stock-oriented development in order to enhance the future suitability of the post-war housing stock. Activating strategies for waste land and gaps between buildings could be applied on a local level. Image work for the housing stock in order to stimulate the demand could be established on a meso-level. On a macro-level, collaboration between neighbouring municipalities could help to avoid competition to attract new inhabitants. Even local communities which actually do not see any need for action should conduct continuous monitoring of their housing stock in order to avoid unfavourable developments and to deal with the problem in a provident way.

1 Introduction

In German single family housing estates of the 1950's, 60's and 70's a generation change is currently taking place. In this context due to unfavourable demographic and economic factors a market that appeared to be self-selling for decades is negatively affected. The objective of the three year research-project was to develop recommendations for local authorities on how to deal with this housing stock in order to preserve and further develop a liveable residential environment. The following paper will provide the description and present the findings of the study (Wüstenrot Stiftung 2012). First of all, an introduction in the characteristics of single family housing estates in West Germany is provided (Chapter 2). Accordingly, the conducted study is presented with regard to research questions, methodology and findings (Chapter 3). Moreover, practical policy implications are provided (Chapter 4) and the potential significance of the situation for other European countries is shown up (Chapter 5).

2 Background of the phenomenon

After the Second World War, the process of suburbanisation led to a large stock of ageing single-family houses in West Germany. As a consequence, nearly every third residential building in West Germany is a single family house which has been built between 1950 and 1980. The relatively low housing mobility in Germany leads to a deferred change in homeownership. In fact, only approximately 20 per cent of German home owners relocate after the age of 55 (Neugebauer 2007: 43), which implies that four fifth of owner-occupiers stay in their homes as long as possible. This so called 'remanence-effect' leads to a homogeneous age-structure which increases on average. The great proportion of single-family homes from the 1960s to the 1970s is currently in the middle of a tenure change process. A quantitative disparity in the supply and demand development of older single-family estates is considered as the consequence of population decline and changing household structures. In fact, the proportion of families is rapidly declining, whereas the number of single households and childless couples is increasing. In addition to this quantitative disproportion, it is assumed that there are also qualitative supply and demand discrepancies. With one-parent families and childless couples gaining importance, family accommodation requirements are expected to change. Accordingly, car-dependent residential areas with a lack of urban services might not be able to fulfill the specific needs of post-traditional families (Häußermann 2007; Siebel 2008).

3 The research project

The following chapter deals with the research questions (Chapter 2.1), the research methodology (Chapter 2.2) and the results of the different assessments (Chapter 2.3). This part concludes presenting the results of the case studies (Chapter 2.4).

Research questions

Against the background of a changing supply and demand, several research questions have been elaborated. The first question consisted in: are there most affected regions to be identified? Moreover, a classification of the actual market-situation of the post-war-single-family housing stock was considered a relevant outcome. The third research question dealt with the generation change of ownership and how it is taking place. Relating to these questions we hypothesise that older family homes will not only be faced with a falling, but also with a qualitatively changing housing demand (like less family households, more single-person and single-parent households).

Additionally, it was considered important to assess the significance of this housing stock in the perception of municipal stakeholders. The final question was: which

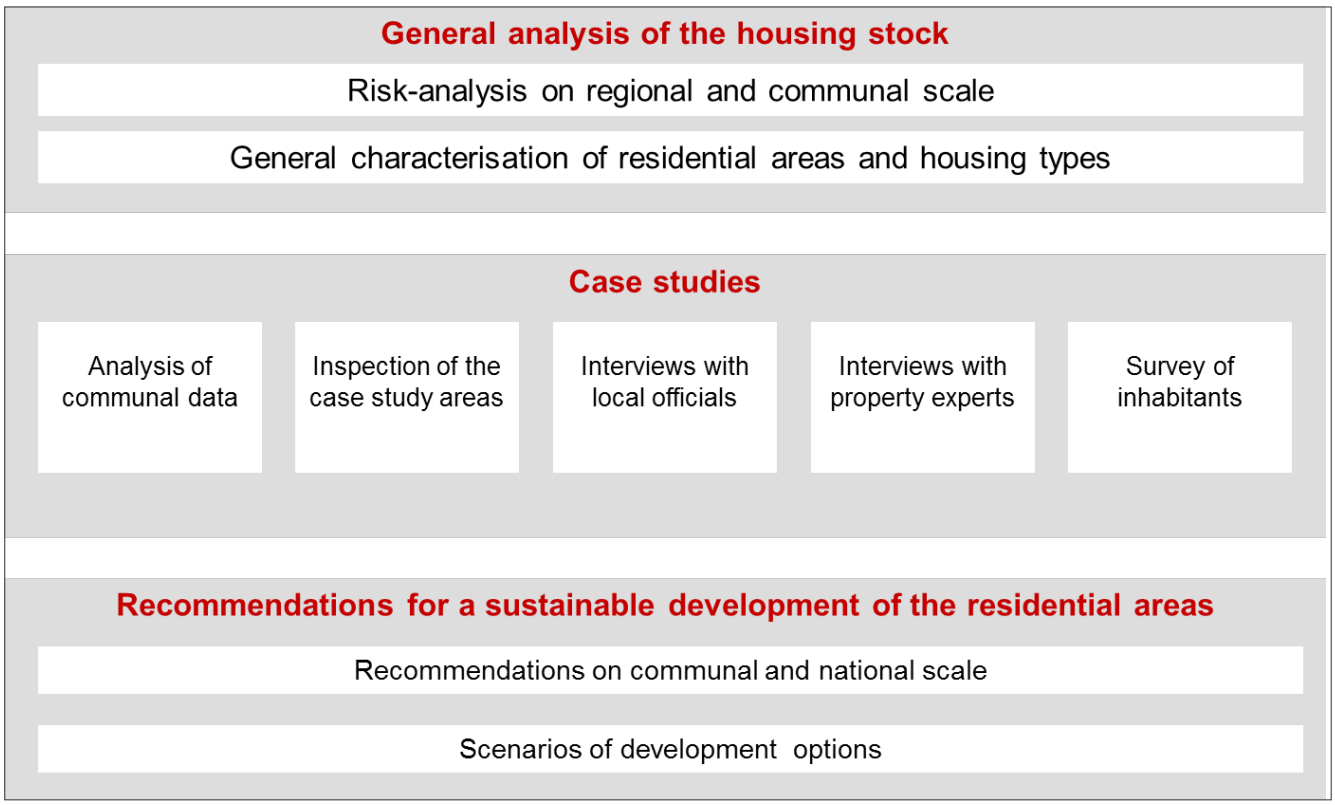

Fig. 7: Methodology of the research project; source: authors' own graph

measures can support a long-term sustainable use of the assessed housing stock? These research questions served as a frame for the final research objective to develop recommendations for local authorities on what to do with their post-war housing stock.

Research methodology

Our research project was divided into three working-phases (cf. Fig. 7). At the beginning of our research we conducted a data-analysis of the housing stock and population development on regional and municipal scale to identify counties and municipalities with a high probability of prospective supply surpluses. After the data analysis 29 case studies in 14 local municipalities in 5 West-German federal states were implemented. In these case studies, municipal data and assessed in-depth inspections of the chosen single family housing estates were analysed.

The table shows the applied indicators of our data analysis on a regional scale (cf. Figure 8). Various variables of supply and demand for older family houses were combined. The coincidence of rising market supply and weakened

Supply-indicators	Demand-indicators
Share of detached and semi-detached houses from the 1950s to 1970s in the single-family housing-stock 2005	Population development from 2005 to 2025
Share of detached and semi-detached houses from the 1950s in relation to whole stock in 2005	Decrease in the number of big households (three persons or more) from 2005 to 2025
Increase of the old-age dependency ratio from 2005 to 2025	Employees per 1000 inhabitants 2005
Average land value of the building areas 2003-2007	Changing in household income from 1996 to 2005
	Access to the next high-order centre

Fig. 8: Indicators for the district-level risk assessment; source: Wüstenrot Stiftung 2012: 25

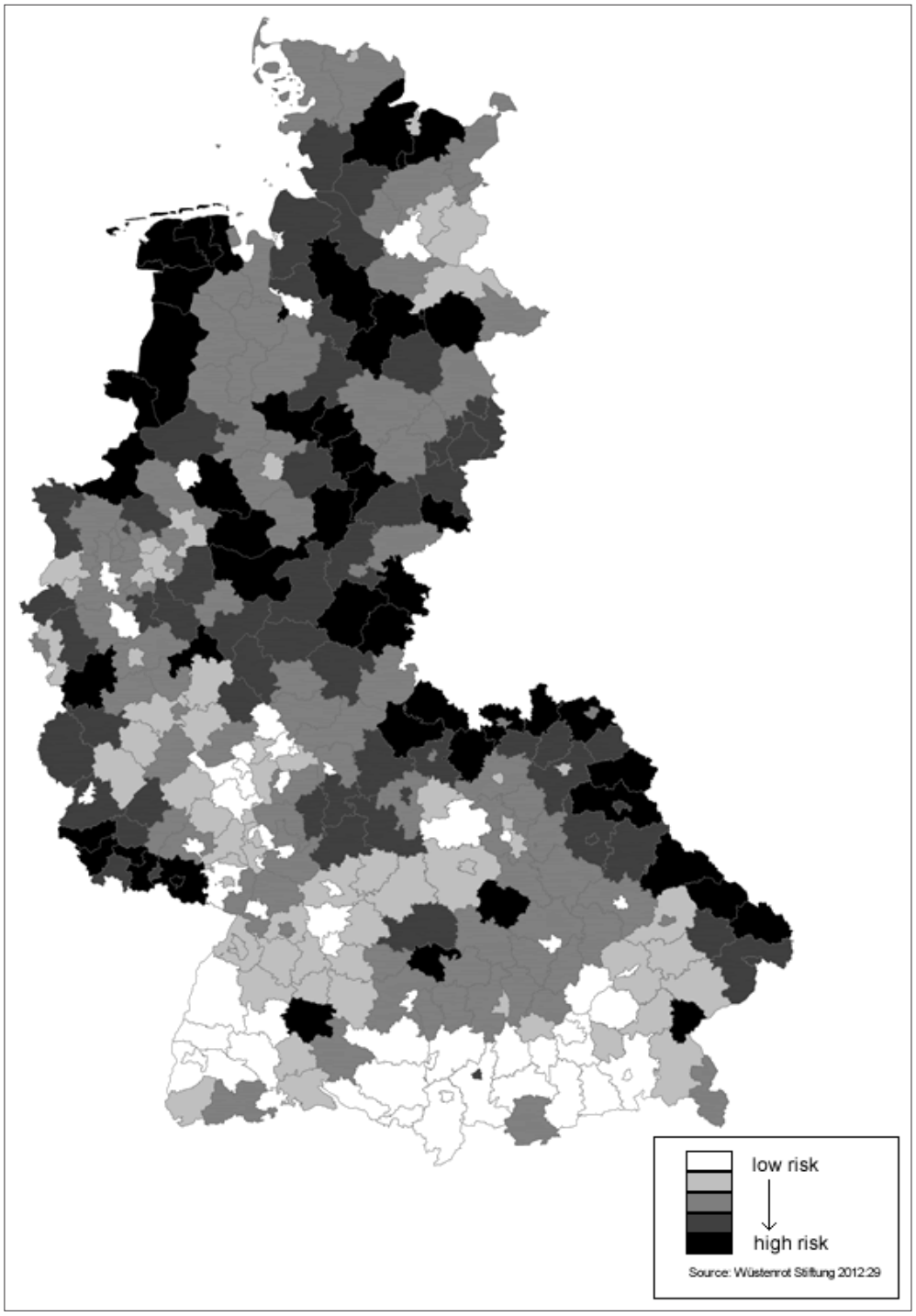

Fig. 9: Low and high risk regions for oversupply in the housing market; source: Wüstenrot Stiftung 2012: 29

demand is interpreted as a risk of oversupply on the resale market.

Moreover, we conducted guideline-based interviews with local authorities and real estate experts to detect their awareness of problems and solution approaches. In 10 dwelling areas which were chosen as a reference, representing different types of areas, we conducted a survey among the inhabitants. In the third phase we developed recommendations for local authorities on how to deal with these estates on a municipal and regional scale.

Findings of the district-level risk assessment

The results of the analysis lead to the conclusion that the risk of oversupply does not necessarily increase in areas with the quantitatively highest share of housing stock (as it is the case in suburban areas of the agglomerations). Affected regions are mostly peripheral districts such as e.g. border regions or 'peripheral regions' at the inner German border or border regions between federal states. In conclusion, agglomerations are less affected by a potential oversupply, whereas in rural areas, more problems are to be expected. On the whole we identified districts with an above average risk of supply outpacing demand for older family homes. We divided the West German regions with single-family homes built between 1949 and 1978 (6.56 million dwelling units) into five risk classes. The colour intensifies from white to black with increasing risk (cf. Fig. 9).

Case studies

As described in the summary of the methodology, case studies have been conducted in14 selected municipalities.

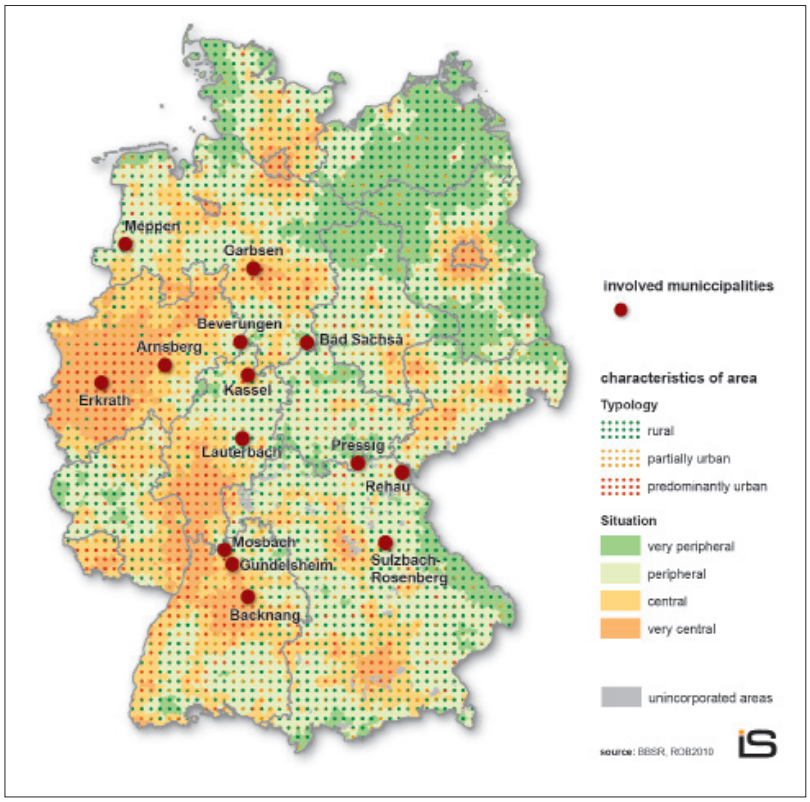

Fig. 10: The 14 participating municipalities in West Germany; source: Wüstenrot Stiftung, based on BBSR Raumtypen 2010: 44

They have been chosen with regard to their vulnerability in relation to unstable developments of supply and demand in areas of used single-family homes. They are located in 5 federal states: Lower Saxony, North Rhine-Westphalia, Hesse, Baden-Württemberg and Bavaria (cf. Fig. 10). Important criteria for the selection of the case study municipalities were spatial categories like character (rural, partially urban and mainly urban) and situation (very peripheral, peripheral and central) of the communities. In each municipality we analysed two or three estates, amounting to a sum of 29. An equally important criterion for the selection of the 14 case study municipalities besides the spatial category was the town size. A wide range of town sizes is represented in the study, from a rural municipality of just over 4,000 inhabitants to a major city of nearly 200,000 people. The average town size in our sample is 22,000 inhabitants, which indicates that most of the case study municipalities are small or medium sized.

Some findings of the expert interviews

Inspections of the housing areas have shown disparities in the development of structurally similar neighbourhoods, even on a municipal level. They are particularly caused by location factors or the image of a neighbourhood, which was also confirmed by planning- and real estate experts, who have been interviewed in the case study areas. Correspondingly, they named the location of the area with regard to the city centre, their image and the state of repair of individual houses as influencing factors on the attractiveness of housing stock.

The results of the local inspection of the area show that there has already been done a lot of renovation. Non-renovated estates which have been built before 1980 can hardly be found. Even though there is still a lack of costly energy efficient renovations. Many inhabitants state that they are planning to realise these in the future. Experts state that high density in real estate areas causes marketing problems in contrast to free standing houses. These disadvantages increase particularly if the estate is not located within a short distance of the town centre or is not barrier free because of the topography. Some statements of the interviews with property experts: “Single family houses which are not state of the art or renovated at all show a significant price decline.[…]. Over all, it is feared that the generation change leads to vacancies in single family housing estates“ (Real estate expert statement 2011).

Some findings of the survey among inhabitants

To supplement the extrinsic view on the problems by real estate and municipal experts we conducted a survey among inhabitants in 10 selected dwelling areas. On the whole, we questioned 2,004 inhabitants with our survey, achieving a response rate of 29%. Some of the findings of the survey are illustrated by the following figures: Nearly 90% of the primary owners are 65 years and older, the subsequent owners are mostly people of working age (cf. Fig. 11).

Asked about potential house selling problems, 44% of the respondents see difficulties. Among them, nearly 80% are afraid not to obtain the desired price, more than 40% fear not to find a buyer. Another occurring problem is the lack of age-adapted dwellings as an alternative

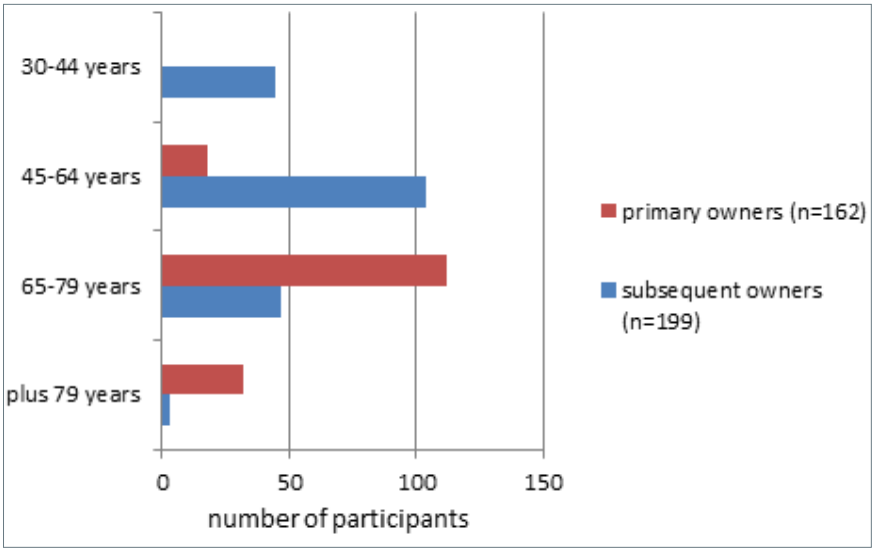

Fig. 11: Age of inhabitants; source: Wüstenrot Stiftung 2012: 216

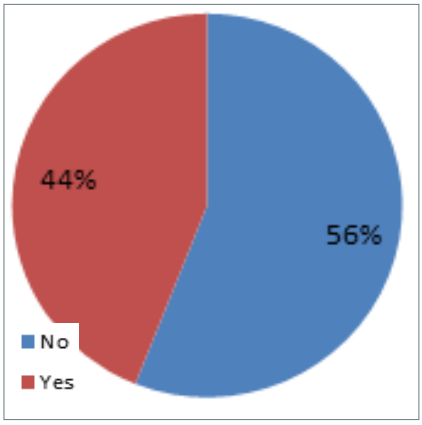

Fig. 12: Do the interviewees fear difficulties to sell the house, N = 204, multiple answers possible; source: Author's own graph?

to the actual housing situation, which is stated by nearly 25% of the interviewees (cf. Fig. 12 and 13).

85% of the first and 99% of the subsequent owners have carried out smaller energetic renovations and further construction work. Until now only few extensive insulation measures have been carried out, but half of the respondents consider more comprehensive energetic measures in the future. This states of high motivation of real estate owners and offers a suitable starting point for corresponding development incentives. Asked about the reasons for the decision on their house purchase the subsequent owners confirmed the statements of the real estate and municipal experts confirming location as the main criterion. 'Residential area' and 'proximity to city centre' are the first and third important factors. 'Garden' and 'size of property' are more important than the ground plan (which can be modified at a later date). Most of the subsequent owners come from the same town (57%), 34% are originally from another town or municipality. Disadvantages which have been accepted when choosing a used house are represented in the figure above. Insulation standard is the most cited disadvantage, followed by sanitary installations which are not appropriate.

The last figure refers to the quality assessment of the housing estates. The assessed factor with

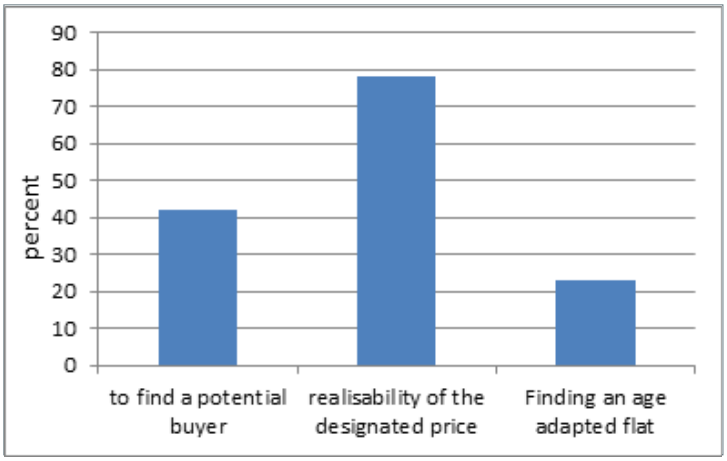

Fig. 13: What kind of difficulties do the respondents fear? Source: Wüstenrot Stiftung 2012: 215

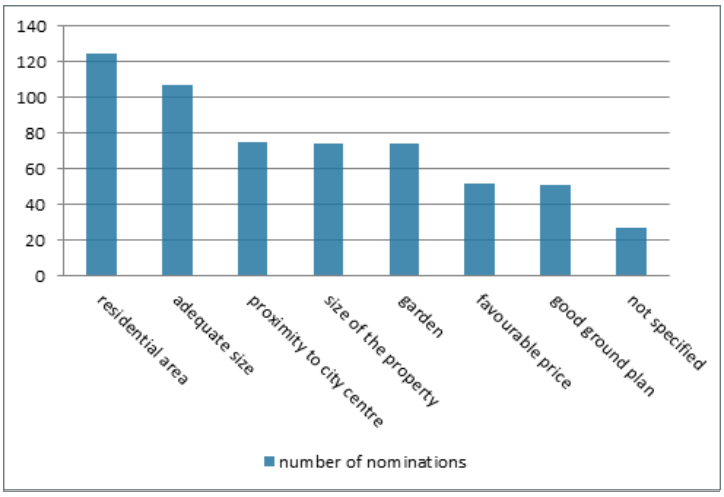

Fig. 14: Subsequent owners: reasons for the decision for house purchase, N = 204, multiple answers possible; source: author's own graph

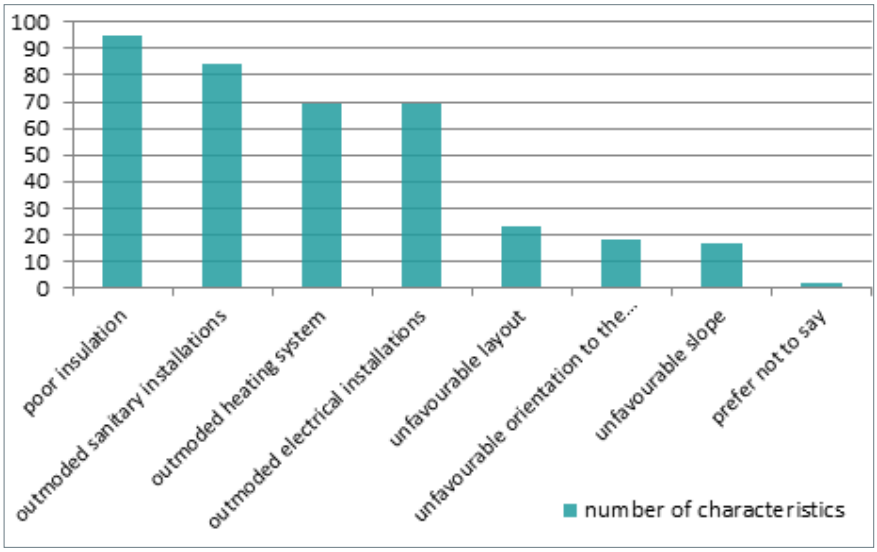

Fig. 15: Subsequent owners: disadvantages which have been accepted when choosing a used house; source: author's own graph

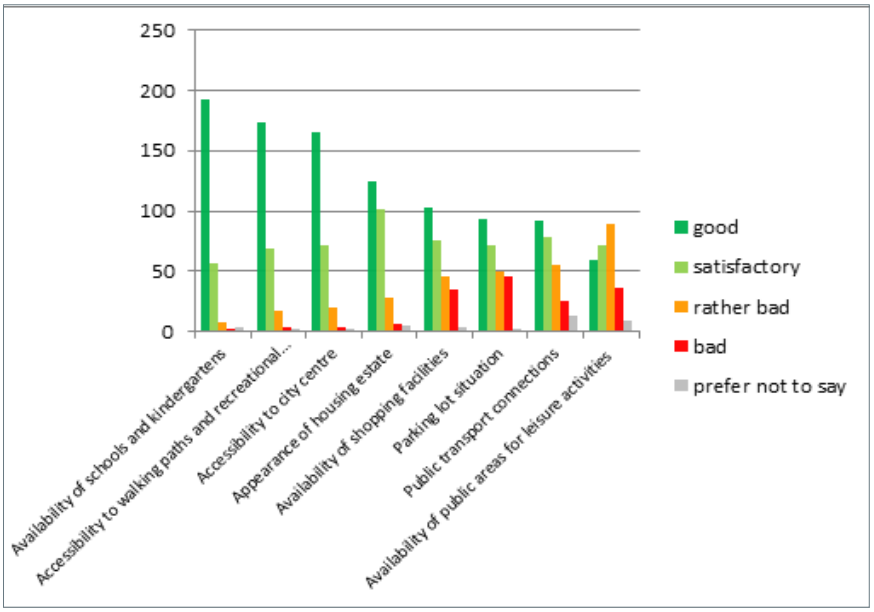

Fig. 16: Quality assessment of the housing estates, responses possible; source: author's own graph

the best result is the availability of social infrastructure like schools and kindergartens, the parking lot situation is rated the worst factor.

Case study example "Beverungen Poelten", North Rhine-Westphalia

In the following, the case study of Beverungen will be presented as an example. Beverungen is a small town situated in the Eastern part of North Rhine-Westphalia bordering Lower Saxony. Beverungen has lost many large companies during the last decades and in consequence one third of its employees. The town registers a population decline since 1998 and a projected decline of 17% between 2010 and 2030. The old-age dependency ratio 65 is 0.37 (2012). In Beverungen, two single family housing areas have been examined. The following map (Fig. 18) shows one of them, the centrally located dwelling area 'Poelten'. The following table enumerates some of the topics which have been explored in our case studies and the results for Beverungen Poelten.

To compare some of the outcomes: in our case studies we have identified an old-age-dependency ratio in a range between 0.30 and 1.28. The percentage share of foreigners is in between 0 and 11.9%. Traditionally, only few foreigners live in post war single family housing estates. The architecture of this neighbourhood is distinctive for single family estates of the 50s to the 60s (cf. Fig. 20). The area which is close to the town centre of Beverungen has been built gradually, predominantly with detached single family houses from the 1950s and 60s. Since the 1990s the number of inhabitants has decreased by 17%. This can be explained by a negative birth rate and emigration due to the regional economic situation.

Conclusions from the case studies

In our case studies there is not yet a serious marketing problem to be observed; vacancies actually appear only few and occasionally. But future problems should be anticipated, since population decline is unpreventable in short-term and might only be stopped by immigration.

The survey reveals that generation change is not yet terminated; since a high average age and a very low dwelling density have been observed. One single inhabitant per house (which is called "inner vacancy") is very common. The former family homes are often not

Fig. 17: A view on Beverungen; source: city of Beverungen

convenient for accommodating elderly people because of stairs and limited freedom of movement. Most of the buildings are to some extent upgraded, but extensive insulation measures have not been carried out yet. One important result consists in there not being problems anticipated for dwelling areas in urban and suburban regions, but a need for action is stated concerning rural-peripheral and economically underdeveloped regions.

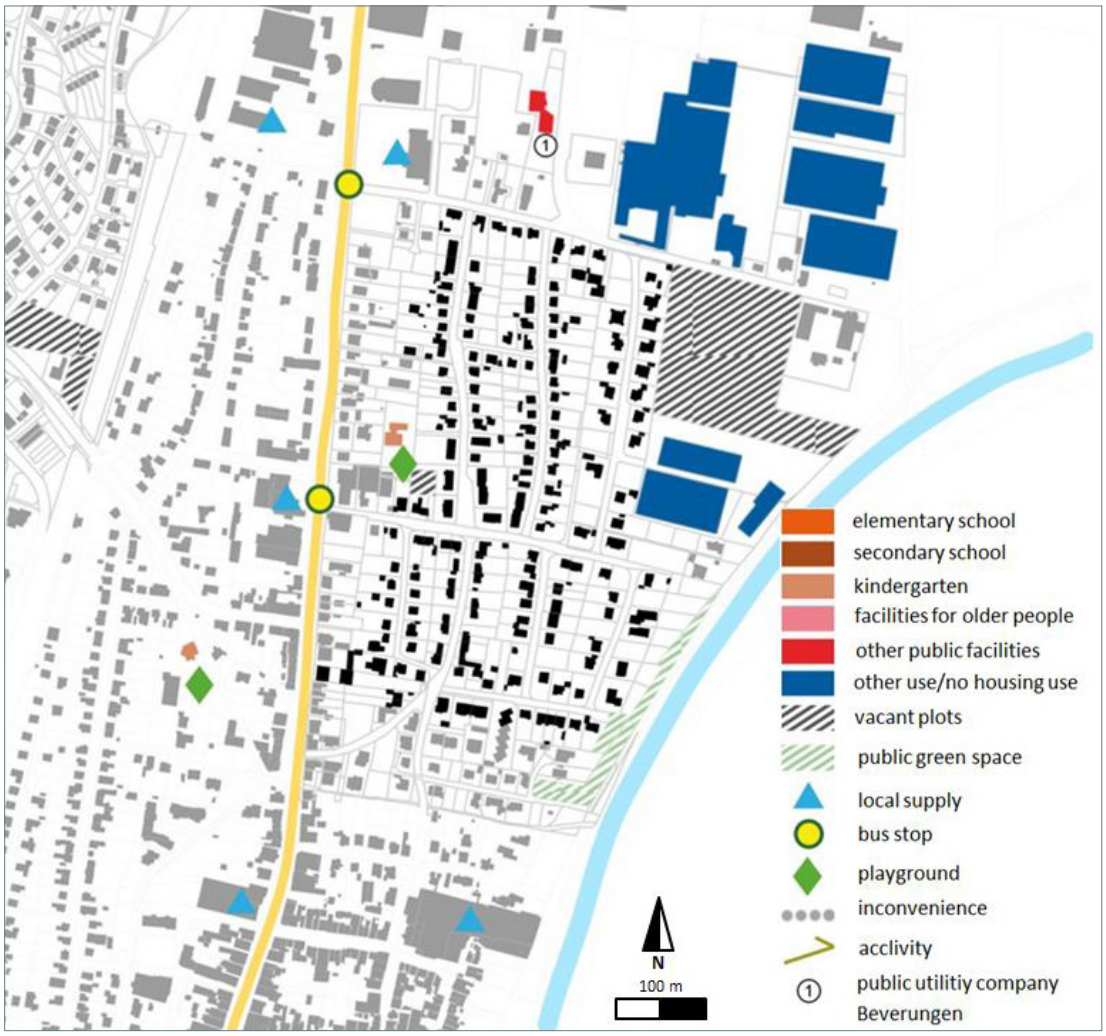

Fig. 18: Facilities in Beverungen-Poelten; source: Wüstenrot Stiftung 2012: 82

Findings of data analysis	
distance to town centre	1.35 km
extent of dwelling area (net)	33 ha
not built-up plots	7.2 ha
number of buildings	293
number of detached houses	71 percent
average parcel extent	605 m²
number of inhabitants	767 EW
old-age dependency ratio 65	0.54
share of foreigners	7.4 percent
settlement density (net)	23 inh./ha

Fig. 19: findings of the data analysis of Poelten area, Beverungen; source: author's own table

function and the utilisation of location potentials is the key task for local communities. This includes an upgrading to the needs of the ageing residents.

Qualification: If problems related to a long-term use are already apparent, an upgrading to improve the utilisation perspective like measures to support generation change and attract new target groups for the dwelling area is required.
Restructuring: In estates where problems of reuse are evident, advanced measures like deconstruction, substitution by new buildings with favoured dwellings and conversions of existing buildings can be a suitable answer.

Fig. 20: A view of Poelten residential area, Source: author's own picture

4 Practical impact and policy options

The following part deals with practical impacts and policy options, based on the study's outcomes. After describing options for municipalities to cope with occurring difficulties (Chapter 4.1), different measures are presented (Chapter 4.2).

Advancement-options for municipal intervention

With regard to the private ownership of single-family houses and the limited governmental, municipal and real-estate influence, we have identified the following advancement-options for municipal intervention.
Stabilisation: In estates which are considered as "fast-selling items", the preservation of the actual structure and

These types of strategies reveal steering measures for the municipalities, but have to be adjusted to the individual situation of different areas.

Toolbox of measures

A wide range of policies and measures to adapt post-war single family housing estates has been pointed out. Municipalities have the main competence to carry out these adjustment measures, additionally, options in responsibility of the state and the federal states have been compiled.

To deal with different conditions in several municipalities and areas we developed a 'toolbox', a flexible range of instruments to be applied in different combinations with

central concepts such as:

- strategic urban development planning and monitoring
- policies focusing on existing estates
- infrastructure and local amenities
- public space and townscape
- transport and mobility
- buildings and houses
- residents and their public involvement
- superordinate topics (on governmental and regional scale)

Two of the tools described above will be presented briefly in the following subchapters.

Strategic urban development planning and monitoring

Municipalities should focus their attention stronger than before on the single family housing stock. The first step consists in monitoring and analysing the state of older single family housing estates and their significance for the local housing market.

Potential problems that could occur in these areas are:

- serious decline of the number of inhabitants and population density
- increasing age average
- significant vacancies
- decrease of principal residences
- disappearance of public services like shops, nurseries…

As an early warning system (cf. Fig. 21), which enables local authorities to anticipate unfavourable developments and to act providently, municipalities could use a traffic light system. The colours indicate different tasks for municipalities.

On an overall basis, monitoring of supply and demand is needed. In order to do so, municipalities should collect available statistics on municipal scale like inhabitants, lots, buildings, use of buildings (vacancies), status of inhabitants (owner or tenant) and domicile (main place of residence or second home). Most often this data exists already, but must be analysed in combination. Further data such as land value and infrastructure should be included. Moreover, municipalities may obtain comprehensive information through interviews with inhabitants and/or estate agents.

Policies focusing on existing estates

An important first step would be a municipal priority setting on stock development in existing neighbourhoods. More actions that could be taken are strategies to

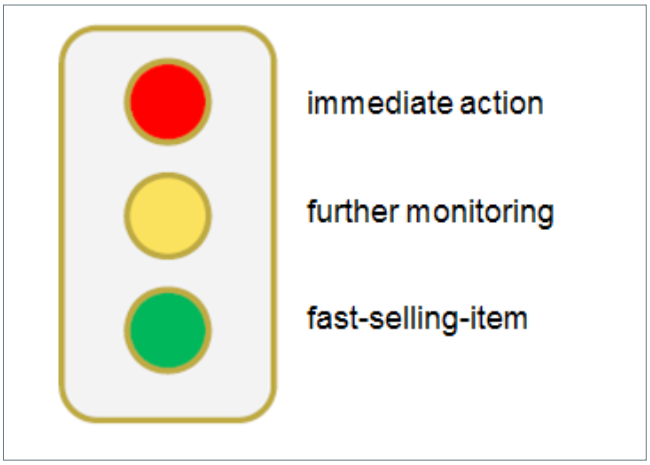

Fig. 21: Traffic light early warning system; source: author's own graph

redevelop vacancies, to close building gaps by building land registries and to start marketing actions for existing neighbourhoods. Moreover, actions which concern the whole municipality like urban development concepts should be taken. Additionally, measures which lead to a balance of interests between neighbouring municipalities concerning decisions on building land are required. The results of inter-municipal agreements may lead to informal political obligations or higher legal contractual obligations. However, preconditions like an open information policy and a trust-building culture of debate are indispensable.

In the following two examples of already implemented measures are described. 'Flächenpool NRW' is a new instrument to direct the existing resources to a reuse of build-up plots and brownfields in a local community in order to promote inner urban development. This instrument serves to develop perspectives, to identify restrictions as well as potentials and to manage the subsequent usage. The assumption is a clear commitment to an infill development.

The campaign "Jung kauft Alt" (young buys old) in the small town of Hiddenhausen supports families who buy a house that is at last 25 years old instead of building a new one (cf. Fig. 22). They can obtain subsidies of up to 9,000 € from a municipal programme. The programme was evaluated as a win-win-situation for both, the demanders and the

local community. After 5 years of funding, vacancies in the existing housing stock have decreased noticeably.

Infrastructure and local amenities

Another field of action for local communities is to provide or to maintain an acceptable level of infrastructure despite the shrinking population. The possible steps of analysis

Fig. 22: Advertisement of the Jung kauft Alt campaign; source: city of Hiddenhausen

and reaction for the local administration are the following:

- analysis and provision of basic information
- adaption of technical infrastructure
- adaption of social infrastructure, ensuring the provision of daily needs (goods and services)
- ensuring and strengthening local amenities
- alternative models for local amenities

A best practice example for analysis and management of infrastructure is the German region of Schwalm-Eder-West (Hesse), where a master plan "infrastructure" has been developed to identify communities with a lack of or a (hidden) potential for development and stabilisation. A classification of municipalities in form of a traffic light system depicts the necessity for municipal intervention.

Regarding social infrastructure the needs of original inhabitants and new residents like young families can be taken into account by multifunctional or interim solutions. Examples are the multiple uses of existing facilities or the bundling of infrastructure in one location.

Concerning local amenities attempts should be made to organise a convenient supply of goods and services for daily use by implementing/developing alternative concepts. In this context local authorities should establish contacts, put forward ideas and provide financial and organisational support. Examples are the "Dorfladen-Netzwerk" (village-shop network) of Lower Saxony or small supermarkets within walking distance like "CAP" and "carekauf".

Transport and mobility

In accordance with the declining number of pupils and the growing number of elders an adaptation of the public transport system is imperative. In this context giving advice to elder people on how to use public transport systems is of great importance. Barrier-free access to buses and bus stops are basic requirements. Alternative systems like hailed shared taxis, citizen buses or call taxis can replace public systems at least partially if there is no sufficient demand.

5 Significance for other European countries

As concluded, the situation of the post war single family homes will be a challenge for many German regions in the next decades.

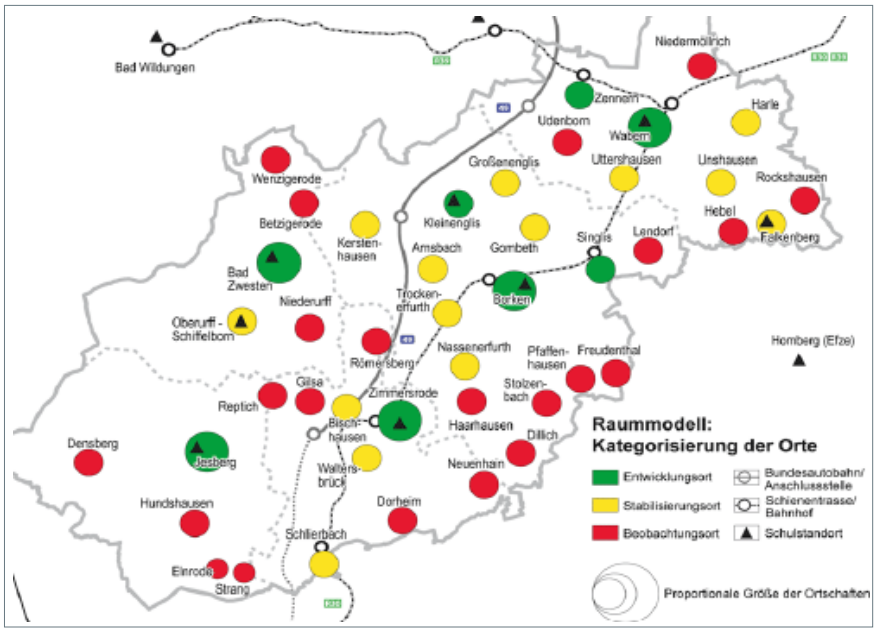

Fig. 23: Masterplan Schwalm-Eder-West (Hesse); source: final report Ex-WoSt Research project Stadtumbau West 2007, 27

Not every European region is confronted with this problem as distinctively as West Germany since there might not have taken place such a pronounced suburbanisation process or other specific developments which led to the actual situation. Nevertheless, with regard to the projected demographic developments, other European regions might be confronted with similar problems concerning their older housing stock.
The following charts show the projected development of the population 65+ and the population in family formation in various European countries. The share of the population 65+, the classical seller or vendor generation, is strongly growing in all considered European countries, during the next decades (cf. Fig. 24). As a consequence, a high supply of used houses may be expected.

At the same time, the share of the population in time of family formation (20 to 34 years), the classical buyer generation for single family homes, is declining on European average. But with regard to specific situations, the developments in different countries seem to be divergent (cf. Fig. 25).

Concerning countries which are faced by a growing share of older people and a growing share of possible buyers in times of family formation (e.g. Belgium, the UK, Sweden and France) the situation might possibly be solved by the market. Whereas in countries with a growing seller generation and a shrinking buyer generation (e.g. Germany, Switzerland and the Netherlands) the divergence of supply and demand for used single family homes may cause an inconvenient oversupply. This is just one factor with an influence on the actual market situation, which can differ with regard to the national and regional level. Further factors must be assessed and taken into account. Nevertheless, demographic projections point out a similar demographic development which underlines the potential significance of the topic for other European countries.

6 Conclusions

Due to Germans' traditionally high affinity to detached housing a negative development in this sector has not been anticipated to date. The demographic change in Germany is however expected to have a long term effect on the post-war single family housing stock market. The population decline and substantial changes in household structures are leading to a falling demand of these houses.

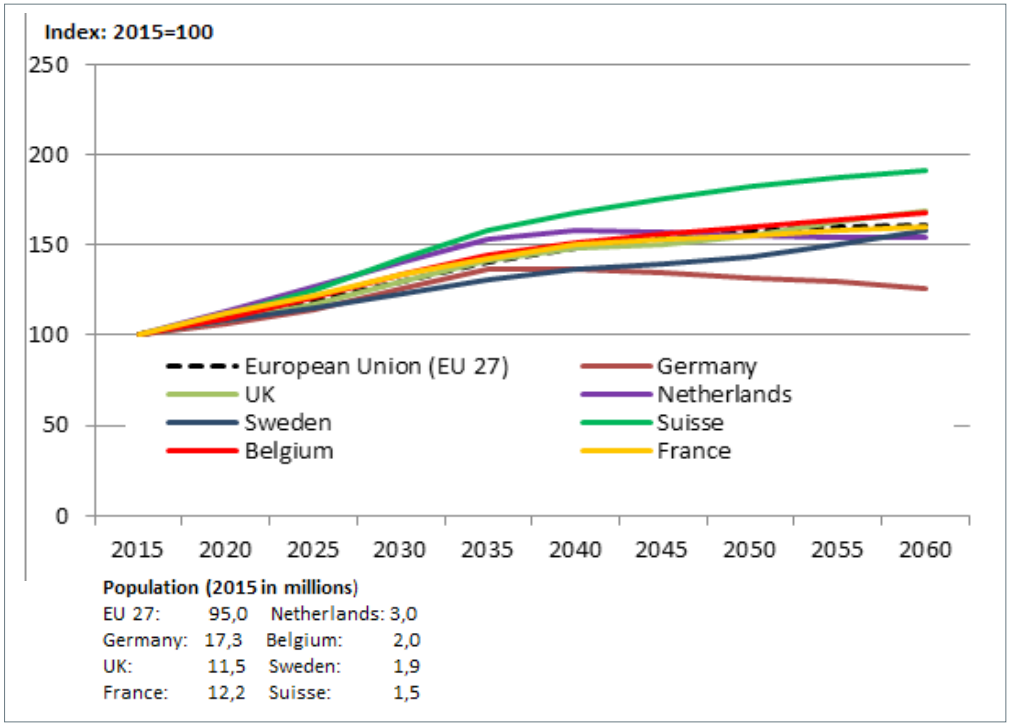

Fig. 24: Projection of the dependent population (age 65 and above); source: authors' own graph, based on Eurostat 2012

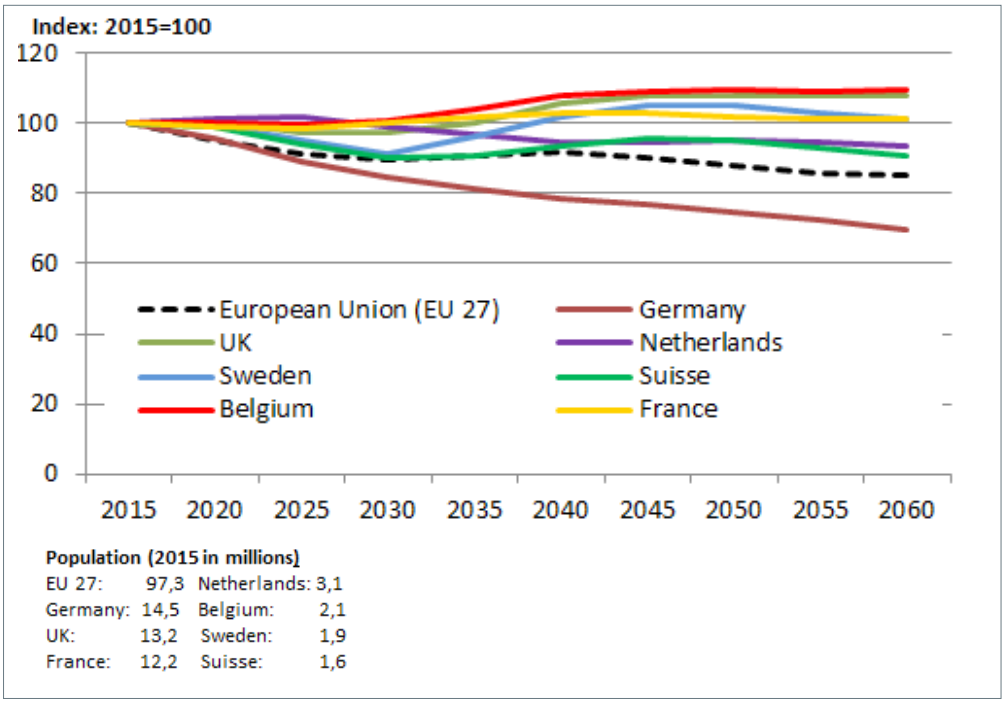

Fig. 25: Projection of the population in family formation (age 20-34); source: authors' own graph, based on Eurostat 2012

On top of these general changes a regional divide is appearing. Regions suffering from structural economical weakness and ongoing migration losses are heading towards a decline in demand of single-family houses. In contrast, prospering metropolitan regions equipped with positive population developments together with a lack of developable land, are boosting the demand for older houses in such areas.

When emerging problems are recognised at an early stage, which may provide enough time to counteract them, single family estates can be preserved as liveable habitats, even with less population. However, this requires stabilisation and qualification measures, whereas local authorities may have no systematic experience in managing this older housing stock. Against this background the research team could show variable municipal opportunities for action and developed a set of strategies and measures for pro-active local government intervention.

It is crucial that local communities start dealing with their older single family housing stock. As a first step monitoring and analysing the state of these estates and their significance for the local housing market is needed. A precondition is a clear municipal priority setting on stock development in existing neighbourhoods.

To extend the perspective, looking at the situation of post-war detached housing estates throughout different countries in Europe, a European working team was established with current attending members from various research institutions in Belgium, France, Germany, the Netherlands and the UK.

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V. Family Houses in Transition: Fieldwork Notes and Planning Explorations from Central-Northern Italy

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The 'family house' has been a key element within the processes of widespread urbanization – the so-called 'città diffusa' – that shaped Italian urban asset during the 2nd half of the 20th century. Beyond the local variations occurring throughout the peninsula, this building type shows two main features.

First, the family house is tightly connected with the process of 'individual mobilization' put in practice by the Italian families to answer their housing needs through self-promoted building initiatives, in the lack of more comprehensive national housing policies. In this sense, the family house features extended families, where different generations share the same space, where grown-up children continue to live close to elderly parents; the house then undergoes a process of continuous metamorphosis and molecular adaptation, reflecting the processes of change and growth within the family and its activities.

Second, the same house makes a variety of economies possible: hosting more than one family, creating space in which the work can be carried out, creating space for commerce, creating a small office or studio, extending a 'garage', turning the garden into a vegetable plot.

Fig. 26: Family house and working shed, Valle del Tronto, Marche region, late 1990s; photographer: Chiara Merlini

Today, the housing solutions related to the family house type host a considerable amount of Italian population: 24.5% and 19.3% of Italians respectively live in detached or in semi-detached houses. Within this stock, since the 2nd half of the 1990s, it's possible to detect two emerging processes at place, with two opposite directions, whose interweaving is producing a critical situation.

The first one is a process of widespread molecular underuse of the older family houses, whose underlying causes are multi-factorial: the aging and the reduction in number of the family members; the shift in preferences of the original promoters of such projects, due to issues like insecurity, or the burden associated to the maintenance of the garden and the large spaces of the house; the desire to be close to amenities and shops.

These factors explain why many of the old family houses, located in small municipalities or rural areas, are today on the real-estate market. In some cases they are overpriced, since their owners have invested heavily in them – albeit symbolically – and it is a buyer's market. They are too expensive to be sold, too expensive to be maintained. The result is that many of them are inhabited by the original elderly owners, but only partially, in order to reduce energy and maintenance costs.

The second process deals with the fact that – in spite of these difficulties affecting the aged and underused stock of family houses – the level of urbanization in the same territories and in the same time period has continued to grow. Since the 1990s, the response to the evolving demands for living solutions expressed by the populace is in the hands of a supply sector that continues to urbanize

Fig. 27: Underused family house in Spinea, Veneto region, 2010; photographer: Stefano Graziani

farmland, offering new forms of housing.

No longer is the landscape peppered by single self-promoted initiatives that rely on a pre-existing infrastructure network, as it was in the first development waves of the 'città diffusa'. On the contrary, we witness medium-to-large-size unitary projects, carried out by promoters who comply with the rationale of the real-estate sector, which usually offer better energy performances, greater security and sometimes gated collective spaces for leisure, sport and the children.

It should be however observed that the factors behind these trends do not derive exclusively from an evolution in housing demands. These processes, as known, are also fostered by most municipal authorities, seeking revenues from new urbanization projects – albeit in the absence of any real housing demand – so as to tackle urgent budgetary requirements in a critical moment for local government finance.

The emerging conditions marked by the widespread under-use of older family houses on the one side, along with the overproduction of the building industry on the other, appear to be critical above all because these processes are happening in territories which are already extensively urbanized – as in certain areas of Lombardy or Veneto region – and are eroding the residual open spaces, creating serious consequences at hydro-geological level.

Within this framework a series of questions arise. Which opportunities are offered by Italy's family-house heritage in this process? It is possible to intervene on existing buildings and materials in the perspective of adapting them to the new living demands? To what extent and in what conditions could this heritage still be a desirable settlement model for the contemporary Italian society?

The following strategies attempt to answer these questions by considering the potential and the limits of concrete situations on the ground. They try to stimulate the spontaneous transformations already underway within each of these patterns directing them towards social, environmental and economic sustainability.

1 The family house is disappearing: rarefaction and selective consolidation of the 'città diffusa'

A preliminary strategy targets those parts of the 'città diffusa' where areas have emerged with marked

Fig. 28: Promotional for a new residential compound, province of Cremona, Lombardy region, 2010

variations in dynamism and real-estate values. In those areas better served by the main infrastructure networks or close to towns, the desirability and market values of plots occupied by family houses have usually gone up. We are already witnessing a spontaneous attempt to replace older existing buildings with new ones, increasing the density of plots formerly occupied by two-storey houses, even if an overall policy is often absent. By contrast, a fall in property values is underway in those zones where development is patchier, and where buildings are more

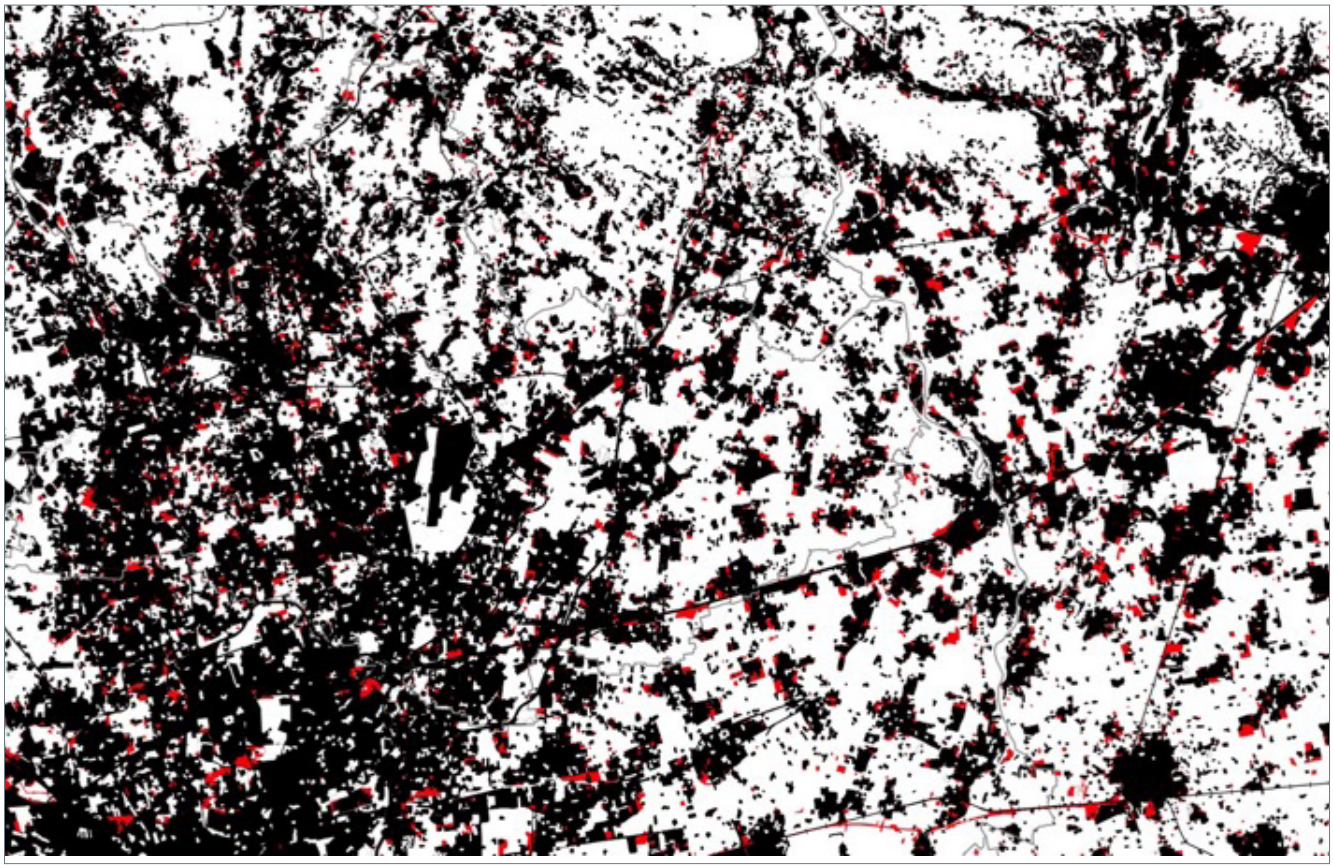


Fig. 29: Recent building growth in Central Brianza and Vimercatese, Lombardy region. Urbanized areas existing at 1999 – in black – and the new buildings up to 2007 – in red; source: Data: Dusaf 1.1 and 2.1; Map by Anna Moro at Department of Architecture and Urban Studies, PoliMi

isolated, less served by main roads, and remote from amenities and town centres. It is here that under-use and decay processes chiefly occur.

In our submission, these two contrasting situations could create the preconditions for a transferring of development rights – by means of streamlined procedures and incentives – aimed at selective thinning and consolidation of the built fabrics. And we argue that in this process the existing volumes of family houses can perform a key role.

On the one side we have zones that are already well served by amenities and adequate public transport systems, that can be rationally consolidated and densified. On the other side, we have less densely built-up areas, those more remote from the infrastructure networks and amenities, where family houses are in decline or decay, and where we can reasonably envisage their removal. In the medium-to-long term, this process envisages the construction of two new landscapes, both quite different from the usual landscape offered by the 'città diffusa' today, which respond to the requirements of the market on the one side (a more compact urban landscape is achieved, offering a wider choice of residential options) and to the need of a more rational management of the infrastructure networks on the other (concentrating investments in strategic infrastructure-innovation projects and upgrading public spaces in those urban sectors where building and population density will be increased).

2 The family house regroups: a 'coarse grain' for the 'città diffusa'

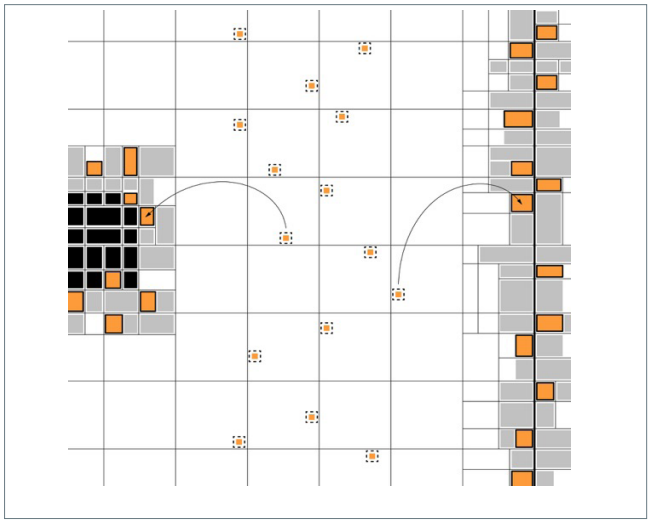
A second strategy might target contexts where we find clusters of family houses grouped and isolated from the surrounding fabrics. In such settlements, a series of structural elements are usually recognizable: a country road along which buildings and gardens are located; a fulcrum, such as an historical building which stands out from the others, around which the cluster grew. These are places in which a rooted sense of local identity survives, where place names still resonate on the mental maps and in the customs of local people, and where such features –

Fig. 30a (above): Conurbated settlements of family houses and amenities along a Provincial road between Seveso and 30b (right): Seregno, Lombardy region; source: Google Earth, 2014

both morphological and sociological – can be taken as the starting points for a reform of the 'città diffusa' which is achieved by strengthening the autonomy of these devolved epicentres. On the conceptual level it means a transition from the current situation, where each family house is served by a branch of the public infrastructure network, towards a consortium-based model. Under this model, adjacent family houses are aggregated into an 'island' which achieves progressive self-sufficiency in terms of public space, infrastructure and energy.

This strategy can be implemented by acting mainly through incentives: moderate volume-based grants, streamlined procedures, reduction in municipal taxes related to the maintenance of public infrastructures and refuse collection. In the medium term, these incentives would make it financially worthwhile for owners of family houses that might potentially qualify for 'island' status to

Fig. 31a (below) and 31b (right): Isolated family houses along a Provincial road in Bovisio Masciago, Lombardy region; source: Google Earth, 2014



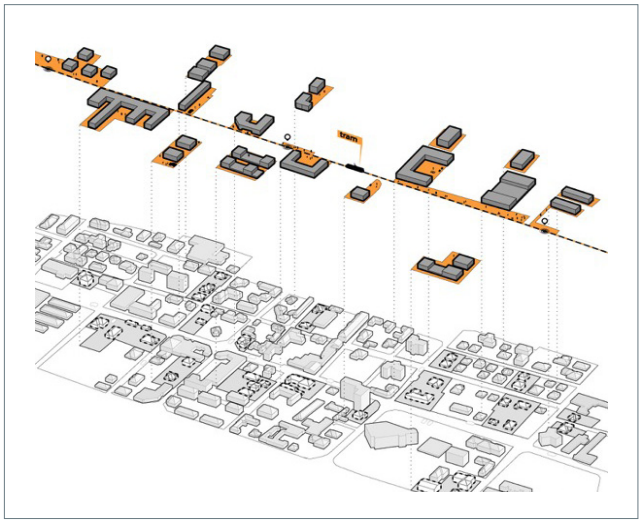
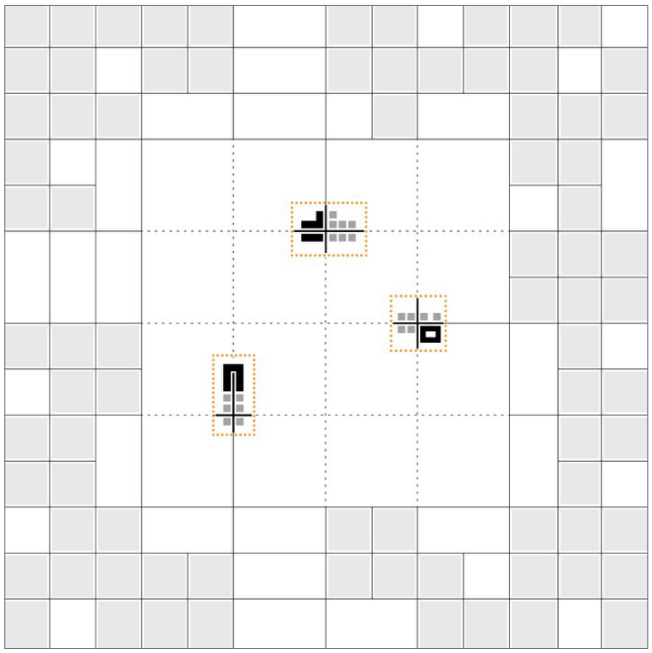


Fig. 32 (left): Diagram of the transfer of development rights from an area of rarefaction to sectors for consolidation;
Fig. 33 (right): Detail of a consolidation sector along a new tram line in Desio, Lombardy region;
source: drawing by the author and Marco Zanini

undertake innovation and infrastructure sharing under the aegis of a consortium scheme.

This project is implemented almost exclusively in the public space which falls within the perimeter fences of family houses, and regards road surfaces and the technology networks that lie beneath it. However, to implement such a scheme requires the commitment of residents, who might improve their living spaces and obtain benefits by setting up community associations and forms of sharing. A wide range of outputs can be achieved, moving from softer options – where road cleaning and maintenance are in charge to local residents in exchange for a reduction in community taxes – to an intermediate-level scenario – where the cluster of family houses is organized with consortium-controlled water and energy infrastructures – up to more radical scenario – where the 'cul de sac' between family houses might be privatized, management passing entirely into the hands of a residents' consortium and being transformed into a collective courtyard (a pergola equipped with solar panels for condominium parking, resurfacing, an equipped play area etc.).

Fig. 34a, 34b: Family houses built around an old rural cascina near Sovico, Lombardy region;
source: pictures from Google Earth, 2014



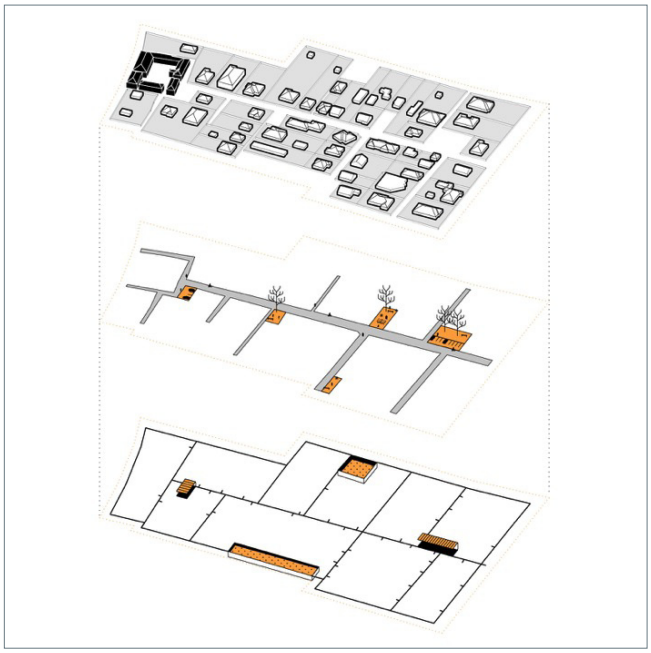


Fig. 35 (left): Diagram of family-house grouping process: strengthening the autonomy of the isolated clusters;
Fig. 36 (right): Layering of an 'island' of family-houses: existing buildings, open spaces, underground infrastructures;
source: drawing by the author and Marco Zanini

The principle would always be to achieve economies of scale, better spaces and higher supply efficiency than before (on the inhabitants' point of view), and lighten the burden on the public infrastructural network through decentralization and cutting management costs (on the local authority's point of view).

3 The family house subdivides: the città diffusa redefines itself from the inside

A third strategy might be proposed for those portions of the 'città diffusa' which are today in an intermediate position: where the housing fabric is not radically impoverished, as happens in some of the more rarefied areas, but neither does spatial aggregations emerge such as to suggest new systems for management and sharing. In such situations,

Fig. 37a (above): 'Carpet' of family-houses in Spinea, Veneto region;
Fig. 37b (right): Renovated and extended family-house in Seveso, Lombardy region;
source: pictures from Google Earth, 2014

the project might still take advantage of the malleability of the single 'molecule', working on the ambivalence which attaches to the idea of the family house in Italy today: if on the one hand it can become a burden in terms of maintenance, or a source of conflict between different generations, at the same time – and very pragmatically – it can also be regarded as the only available resource, and the one which it is better to go on using.

Within this picture, two major lines of work can be promoted through the homeowners' direct initiatives – in other words, trying to re-activate and channel a second wave of 'individual mobilization' and molecular modifications.

practice, a studio, a handcraft workshop and so on. Here, the point is to implement conversions in such a way as to safeguard the coexistence of available spaces and the new varieties of uses. Both cases outlined here concern the main building in the cluster, but the project could also extend to the outhouses that often crowd the plot, or in a more radical scenario adjacent plots could be subdivided and recomposed to build new units.

4 Concluding remarks and perspectives

The extensive body of research produced since the 1990s on the 'città diffusa' in Italy has often highlighted key problems related to its lack of environmental sustainability, to the high individual and social costs, and to the scant regard it pays to public space.

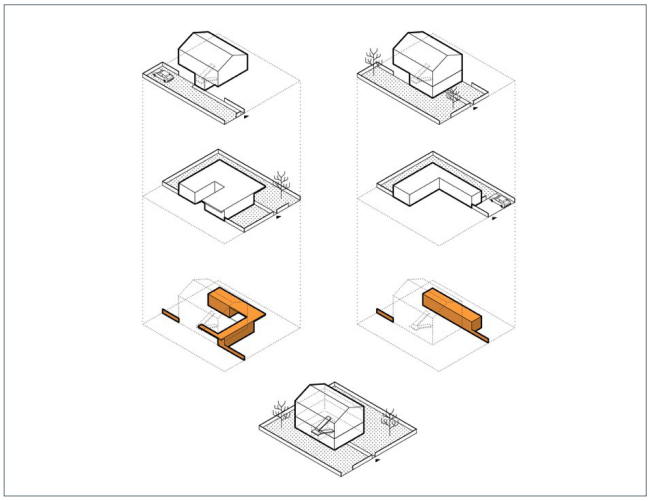


Fig. 38 (left): Diagram of a molecular modification process in a sector of family houses: subdivision of existing units and new functional elements and Fig. 39 (right) : Modifications of a family-house by subdividing the original building and adding small functional volumes; Fig. 39 (right): Modifications of a family-house by subdividing the original building and adding small functional volumes, Source: drawing by the author and Marco Zanini

A first step might be to segment the space, increasing the number of dwellings by reducing the surface area occupied by the lodgings. Once again it is the house that changes shape, but rather than getting bigger, it divides into smaller units: for grandparents and for the new family of the child who remains; for an elderly parent living alone and for the person who takes care of him or her; for a child or a new resident, either renting or owning, who takes a converted flat, and so on.

A second type of transformation could be the introduction of a new functional element, in order to transform what was once 'family' space into an office or a professional

All these criticisms contain aspects of truth, but a response to these diseconomies cannot realistically come from simply abandoning this urban model in favour of more sustainable forms.

It is more reasonable to pose questions about the type of city that might emerge exploiting the already available resources and following trends that are already underway. In this perspective, the family house seems to offer the more operable solution, also because – as we have seen – family houses still freeze the main part of Italy's savings, and working on this stock would mean to mobilize this multitude of fixed assets.

Fig. 40: P. and M. in the living room of their family house in Oderzo, Veneto region, 2010; source: photograph by Stefano Graziani

In this perspective, the first step for architects and planners would be to carefully portrait the solid heritage of family-houses we have received from the 20th century: not only in terms of typologies and conservation degree, but also in terms of incorporated value, ways of use and tenure conditions. And in this perspective there's a lot of work to do, to refresh lots of well rooted stereotypes.

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VI. Shrinkage in Suburbia – The American Perspective

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Abstract

Current debates in urban development display a rising awareness that several cities in Europe and the US have to deal with challenges of long-term demographic and economic changes leading to urban shrinkage associated with housing vacancies, underused infrastructure and other negative impacts. In recent planning debates the term 'shrinking city' usually describes a densely populated urban area that has on the one hand faced a considerable population loss, and is, on the other hand, currently undergoing profound economic transformations, with some symptoms of a structural crisis. In a US planning realm, suburbs have for a long time been typical places of urban growth, whereas shrinkage used to be attributed to the urban core - yet shrinkage turns out to be more complex than perceived so far, affecting the suburban realm as well.

This paper displays in a first part considerations regarding sprawling development and shrinking cities in the USA. The main part of the paper focuses on two cases of suburban shrinkage in the USA, one located in a shrinking region and one located in a growing region. Flint/Michigan and the San Francisco Bay Area/California showcase different paths of suburban shrinkage, and the question is how US planning is dealing with these challenges.

1 Introduction: land use and sprawl in the USA

Land use and sprawl in the USA are best understood in the context of socio-economic development. The complexity of this connection has undergone great shifts, since it is determined by local, regional, state, nationwide, and even global issues. Urban sprawl and suburban growth are mostly determined by a growing population.

Traditionally, the US is a country with high immigration. Nevertheless, population growth is not evenly distributed throughout the country, but it follows economic development. Western and and Southern States such as California, Texas and Florida, have been the preferred locations (Porter 1997). However, in recent years other regions such as Boise, Idaho, or Las Vegas, Nevada, are applying marketing strategies to attract more people.

Developing settlements is part of the American culture and implies that developable land is limitlessly available. In general, urbanization is covering about 1 million acres of agricultural land per year (Daniels 2001b). One might assume that this rapid urban growth caused problems only in the 1950s or 1960s, when urban growth was considered economic progress. Still the problem continues: From 1982 to 1997, urbanized land expanded from around 51 million acres to almost 76 million acres, a 47 per cent increase (Fulton et al 2001). Not only is the extent of urban growth important, but also the mode of development. Sprawl, the auto-oriented suburban development characterized by low density subdivisions on the metropolitan fringe[1], is the prevailing pattern. While sprawling development can also take the shape of strip malls along major streets, sprawl is in general explained as residential development in expanding suburban areas with more than 1500 people per square mile (Daniels 2001a).

Since the 1950s, suburbs consisting of single family homes have been the desired locations for US American households. Following this trend, the net in-migration to suburbs between 1985 and 1990 came to 8.3 million people (Stegman 1995). Suburbs have been associated with low crime rates, better schools, and fewer ethnic minorities, in contrast to the inner cities. Hayden, however, calls suburban development illogical, as a rural lifestyle is romanticized, while more and more land is is converted to urban space (Hayden 2002). The land use pattern that has been created by sprawling development is well-known, and it is characterized as follows (Daniels 2001a):

1. Single family homes on large lots between 1/4 acre to 10 acres.
2. A division of living and working spaces.
3. Extensive networks of sreets.
4. Shopping malls, business parks, commercial strips, and residential developments.

Suburban settlement pattern has represented the lifestyle preferred by most US families in the past few decades, and as a result, US suburbs have become the places where most people live and work (Marshall 2000).

[1] This is an abbreviated version of one of Fulton et al.'s definitions (Fulton et al. 2001: 3).

Suburban growth has been going on for decades – therefore not every suburb is alike, and some are more attractive than others. From the 1960s on, economic development followed residential sprawl so that additional building types, such as 'big box' retailers, were added to the building stock of single family homes (Hayden 2002). Today, suburbs are the locations of jobs and housing, and their population is steadily becoming more racially and ethnically diverse (Szold 2002). This does not mean, however, that suburbs are vital neighborhoods. Sprawling development is accompanied by the decline of older urban areas such as inner cities, and suburbs near the inner cities, or "suburbs of the second and third ring". Daniels observes that "many people perceive the countryside as a safer, cleaner, cheaper and more rewarding place to live, compared to the congestion, crime and high property taxes of cities and the monotony and rising taxes of the suburbs" (Daniels 2001). These areas deteriorate as growth bypasses them, leaving the older urban areas in a stage of 'hopelessness' (Porter 1997). Older suburbs are often estranging places to live, and yet they scarcely sustain affordable housing prices. Suburban living is spread out between different locations for living, working, shopping and recreation. This lack of geographical focus reduces the need for a sense of place in the areas where people actually live (Funders' Network for Smart Growth and Livable Communities 2000).

Several policies and trends have shaped today's sprawling land use pattern in the US. Supportive factors of growth have been – among others – the market orientation of the population, the institutional and legal framework in the US, and the mode of implementing planning activities. Some of these factors will be described in the following paragraphs. They paint a picture of sprawl promoting planning traditions and planning decisions in the US.

Market orientation of the population

While making their lifestyle decisions, Americans are typically focused on building wealth. Real estate and property values are intrinsically connected to this process (Hayden 2002). As land is getting more expensive, real estate is becoming more valuable as well. Real estate and land property are assets which have to be protected and secured (Silberstein and Maser 2000). In this respect, individual decisions are driven by market forces, and embedded in economic competitiveness –for those who are able to participate in this competition. Property rights obtain an outstanding position in this interplay. Privately owned property is considered to belong in the sphere of personal freedom. This leads to the fact that property rights and land use regulations, the latter being provided by planning, are perceived as contradictory.

Figures regarding homeownership also correspond to the market orientation of the US population. The rate of homeownership increased between 1950 and 1980 from 50 per cent up to 65.6 per cent, and 86 per cent of US adults think homeownership is a worthy personal goal (Stegman 1995). Moreover, the market value of a property is related to its size and location. Homes in the countryside – the suburbs – are considered to have high 'appreciation potential' (Daniels 2001a). Among these, in particular single family homes represent an investment which can be increased by selling the old home and buying a newer and bigger one[2]. For this reason, real estate is deemed a predictable investment by many Americans (Silberstein and Maser 2000). This 'consuming' of buildings and lots creates a demand which spurs the creation of new settlement areas by developers. Their standard model homes, based on the appraisal regulations by the Federal Housing Authority, are easier to build at the urban fringe than in the inner cities (Ben-Joseph 2002).

Moreover, suburban communities are favored by the American tax system: "Separate jurisdictions eliminate the need to subsidize low-income households, so that taxes can be lowered at the same time that public good provision is increased" (Brueckner 2000). In terms of growth, all of these aspects work hand in hand, and thus a powerful circle of interests, which are all promoting growth, is created. However, the development is not as smooth as it might appear. One of the flaws of market based decisions is the fact that they are based on the individual decision-maker. While market forces may be efficient, they support inequality in areas with high housing prices, as they "simply reflect how much wealth people have" (Metcalf 2003: 2). These 'consumer choices' are not coordinated with each other, and the single decision-maker is not required to take the impacts on the community as a whole into account (Metcalf 2003).

[2] Usually the average American household buys and sells 4-5 homes in a lifetime.

Institutional and legal framework

The institutional and legal framework in the US in terms of land use is highly complex. It comprises a conglomerate of sprawl supporting policies. These rely on the belief that urban growth diminishes poverty, lowers unemployment rates, and decreases inequality between the city and its suburb (Rothenberg Pack 2002). US policies in multiple levels of government that are directly or indirectly related to land use development are also decisive factors in the American growth spiral. First, there is no national planning law in the US. Even so, federal policies in terms of spending and regulation are of strong influence on the territorial allocation of population growth and economic development (Stein 1993).

The development of the interstate highway system and large water projects, which were driven by federal regulations, has been a great influence on growth (Rothenberg Pack 2002). Government support of highways based on the Federal Road Act of the 1920s and the Interstate Highway Act of the 1950s paved the way for suburban sprawl, as they enabled far-flung suburban residents to commute to downtown jobs (Lewyn 2000). Following residential development, retail and businesses spread from the city center, sometimes creating new cities[3]. 75 per cent of employed residents drive alone to work, while most Californians are satisfied with their commute (Public Policy Institute of California in collaboration with the William and Flora Hewlett Foundation, the James Irvine Foundation, the David and Lucile Packard Foundation 2002).

Moreover, US policies have acted in favor of homeownership. This is supported by the Federal Housing Administration (FHA) mortgage insurance program. This program funded new construction projects only in so-called 'low-risk areas' from the 1930s on. These 'low risk' areas were typified by low density, white population and new homes, all the ostensible features of a suburban community (Dougherty 2000). Since subdivisions were funded by programs provided only for housing, housing development was greatly separated from development of retail and office facilities (Duany et al. 2000).

Planning as zoning

The traditional methods of land use planning in the US are zoning[4] and subdivision. The main purpose of zoning is to protect neighborhoods from nuisances by setting up separated districts for land uses (housing, retail, industry, recreation, etc.). Zoning arose in the US at the beginning of the 20th century to prevent health threats, as huge parts of the population were living in overcrowded cities with poor sanitary standards (Silberstein & Maser 2000). Today, zoning aims at preventing any negative influence on property values in a neighborhood (Nelson 1977). Subdivision is a simplified zoning method to divide suburban land into parcels with the purpose of future residential development. The motives for applying this rather simple type of land use control lie in health, safety, and welfare issues, as well as the wish for a homogenous community (Smith 1993). Zoning and subdivision offer the potential to protect the character of new suburban neighborhoods by keeping out development of higher density, such as apartment buildings. These have even been deemed 'parasitic', since they would not contribute to neighborhood quality and wealth (Nelson, R.H. 1977, 14). This points clearly at another motive, which has been historically promoted by planning instruments: racial segregation. Hoch notes: "Few members of the planning profession would deny that local public officials have used government zoning and permit approvals to enforce racial segregation" (Hoch 1994, 240).

Moreover, allocating profitable types of land uses is a tool of supporting a community's fiscal strategy. This involves accomodating development that generates high amounts of taxes. In particular, upscale single family homes and non-residential land uses are a valuable source for profits based on taxes (Razin 1998). Nelson observes for Palo Alto, a community located in the San Francisco Bay Area, that "virtually all development, except perhaps a scietific research park, is likely considered undesirable" (Nelson, R.H. 1977).

More flexible zoning tools were introduced in the 1970s for example with the so called Planned Unit Development (Silberstein & Maser 2000). Mixed use as a specific zoning category, however, did not exist up to the 1990s and it is still rejected by a large part of the public, since mixed use is considered to negatively influence property values. Due to market orientation, the institutional and legal framework,

[3] On the edge city phenomenon compare Garreau (1991).

[4] The concept of zoning was imported to the US from Germany at the beginning of the 20th century (Nelson, R.H. 1977).

and zoning – and surely there are many more sprawl supporting aspects than mentioned here – the well known sprawling pattern of cities and land use planning in the US was shaped. This complex conglomerate of regulations and interests promotes the transformation of open space into urban space. In this regard, planners from all over the world often use the term 'Americanization' as a substitute for suburban sprawling cities.

2 Shrinkage in the USA

This paper deals with cities that are affected by economic decline and population loss. The investigation focuses on shrinkage in the US context, where – as demonstrated in the previous part – planning has traditionally concentrated on urban growth and employed planning strategies tailored for growth.

In the US, shrinkage can either be part of post-industrial transformations related to a long-term decline in manufacturing industries, or it can be triggered by economic changes in the so-called "second generation post-industrial transformations", those of the high-tech industry with its boom and bust (Pallagst 2007a). The main hypotheses of this paper are:

- The phenomenon of shrinking cities is not restricted to urban cores; suburban areas are affected as well.
- Shrinking and growing are processes that can be observed in parallel. Due to the overall population growth triggered by immigration, many cities in the US have to plan for both redevelopment in shrinking areas and growth-related development at the same time.

To investigate these hypotheses the paper will look at cases studies of cities which share the following characteristics:

- They are affected by changes or decline in one specific economic sector.
- They have lost a significant amount of population following economic changes.
- Economic and population changes have triggered or will most likely lead to changes in planning strategies.

The shrinking cities debate is a relatively new research sphere in the US planning realm, unlike in Europe, where it's a prominent planning topic due to demographic change in countries like Germany or Italy. In the US, urban planning often concentrates on either managing urban growth or tackling redevelopment in a fragmented way. Nevertheless, in the wake of the current economic crisis[5], a discussion of shrinking cities is beginning to take place, demonstrated by the media's interest in the topic.[6] Moreover, academic discourse is unfolding, with special sessions organized at major conferences, and with shrinking cities being labeled an "emerging topic in planning."[7] All indicators point out that a discourse is on the rise in the US and "shrinkage is moving from an idea to a fact" (Pallagst cited in Streitfeld 2009).

This paper discusses urban development approaches in shrinking cities, using the examples of Flint/Michigan, and the San Francisco Bay Area/California, as examples. Each of these areas represents a different path taken by shrinkage and a different set of related planning strategies. The conclusion calls for an interdependent view of planning for both growth and shrinkage, offering political and planning perspectives for shrinking cities that fit growth-related planning traditions in the US. Just as in other parts of the world, in the US urban shrinkage is a multidimensional phenomenon encompassing regions, cities, and parts of cities or metropolitan areas. Despite the fact that changes in demography and urban density of cities occur quite regularly, in general (not only in the US) the acceptance of shrinkage and the willingness to deal with its problems has been low (Benke 2005): for many years it has even been a taboo topic.

In addition to that, there are the effects of sprawl: Unlike in old industrial regions of Europe, where shrinkage can take place in many parts of the city, sometimes like a perforation, shrinkage in the US usually takes place in the urban core, while the suburban region continues to grow. In fact, early signs of shrinkage in the 1950s and 1960s were triggered by suburbanization. Sprawl led to dramatic losses of population in city centers. The problems of derelict sites, vacancies, and abandoned urban quarters

[5] According to data of the Bureau of Labor Statistics (2009), the US unemployment rate has risen from 4.6 per cent in 2007 to 8.1 per cent in February 2009, which was the highest unemployment rate since the year 1983. Unemployment has since then decreased to a rate of 5.6% in 2014.

[6] Recent magazine or newspaper articles on the topic shrinking cities include: Governing Magazine, The New York Times, Forbes Magazine, San Francisco Chronicle, USA Today, Shelterforce Online, The Times Picayune.

[7] See for example the contribution by Hollander, Pallagst Popper, and Schwartz (2009) on shrinking cities to a special issue of the journal Progress in Planning on Emerging Topics in Planning.

are well known. Social consequences include poverty, segregation, and homelessness, which are much more dramatic in the United States than in European cities. Nevertheless, suburbanization alone does not account for shrinking in the United States. Economic forces have led to out-migration of the work force on a regional scale ever since the manufacturing industry has been in a downward spiral.

The academic discussion in the US has for many years concentrated on urban decline. This does not necessarily take into consideration population losses of the entire city (urban and suburban areas) or regions, but it does address the consequences of urban sprawl. Planners have also focused on revitalizing distressed city centers, as these are the places with the largest problems (Pallagst 2007a). The pattern of inner-city decline, called "hollowing out" or the "doughnut effect," can be found all over the United States. Between the years 2000 and 2004 two significant clusters of shrinking cities could be found in the US, one in the Northeast and one in the Southeast (Pallagst 2013). Interestingly, another cluster of shrinking cities is represented by the San Francisco Bay Area, with Silicon Valley as a shrinking region. This example will be highlighted later in this paper. An active discussion of urban, regional, or metropolitan shrinkage, as provided recently by European planners, has been absent in the US for a long time. However, the recent economic downturn in the aftermath of the banking crash at the end of the year 2008 brought about a new wave of shrinkage across the US. The housing markets were quickly affected as a vast amount of foreclosures causes housing vacancies.

The dilemma of how to deal with urban shrinkage from a planning perspective lies in the perception of shrinkage as a threat or a taboo (Brandstetter et al. 2005; Cunningham-Sabot and Fol 2007). Maintaining a strategy of economic growth with the aim of regaining population used to be the most common reaction of cities towards urban shrinkage. Challenging the predominance of growth as the normative doctrine in planning, Martinez-Fernandez and Wu (2007) ask whether shrinkage is a problem to be solved or an opportunity not to be missed. This author has argued earlier (Pallagst 2007a) that urban and regional development in the US should see the problems of shrinking cities as a window of opportunity to discuss a shift in paradigm from growth-centered planning to more sustainable regional development patterns. Such a discussion would be of value for a redefinition of urban and regional governance in the US.

3 Case studies of shrinking suburbs in the USA

The following sections present cases of shrinkage in two US cities respectively regions: Flint/Michigan, and the San Francisco Bay Area/California. Each region represents a different path of shrinkage and different related strategies to deal with it. The purpose of this discussion is to trace US planning in the context of shrinking suburbs. The case studies discussed in this paper demonstrate different types of shrinking cities: Flint's approach is searching for new sustainable paths, and shrinkage in the San Francisco Bay Area is embedded in a planning environment that promotes smart growth.

Flint: the traditional case of shrinkage

Flint is among the typical examples of shrinking American industrial medium-sized cities: according to the local government's website, the town 'was the most publicized example of the effects of the 1970s collapse of the US auto industry on surrounding communities' (City of Flint, 2013). The city is located in the North of the United States, in the state of Michigan within Genesee County, in close proximity to the city of Detroit. In the beginning of the 20th century Flint emerged as an automotive town with General Motors being Flint's principal economic pillar: in the 1970s, GM employed almost half of Flint's population, but ever since the company has downsized jobs in the area by 90% (Badenhausen 2011).

Trajectories of population development and recent paths of decline

From 1900 until 1930 Flint's population increased from around 13.000 to more than 150.000 people demonstrating the enormous pull factor the developing automotive industry presented. Since the 1960s, however, a constant loss in population can be observed (see Fig. 41).

Unemployment rates in Flint range at 9.1%, a figure near the present Michigan state average of 8.5%, yet they are exceeding the US average of 7.6% (US Bureau of Labor Statistics, March 2013). Apart from unemployment, major problems in Flint involve high vacancy rates and depopulated urban areas, safety risks for citizens (e.g.

Manzella 2011) and a diminishing tax base for basic municipal services such as police or garbage collection (Janz 2011).

The city of Flint does not only showcase an example of a city depending on one industrial branch, but also one of a corporate town, tied to the fate of one single company. With General Motors downsizing, the city was destined to share this company's doom. Genesee County lost population, but as compared to the city of Flint it has not suffered a similar loss of population over the last 30 to 40 years. The rapid decline of the city is in addition attributed to urban sprawl and suburbanization processes accompanying the industrial shrinkage (Gilotti and Kildee 2009, 141).

Actions for dealing with population decline and shrinkage – Maintenance strategy: redevelopment and small enterprises

By the end of the 1970's the city's development focused on private investments supported by federal funds in form of Urban Development Action Grants (UDAG) and Community Development Block Grants (CDBG). Flint was successful in receiving federal funding for certain projects, mainly focusing on downtown redevelopment with private investment. However, the majority of these projects could not achieve their intended goals (Gilman 2001, 57). During the 1980s the city turned towards supporting small businesses in order to improve the desolate job situation. These efforts were partly successful, but the number of jobs which were created was far too small compared to the ongoing layoffs in the automotive industry (Gilman 2001, 58).

Year	Population
1900	13.1
1910	38.5
1920	91.5
1930	156.4
1940	151.5
1950	163.4
1960	196.9
1970	193.3
1980	159.6
1990	140.7
2000	124.9
2010	102.4

* rounded in thousands

Fig. 41: Population development of Flint; source: US Census Bureau 2012.

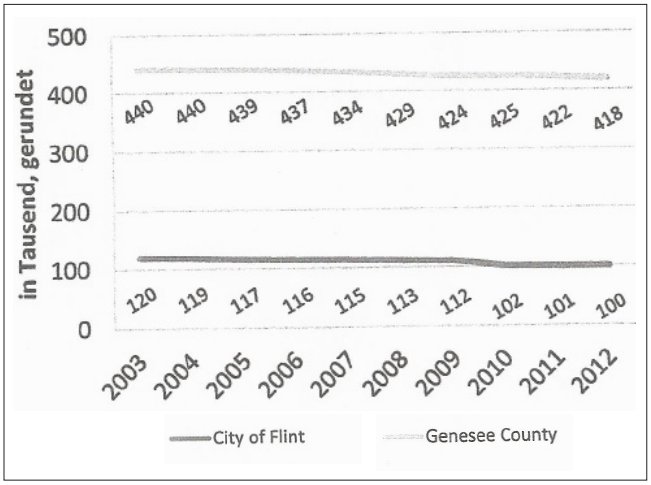

Fig. 42: Population development of county/city for Flint/MI; source: v. Gebhardi, G. Reurbanisation in Kaiserslautern and Flint, unpublished thesis, University of Kaiserslautern

Planning for decline: land banking

Recent efforts concentrate on lank banking as a tool for managing shrinkage. In 2003, Michigan passed one of the most progressive land banking laws in the US, based on the work carried out in Genesee County, in particular the city of Flint. With the tool of the county-based land bank, Genesee County was able to adopt a brownfields redevelopment plan which utilizes a tax increment financing strategy.

This enables the Land Bank to redevelop its properties in a highly effective way (Gilotti & Kildee 2009, 144). Before the land bank was in place, abandoned properties were either sold to private investors or transferred to the state of Michigan. Options for the city to influence this process were limited thus hindering a strategic approach to manage the growing number of vacancies (Phaneuf 2012). The investments made by the land bank can support redevelopment efforts and attract private investment in addition to public funding. Yet, until recently, private investors have not returned to Flint and it is not clear if and at what point the city might become attractive for investment again (Gilotti and Kildee 2009, 146). With the land bank as the managing institution for vacancies in Flint, the foreclosed properties now offer a chance for urban development instead of being a part of the problem.

Planning for decline: Comprehensive planning strategies

In 2010, the city of Flint received a Sustainable Communities Challenge grant from the U.S. Department of Housing and Urban Development (HUD) for developing a comprehensive master-plan. The new master-plan was developed in a bottom-up collaborative process involving numerous suggestions by the citizens. The plan proposes several aims capitalizing on Flint's citizens by encouraging small businesses, developing community assets and strengthening neighbourhoods. Based on existing vacancy rates, a set of designated place types was mapped out, laying out which areas of the city will remain as built up areas in the future (for residential and commercial uses), and which areas will be designated for right-sizing and tear-downs mainly of residential areas. The latter are declared as 'Green Innovation Areas' (see fig. 43) where former residential areas will be converted to urban agriculture. In particular green infrastructure is supposed to strengthen Flint's position as an employment centre on neighbourhood level.

Reflection on the Flint case

The example of Flint demonstrates the vulnerability of cities with a mono structured economy. Like in other cities the somewhat unexpected decline of the leading industry placed city officials and the population in some kind of "structural shock". Despite early efforts to maintain the city's economy by means of redevelopment with financial support by the federal government, these investments could not compensate the loss of jobs in car manufacturing. Today, planning for decline is the key, where right sizing and redeveloping residential neighbourhoods is essential for Flint's future development path. The change of legislation in favour of land banking offers a radical yet feasible approach for dealing with the large changes in the urban fabric. However, beyond the county boundaries there is no evident collaboration taking place, which means that the suburban dimension of shrinkage is not part of the discourse that is happening between county and city. In addition it becomes clear that the city is embracing its new and smaller footprint. However, with the ongoing process of rightsizing in the frame of implementing the new master plan, Flint is creating a new type of suburban space within the city's boundaries. This new suburb might indeed be a place type that is part of a new economic approach towards greening and – hopefully – prosperity.

Suburban shrinkage in the San Francisco Bay Area: the paradoxical case

In addition to shrinking cities of the Rust Belt, new cases are appearing in the Sun Belt. Two causes account for this: First, the downturn in the high-tech sector at the beginning of the new millennium set off an economic crisis in the San Francisco Bay Area. Second, the economic recession following the US banking crash at the end of the year 2008 is affecting cities that have promoted an aggressive growth strategy, like Las Vegas, NV and Phoenix, AZ[8] . This section will further explore cities in the San Francisco Bay Area, which were affected by the respective crises: the city of

[8] According to a Forbes magazine article, Las Vegas has earned a title to be among "America's emptiest cities" with housing vacancy rates comparable to those of Detroit.

Fig. 43: Envisioning the palace type 'Green innovation area'; source: City of Flint (2013): Imagine Flint, Masterplan, p.33.

San Jose[9] was affected by the high-tech downturn and the city of Antioch by the foreclosure crisis.

Downturn in the high-tech sector

In the San Francisco Bay Area, planning has a strong focus on growth management and smart growth[10]. In this case we will look in particular at the interdependence of growth and shrinkage and at the various planning strategies applied to them. Cities like San Jose represents a paradoxical case of city shrinkage: During the period of the dot-com bust and the downturn in the high tech sector between the years 2000 and 2004, the city had to face vast population losses in terms of its high-tech workforce while at the same time the number of service employees increased.

Overall, population numbers went down. The shrinking phenomenon can be observed on the regional and the local scale. At the scale of the metropolitan region, starting in the year 2000, the nine-county San Francisco Bay Area lost 450,000 jobs, of which 200,000 were in Santa Clara County, the location of Silicon Valley. The city of San Jose had the largest share of this decrease, with 50,000 job losses[11]. In terms of population, the San Francisco Bay Area is, due to the influx of immigrants, still considered a growing metropolitan region, and San Jose a growing city.

In the process of this "exchange" of population the author asked the question if a highly educated out-migrating population can be compensated by in-migrating low-skilled people (Pallagst 2007a). Economic changes in the city of San Jose are related to the bust of the dot-com industry in Silicon Valley that took place at the beginning of the new millennium. In the context of globalization, the situation in the high-tech sector might still not be consolidated, since outsourcing of certain parts of high-tech companies to other countries has become a popular economic (shrinkage) strategy.

Moreover, Silicon Valley is also affected by the recent economic downturn[12]. The economic changes in the region triggered an out-migration of well-educated and highly-skilled workers, which had been recruited from all over the world. Due to the prosperity of the region, at the same time, in-migration of lower-skilled workers from Asian and Latin American countries has not slowed down.

For Santa Clara County where the city of San Jose is located, the out-migration between 2000 and 2005 was 201,499 people[13], while the in-migration from other countries was 127,224 people. After the downturn of the high-tech industries in Silicon Valley, San Jose's population growth leveled off, although it did not stop completely. The population growth rate per ten years had its peak at 118% during the 1970s, dropped to 5.5% at the beginning of the new millennium (944,857 people in 2005), with a total number of 945,942 inhabitants in the year 2010[14] It is unknown at this time whether the in-migrating population has the same requirements in terms of housing and services as the people who are leaving the San Francisco Bay Area.

Population shrinkage naturally leads to an increase in housing vacancies. The housing vacancy rate in the city of San Jose for the year 2000 was 1.9%. For the period between 2005 and 2007 it is an estimated 4.1% (US Census data). However, these numbers are still below the national average of 9%, due to a persistent shortage of affordable housing in the Bay Area, especially in the Silicon Valley area. In addition, a large number of office buildings and office parks have been abandoned (see fig. 44). The chances that these office spaces will be reused for office or other purposes in the near future are small.

In this situation, different stakeholders in planning are reacting in different ways. Moreover, their approaches tend to be rather fragmented. The real estate sector has shifted

[9] The city of San Jose is on a regional level part of the metropolitan region San Francisco Bay Area, and on the level of the county part of Santa Clara County, which are the statistical entities. The city marks the southern part of Silicon Valley, which is part of the San Francisco Bay Area, but not a statistical entity.

[10] Smart growth can be considered the US approach to sustainable city and regional planning. The term 'smart growth' was introduced during the 1990s and it is grounded on participation in planning and the rediscovery of a 'small scale'. It combines the three principles economy, environment, and social equity. Mixed land use, walkable neighborhoods, and a preservation of open space, are among the smart growth principles. For more information on smart growth see Pallagst 2007 b.

[11] Stephen Haase, lecture at the quarterly meeting of the Bay Area Alliance for Sustainable Development, San Francisco, October 28, 2004.

[12] The unemployment rate of Santa Clara County, the statistical area where Silicon Valley is located, rose from an average of 6% in 2008 to 9.3% in January 2009 (data source: Employment Development Department of the State of California).

[13] Data source: US Census data.

[14] US Census data.

from producing more profitable office buildings to providing much-needed housing. The "housing hype" is in line with the regional growth projections for the San Francisco Bay Area.[15] The city of San Jose has reacted to the housing demand by developing specific policies and strategies to support affordable housing, among others by allocating $ 107 million for new construction since the year 1999.

Fig. 44: Vacant office park in Silicon Valley; photographer: K. Pallagst 2012

This trend can be seen in a large number of newly built housing developments along transit corridors, such as the Midtown Trio (322 housing units), Almaden Lake Apartments (478 units), and Ohlone Court Apartments (330 units). The city created a total of 4,145 affordable housing units, and these developments are attracting many of the new immigrants. However, with the recent economic recession, the housing hype seems to have reached its limits.

Foreclosure crisis in the East Bay

In the wake of the economic crisis starting in 2008, several smaller cities of the East Bay, located east of San Francisco, were affected by a massive wave of foreclosures and economic downturn. In particular these are small older industrial/agricultural towns such as Antioch, or Pittsburgh (Schafran 2010). During the 1990s and 2000s these areas were targets of a development boom induced by profit-driven development companies due to high prices in the core Bay Area. This development was fuelled by speculation and resulted in a so called 'housing bubble'. This development was driving housing even further away from the location of jobs, enhancing the jobs-housing-imbalance, and forcing employees to commute up to two hours each way to prospering Silicon Valley or San Francisco. Nevertheless, this housing bubble burst in the economic crisis, and – as housing priced dropped sharply - forcing many home owners to lose their properties. In this process, all of a sudden the market turned away from the suburbs, and concentrated development in the core Bay Area, in particular the city of San Francisco, where in areas such as South of Market, high rise new redevelopment space was available, generating even more profit. Figure 4 shows foreclosure rates on a county level, demonstrating that East Bay counties San Joaquin, Stanislaus, Contra Costa are top of the list, while the city of San Francisco only displays a small portion of foreclosures.

In addition, the suburban areas – once wealthy and aspiring places as we learned in the beginning of this paper – may become the new ghettos, dubbed 'slumburbs' with poverty rates on the rise (see figure 46). The social consequences for the suburbs arising from the economic crisis are a new situation for regions such as the San Francisco Bay Area, if not for planning and development in the US in general.

Reflections on the Bay Area cases

Previous investigations by the author (Pallagst 2007b) revealed that more regional collaboration is required. But there is uncertainty about which strategies are necessary to balance growth between different locations within the San Francisco Bay Area and beyond. It turns out that this area is a fragmented realm when it comes to managing growth and/or decline[16]. In general, success in planning – be it for growth or for shrinkage – depends largely on horizontal and vertical coordination between authorities, and cannot be left to market forces alone.

[15] The Association of Bay Area Governments projects that the San Francisco Bay Area will grow by 1 Million people by the year 2020.

[16] Metcalf observes for the San Francisco Bay Area "the Bay Area is fragmented into hundreds of district jurisdictions, most of which make unilateral land use and transportation decisions without reference to one another" (Metcalf 2003).

When it comes to the latest effects of economic downturn and slower growth, the growth rates provided by the Association of Bay Area Governments (ABAG), which were the basis for a large planning exercise to promote smarter growth,[17] have to be adjusted in view of the reality of shrinkage. Less growth or even shrinkage may seem to be a relief for the region's housing shortage and infrastructure needs, and a focus on reurbanization in the core Bay Area's cities is in line with city and regional planners' views of simple: Growth management and planning for shrinkage require a joint inter-local approach, for example by means of creating networks of cities, or involving adjacent communities and county officials in general plan activities.

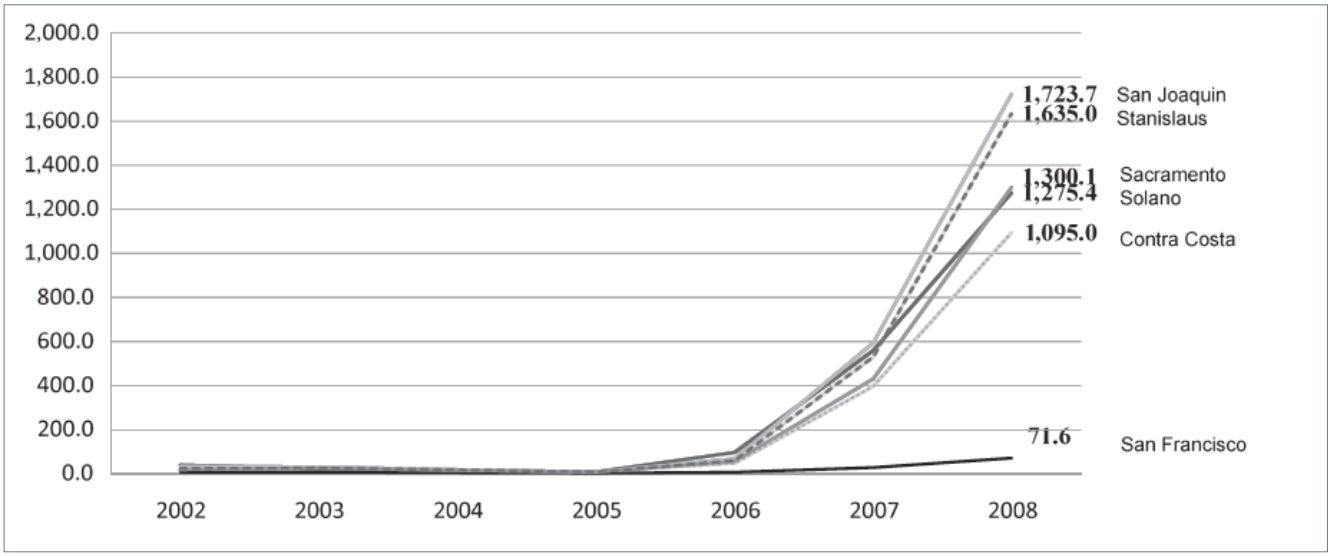

Fig. 45: Foreclosures per 100,000 population by county 2002-2008; source: Schafran (2010: 679).

a more compact and sustainable development type. Nevertheless, the consequences for vacancies in homes and office space within the urban fabric remain unclear.

Planning for growth and for slow growth respectively shrinkage in the Bay Area are not too far apart from each other. One conclusion may be to keep planning approaches

4 Conclusions

The US examples of shrinking cities respectively suburbs discussed in this paper show how US planning traditions are to a large extent driven by market mechanisms and private sector development, which are highly instable in the wake of crisis.

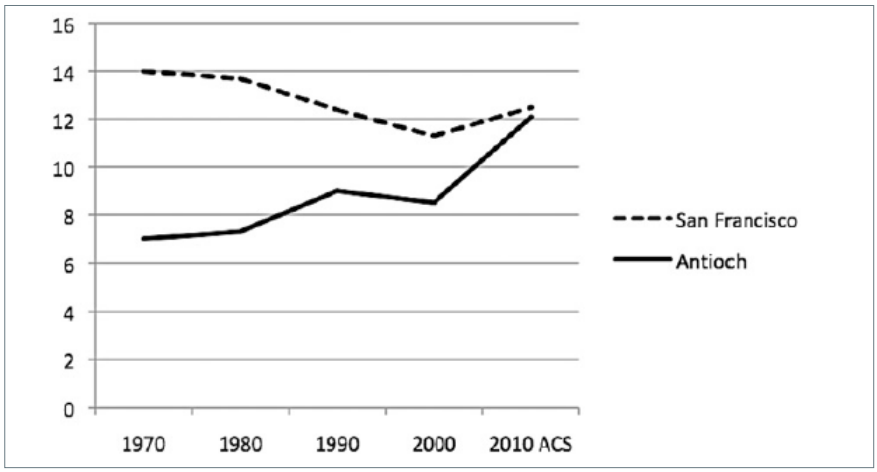

Fig. 46: Poverty rates in the cities San Francisco and Antioch; source: Schafran (2010: 680).

The city of Flint demonstrates that even though the problems of shrinking cities can be found in a regional urban-suburban context, planning in these areas remains to a large extent focused on revitalizing the devastated city centers. These are the areas with the most immediate problems, but revitalization efforts often create gentrified areas and do not target the social needs of the poor. Planning on the scale of the city region is difficult because the revitalization lies in the hands of many

different agencies, among them planning departments and redevelopment agencies.

In contrast to planning for economic growth, creating realistic visions for shrinkage on the scale of the entire city is in its infancy in the US. For US planning standards this is a comparably new and radical approach, and the dramatic change it requires in planners' ways of thinking and acting is still quite unusual. For Flint, at least, it offers a sensible and realistic alternative; it could also serve as a thought-provoking example for cities in comparable situations.

In addition to the traditional shrinkage pattern in former manufacturing centers, a new trigger for shrinkage can be detected amidst downturns in the high-tech sector of the San Francisco Bay Area. Silicon Valley, often considered the role model for many high-tech clusters around the world, faced job losses, population changes, and vacancies in housing and office parks. The Bay Area cases shows how the global economic changes affect even prospering regions, and the challenge is, if planning tools tailored for a growing environment might potentially be applied to problems of shrinkage.

What can we learn from planning for growth when it comes to shrinking cities and vice versa? It seems like the planning tools are already there, for example land management, or greening strategies.

However, techniques should not just be added to the existing set of planning tools, but tailored to the specific needs of the planning situation, be it growth or shrinkage. It turns out that shrinking cities is a problem more complex than perceived by urban and regional planning in the US thus far. However, unlike the situation most European countries, these shrinking processes are embedded in planning traditions tailored for growth. Against this background and in light of a market-oriented planning culture, the planning in the US should deal one way or the other with the problems of shrinking cities. This becomes even more necessary when global economic crises are converting places that have been considered economically 'safe' such as suburbs into shrinking areas.

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