

## **Prospects for West German Post-War Single-Family Home Neighbourhoods**

### **Revitalising Housing Stocks as a New Policy Field for Suburban and Rural Municipalities**

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**Abstract:** The single-family home neighbourhoods that were built in West Germany in the 1950s, 1960s and 1970s will be increasingly affected by future socio-demographic changes. Today, the above-average length of occupancy by owners and the rise in life expectancy are leading to the increased over-ageing of the populations in these residential areas. The generational change means that a constantly growing number of these homes are being put up for sale and encountering a changing and regionally differentiated housing market. Regionally diverse shrinking and ageing of the population will decrease the potential demand for single-family homes in coming years. In addition, social change will lead to qualitative changes in demand. The pluralisation of living arrangements and residential preferences can be expressed in the changed household structures and the geographic shift in housing demand in favour of more dense urban areas. Therefore, residential areas in peripheral regions with unfavourable demographic and economic conditions are particularly at risk. At the local level, winners and losers will emerge among the existing residential neighbourhoods of suburban or rural municipalities. Disadvantages such as unfavourable characteristics of a certain location and construction or energy efficiency shortcomings, as well as image perception, can combine to create serious problems. In the worst case, homes are at risk of a loss in value, neglect, vacancy and dilapidation – developments that have, to date, been largely unknown in Germany's single-family home sector. The question for areas with at-risk homes is how the looming change in owner generations, not to mention the structural and infrastructural transformation processes, can be managed. This article, based on the results of a research project conducted by the Wüstenrot Foundation, examines the general demographic and socio-economic causes of this development and characterises the present situation in selected case studies. We also address questions about handling these problems and identify initial considerations about possible municipal interventions in the revitalisation of single-family home neighbourhoods. In addition, the article presents a strategic framework for action and a number of possible municipal provisions.

**Keywords:** Single-family home neighbourhoods · Urban development · Socio-demographic change · Housing stock · Housing surpluses

## 1 Introduction

In the single-family home neighbourhoods that were built in large numbers during the first three decades of the Federal Republic, a generational change is presently underway that can be quite different in nature from place to place. In principle, the development of an older single-family home neighbourhood is determined by the ratio of supply and demand in the used single-family home market segment. However, isolated observation of housing market processes overlooks other decisive influencing factors that have effects at different levels. Single-family home neighbourhoods can take very different development pathways depending on the regional socio-demographic and economic conditions, local peculiarities in the housing market, and local planning policies, as well as the characteristics of the location, urban form and infrastructure provisions. This article hypothesises that the development of West German single-family home neighbourhoods from the 1950s, 1960s and 1970s is influenced at the macro level by three key “mega trends”: demographic change, a change in living preferences, and broad and regional shifts in housing demand. We briefly outline these three basic trends in this introduction according to their relevance to the research question.

Compared with other Western nations, the consequences of the second demographic transition are particularly visible in Germany (*United Nations* 2011). Since the 1970s, Germany’s fertility rate has been far lower than the level required for the population’s natural reproduction. Since 2003, the rising surplus of deaths over births and declining net immigration has led to a declining population balance. Despite a slight immigration-related rise in the population in 2011 related to the European debt crisis, continual population decline is expected for the long term. According to the 12th coordinated population projection by the German Federal Statistical Office, the population could drop by up to five million by 2030 and by up to 17 million by 2060 (*Statistisches Bundesamt* 2009); further, as of 2025, the number of households will also begin to decline (*Pöttsch* 2011). In some peripheral rural and economically weak regions that are additionally affected by internal migration losses, declines in the number of residents of up to 30 percent are expected. The direct consequence of a decline in the population and average household size is partly an actual and partly a statistical increase in per capita consumption of living space. Both positive and negative effects arise when fewer people reside in a stable or growing housing stock. When the numbers of households begin to decrease, an excess supply of housing terms of the total stock will almost inevitably result. The resultant challenges are of varying intensity, depending on the location and the housing market segment.

These and other effects of demographic changes on the housing market have been discussed for some time in Germany (e.g., *BBSR* 2010; *Eichener* 2003; *Just*

2009; Payk 2011; Schmitz-Veltin 2011). Lately, an increasing number of publications have drawn attention to the fact that single-family home neighbourhoods may soon also be affected by demographic change (Adam/Krings-Heckemeier 2010; Aring 2012; Dransfeld 2010; Fina et al. 2009). The stocks of privately owned homes were built and are largely still occupied by the family members of relatively large cohorts, but the ensuing generations of potential buyers belong to increasingly smaller cohorts. This may result in a *quantitative mismatch*, when a growing number of housing stocks becoming vacant encounter a declining number of demanding households (see also Myers/Ryu 2007). The unique fact that owner-occupiers in Germany continue to reside in their homes for particularly long times and thus “block” a huge number of single-family homes and large dwellings intensifies this mismatch (Neugebauer 2007: 43), a phenomenon also known as the *remanence effect* (cf. Simons 1999; Just 2009: 67). In the meantime, the current demand for family-suitable housing space is often satisfied by the construction of new housing.

Nonetheless, for many years, it was assumed that single-family home neighbourhoods would not be affected by a decline in housing demand given the unbroken appreciation for less dense settlements and Germany’s comparatively low percentage of single-family homes in the total housing stock. Increasingly, however, the certainty that this specific segment of the West German housing stock will continue to be a “fast sell” on the market in the medium and long term is beginning to totter. The pluralisation of lifestyles and accompanying major changes in household structures, along with a loss of significance for traditional family models and a rise in single households, single-parent families and childless couples, is giving rise to changed residential needs that can be better served by urban residential locations (Buzar et al. 2005, 2007). A loss in the attractiveness of living in suburban single-family homes may also result from work-related changes such as the rise in female employment, the erosion of standard employment and the increase in precarious employment (Häußermann 2009, 2007; Siebel 2008). Here, we refer to the significant amounts of time and money required for the care and upkeep of a house and garden and for organising everyday life in locations with poor amenities. The assumed discrepancies between altered living preferences and the characteristics of many stock locations can thus be described as a potential *qualitative mismatch*.

The quantitative and qualitative mismatches are overlain by the geographic polarisation between growing and shrinking regions. This development is caused by the interregional north-to-south and east-to-west migration of the population towards economically prospering cities and regions and the major intraregional concentration processes in Germany over the past ten years. While many core cities and their densely populated surroundings recorded above-average population growth in recent years, some peripheral suburban and rural areas were affected by major population losses (Herfert/Osterhage 2012; Siedentop 2008). For the long term, we can therefore expect continued growing demand and rising prices for older single-family homes in central urban areas and in the city outskirts of prospering regions (Aring 2012; Aehnelt et al. 2008; Empirica/Bayern LB 2009). In growing regions with tight housing markets, we can assume that even buildings with an unfavourable (micro) location and construction defects will find a ready market. In contrast, pri-

vately owned homes in poor locations that are structurally imperfect and located in shrinking regions will be confronted with demand problems and reduced value in the future (*Aehnelt et al.* 2008; *Hahne* 2010; *Spehl et al.* 2011). Thus, in some regions, we can assume there will be continued demand for single-family homes, while other places are heading towards surplus supplies, leading to a *geographic mismatch* of supply and demand. This qualifies the widespread assessment that this housing market segment is generally unproblematic due to the high demand for single-family homes.

Given these issues, the question is whether and how society and municipalities in particular can contribute to maintaining the housing stocks of single-family home neighbourhoods. West German funding policies actively supported the construction of single-family home neighbourhoods for decades through a variety of direct and indirect policies such as special homeowner and commuter tax benefits. Home ownership assistance was always also considered a means of old-age security that could relieve the state of later social aid payments. Should a large number of privately owned homes lose value, however, this would no longer be effective. For example, should the sales revenue from a house not be sufficient to fund a place in a nursing home, the state must step in with its fiduciary duty. To this extent, maintaining the value stability of single-family homes is basically in the state's interests. In addition, from the municipal point of view, any vacant housing involves lower revenues and higher infrastructure costs (*Schiller/Siedentop* 2005). The already low economic sustainability of infrastructure services in single-family home neighbourhoods is further reduced by the decreasing occupancy density and the increasing number of vacancies. Moreover, the image of entire residential areas or even entire towns suffers from the visible dilapidation of individual houses. While intervention by the public sector is only justifiable for a single "problem property" when construction shortcomings have already become clear, it is doubtless needed to avoid foreseeable negative developments when entire residential areas or neighbourhoods are affected. Although we are not seeing extensive vacancies in less dense settlements at present, in the future, certain partial stocks can expect widespread marketing problems, losses in value and growing vacancies. While one unfavourable factor alone is usually not problematic, an accumulation of disadvantages, such as a peripheral location, a low-appeal residential location and poor building conditions, certainly is. If, at the same time, the real estate market is offering attractive alternatives such as inexpensive building land or renovated apartments in good locations, the excess supply in the stocks of privately owned homes can increase. Municipalities confronted with such unfavourable prospects should become active in the interest of the general welfare to be able to counteract foreseeable undesirable developments early. A proactive municipality need not necessarily make use of funds but should instead create the conditions and a positive climate for privately funded investment in the housing stock.

Against this background, in this article we delineate the causes and characteristics of a possible critical development of older single-family home stocks in Germany and present a catalogue of suitable countermeasures for discussion. We present

the results of a research project<sup>1</sup> by the Wüstenrot Foundation (*Wüstenrot Stiftung* 2012), in which the options for a sustained development of single-family home neighbourhoods from the 1950s, 1960s and 1970s were examined extensively.<sup>2</sup> We seek answers to the following questions:

- What is the current general condition and market position of single-family home stocks from the 1950s, 1960s and 1970s?
- How can the generational transition in these neighbourhoods be characterised from the residents' point of view?
- What priority does municipal urban planning give to maintaining the stock of single-family home neighbourhoods?
- What measures are suitable for promoting the sustained use of existing single-family home neighbourhoods under the local circumstances?

The most important findings from the research project are illustrated in the following. First, we present the results of the case studies in 29 residential areas from 14 municipalities (Section 2). Following a brief overview (2.1), we present the results of the surveys (2.2) and then examples of four neighbourhoods in two cities (2.3). We then discuss various municipal strategies for dealing with aged single-family home neighbourhoods (3.1) and illustrate options for action (3.2). The article closes with a summary and conclusions (4).

## 2 Case studies

### 2.1 Overview

Two or three case study towns with varying conditions were chosen in each of the five West German states of Baden-Württemberg, Bavaria, Hesse, Lower Saxony and North-Rhine Westphalia. In addition to increased affectedness and the resulting need for action, the selection criteria included the willingness of the towns to actively participate and a minimum size of approximately 5,000 inhabitants. A total of 14 municipalities (Table 1) were included: one large city, six medium-sized towns, six small towns and one rural community. Towns and communities from largely rural and urban regions were considered equally. The seven municipalities

<sup>1</sup> In addition to the authors of this paper, Kerstin Bläser, Prof Dr Rainer Danielzyk, Karin Hopfner and Prof Dr Christina Simon-Philipp were also part of the research team.

<sup>2</sup> This article portrays a summary of selected excerpts from the publication cited. Identical or slightly adapted passages can be identified. For the sake of a better legibility we did not label each these passages individually.

**Tab. 1:** Overview of the characteristics of the selected case study municipalities

Municipality	State	Population 2010	Town size type	District type	Building stocks 2005 % of SFH	% built 1949-78	Pop. development 2010-2020 in %	2010-2030 in %
Kassel	Hesse	195,530	Large city	Urban district	63.1	51.8	-1.8	-4.4
Arnsberg	North-Rhine Westphalia	74,227	Large medium-sized town	Compact	80.2	41.9	-6.0	-12.0
Garbsen	Lower Saxony	61,790	Large medium-sized town	Compact	80.4	56.4	-3.6	-7.7
Erkrath	North-Rhine Westphalia	45,963	Small medium-sized town	Compact	77.8	56.4	-6.0	-11.5
Backnang	Baden-Württemberg	35,395	Small medium-sized town	Compact	76.8	48.2	-1.9	-4.3
Meppen	Lower Saxony	34,944	Small medium-sized town	Rural	92.2	51.1	3.3	4.4
Mosbach	Baden-Württemberg	24,490	Small medium-sized town	Compact	86.3	57.9	-1.8	-4.5
Sulzbach-Rosenberg	Bavaria	19,665	Small town	Rural	83.8	46.2	-7.2	-12.5
Beverungen	North-Rhine Westphalia	14,147	Small town	Rural	92.3	44.4	-8.5	-15.3
Lauterbach	Hesse	13,783	Small town	Rural	90.0	47.7	-8.0	-14.2
Rehau	Bavaria	9,427	Small town	Rural	84.9	43.0	-9.8	-16.6
Bad Sachsa	Lower Saxony	7,679	Small town	Rural	82.0	38.0	-12.9	-20.8
Gundelsheim	Baden-Württemberg	7,221	Small town	Compact	92.8	39.6	-2.5	-4.3
Pressig	Bavaria	4,123	Rural town	Rural	92.9	43.2	-8.1	---

SFH = Single-family home

Source: Authors' calculations and design, population and building data: Statistische Ämter des Bundes und der Länder, population projections: Pressig: *Bayerisches Landesamt für Statistik und Datenverarbeitung 2012*, all others: *Bertelsmann Stiftung 2012*

in rural districts are all small towns, with the exception of the medium-sized town of Meppen and the rural community of Markt Pressig. The six municipalities in densely populated districts are all, with the exception of the small town of Gundelsheim, medium-sized towns. The independent city of Kassel is the only regional centre in the sample. Arnsberg and, to some extent, Backnang, Mosbach and Meppen are other regionally significant centres. Garbsen near Hanover and Erkrath near Düsseldorf are typical suburban communities that benefit from their direct proximity

to the respective state capitals of Lower Saxony and North-Rhine Westphalia. In these two towns and in Mosbach, the building stocks are most characterised by the period of the 1950s, 1960s and 1970s. In these three municipalities, extensive and largely simultaneously planned residential construction projects of higher density were realised and in part also distinguished as model developments (“Demonstrativbauvorhaben”) (Mosbach-Waldstadt, Garbsen-Auf der Horst) in the 1960s.

The share of single-family homes in the towns’ building stocks usually increases counter to the size of the towns. For example, it is only 63 percent in the large city of Kassel. Meppen is an outlier here: with 92 percent, it has a far higher percentage of single-family homes than do the other medium-sized towns, which is typical for the Emsland region. In contrast, Bad Sachsa and Rehau, with a far lower percentage of single-family homes compared with the other small towns, deviate in the other direction. In the case of the former this can be explained by the specific housing stock structure of a tourist town and, in the case of the latter, by its industrial character. As for demographic trends, it is striking that the greatest population decline is predicted for the small towns located in rural districts. The anticipated inhabitant reductions of up to 21 percent between 2010 and 2030 are in part two to three times higher than the West German average of 7.7 percent (*BBSR* 2012). Only five municipalities are below the West German average, including Meppen as the only participating city where a population increase is predicted.

**Tab. 2:** Basic features for neighbourhood characterisation

Locations
<ul style="list-style-type: none"> <li>• Near the city centre</li> <li>• Outskirts</li> <li>• Separate district/not integrated</li> </ul>
Construction times
<ul style="list-style-type: none"> <li>• Predominantly 1950s-60s</li> <li>• Predominantly 1960s-70s</li> <li>• Mixed</li> </ul>
Settlement types
<ul style="list-style-type: none"> <li>• Gradual settlement by a variety of individual builders</li> <li>• Simultaneous construction by one or a few property developers</li> </ul>
Structural types
<ul style="list-style-type: none"> <li>• Predominantly detached (single and two-family houses or semi-detached houses)</li> <li>• Predominantly compact (terraced houses, tract homes or atrium houses)</li> <li>• Mixed structural types of single and two-family houses</li> <li>• Mix of single and two-family houses and apartment buildings</li> </ul>

Source: Own design

First, all of the relevant single-family home neighbourhoods from the 1950s, 1960s and 1970s in the case study municipalities were recorded and categorised using the four basic features: intra-municipal location, time of construction, settlement process and structural type (Table 2). During the final selection of the neighbourhoods, we considered the municipalities' preferences to participate but also ensured that a broad spectrum of different neighbourhood types was included. Up to three neighbourhoods per municipality were selected for the study for a total of 29 single-family home neighbourhoods.

Detailed information about the population composition, neighbourhood structure and infrastructure, as well as land use and construction and spatial quality, was recorded for each neighbourhood. The evaluation of the data and information provided by the municipalities and our own on-site studies were supplemented with surveys of the relevant stakeholders, namely representatives of the municipal administration and real estate sector and the residents. The semi-structured interviews with local representatives and real estate experts worked on two levels. First, the local stakeholders were asked about their views on the topic of ageing single-family home neighbourhoods. Second, the experts were asked for an assessment of the situation and the actions needed in the neighbourhoods studied. The residents' perspectives were recorded solely on a written survey in ten of the neighbourhoods studied. The questionnaire design allowed us to differentiate between the responses of first-generation residents and later residents, thereby illuminating the largely invisible process of generational transition.

## 2.2 Survey results

One focus of the case studies was to conduct both semi-structured interviews with local stakeholders and a standardised written resident survey to be able to record specific evaluations of neighbourhood change and future prospects. We included municipal representatives (mayors, heads of the building and planning authorities), local actors on the real estate markets, and residents. The results of the surveys were compared with assessments by the research team to qualify the subjective assessments and differentiate between insiders' and outsiders' perceptions.

### 2.2.1 Local perspective

The interviews with representatives of local politics and municipal planning departments revealed that the extent of addressing the problems of ageing single-family home neighbourhoods varies greatly, ranging from thorough considerations to largely ignoring the subject. It became clear that the threshold for municipal intervention is relatively high. There is often uncertainty whether it is a case of the interests of common welfare or only the particular interests of the homeowners.

*“Vacancies and ageing of the population is one thing. The resulting problems for the housing estate are another. We must differentiate between*

*personal problems, like 'I can't sell my house,' and the problematic situation for the entire area that arise for the neighbourhood"* (translated by CPoS).

The decision-makers lack reliable indicators and threshold levels that identify the need for municipal intervention. Examining price developments seems to be a limited approach: it is expected that dropping prices in particular can ensure marketability because this enables even low-income households to become homeowners. Municipal stakeholders certainly admit that the demographic change is a process that will influence neighbourhood developments in future. However, they presume that the significance of the demographic factor differs depending on the location of a neighbourhood. Poor development is especially anticipated for neighbourhoods in non-integrated locations such as peripheral districts or villages.

*"Decisive criterion: location, location, location. You need to differentiate between rurally structured areas and urban areas. Neighbourhood X, for instance, was built in the 1950s in a very good location and won't have any problems, but there will surely be problems in the villages!"* (translated by CPoS).

As for the question of the resulting options for intervention, we ascertain that the municipalities surveyed do not yet have experience with or routine mechanisms for handling single-family home stocks. Possible measures are additionally limited by the lack of financial and personnel resources.

*"Of course, the municipality has or can take on a steering function. It can also stimulate certain things and certainly attempt to become active, but that alone will surely not suffice. Therefore, the private side has to take on a large role; private commitment is necessary"* (translated by CPoS).

Measures that strengthen urban infill, which require changes in zoning plans rather than cost-intensive steps, are considered particularly relevant. In practice, these are the non-allocation or reduction of new building plots. However, there are fears of a "free riding problem", whereby the neighbouring municipalities will profit from the land-saving policies of a municipality by continuing to allocate building plots and thus recruit people interested in building.

*"The neighbouring towns tend to work against us and continue to allocate building land. We view this with scepticism. That is where the problem neighbourhoods we are talking about are being built"* (translated by CPoS).

### 2.2.2 Real estate sector perspective

The local real estate stakeholders, including estate agents, the staff of financial institutes and representatives of housing companies, could provide practically relevant information about both developments in the privately owned home market

and the relevant demander groups. The remanence effect (section 1) was confirmed to be a significant phenomenon in the real estate market. This effect also results in an increasing decline in the structural quality of homes at the time of sale because older owners rarely carry out renovations and modernisations. There are contradicting statements with regard to the effect of building condition on marketability. Some studies report that un-refurbished houses are in high demand because interested purchasers tend to look for inexpensive objects to renovate independently in their own tastes. However, it has been shown that thermal insulation measures, new roofs and windows do ease marketing because renovations that have already been completed cannot be completely added to the asking price and are therefore worth it for buyers. For the seller, however, the sales revenue does not increase by the value of the renovation work. Still, cosmetic repairs such as fresh paint can have positive effects on the marketability and price of the real estate. Individual objects in poor condition can quickly lead to the devaluation of entire streets and neighbourhoods.

According to the assessment of the experts surveyed, the main demand groups for single-family homes remain families with one or two children. For the past few years, however, the spectrum of buyers has expanded. For example, childless couples and single persons have become demanders, most of whom prefer more compact types of houses. Demand from older people who, for example, would like to move from their large single-family homes in peripheral locations to smaller, more central and barrier-free houses is rarer but does exist. Assessments with regard to the importance of social infrastructure and local amenities in single-family home neighbourhoods vary. Locations with good infrastructures are usually preferred. The real estate experts explain this with an increased awareness of the problem and of the fact that in families with children, both parents typically work and therefore require a good supply.

*“Yes, the customers do look to see what infrastructure is available: the bakery next door that can be reached on foot, but also the school and kindergarten. This is all important, especially for families”* (translated by CPoS).

We were also told that in less compact single-family home neighbourhoods, it is simply not possible for the entire range of services to be at hand but that this criterion does not play a major role due to the widespread availability of cars. The cited advantages of used single-family homes over newly constructed homes are large lots, better, more central locations, less density, the existing residential environment, the familiar social structure of the neighbourhood and lower financial risk. Nonetheless, the costs of necessary renovations are often underestimated during purchasing, so that in some unfavourable cases, the cost of modernising the existing stocks can be as high as building new homes. Generally, interviewees from the real estate sector find it difficult to steer demanders who wish to build a new house towards existing stocks because personal living preferences are often difficult to realise there. To ensure continued use of the stocks, real estate experts adhere to the important condition that prices for the existing stocks, including their renovations,

must remain below the level of new houses. In this context, the experts reported consistently that owners considerably overestimate the attainable prices for their single-family homes (by up to 50 percent). For the longer term, many municipalities reckon with (continued) falling real estate prices and predict a steady and rising development only in exceptional cases.

*“Presently slightly upward, although we expect the long-term trend to be downward. I assume it has to do with the debt crisis. There are still many customers who prepone their investments”* (translated by CPoS).

Over smaller areas in the municipalities and regions, development will vary a great deal. The difference in price between good, integrated locations and non-integrated locations or parts of towns is widening. A price drop for single-family home stocks to a certain level will regulate their marketability; however, because the main demander group of families is decreasing in size in many places, a supply surplus of single-family homes is anticipated in the future.

*“The supply will rise and demand will tend to drop, also due to demographic change and the jobs situation”* (translated by CPoS).

In regions with steady or growing housing demand, most expect that the question of renovation or demolition and re-building in older single-family home neighbourhoods will be posed far more often in coming years.

### 2.2.3 Resident survey

The results of the expert interviews above were supplemented by a written survey that was used to gather residents' assessments of the perceptions of the neighbourhoods – their qualities and deficiencies. The resident survey was not conducted in all 29 neighbourhoods studied but was instead limited to ten neighbourhoods for the sake of research economy. The surveyed neighbourhoods were chosen as representatives of certain types of single-family home neighbourhoods. The main selection criteria were the location of the municipality (central/peripheral pursuant to BBSR region types 2010), the structure of the neighbourhood (predominantly low-density or compact) and the settlement process (gradual or simultaneous). Two thousand four questionnaires were distributed. The response rate was almost 30 percent with 586 questionnaires. In the following, we present the key results of the survey.

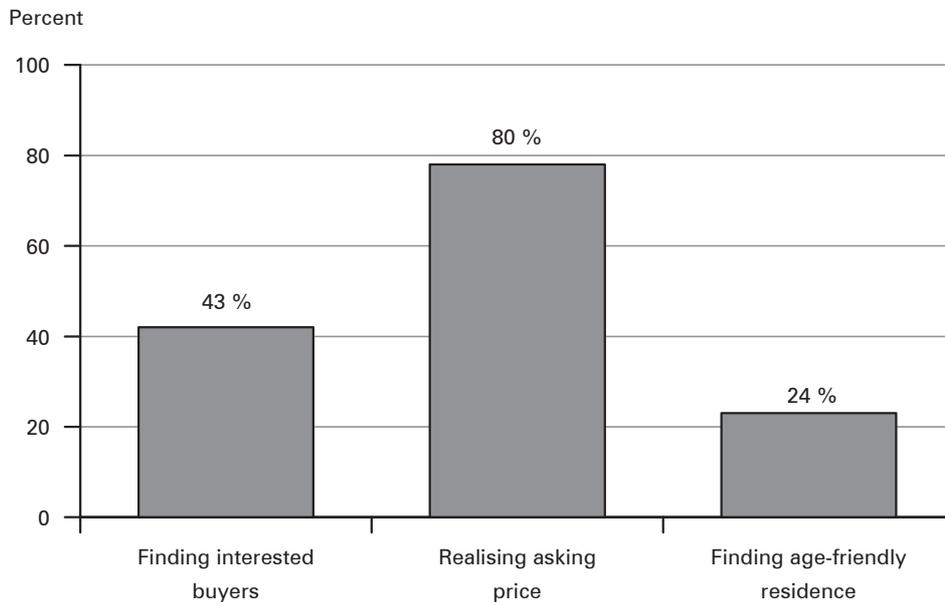
The survey participants' ages were requested to allow for an assessment of the ageing process in the neighbourhoods. On average, 46 percent of the participants are over 65 years old. A comparison of the respondents with the age data of the population registers showed that the age group of 65-79 years is somewhat over-represented in the sample (on average, +33 percent), the age group of 45-64 years almost matches that of the population registers and the age group of 30-44 years is underrepresented (-21 percent).

Over half of the participants live in a detached single-family home, followed by two-family homes and row houses, each with 20 percent. Semi-detached houses, accounting for only 7 percent, are distinctly less common. First-generation residents who built or newly purchased the house comprise 45 percent of the participants (n=458). The remaining 55 percent of the households inherited the real estate (19 percent) or purchased it used (36 percent). This relatively balanced distribution allows a good comparison of the assessments made by these two residential generations.

Although only 14 percent of the participants (n=76) wish to sell their house or apartment, the question about anticipated difficulties in a potential sale was apparently answered by other homeowners, who, although they have no existing sales plans, have thought about future plans for their houses. Of these respondents (n=232), 42 percent provided information about anticipated difficulties (Fig. 1). They were primarily concerned with realising their asking price but also quite frequently with finding interested buyers at all.

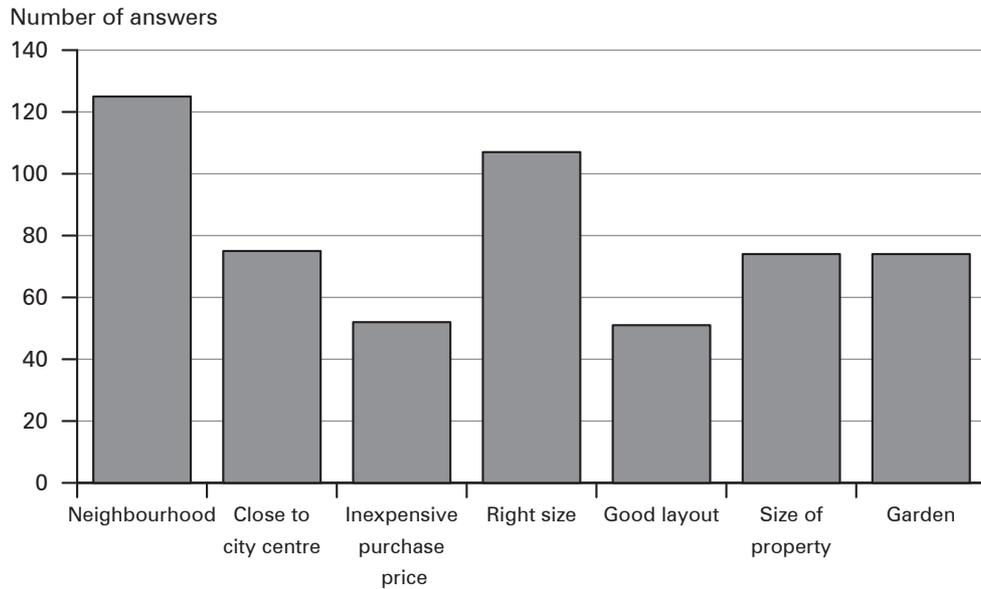
Figure 2 shows the reasons why second-generation residents purchased their houses or dwellings. It is clear that location criteria are the highest priority. The neighbourhood is most frequently cited as the reason for their choice, and closeness to the city centre is the third factor cited. About 85 percent of first-generation residents and 99 percent of second-generation residents have already carried out

**Fig. 1:** Anticipated selling difficulties



N = 97; Multiple responses allowed; Percentages refer to the number of respondents

Source: Own survey and calculations

**Fig. 2:** Reasons for choosing the house/apartment

N=204, Multiple responses allowed

Source: Own survey and calculations

alteration and rehabilitation measures, confirming our impressions from the on-site inspections. First-generation residents primarily carried out energy-saving improvements; second-generation residents cited modernisations of bathrooms or kitchens in the first place (79 percent), followed by energy-saving adaptation measures such as the installation of new windows and the modernisation of the heating system. Both first- and second-generation residents named the addition of thermal insulation as their first planned alteration and rehabilitation measures.

In their evaluation of the specific characteristics of the residential area, particularly the infrastructure, accessibility of public facilities, city centre and recreational opportunities, the survey respondents most frequently assessed the accessibility of schools and kindergartens as good. The 30- to 64-year-old age group most frequently assessed the parking situation in public spaces as poor, followed by areas for recreational activities. The older group (65+) most frequently assessed the supply of shopping opportunities as poor, followed by the parking situation.

Overall, the resident survey shows that the residents do not perceive the present situation in residential areas to be unfavourable. The location characteristics of the neighbourhoods, the home comforts and the amount of greenery in less compact living situations are often appreciated. Nevertheless, the residents do fear future marketing problems.

#### 2.2.4 Summary

The relatively balanced ratio of first- and second-generation residents ascertained by the resident survey shows that the neighbourhoods studied are currently in the midst of a generational transition. Most of the respondents interpret the widely ascertainable drop in real estate prices as the market's adaptation to changing demand, but not as a symptom of structural crisis. However, we note a looming trend of polarisation that is distinguished by steady developments in well-located residential neighbourhoods and by initial re-use problems in peripheral districts. Both the municipal interview partners and the representatives of the real estate sector perceive a sort of "fringe-core gradient" with regard to this problem and expect that the phenomenon will intensify along with progressive demographic change. This pattern is reshaped by geographically different problems in specific segments of the housing stocks such as row and duplex houses or objects in topographically difficult locations and those with serious construction faults. Many interview partners reported drastically high asking prices, which can lead to prolonged delays in sales and thus further intensify the known remanence effects in the generational transition of the neighbourhoods. However, the results of the resident survey also show that an awareness of realistic selling prices is apparently growing because a large number of the residents surveyed anticipate difficulties asserting their asking prices.

With regard to questions about the future of older single-family home neighbourhoods, the municipalities are presently undergoing an orientation phase with a high degree of uncertainty in planning policy. They vaguely perceive a possible presentation or intensification of the problem but lack any clear idea of how these problems may actually manifest themselves and with what intensity as well as what preventive measures would be suitable to avert critical developments in the neighbourhoods. We encountered similarly disparate perceptive patterns in the real estate sector where the assessments fluctuate between trusting market processes – for instance, referring to the adaptation of supply and demand to lower prices ("dropping the price will fix it") or to new demander groups – and hoping for supportive municipal measures in the case of intensified supply surpluses. Today, single-family home neighbourhoods largely appear to be blind spots in urban planning and urban renewal. After their initial planning in the course of their origination, the neighbourhoods were long considered fast sells for which no interventional planning appeared necessary at all. Accordingly, there is hardly any experience in municipal stock management. In summary, we can state that at all three levels – municipal policies and planning, the real estate sector and, to a limited extent, the owners – attention to changes in older housing areas is increasing. The municipalities acknowledge the reasonableness of increased observance and, if needed, taking intervening measures. At the same time, however, there are considerable uncertainties about what strategies and steering instruments can be put into practice.

## 2.3 Case studies: Garbsen and Beverungen

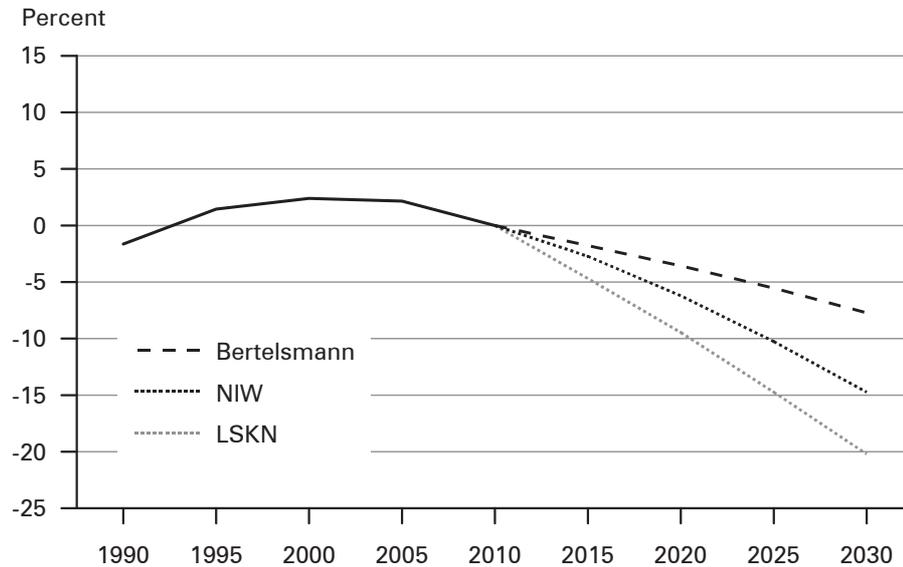
In the following, we supplement our evaluation of the survey results by describing selected areas from the case study towns of Garbsen (Lower Saxony) and Beverungen (North-Rhine Westphalia). We highlight the differences that exist with regard to the housing demands and development opportunities between the two municipalities and among the neighbourhoods within a community.

### 2.3.1 Garbsen

Garbsen, with approximately 62,000 inhabitants, is a large medium-sized town within the direct vicinity of the Lower Saxon state capital of Hanover. The city of Garbsen was created over the course of the 1960s and 1970s through gradual mergers of a number of communities. Garbsen does not have a long-distance rail connection, but it is connected to local public transport by a light rail system administered by the Hanover transport authority. The municipality is situated directly on the federal motorway A 2 and the federal highway B 6. The modern city of Garbsen consists of the more densely populated and now connected districts of Altgarbsen, Havelse, Auf der Horst and Berenbostel as well as eight smaller districts, some of which are more suburban and others more rural. In addition the district of Garbsen-Mitte between Altgarbsen and Berenbostel has been under development since the 1980s. By concentrating public and private facilities such as the town hall, municipal library, a multiplex cinema and shopping centres, the different districts of the city of Garbsen have a new, mutual centre here. The Garbsen districts bordering on Hanover grew strongly in the post-war years as typical suburban residential locations. Accordingly, the percentage of residential buildings from the 1950s, 1960s and 1970s is rather high at 56 percent. Since 2001, the city of Garbsen has been losing 0.25 percent of its population per year on average, and this shrinkage will presumably increase in coming years. According to the population projection by the Lower Saxony State Office of Statistics and Communication Technology (*LSKN* 2012), until 2030, the city faces a population decline of approximately 20 percent compared with 2010; however, the Bertelsmann Foundation (*Bertelsmann Stiftung* 2012) and the Lower Saxony Institute for Economic Research (*NIW* 2012) project distinctly smaller losses.

Garbsen's development was and is dependent on its proximity to Hanover and, in particular, to the large industrial operations in the directly adjoining Hanover district of Stöcken, where important production sites for the automobile and battery technology industries are located. The city hopes for a stimulus for independent economic development from the Hanover Centre for Production Technology (PZH) located within Garbsen's boundaries, which unites six institutes of the Leibniz-University of Hanover that handle production engineering and logistics together with a number of enterprises from the same sector. In addition, other departments of the university have been moved to Garbsen, and there are plans to settle the entire faculty of mechanical engineering in Garbsen.

**Fig. 3:** Change in the population of Garbsen between 1990 and 2030 (2010 = 100, projected from 2010)



Source: Own calculations, data basis: population prognosis by the *Bertelsmann Stiftung* (2012) (Institut für Entwicklungsplanung und Strukturforchung GmbH, Deenst GmbH), *NIW* (2012), *LSKN* (2012) (population projection by the Landesbetrieb für Statistik und Kommunikationstechnologie Niedersachsen)

The area studied, *Garbsen-Planetenring*, is part of the large housing estate “Auf der Horst,” which was industrially built under the general management of the state capital of Hanover between 1964 and 1968 and was distinguished as a demonstrative federal construction scheme. The large housing estate consists mostly of three-storey multiple family dwellings, scattered high-rises and two areas with compact row and garden courtyard houses. The number of residents has decreased from approximately 10,000 to 7,000 inhabitants in 2009 – a decline of approximately 30 per cent. The formerly municipally owned apartment buildings have been sold in the meantime, and some are now owned by investment companies that invest little in the housing stocks. The apartment buildings have been part of the “Social City” federal funding programme since 2006. In the studied sub-area of Planetenring, there are four different types of single-family homes. The neighbourhood is accessed via cul-de-sacs from the main access roads, residential streets and pedestrian passageways, and it has one discount grocery, two kindergartens, a primary school and a mixed secondary school centre. An adjacent row of shops is partly vacant and partly converted for social facilities. There is a light rail system station and a bus stop at the edge of the neighbourhood. The centre of Hanover can be reached by rail in 23 minutes, and the new Garbsen city centre by bus in 11 minutes. The old-age dependency ratio of 1.28 in the neighbourhood exceeds the city total (0.35) by more than 3.5 times, and the average age of 58.3 years is also far higher than the Garbsen

**Tab. 3:** Structural data of the neighbourhoods Planetenring and Waldstrasse in Garbsen

	Platenring	Waldstrasse
<b>Location</b>		
Distance to town centre	2.0 km	3.5 km
Location within entire town	Central	Outskirts
Topography	Level	Level
<b>Area</b>		
Neighbourhood area (net)	5.1 ha	9.1 ha
Average lot size	337 m <sup>2</sup>	576 m <sup>2</sup>
Percentage of empty lots	0.0%	5.5%
<b>Construction</b>		
Site occupancy index (actual)	0.43	0.23
Structure type	Compact	Unattached
Settlement process	Simultaneous	Gradual
Dominant building age classes	1960s	1950s-1960s
<b>Residents</b>		
Number of inhabitants (2010)	323 inhabitants	487 inhabitants
Inhabitant development 1989-2010	-	-
Inhabitant density (2010)	62.8 inhabitants/ha	53.6 inhabitants/ha
Old-age dependency ratio	1.28	0.51
Percentage of migrants	6.8%	6.4%

Source: Own survey and calculations

average (44.6 years). The Planetenring neighbourhood has the highest average age of all neighbourhoods studied and is therefore only at the onset of generational transition. The homogeneous age structure of the residents can be explained by the fact that they all moved into the finished complex at the same time. The generational transition is thus likely to occur here in a relatively short time. Due to the good connections to Hanover and the equally good infrastructure in Planetenring, no serious re-use problems are to be expected. However, in the meantime the municipality could take up the task of adapting public services to the needs of the aged residents.

The studied area of *Garbsen-Waldstrasse* is a suburban settlement of low-density single-family homes built by individual builders. At that time, the local centre of Havelse was growing at the western edge of the area studied, with a church and various shops. Today, however, most of the shops are vacant. The neighbourhood is located in the southeast of the city of Garbsen and is bordered to the east by Hanover's Marienwerder forest. In addition to traditional housing estate houses and a few semi-detached and row and duplex houses, the area studied consists predominantly of detached single-family homes, most of which are built on 700- to

**Fig. 4a:** Two-storey row house type in Garbsen-Planetenering



**Fig. 4b:** Detached single-family homes in Garbsen-Waldstrasse



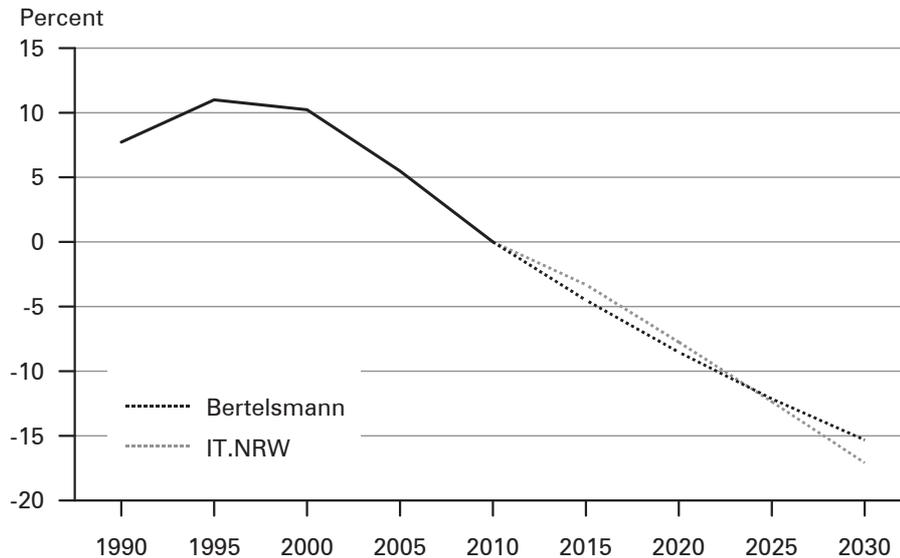
Source: Photos taken by the authors

1,200-square-metre lots. Because many of the lots are very deep, some houses have already been built in the “second row” and are accessed via a cul-de-sac on the front lot. A kindergarten and a playground are located within the area studied, and there is a primary school nearby. The new city centre can be reached by bus in 12 minutes; the centre of Hanover can be reached by public transport in approximately half an hour. At 0.51, the old-age dependency ratio of the population is distinctly higher than the city total (0.35). On average, a house is occupied by 3.3 people, which is a comparatively good occupancy figure. Because the area was settled gradually, the age structure is more mixed than in the Planetenering area, and generational transition is occurring less abruptly. The generally low lot utilisation is increased by the many new houses that have been built on the rear lot sections, but because the inside of the block is not accessed via a continuous public street but via cul-de-sacs on private property, complicated access structures have been created. Due to the proximity to Hanover, the quiet location, the direct proximity to the Marienwerder forest and adequate public transport connections, the area studied has good development prospects. Because the existing individual construction is characterised by different architectural styles and façade types, the appearance of the housing estate is not highly sensitive to construction changes such as modernisation, alteration and later densification.

### 2.3.2 Beverungen

Beverungen is a small town with approximately 14,000 inhabitants in Weserbergland in the east of North-Rhine Westphalia. Beverungen as it is today was created in 1970 through the incorporation of numerous surrounding villages. The core city has only approximately 6,600 inhabitants. Due to the loss of many large enterprises, particularly the furniture industry, the city has lost approximately one-third of its employees in recent decades. Its economic structure continues to be dominated, however, by the manufacturing industry, which employs approximately 41 percent

**Fig. 5:** Change in the population of Beverungen between 1990 and 2030 (2010 = 100, projected from 2010)



Source: Own calculations, data basis: population prognosis by the *Bertelsmann Stiftung* (2012) (Institut für Entwicklungsplanung und Strukturforchung GmbH, Deenst GmbH), population prediction by the Landesbetrieb Information und Technik Nordrhein-Westfalen (*IT.NRW* 2012)

of all employed people. Beverungen has continually recorded population losses since 1998. According to a projection by the North-Rhine Westphalian State Office of Information and Engineering, between 2010 and 2030 – due to a negative natural population and migration balance – it can expect a further continuous inhabitant decline of approximately 17 percent, thus lowering the number of inhabitants to less than 12,000 (*IT.NRW* 2012). The population prognosis by the Bertelsmann Foundation reaches a slightly lower figure (*Bertelsmann Stiftung* 2012).

The studied area *Beverungen-Poelten* is a low-density single-family home neighbourhood with detached houses predominantly from the 1950s and 1960s. It directly borders the core city. Originally, the privately owned homes in Poelten were built primarily by citizens of Beverungen. Later, a number of inhabitants who originally came from Berlin settled in one section of the housing estate and chose the charming Weserbergland region as their retirement home while seeking a topographically level location. Between 1990 and 2009, the number of inhabitants in this residential neighbourhood dropped by 17 percent; many houses already exhibit internal vacancies, i.e., they are inhabited by only one usually older person. As a result, at 0.54, the old-age dependency ratio is higher than that in Beverungen overall (0.40). Due to the neighbourhood's good infrastructure and local amenities, schools, kindergartens and physicians as well as a level location – not typical for Weserbergland – the neighbourhood is equally suitable for young families and older people. According

**Tab. 4:** Structural data of the neighbourhoods Poelten and Selsberg in Beverungen

	Poelten	Selsberg
<b>Location</b>		
Distance to town centre	1.4 km	1.9 km
Location within entire town	Central	Outskirts
Topography	Level	Slope
<b>Area</b>		
Neighbourhood area (net)	13.2 ha	11.4 ha
Average lot size	605 m <sup>2</sup>	594 m <sup>2</sup>
Percentage of empty lots	5.2%	10.3%
<b>Construction</b>		
Site occupancy index (actual)	0.2	0.2
Structure type	Unattached	Mixed
Settlement process	Gradual	Gradual
Dominant building age classes	1950s-1960s	1960s-1970s
<b>Residents</b>		
Number of inhabitants (2009)	767 inhabitants	684 inhabitants
Inhabitant development 1990-2010	-17%	-9.5%
Inhabitant density (2009)	58 inhabitants/ha	60 inhabitants/ha
Old-age dependency ratio	0.54	0.33
Percentage of migrants	7.4%	3.5%

Source: Own survey and calculations

to the overall situation of the city described above, we cannot expect family households to contribute to a sufficient extent as a demander group to entirely avoid a vacancies development in future; the location advantages of the neighbourhood and the city's plans to make Beverungen attractive for senior citizens could, however, be used to adapt the neighbourhood to the needs of an ageing population, for example, through the promotion of age-friendly home alterations or relevant image campaigns. In addition, the existing potential for urban infill could be taken advantage of to add smaller facilities for barrier-free and assisted living, for which there is great demand in Beverungen, according to the municipal stakeholders. This could enable older residents requiring care or nursing to remain in the neighbourhood.

The neighbourhood of *Beverungen-Selsberg*, which was built upward from the foot of a steep eastern slope, is situated at the edge of the city centre of Beverungen. A few apartment buildings that were built by a non-profit housing estate organisation are located at the lower edge; today, they are owned by a real estate investment fund. Since then, the image of this neighbourhood has been characterised by apartment buildings, which is rather atypical for Beverungen, with a large number

**Fig. 6a:** Detached single-family homes in Beverungen-Poelten**Fig. 6b:** Row houses on a steep slope in Beverungen-Selsberg

Source: Photos taken by the authors

of welfare recipients. Across from the multiple family dwellings in the lower section of the neighbourhood, steep cul-de-sacs provide access up the hill to duplex and row houses. The upper section of the housing estate contains detached single and duplex homes on spacious lots. At the western edge of the housing estate, newer buildings, predominantly detached single-family homes, make the transition to the open countryside, where there are also some empty lots for new buildings. The neighbourhood was settled later than Poelten was (1960s and 1970s), and the new construction areas at the edge of the housing estate result in a relatively low old-age dependency ratio of 0.33, although the generational transition has not yet been completed. The local amenities in the studied area are inadequate because a car is needed to purchase the daily essentials. Secondary schools and two day-care facilities are located only one to two kilometres away, but the primary school is located across town. The public transport connections mainly aim at the transport of pupils. For the older residents living in the neighbourhood, the distance to shops and amenities is a distinct deficiency. The steep access roads are another barrier to the elderly leading self-sufficient lives. Due to the specific topography of the neighbourhood, the distance to relevant infrastructure facilities and the access to houses that is sometimes steep and only possible on foot, the older building stocks face re-use problems, which could be further intensified by competition with the greenfield development and the infill of empty lots. Conversely, the low home prices that are a result of the negative factors could make the neighbourhood appealing for other groups such as the residents of the apartment buildings at the edge of the housing estate. This trend appears to have already begun due to the growing numbers of residents of Russian origin.

### 2.3.3 Summary

The two studied municipalities, each with two neighbourhoods, were chosen to represent the 14 examined municipalities with a total of 29 neighbourhoods. They

reveal the scope of different house and neighbourhood types and illustrate the influence of a rural/peripheral location or a central location in an urban agglomeration. Despite the visible rehabilitation backlog and a few negative factors, the two Garbsen neighbourhoods are on a relatively solid footing. The future population decline in Garbsen is a special uncertainty factor because the prognoses differ considerably, but due to other positive circumstances, this is not of great consequence. The size of Garbsen and its central location in the Hanover region ensure a functional housing market that can easily, if not favourably, absorb the segment of older single-family homes. For Planetenring, in addition to the age-friendly adaptations mentioned above, land use planning measures in particular could help the town attain qualified further structural development of the neighbourhood. All of the population development projections for the city of Beverungen reveal major population declines. The economically difficult situation in the region means that the development of vacancies cannot be avoided in the long term, although the vacancy problem will impact other post-war neighbourhoods located in remote villages first. The favourable location of the neighbourhood of Poelten could be further adapted to the needs of an older population. In addition, smaller units of barrier-free and assisted living arrangements could be added to cover the existing demand in Beverungen. Selsberg, with its steep slopes and poor infrastructure, is not suitable for elderly people. Here, we assume that the existing influx trend of other socio-demographic population groups will continue and shift the vacancy problem to the apartment buildings.

### **3 Housing stock development: a municipal field of action**

The findings presented here pose the question of whether and in what way public intervention is necessary and reasonable to support renewal processes in older single-family home neighbourhoods. Because municipalities are the main stakeholders in this context, we must ascertain the self-conception on which municipal action is based. The possible roles of the municipality are described in Section 3.1 with a spectrum ranging from a mere observer role to the provision of advice and mediation services all the way to regulative and investment measures. To make informed decisions, a municipality must examine the development perspectives of its respective neighbourhoods. Therefore, Section 3.1 also presents considerations on neighbourhood development perspectives and municipal development strategies before we describe selected action approaches in detail in Section 3.2 (see also Table 5).

#### **3.1 Motives and strategies for municipal action**

Because home ownership is chiefly a private matter that is usually beyond the grasp of governmental and municipal control, seemingly political decision-makers have limited options to influence or take action in the sphere of privately owned home neighbourhoods. Nonetheless, our survey of local representatives revealed a more differentiated picture. The representatives do see a need for action if it is in the

interests of the common welfare. Municipalities consider themselves responsible when structural problems arise for entire neighbourhoods but not when problems arise for individual home owners. Differentiating between these two, however, is still difficult for many municipalities. The motivation to take part in the research project was therefore often driven by the desire to better estimate a town's own situation compared with that of other municipalities and to see examples that refer to actions needed.

At first, the municipal stakeholders frequently cited precarious budgets and scarce human resources as basic obstacles to establishing single-family home neighbourhoods as a distinct field of municipal action. However, in the ensuing in-depth discussions about options for intervention, the municipalities were able to list more steering options than were apparent at first glance. It is worthwhile to examine the entire spectrum of possible municipal action, especially in neighbourhoods with numerous private owners. Generally, we can differentiate the following five municipal roles (*Kern et al.* 2005: 11; *Fox-Kämper et al.* 2009: 23):

- *Plan and regulate:* The set of regulating instruments includes, for example, granting or denying building permits and urban-development orders such as building or demolition orders. In addition, the flexibilisation of building regulations for housing stock development may be helpful as long as they are not contrary to the requirements of historic preservation.
- *Supply and provide:* Municipalities are directly or indirectly responsible for providing social and technical infrastructure services within the municipal territory. Changes in the number of inhabitants and the age composition in housing stock areas influence the demand for infrastructure, which can result in the need for expansion, conversion or removal.
- *Observe and advise:* In most cases, local administrations possess a variety of statistical data that unfortunately frequently exist in isolation in different specialised offices. By compiling this information, a database can be created that can help authorities evaluate planning needs and serve as a basis for advisory services for housing stock management.
- *Initiate and stimulate:* In addition to possible financial incentives, municipalities can offer technical support for owners such as construction advice or aid prior to applying for funds from state funding programmes.
- *Mediate:* The municipality may be needed as a mediator in the creation of neighbourhood development schemes or in solving individual problems such as in conjunction with urban infill or the demolition or alteration of infrastructures. In some cases, however, it may be advisable to employ external mediators.

Determining which of these very different roles is appropriate in any given situation depends not only on the local planning culture and the available human and financial resources of the local authority but also on the realistic development options of a single-family home neighbourhood. While municipal advisory services (e.g., energy-saving rehabilitation measures) may be considered sufficient in one neighbourhood, the development of another neighbourhood may raise further questions about possible interventions by the municipality. We can differentiate three possible developments for a single-family home neighbourhood that present municipalities with very different tasks (cf. *Adam/Krings-Heckemeier* 2010; *Zakrzewski* 2011):

- Neighbourhoods can be “fast sells,” i.e., houses are absorbed by the market, and the image and character of the neighbourhood does not face notable social and structural changes. Generally, no public intervention is needed in fast sell areas. Municipal stakeholders in prospering regions in particular note that the houses usually change hands with ease in the course of generational transition.
- Favourable factors such as a good residential location, favourable economic circumstances and consequently a high demand can mean that neighbourhoods are so popular that their image and real estate prices gain in value and that the social status of the new residents also rises (“filtering up”). Municipal intervention can be advisable in “upward” neighbourhoods, for example, to prevent undesired urban infill.
- Finally, a neighbourhood can also experience a descent when the transitional phase is accompanied by rehabilitation backlogs, underuse and vacancy problems, a poorer image and a problematic amount of incoming “other” socio-demographic population groups (“filtering down”). In this case, a broad spectrum of municipal options for action opens up.

Similar to experiences in the urban restructuring of apartment buildings, three different neighbourhood development strategies can be distinguished and combined: *stabilisation – qualification – restructuring* (cf. *Kirchhoff/Jacobs* 2005; *Adam et al.* 2006). Depending on the neighbourhood and strategy chosen, municipalities can take different measures and vary their role or the extent of their intervention. The strategies presented below for neighbourhood development are not to be understood as directly transferable and immediately employable “blueprints” but are merely intended to show municipalities’ major options with regard to housing stock development in single-family home neighbourhoods.

*Stabilisation strategies* are particularly suitable for neighbourhoods that have a sufficient demand for privately owned homes. From the point of view of urban development policy, such neighbourhoods need to be maintained in their current structure, characteristics and residential function. The existing deficiencies and shortcomings are eliminated at once, and the existing location potentials are uti-

lised. The residential function is strengthened and developed further while preserving the existing basic urban-development structures.

*Qualification strategies* are recommended primarily for single-family home neighbourhoods for which difficulties are expected with regard to their long-term use due to unfavourable circumstances and unattractive neighbourhood characteristics but that have the potential – through targeted measures – to develop positively. Urban-development shortcomings such as permanently vacant and dilapidating buildings are eliminated. Targeted upgrade measures can diminish losses in both attractiveness and value and improve use perspectives.

*Restructuring strategies* are best suited for neighbourhoods in which adequate demand cannot be anticipated for the long term due to negative circumstances and unfavourable neighbourhood characteristics. When vacancies increase and are accompanied by a further decrease in attractiveness, extensive demolition measures may be necessary to limit damages to the image of the municipality and to improve the functionality of other housing stocks. Restructuring measures can also involve the type of use, such as increasing permits for non-residential uses.

### **3.2 Recommendations for action**

One central insight gained from the municipal case studies that we conducted is that regions, cities or neighbourhoods that have a higher risk of marketability of single-family home stocks can be identified only to a very limited extent by means of specific indicators or available statistical data. Additionally, our site inspections and in-depth investigations of the areas of housing stocks revealed that even within communities, there are disparate developments in structurally similar residential areas, which can frequently be explained by specific location characteristics or image patterns. Because neither a regionally specific nor a universal scheme can thus be developed to qualify single-family home stocks, this project established a so-called “toolbox” of certain strategies, options for action and measures that allow solutions to be developed in accordance with locally and regionally specific features. The toolbox allows the user to combine options in a variety of ways. Depending on the specific strategy chosen, the spectrum of possible municipal actions ranges from more informal instruments such as non-binding neighbourhood development plans to regulatory interventions in the context of municipal land use planning (Table 5 provides an overview). The recommendations for action were developed based on the findings from the case studies and underwent an initial evaluation in workshops with experts.

The case studies presented here prove that the future development of single-family home neighbourhoods should not be observed in isolation from broader changes within the municipalities because aspects such as local demographic developments, the dynamics of the local economy and specific area policies decisively characterise housing stock conditions. This results in the necessity for an integrated and integral regional perspective from which neighbourhood-specific development strategies are established. In the interviews and workshops, the municipal stakeholders cited careful recording and analysis of the condition of single-family

home neighbourhoods and their importance for the local housing supply as first important steps to place strategic actions on a reliable foundation. Our interviews also revealed that certain individual matters have already been analysed within the municipalities but that there is a lack of integration and thus of the combination of individual aspects. This can be done in the context of integrated urban development schemes or housing market schemes and, if needed, can be supplemented by talks with or surveys of residents and real estate agents. Generally, constant neighbourhood monitoring is an appropriate measure for recognising unfavourable developments early and becoming proactive. Even municipalities that do not face any present need for action favoured this approach.

One important measure to promote housing stocks is limiting the allocation of new building land. Particularly in municipalities with unfavourable demographic trends, the competition between existing neighbourhoods and new greenfield construction can be curbed using this strategy. However, municipalities affected by new construction reported of competition for inhabitants with nearby towns and consequently perceived the need to allocate additional lots. The negative consequences of such “local parochialism” have been described more than once (cf. *Schiller/Gutsche* 2009; *Preuß/Floeting* 2009; *Danielzyk et al.* 2010). We therefore recommend an intermunicipal harmonised building land strategy that seeks a fair balance of interests between the participating communities. While we found a trend towards urban infill in almost all of the municipalities that are frequently politically anchored by council orders, none of the municipalities studied implemented approaches for intermunicipal cooperation.

A restrictive building land policy should be supplemented by neighbourhood-level approaches. We addressed measures to activate vacant lots and urban infill, which can also have positive effects on the viability of infrastructure facilities. The idea of a municipal building land registry providing information about buildable vacant lots within the municipal area was described by municipal stakeholders as a useful measure to unite supply and demand. In municipalities registering marketing difficulties and distinct drops in prices for older single-family homes, an image campaign promoting existing housing can contribute to emphasising the specific qualities and potential of existing housing stock neighbourhoods compared with new greenfield developments, which could steer demand to existing homes or certain neighbourhoods. Similar campaigns that combine the purchase of older houses with financial incentives are being observed closely (e.g., the “young buy old” programme in the town of Hiddenhausen). The funding programme, which was established in 2007, simultaneously reduced the number of vacant buildings and increased the utilisation of the social infrastructure. This type of good publicity and addressing relevant groups could contribute to a positive outlook for urban infill and the purchase of used homes.

Urban infill schemes are frequently called “the building blocks of successful increase in building density” (*Umweltministerium Baden-Württemberg* 2009; translated by CPoS). Many less compact single-family home neighbourhoods exhibit very low structural density and therefore have potential for infill. Low density, however, is often a sign of a high quality of living; in particular, a spacious settlement

and large share of open space are often decisive in the popularity of many single-family home neighbourhoods. Therefore, especially in municipalities with high demand in specific neighbourhoods, it can even be wise to protect a lower density from undesired structural infill. According to the municipal stakeholders, there are certainly neighbourhoods in which the low degree of land use is considered disadvantageous; even so, infill schemes are employed with great reserve. The surveyed municipalities only expect success if such schemes are created in an open, participative process.

The municipal stakeholders cited infrastructure and local amenities as another essential field of action. There is a complex relationship among demand potentials, accessibility, economic viability, the municipal public supply mandate and effects on the attractiveness of neighbourhoods. Single-family home neighbourhoods are generally characterised by low population densities, as mentioned above. The ageing process of the residents and related remanence effects often lead to further reductions in density and therefore also in demand. This can seriously endanger the economic viability of the technical infrastructure (*Schiller/Siedentop* 2005; *Koziol* 2004; *Siedentop* 2009). Against this background, the municipalities address the need to maintain infrastructure facilities in spite of a drop in utilisation to keep housing estates attractive to new buyers. The phase of generational transition was considered a special challenge, particularly in homogeneously settled single-family home neighbourhoods in which both older residents and families with children must be supplied. Increased synergies can possibly be achieved via collaboration between the existing facilities for young and old and by means of multifunctional and flexible schemes that allow for use by different groups.

Because there is often a lack of knowledge about the small-scale supply quality of local amenities, municipalities should first investigate the current situation in single-family home neighbourhoods or the entire town, including all residential areas. Municipalities in which local amenity facilities cannot be viably operated in certain neighbourhoods reported efforts to organise the supply of essential goods and services by means of alternative schemes. Although the municipal stakeholders emphasised that initiating new supply models is not within their direct jurisdiction, they did see themselves in the role of creating contacts, inputting ideas and offering financial and organisational support. Alternative models include cooperative shops or community centres where the inhabitants themselves organise local amenities such as mobile retailers or supermarkets on wheels and delivery services. The municipalities studied have already had initial, largely positive experiences with such models.

In the face of climate protection, municipalities do recognise their important role as advisory entities to motivate the large but heterogeneous group of owner-occupiers to undertake energy saving modernisations. There is still a significant modernisation backlog of single-family homes, particularly in energy-saving rehabilitation. The academic literature cites the lack of information (e.g., about houses' energy-related conditions) or prejudices, fears and anxieties (e.g., about the expense of rehabilitation) as the main reasons for investment reticence among single-family homeowners (*Kleemann/Hansen* 2005; *Stieß et al.* 2010). Therefore, municipalities

**Tab. 5:** Overview of municipal fields of action, measures and objectives

Field of action	Measure	Objective
Strategic urban development planning and monitoring	Analysis of the housing stock and the resident structure based on the local statistics	Record the initial situation and previous development of the neighbourhoods; estimate the future development of the neighbourhoods
	Resident survey	Record deficiencies from the residents' viewpoints; collect data on the needs and wishes of the residents
	Dialogue with real estate agents and other housing market stakeholders	Assess the situations and marketing perspectives of the neighbourhoods; gain knowledge of the needs of new demander groups
	Regular collection of indicators that identify negative trends early	Monitor neighbourhood development; early warning system for critical developments that require municipal intervention
	Establish integrated development schemes	Framework for municipal action; framework for investments; basis for planning policy
Urban development and land management	Stock-oriented housing estate development, restriction of allocation of additional building lots	Create incentives for the purchase of existing housing stocks, avoiding excess supply on the housing market
	Intermunicipal land management	Develop an inter-municipal greenfield strategy to avoid excess supply on the housing market
	Urban Infill	Urban development through utilising existing building sites
	Conversion of vacant non-residential buildings (greyfield development)	Activate and convert vacant areas, elimination of vacancies
	Schemes for increasing population density	Increase the number of dwellings and enlarging floor spaces
	Demand stimulation and public relations	Steer attention to existing buildings and vacant lots
<b>Infrastructure and local amenities</b>	Analysis and creation of background information	Record and analyse shortcomings; decision basis for further measures to eliminate supply deficits
	Adaptation of the technical infrastructure	Adapt the networks to stabilise economic viability and ensure technical functionality
	Adaptation of the social infrastructure	Eliminate supply deficiencies; upgrade neighbourhoods by improving the infrastructure
	Adaptation of nursing services in the area	Care of older residents; create or secure an adequate nursing supply; ensuring longest possible independence and that they can remain in familiar surroundings
	Securing and strengthening existing local amenities	Long-term maintenance of local amenities
	Alternative management of local amenities	Ensure provision of essential goods and services; upgrade neighbourhoods by means of improved supply

**Tab. 5:** Continuation

Field of action	Measure	Objective
Public space and townscape	Upgrading the public space	Increase attractiveness; improve availability of open space; make the public space a place of communication and a meeting place; stimuli for successive private upgrades
	Designing low-barrier public space	Improve accessibility for people with low mobility; improved accessibility for all residents
	Preservation of housing estates that define the townscape	Protect the original appearance; thoughtful further construction
Traffic and mobility	Adaptation/strengthening of local public transport	Adapt public transport connections to changed needs of residents; upgrade the neighbourhood through improvement of public transport connections
	Alternative/flexible mobility schemes	Ensure mobility in spite of low viability; stimulate civic commitment and neighbourliness; establish self-sufficient structures
	Redesigning parking spaces (in compact housing estates)	Create new parking spaces; upgrade the public space; preserve the characteristics of neighbourhoods
Buildings and housing space	Disseminating information on energy-efficient renovation of buildings	Overview of funding options; reduce the modernisation backlog; reduce energy consumption
	Disseminating information on age-friendly adaptation of housing spaces	Overview of funding options; adapt housing stocks to barrier-free standards
	Disseminating information on general housing space adaptation	Overview of funding options; adapt dwellings to changed demands; shared dwellings
	Setting up a model house as an example of successful housing stock modernisation	Portray the spectrum of possible alterations; strengthen private willingness to invest
	Promoting cooperation and networks of craftsmen specialised in modernisation of single-family homes	Facilitate measures for stock adaptation; bring together providers and demanders
	Construction of age-friendly dwellings; facilitating moves to age-friendly living arrangements	Support generational transition; "clear" "blocked" buildings for young families
Residents and participation	Local owner associations	Upgrade the neighbourhoods through coordinated measures by private owners
	Promotion of self-help initiatives	Alternative supply and support by, e.g., associations, cooperatives, neighbourhood networks
	Cooperative and participative planning processes	Increase acceptance of municipal measures and plans consider the concerns of residents
	Promotion of measures that improve neighbourhood life	Increase social cohesion and civic involvement

Source: Own design

can attempt to increase the rehabilitation rate of privately owned homes by providing relevant information and assistance and at the same time supporting the adaptation of buildings to the needs of older residents.

Municipalities can support the generational transition in single-family home neighbourhoods by granting building permits and initiating relevant projects for the construction of barrier-free dwellings with care services or other facilities for the elderly on vacant lots or other unused areas (e.g., unused playgrounds). Another option is to alter and combine large single or duplex homes into smaller, age-friendly units. In this case, we recommend the inclusion of local providers of such living arrangements, such as local building societies and nursing facilities. The fields of action sketched out here are merely a selection of options for municipalities. The following table 5 shows an overview of a variety of further fields of action, measures and objectives.

The fields of action described above lie within the municipalities' scope of influence. There are also some important fields of action at the regional and national levels, however, such as governmental housing promotion, which still makes building new homes preferential to purchasing used homes in some states. Fiscal and legal instruments are of primary relevance at the national level by, for instance, differentiating property transfer tax to reduce the burden on the purchase of built-up plots as and levying a special fee on vacant lots to create incentives and thus strengthen housing stock development. Another interesting question is the extent to which the instruments and funding lines of urban restructuring (in Germany, a joint task of the federal and state governments) could be effective in the Housing Improvement Districts in single-family home neighbourhoods. During our discussions with experts, however, we identified a basic restriction regarding the use of urban development funds in single-family home neighbourhoods. In many municipalities, the situations in neighbourhoods with compact apartment buildings are so urgent that shifting urban development funds to single-family homes is considered unrealistic.

#### **4 Summary and conclusions**

Due to the comparatively low percentage of single-family homes in German housing stocks and Germans' great affinity for this type of residence, it was hardly anticipated that this market segment could be affected by negative development. However, socio-demographic changes will quite likely have an impact on the market even for used single-family homes, which may be intensified by the continued construction of new homes. The main causes for the possible instability of this housing segment are clearly on the demand side and are not supply related deficits. Population decline and massive changes in household structures will lessen the demand for privately owned homes. Future problems can mainly be anticipated in suburban and rural regions that are far from larger cities, while single-family home neighbourhoods in urban locations or in the closer vicinity of core cities will remain a segment that is in demand on the real estate market. In the latter areas, generational transition and stock renewal will occur via general market action without the need

for substantial public action. Therefore, we can expect the increased polarisation of stock development, which is already becoming noticeable in the price development of housing stocks.

The anticipated decline in demand and loss in value of stocks of privately owned homes in peripheral regions will not necessarily lead to deficits in town planning, however. When looming problems are recognised early, thus allowing enough time to actively take countermeasures, single-family home neighbourhoods, even those with smaller populations, can be preserved as appealing residential locations. This will, however, require municipal stabilisation and adaptation measures with which we have little experience. Contrary to the common opinion that the stock of single-family homes largely eludes the influence of public action, we have been able to illustrate a variety of municipal courses of action in this article. A first and important step for municipalities would be to begin to devote themselves to their older single-family home stocks. The continuous observation of neighbourhood developments is necessary for recognising and discussing whether the market mechanisms lead to satisfactory results or whether municipal intervention is needed to preserve the general welfare.

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