1 | 2025

RESEARCH NEWS

BBSR

Dear Readers,

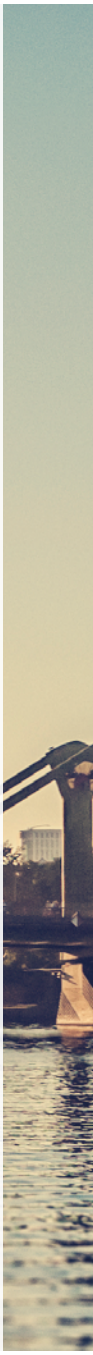
This summer, Germany is once again experiencing record-breaking heat and prolonged droughts. “Urban Heat Labs” is a new BBSR research field that explores heat mitigation in urban areas through eight model projects. The model projects include cooling points in a public park, a heat-resistant railway station and a digital tool for monitoring key climate adaptation measures. Combining structural, nature-based and digital solutions, including AI, the initiative tests adaptive strategies for buildings and neighbourhoods. As part of the BMWSB’s overarching heat mitigation strategy, it emphasises inclusive planning and cooperation to tackle urban heat.

The “Innovation lab data and analyses” (IDA), a recently launched BBSR project, uses AI to extract and structure data from unstructured sources like news articles. A prototype on job losses in the automotive industry identified over 43,000 affected jobs since 2023. This AI-driven approach enhances spatial trend analysis and complements official statistics with timely, small-scale insights.

The BBSR study “Housing for employees” highlights how companies are re-engaging in housing to address both skill and housing shortages. Around 5.2% of firms offer direct housing – around 675,000 flats and 46,000 hostel rooms – while 11.6% provide indirect support. Unlike historical factory workers’ housing, today’s models reflect modern conditions and offer flexible arrangements in a strained housing market.

I hope you will find the following article of interest.

Dr Markus Eltges
Director of the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR)



Integrating climate change and energy transition into spatial planning

by Dr Fabian Dosch[1]

According to the German Insurance Association, storms, floods and other natural disasters caused damage to the value of 5.5 billion euros in Germany in 2024 – the consequences of climate change are thus obvious. People, the economy, cities, towns, villages and regions are being confronted with ever greater challenges from floods, hot spells and drought. The need for climate protection, climate change prevention and energy transition is growing steadily and comprehensive, forward-looking and coordinated spatial planning is required.

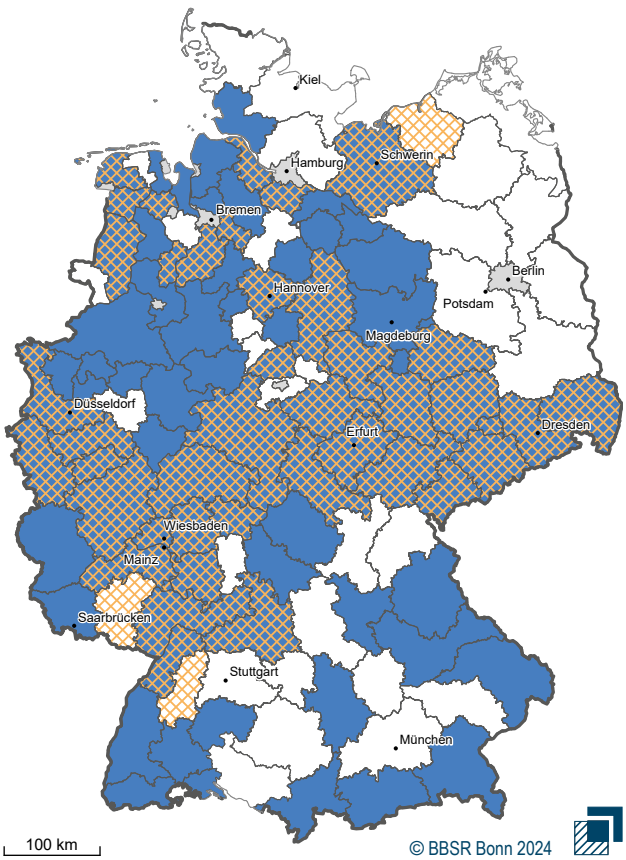
With its report on the integration of climate change and energy transition into spatial planning, the BBSR shows how spatial planning can help politicians and administrations contribute to climate change adaptation, climate protection and energy transition. The report refers to the concept of "Shaping climate change and the transformation of the energy system", which is part of the "Concepts and Strategies for Spatial Development in Germany" adopted by the responsible ministers of the German federal states in 2016. The preparatory study to the Report is based on an initial assessment of 900 federal state and regional plans from the BBSR's Spatial Plan Monitor (ROPLAMO). The results underline the key role of spatial planning in coping with challenges related to climate and energy policy.

In many regions of Germany, progress has already been made in securing floodplains and retention areas to improve **flood prevention**. However, the contents and binding nature of the spatial plans are heterogeneous. While some regions implement clear guidelines, in others, flood prevention is handled in a non-binding way.

There is also a need for action in the field of **water shortage prevention**. In view of increasing droughts, there is a requirement for measures such as securing natural floodplains and water protection areas, promoting groundwater recharge and adapting water management strategies.

With regard to **climate protection**, only about a quarter of the regional plans attach importance to securing natural CO_2 pollutant sinks like peatlands. To date, the protection of organic soils and the targeted promotion of moorland protection areas remain an exception.

Designation of priority and reserve areas of flood protection



Planning regions with designated priority and reserve areas of flood protection

priority area of flood protection

reserve area of flood protection

areas not covered by regional planning

Data source: Spatial Monitoring System of the BBSR, ROPLAMO as of 31/12/2023
Geometrical basis: planning regions, VG5000 (counties), as of 31/12/2022 © GeoBasis-DE/BKG
Author: M. Mertens

Regions have progressed in terms of **energy transition**, but so far, efforts to achieve the ambitious expansion targets for renewable energies have not been sufficient. More than half of the regions have wind energy regulations, but by the end of 2023, only 0.5 % of the national area had been designated for wind power– which is far below the 2 % target by 2032. Solar

1 in cooperation with Dr Sophie Schuppe, Dr Peter Jakubowski, Dr Brigitte Zaspel-Heisters, Klaus Einig et al.

parks are increasingly used, but the associated competition for agricultural areas is aggravating existing conflicts of use.

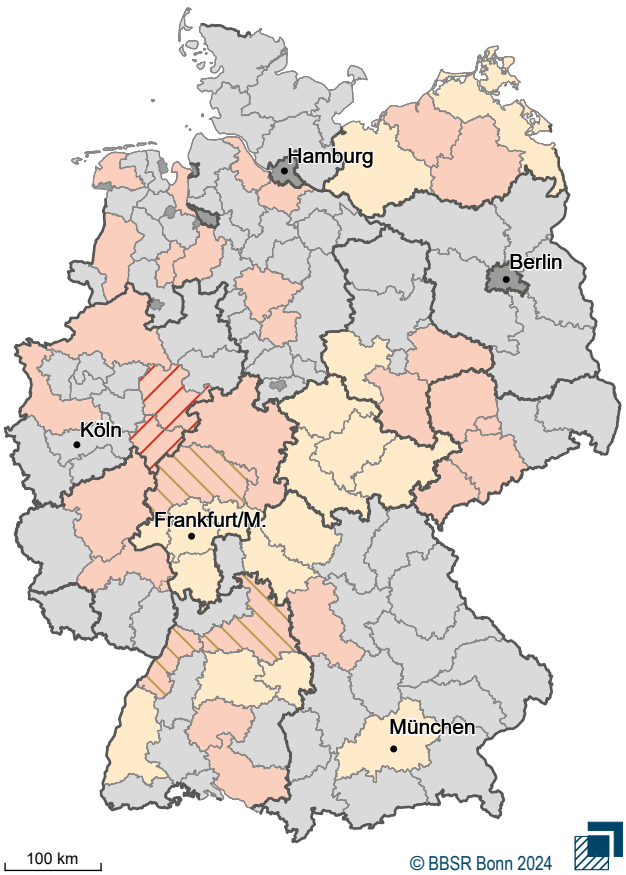
The German Government's climate and energy policy objectives are likely to significantly intensify the competition for available areas. Conflicting use claims must be weighed against each other on the basis of socially agreed goals, which is the only way for politicians and administrations to maintain, protect and sustainably develop areas for climate protection, climate change adaptation and energy transition. A reasonable multiple use of areas in ecological, technical and economic terms must also be considered in regional planning.

In its study, the BBSR sees a need for action in specific fields such as the stronger enforcement of mandatory flood protection requirements, the improvement of water management and the protection of critical infrastructures. Securing CO_2 pollutant sinks, managing settlement areas sustainably and designating areas for renewable energy production, that cause fewer conflicts, are also considered as key challenges.

The study shows that there is an urgent need to strengthen spatial planning against the background of increasing climate risks and growing land conflicts. It provides concrete starting points for increasing the effectiveness of planning at regional, federal state and national levels. The resulting recommendations call for the improvement of the legal framework conditions, the promotion of innovative approaches and model projects and intensified cooperation between planning levels. Flexible planning tools, that are more responsive to new challenges, are also considered necessary in the study. Other measures that can improve the effectiveness of regional planning include: procedural changes and optimised instrumental solutions, such as strategies for nationwide climate change adaptation and integrated land use; a monitoring of spatial planning specifications and measures and a spatial control of the energy transition taking into account all energy sources.

Only a better integration of spatial planning at all administrative levels will help to tackle the challenges of climate change and energy transition with even more decisiveness.

Specifications for photovoltaics in regional plans



Data source: Spatial Monitoring System of the BBSR, ROPLAMO as of 31/12/2023
Geometrical basis: planning regions, VG5000 (local authorities), as of 31/12/2022 © GeoBasis-DE/BKG
Author: B. Zaspel-Heisters

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Klimawandel und Energiewende raumverträglich gestalten [in German]

European cooperation for rural and economically weaker regions

by Sina Redlich, Jens Kurnol and Dr Philipp Gareis

As part of its analyses of equivalent living conditions, the BBSR has analysed the participation of rural and economically weaker regions in Interreg B and other EU programmes in the knowledge that rural regions and regions with a relatively low GDP often have poorer conditions for successfully obtaining funding. These regions would particularly benefit from the funds as they not only enable investments but also help gain knowledge and allow the implementation of high quality local solutions.

The European funding instrument Interreg B enables German actors to engage in transnational cooperation on regional development issues, for example in the Alpine Space or the Baltic Sea Region. The related programme areas are tailored to geographic and socioeconomic interdependencies. Researchers of the BBSR compared the instrument with the European programmes Interreg Europe, Horizon 2020 and Interregional Innovation Investments (I3). They examined whether due to their geographical focus, transnational programmes offer better opportunities for participation of these regions, compared to the Europe-wide programmes.

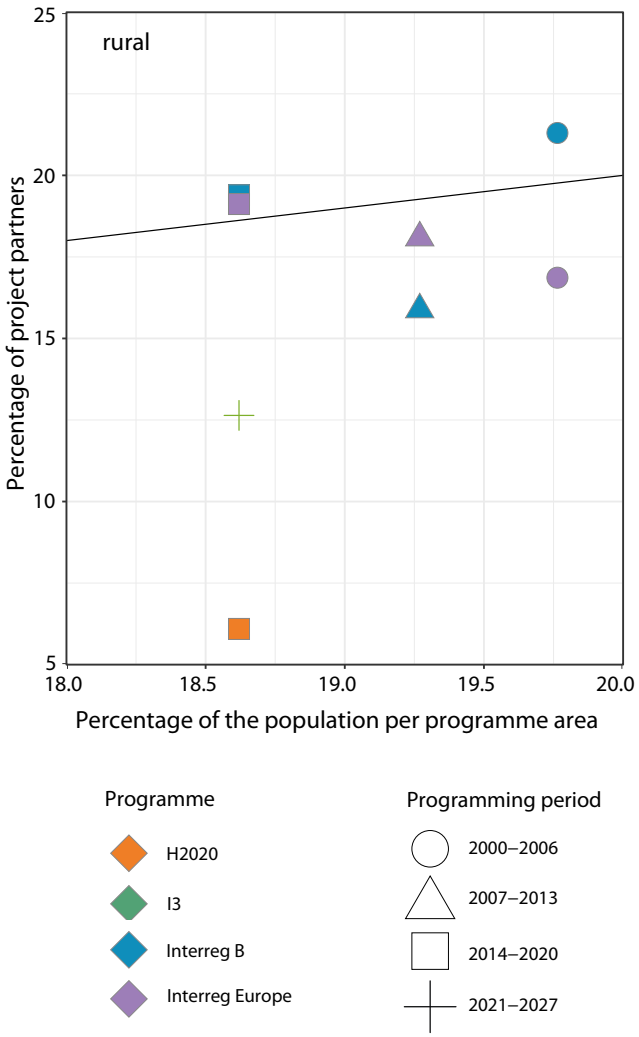
The analysis reveals that with their focus on regional development, both Interreg B and Interreg Europe involve rural and economically weaker regions better than the other two programmes. The figure shows that the ratio of project partners in rural areas to their population share in the Interreg programmes has become almost proportional in the three funding periods between 2000 and 2020.

Its thematic priorities and spatially limited cooperation enables Interreg B to include rural and economically weaker regions in the development of the overall territory. Nevertheless, there is room for improvement: Actors from urbanised areas still have a better chance of receiving funding. In Interreg B as well, higher-income regions are among the top ten regions with the strongest participation.

The funding priorities of the transnational Interreg B programmes between 2000 and 2020 have followed changing political priorities in the conflicting areas of spatial development and sectoral policies, which is reflected by the involvement of project partners coming from various types of regions.

In 2025, the European Commission is going to present proposals for the cohesion policy of the 2028-34 programming period. The BBSR is committed to further strengthening Interreg B in this context, so that regions that have previously been less involved also have better opportunities.

Project partners according to type of region



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BBSR-Analysen KOMPAKT 12/2024

Cross-border synergies of spatial planning and water management in the Oder catchment area

by Dirk Gebhardt

For more than 15 years, the BBSR has been cooperating with Poland on cross-border spatial planning and development issues. Demonstration Projects of Spatial Planning (MORO) have been playing an essential role in this cooperation as they put these issues into practice and provide important insights.

The most important MORO focused on the development of the "Common Future Vision for the German-Polish Interaction Area - Horizon 2030 (CFV 2030)" in 2016, in which the BBSR was part of the bilateral coordination team. Since then, various MOROs have dealt with the implementation of CFV 2030. The latest demonstration project, which started in autumn 2024, focuses on the field of action "Providing the setting for a high quality of life". The model regions involved promote common awareness of the natural and cultural heritage and among other things, develop water management concepts. Their aim is to identify synergies of the instruments used for spatial planning and water management.

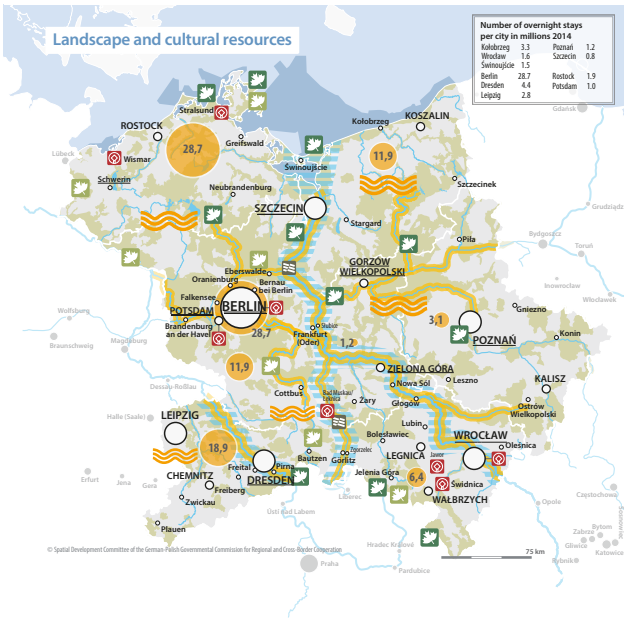
Spatial planning can support water management by coordinating planning and settling questions in the conflicting areas of spatial planning and water management both at Federal Government and federal state level, and from a cross-border perspective. The new demonstration project also supports projects that test solutions on site.

The project partners have taken stock of relevant laws, plans and instruments and of the most important actors, while workshops have brought together experts from municipalities and regions, spatial and regional planning authorities as well as those from water and environmental authorities.

In September 2024, Federal Minister Klara Geywitz handed over funding certificates to three model regions:

1. **"Dialogue process for improving the landscape water balance in the German-Polish border area (Uckermark-Barnim region and West Pomeranian Voivodeship)"**
   The project partners will draw up an action plan to improve the landscape water balance, and sensitise and link up regional actors. They will also initiate an exchange of knowledge on the landscape water balance.

Landscape and cultural resources



Source: Spatial Development Committee of the German-Polish Governmental Commission for Regional and Cross-Border Cooperation

2. **"Between planning and management – culture and practice of preventive flood protection in "Euroregion PRO EUROPA VIADRINA"**
   The project partners will develop new instruments for implementing preventive flood protection at local level based on a risk analysis. Workshops will enable an interdisciplinary exchange of experience in the fields of water and risk management. In addition, the implementation of the project will be supported by simulations in German and Polish municipalities.

3. **"WiWaLa Ueckermünde Heide– restoration of the water balance in the Ueckermünde Heath by the example of Rothenklempenow"**
   The project partners will develop a planning tool to improve the landscape water balance in a semi-natural way and identify local goals and strategies through a participatory bottom-up process. They will be transferred to higher planning levels and to Polish municipalities.

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Innovation lab data and analyses: AI-based information gathering in the BBSR

by Dr Torsten Schunder and Dr Rupert Kawka

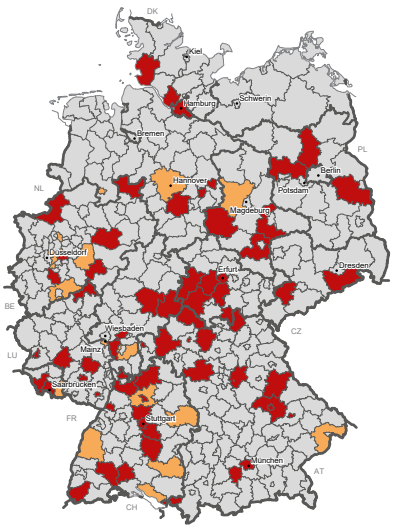
The Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) uses artificial intelligence (AI) methods to create and analyse new, up-to-date and very small-scale data. To this end, the BBSR launched the flagship research and development project "Innovation lab data and analyses" (IDA).

In the context of IDA, novel and up-to-date data are used to supplement official statistics and to identify trends at an early stage. One source of such information is unstructured text, such as daily newspaper articles. The BBSR developed a prototype, based on the example of the automotive industry, which extracts information from such text collections and automatically converts it into structured datasets. In an initial study starting from 2023, it evaluated 171 regional newspaper articles on job cuts in the industry with large language models. The resulting database is a sample and not exhaustive.

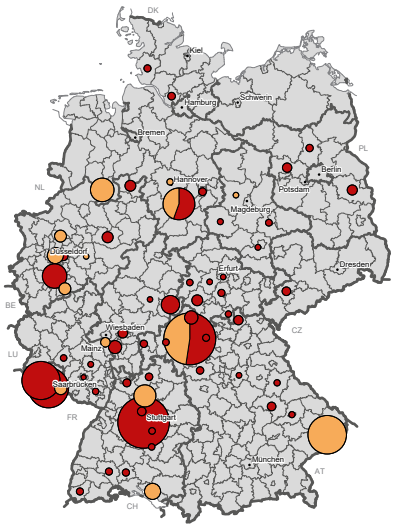
For 102 counties (the administrative level between the federal state and the local level in Germany), the prototype was able to extract information on companies, their locations and the number of lost jobs, and to convert it into a structured form. This automatically generated information was fully manually verified. After removing duplicates, over 90% of the extracted information from the texts was correct. The results are presented in the following maps.

Trends in the automotive and supply industry

Jobs at risk/job cuts (yes/no)



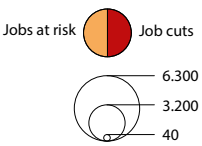
Jobs at risk/job cuts (in absolute figures)



Announced job cuts or jobs at risk in the automotive and supply industry (counties affected)

- job cuts
- jobs at risk
- no information in the identified databases

Jobs at risk/job cuts (in absolute figures)
Announced job cuts or jobs at risk in the automotive and supply industry (jobs affected)



Data source: Own analysis based on selected online articles; does not make any claim to completeness.
State of evaluation: articles of previous year, starting from 31/10/2023
Geometrical basis: VG5000 (counties), as of 31/12/2022 © GeoBasis-DE/BKG
Author: G. Lackmann

Compared to the map on the left, there are only values for those regions for which concrete figures on job cuts or jobs at risk were available.

Approximately 43,000 lost jobs or announced job losses in the automotive industry since 2023 could be identified and allocated at county level, another 21,000 endangered jobs were found in the regions. In combination with the review of large and influential numerical values and a sample-based validation, the approach is an excellent foundation for evaluating trends and creating topical spatial databases at short notice. It is also an important supplement to official statistics, which currently provides figures at county level just up to 2022 and, for data protection reasons, withholds employment figures in the motor vehicles and motor vehicle parts industry for over 50% of the counties. It is therefore not possible to monitor current and dynamic trends over small territorial units.

Apart from extracting data from unformatted texts and atypical sources, the BBSR's IDA project also focuses on the estimation of small-scale data at local level as well as on pattern recognition and process monitoring for the early identification of changes in spatial processes.

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Planning needs good communication – and narratives

by Dr Katharina Hackenberg and Stephan Willinger

Planning tasks are also communicative tasks! But there is little knowledge as to how storytelling can be made fruitful for urban development, when narrative processes make sense in urban development, and what strategies and methods of storytelling are available. The BBSR systematically examined various narrative approaches in the context of a study. The results show how through the use of narrative strategies and methods, local governments can contribute to developing mission statements for the future, defusing conflicts and implementing concrete projects.

Narrative processes: urban development meets everyday life

Generally, narrative processes are very suitable where local governments want to be understood, initiate a change of perspective, develop something with others or discover alternative perspectives. Although urban development plans and processes are publicly negotiated, their technical language and illustrations are often unsuited for communication between planning experts and citizens. Citizens need a lot of imagination to understand what the plans can mean for their own environment and daily life, which is why a narrative "translation" may help communication. Conversely, many citizens find it difficult to express their concerns and ideas in an – often necessary – systematic and abstract form, so everyday storytelling is easier for them. Therefore, urban development topics and activities, which greatly affect the daily life of citizens, primarily provide opportunities for narrative processes. Local governments may use these processes to:

- organise neighbourhoods and promote social cohesion, integration and participation
- develop urban areas and reach a consensus on controversial topics like mobility, climate adjustment, vacancy, densification etc.
- activate the urban society as the local government's strategic and implementing partner and reach uninvolved parts of the society

In this way, such narrative approaches initiate translation processes between local governments and the urban society, support the empowerment of the urban society and achieve a real change on site.

By analysing case studies, the contractors of the project were able to identify a variety of narrative strategies and methods. Despite their different contexts, they could identify overarching key questions and strategies by which local governments can develop a good narrative process – regardless of whether a local government sets up its own narrative project or takes up and supports a narrative project driven by civil society.

The BBSR publication "Stadt erzählen – Stadt gestalten" (Telling the city – shaping the city) summarises practical recommendations for local governments, possible deployment strategies and lessons learned for developing and carrying out narrative projects. It thus provides practical information and experiences as to how strategies and methods of storytelling can be utilised for urban development. For more information on the project, please visit the BBSR webpage.

Source: BBSR; Photo: Hanna Noller, Stadtlücken e.V.

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www.bbsr.bund.de > Forschung > Forschungsprojekte > Stadt gestalten mit Narrativen [in German]

Transatlantic research project: instruments for more density and mixed use

by Dr Andrea Jonas

With the ExWoSt project "Density and Mixed Use", the BBSR supported the transatlantic city network "Dialogues for Urban Change" with its scientific research. With international projects like this, the BMWSB and the BBSR sought international exchange in order to promote public welfare-oriented, integrated urban development and to foster the further development and implementation of national urban development policies. The project, which started in autumn 2021, supported three German and three American cities (Berlin, Frankfurt, Munich, Atlanta, Seattle and St. Louis) in their transatlantic exchange on current urban development issues and planning instruments.

A central result of the project was a toolbox containing a systematically prepared collection of existing and innovative approaches and planning tools to increase density, mixed use and affordable housing. The participating municipalities of both countries identified and evaluated a total of 33 instruments as being helpful for their work and for promoting international dialogue. It turned out that although there are a large number of relevant instruments, they are only transferable to the international community if they take into account the different local challenges.

The instruments discussed for more affordable housing included approaches to regulate rent prices or to define the long-term US land supply and real estate policy (including land banks, land value capture, tax reliefs for the construction of affordable housing, e.g. through low-income housing tax credits). Land banks, for example, acquire, manage and develop areas and properties in order to enable public welfare-oriented uses. In order to promote density and mixed use, the integrated planning approaches of US cities, such as "Complete Communities", "Transit-Oriented Development" and "Transportation Development Districts", proved to be interesting suggestions. "Complete Communities" aims for a mixed-use, compact and sustainable urban development and thus resembles the European goal of the "Compact City" or the "15-minute City".

Against the background of increasing resistance to new construction projects and densification of existing areas, the participating municipalities saw a need to test innovative participation processes. In addition to the toolbox, initial ideas of the network, which are based on the experiences of US cities, include procedures like a waiting list of future residents or civic councils as an integral part of urban neighbourhood development processes.

Cover of the toolbox developed in the project

source: TPSA 2024

The toolbox, as well as four short explanatory videos on the topics of: density and mixed use; affordable housing; integrated urban development planning; and participation and co-creation can be found on the project website. The project was carried out by the urban planning offices TSPA and Stefan Heinig and by Bauhaus-Universität Weimar.

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www.bbsr.bund.de > EN > Research > Research projects > Density and mixed-use

Urban Heat Labs – heat prevention in neighbourhoods and buildings

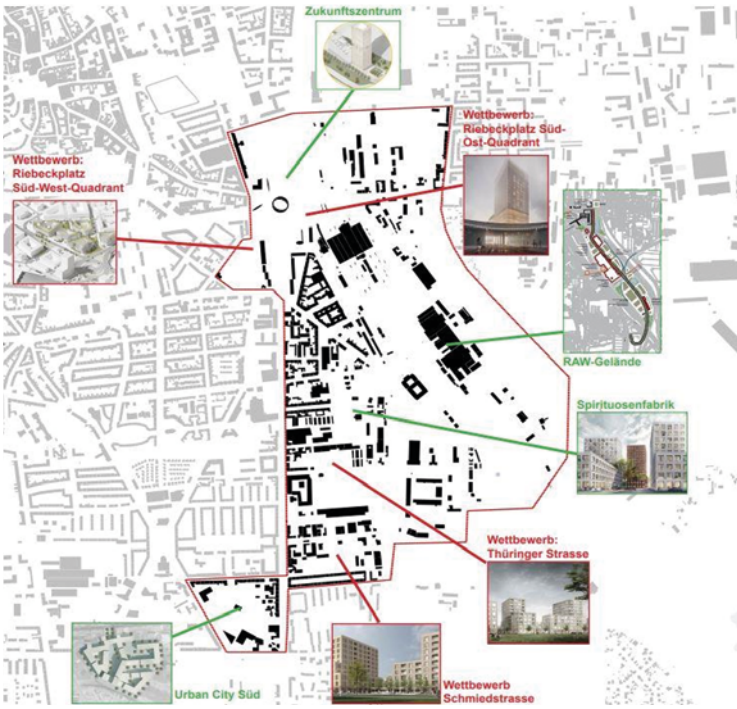
by Stephanie Haury and Dr Stefan Haas

For many years, summers in Germany have been characterised by more frequent heat records and longer-lasting periods of heat and drought. Cities and their neighbourhoods are unevenly affected by thermal stress due to the heat island effect, which is why cities require tailored, site-specific strategies, particularly for densely built-up residential and mixed-use urban areas. The BBSR has therefore launched the Urban Heat Labs research field on behalf of the German Federal Ministry for Housing, Urban Development and Building (BMWSB). Between 2024 and 2027, various heat prevention concepts related to buildings, residential properties and neighbourhoods will be tested in eight model projects. The research field focuses on the following questions: How can structural and urban development measures be combined with nature-based solutions? Which innovation potentials do digital tools and artificial intelligence (AI) provide for recording and combatting heat hotspots? And how can various actors such as the housing industry, house owners and civil society be involved in planning and implementation processes?

The model projects cover a wide range of innovative approaches: The Berlin district of Lichtenberg relies on AI in identifying heat hotspots and deriving ad hoc heat mitigation measures from them. In Berlin-Neukölln, the listed High-Deck housing estate of the 1970s, including its residents, becomes a real-life laboratory for heat mitigation. The Berlin district of Pankow wants to implement “cooling points” in the Mauerpark (public park and former part of the Berlin Wall), that means evaporative cooling will be used to reduce the heat locally. The city of Essen promotes a major residential rehabilitation project under the slogan “Heat-free in the Ruhr Area”. The city of Hagen wants to make its high-density and highly frequented railway station area heat-resistant. The Drahtseilakt (high wire act) project in Halle (Saale) aims to reduce heat in the city centre. Mainz, the state capital of Rhineland-Palatinate, is planning to develop and introduce a digital tool for monitoring key climate adaptation measures. With its Schlaatz project, Potsdam is focusing on a neighbourhood in which many socially disadvantaged people live.

The research field is carried out in the context of the BMWSB’s overarching heat mitigation strategy and is supposed to show how adaptation to climate change may succeed based on a combination of structural, technical and nature-based measures. Heat mitigation is considered as a joint task, in the context of which inclusive and cooperative approaches are tested and applied. The model projects therefore rely on local communication processes and on the integration and activation of private actors, the real estate sector and the construction industry.

Citizens' dialogue on the "Drahtseilakt" (balancing act) project in the city centre of Halle (Saale)



Source: Schönborn & Schmitz Architekten

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Private owners of rented flats in multifamily houses

by Jonathan Franke

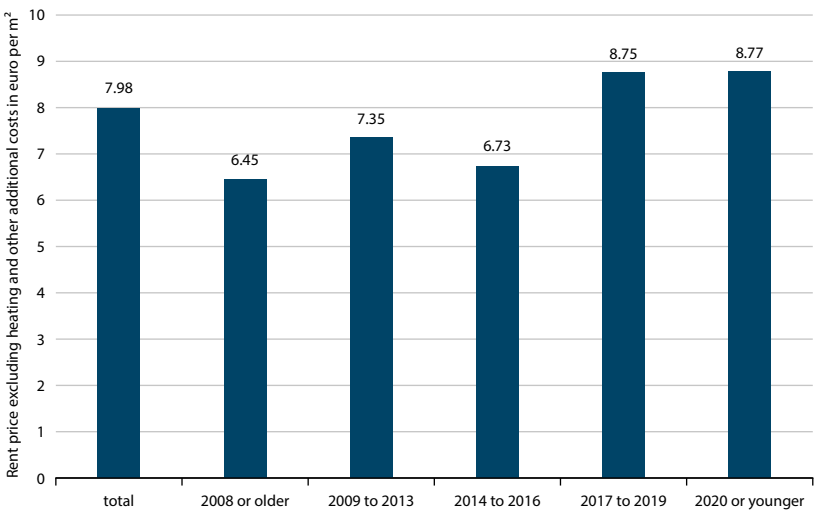
With a market share of around two-thirds, private landlords are the most important provider group in the German rental housing market. Nevertheless, there is little systematically recorded information on their management and investment behaviour. In 2021 and 2022, the BBSR asked private owners about their rented housing stocks. It collected and evaluated information from over 1,200 private owners.

The representative survey covered information on the landlords and their purchase history as well as on rented flats and current tenancies. Private landlords mainly acquire flats for investment purposes. In East Germany, for example, 69 % of all of the blocks of rented flats belonging to single or joint owners and 96 % of the blocks of rented, owner-occupied flats were purchased. In West Germany, however, gifts and inheritances play an overriding role with, for example, 45 % of multifamily buildings. Buildings were, on average, acquired 20.4 years ago and thus approximately six years longer ago than flats, which indicates different rates of transaction.

Overall, 60 % of the observed private owners only own one single rented flat in a multifamily house. The second most important owner group (27 %) are private owners having smaller blocks of two to five rented flats. Only 3 % of all private owners have larger stocks with more than 15 flats, reflecting this group's small-scale ownership structure.

A majority (91 %) of the privately owned flats in multifamily houses are rented at customary prices. Other types of letting, such as social housing, free provision, short-term tenancy or vacancy, only play a minor role. When searching for tenants, which is done mostly actively, owners often publish advertisements on online real estate platforms. But only 37 % of tenants are selected based on this channel, which suggests that rental activities happen away from online rental platforms.

Average rent price excluding heating and other additional costs (€/m²) of flats rented at customary prices, depending on the start date of a tenancy agreement



Source: Institute for Housing and Environment (IWU)

The rental level of the flats excluding heating and other additional costs, collected during the reporting period, is €7.98 /m², which confirms the assumption that the rental level for flats in growing municipalities is higher than in municipalities with a neutral growth trend or in shrinking municipalities. The start date of a tenancy agreement also has an impact on the rent amount (see figure). The survey furthermore shows that on average, private owners only increase rents relatively rarely and that they often increase them by mutual agreement according to German Civil Code Section 557.

More information and evaluations of the survey of private owners of rented flats in Germany will soon be published in a BBSR online publication. The main results of the related Experimental Housing and Urban Development (ExWoSt) project can be found on the (German language) BBSR website.

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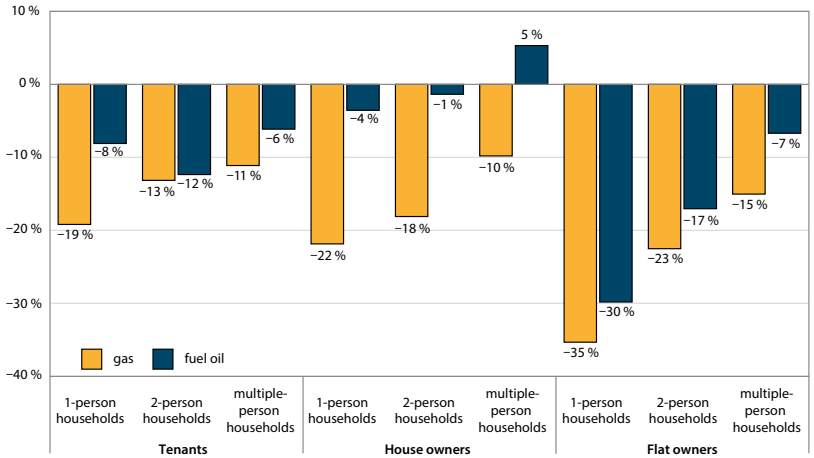
www.bbsr.bund.de > EN > Research > Programs > ExWoSt > Private owners

Heating energy consumption in times of energy crisis: analysing the heating behaviour of private households

by Dr Martin Ammon

Average change in the heating energy consumption between 2021 and 2023 by energy source and household group in relative figures taking the weather conditions into account



Source: German Heating and Housing Panel of RWI, Deutscher Wetterdienst, RWI's own calculations

With the start of the Ukraine war and the stopping of Russian natural gas imports, in 2022 and 2023 Germany faced a historically unique energy price increase. The effects of the sharp increase in procurement prices, especially for natural gas, affected different stakeholder groups and resulted in various adaptation strategies.

A BBSR project examined the burden on private households caused by the sharp rise in energy prices in 2022 and 2023. As further target groups, the project partners also analysed the effects of the increase in energy prices on the housing industry and on energy suppliers. The database for the study was provided by the German Heating and Housing Panel of RWI – Leibniz Institute for Economic Research, a series of annual surveys focusing on the heat transition with around 15,000 participating households in Germany.

In order to determine the impact on private households, the heating energy consumption was recorded according to energy source and household size. To obtain the actual reduction in consumption, the influence of the weather between the investigated years had to be considered. The significantly milder winter in 2023 becomes apparent when comparing the so-called heating degree days of both years, which, in 2023, were 14 % below the figure of 2021.

The survey generally shows that the percentage saving in heating energy consumption strongly decreases with an increasing number of members of a private household and related increasing floor area. The savings for tenant and owner households, however, differ: Flat owners were able to reduce their energy consumption considerably. Taking temperatures into account, they saved up to one third of the gas demand and 30 % of the fuel oil demand between 2021 and 2023. Multiperson households in owner-occupied single-family houses were able to save only 10 % of the gas demand and thus slightly less than tenant households with three and more persons, while multiperson households in owner-occupied flats lowered their natural gas consumption by 15 % on average.

The savings in fuel oil compared to natural gas were significantly lower although the fuel oil consumption of single-family house owners had hardly decreased or not decreased at all. While the consumption of one- and two-person households slightly declined, the temperature-adjusted fuel oil consumption of multiperson households in owner-occupied single-family houses even increased by 5 % between 2021 and 2023.

The reason is that, compared to tenant households, owner households occupy larger flats or houses and therefore can save more energy if heating less in some rooms or not at all. The result also shows that compared to tenant households, owner-occupiers can influence their heating energy consumption more actively, for example, by adapting the heating system or undertaking energy-efficient renovation measures.

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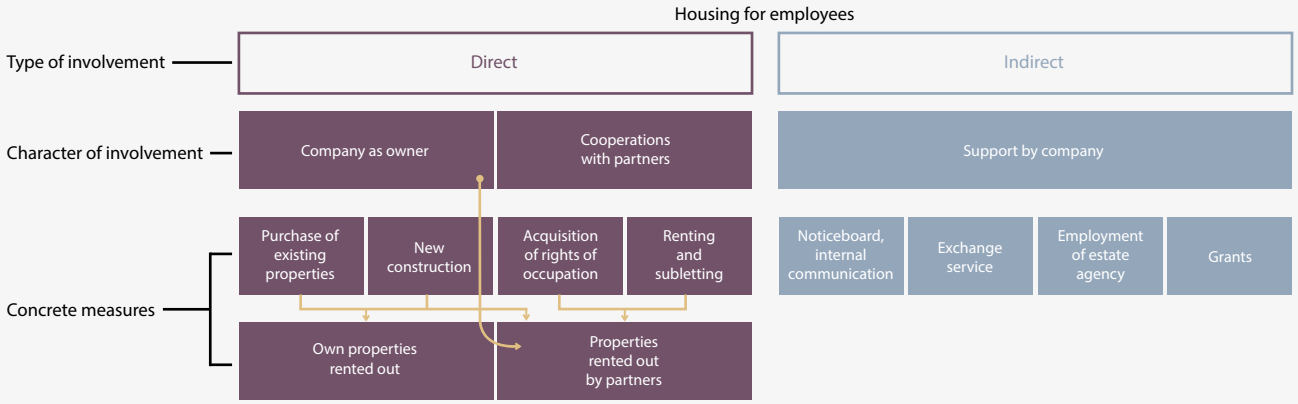
www.bbsr.bund.de > Forschung > Forschungsprojekte > Folgen warmer Nebenkosten [in German]

“Housing for employees” brings together the topics of skill shortage and housing shortage

by Anna Maria Müther

Types of housing support services



Source: German Economic Institute

In housing policy discussions, people are increasingly recalling factory-owned housing. The fact that companies are active in the housing market has a long and internationally recognised tradition in Germany. The housing estates of the Krupp steelworks in Essen, which were constructed for company workers in the 1860s, are one of the earliest and best-known examples. Already at the time of industrialisation, the construction of factory flats was a response to the pressing housing issues, and numerous companies followed the example. With an estimated number of 350,000 to 450,000 housing units, factory-owned housing construction reached its peak in the 1970s.

For more than a decade now, the housing market has been under pressure, which, among other things, is reflected by rising rents and widespread shortages of supply. A detailed look at the housing market figures shows that we are in an area of conflict between tight housing markets in agglomeration areas and increasing vacancies in peripheral areas, highlighting the importance of putting the topics of the skills shortage and housing market into context. Companies may be (new) players in the housing market.

So far, there has been very little insight into how many companies are currently dealing with housing for employees. With its publication “Bestandsaufnahme zum Wohnen für Mitarbeitende” (Inventory of Housing for Employees), the BBSR has presented a basic analysis. The project, on which the publication is based, focused on analysing the status quo and organisation of housing for employees in Germany. The German Economic Institute (IW), which among other things, implemented the project, also carried out an extensive survey of companies and households, which formed the basis for the subsequent analysis.

The main focus of the research project was to establish how many companies are active today in the field of housing for employees. The contractor was able to extrapolate from the surveys that currently 5.2 % of companies support their employees directly with actual housing offers, which are around 675,000 flats and around 46,000 hostel rooms for (young) employees. These extrapolations, however, cannot be compared to the number of factory-owned flats in the past. Housing for employees reflects modern conditions (see figure) and includes the renting and subletting of housing units that are not owned by companies, but which offers them more options than the classical factory-owned housing. Another 11.6 % of companies support their employees through indirect measures like exchange services.

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BNB 2.0 – Release of the Assessment System for Sustainable Building

by Nicolas Kerz

The Assessment System for Sustainable Building (BNB) of the German Federal Ministry for Building has been successfully applied by German Federal Government and federal state institutions for over 15 years. As a second-generation assessment system, it works in a performance-oriented manner and is applied based on three main quality groups (ecological, economic, sociocultural and functional) and two cross-sectional qualities (technical quality and process quality). Apart from the full versions, which are applied on selected types of buildings, the system provides adapted system criteria for other types of buildings and uses. The question therefore arose whether the existing system should be maintained and continued or whether it should be revised to meet European and national requirements.

With its 2021 sustainability action programme, the Federal Government has laid down essential requirements for the revision of the system. In addition to considering new criteria like sufficiency, external costs or biodiversity, they also include the development of the new BNB-Vario system variant to be applied on other types of buildings and uses. Parallel developments of the European Commission, like a taxonomy for sustainable activities, Level(s) (European framework for sustainable buildings) or the revised Energy Performance of Buildings Directive (EPBD), contribute to the necessary harmonisation of the BNB. An external evaluation of the BNB in the years 2020 to 2022 revealed the strengths and weaknesses of the system, which is why the Federal Ministry for Building decided to revise the BNB and create a new BNB 2.0 system.

Together with external contractors, the BBSR and its Division WB 5 (Basics and Systematics of Sustainable Building) restructured the BNB system approach and, by merging, adapting, newly developing or shifting criteria, reduced the number of criteria from 46 to 25. The five quality groups were derived from three sustainability dimensions. The BBSR researchers are going to integrate seven, completely new criteria currently in development (in bold):

- Ecology: emissions, pollutants, **soil,** water, energy, **raw material input,** circularity, global biodiversity, **local biodiversity**
- Economy: life cycle costs, **external environmental costs,** adequacy, space efficiency, quality control of operation, adaptability, **climate resilience**
- Sociocultural aspects: thermal comfort, indoor air quality, acoustics, daylight, **microclimate,** quality of stay, design quality, accessibility, mobility

The Federal Ministry organised a BNB Round Table in September 2024 to present the system to interested stakeholders and provide a commentary phase. It was followed by another round table in November 2024. A third and fourth round table are planned for 2025 as a basis to decide on the final structure and layout and complete the BNB 2.0 by mid-2025 at the latest. The round tables will take into account the requirement values of the QNG Sustainable Building Certification, adapted transformation concepts for energy sources (dynamisation of the life cycle assessment) and the latest version of the ÖKOBAUDAT 2024 A2 building material database. Through its newly created service life table of 2025, the BBSR will also provide the average service lives of building components, which are required for life cycle calculations. Following the system revision, the BNB 2.0 will be registered at the Deutsche Akkreditierungsstelle (the national accreditation authority in Germany) as a basic system for certifying organisations to be accredited for awarding the BNB with and without QNG certificates.

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www.nachhaltigesbauen.de/austausch/nutzungsdauern-von-bauteilen [in German]

New thermal protection study for residential buildings

by Andrea Vilz

For several years there has been widespread discussion about the required thermal protection standards of buildings with various economic sectors questioning the need for extensive thermal protection levels. Thermal protection standards are increasingly in competition with environmentally friendly energy supply concepts, by which buildings can be operated in a greenhouse gas-neutral manner, but which do not limit the necessary use of renewable energies. However, an economical use of these resources is necessary to promote the transformation to a climate-neutral building stock. Economic aspects are often important when defining the thermal protection levels of buildings. But analyses from a microeconomic perspective alone are not enough to deal with thermal protection and also give due consideration to climate protection goals and related national government obligations.

In its advisory role supporting the development of policy instruments, the BBSR has commissioned a study to examine thermal protection issues in the housing sector from various macroeconomic perspectives, particularly with the goal of achieving a climate-neutral building stock. The contractors analysed various thermal protection standards and heating source solutions for new and existing buildings in terms of energy and economic efficiency based on model residential buildings. The result of the investigation was that high thermal protection standards for buildings are necessary to achieve a high overall efficiency of individual buildings and create a climate-friendly building stock.

Source: K8 auf Unsplash

The study provides detailed calculations and a comprehensive analysis of different thermal protection levels, depending on various heating systems. They serve as a basis for recommendations for enhancing the thermal protection standards of residential buildings. For example, it is recommended to tighten the legal requirements moderately, to introduce finely graded funding standards to remove obstacles to renovation, and to better communicate the advantages of thermal insulation measures for ensuring buildings maintain a high resilience to future developments.

The thermal protection issue was subject to extensive analysis through the complex investigation framework including overall efficiency analyses and supplementary investigations of energy and economic efficiency. For reference standards and as a basis for further comparison, the study used combined thermal protection and technical building systems that meet the current legal requirements for new construction at the lowest total costs and usually reflect a usually partially modernised state of the residential building stock. The overall efficiency investigations are the result of a number of analyses from microeconomic and macroeconomic perspectives that take into account the views of both owner-occupiers and the state. Ancillary studies shed light on other aspects that influence energy consumption, such as the proportion of window area, shading, distribution losses of building automation, the importance of embodied carbondioxide emissions and the different perspectives of landlords and tenants.

The currently high uncertainties in construction and energy prices are a particular challenge for economic efficiency investigations. The authors of the study underpin the results of the study with appropriate explanations and clear references.

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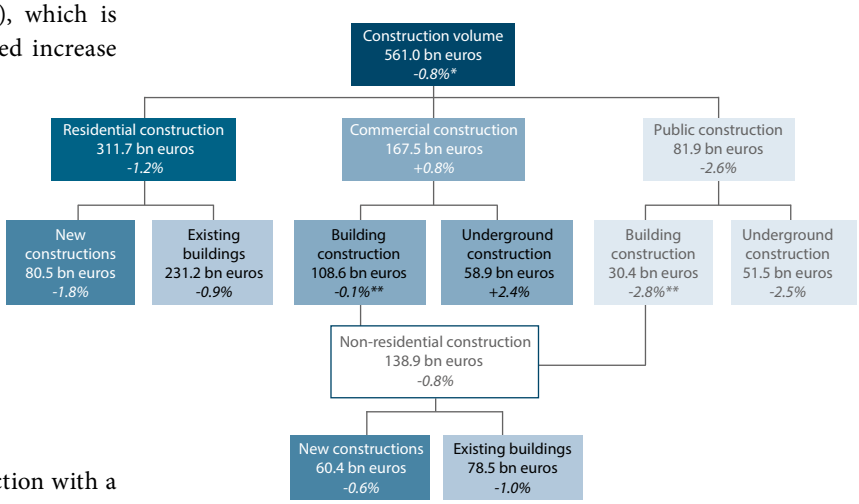
Report on the situation and outlook of the 2025 construction industry

by Dominik Darrington and Christian Schmidt

According to the construction volume forecast of German Institute for Economic Research (DIW Berlin), which is prepared on behalf of the BBSR, a price-adjusted increase (+ 2.0 %) of the total construction volume cannot be anticipated until 2026. After the construction volume has already decreased between 2021 and 2023, it continues to decline in 2024 (-3.7 %) and 2025 (-0.8 %). In 2024, 55.7 % of the construction volume is residential building construction, 29.6% is commercial, industrial and agricultural building and underground construction (in short: commercial construction) and 14.7 % is public construction.

Forecast of nominal construction volume by construction sector (2025)



[*] real change from 2024 in per cent (index 2015=100)
[**] own calculation based on DIW

Source: DIW Berlin

The trend of the lending interest rates in connection with a weak economy and income growth continue to exert pressure on the new residential construction industry. However, after years of decline, the trough of the construction volume seems to have been reached in 2025. While the new construction volume is expected to fall by 10.1 % in 2024 and by 1.8 % in 2025, a real increase by 4.9 % is predicted for 2026, which in real terms would mean that the new residential construction sector would still be about 25 % below the level of 2020.

The decline in the real new residential construction volume is supported by investments in construction activities on existing buildings. A decrease is also forecast for measures on existing buildings for 2024 (-3.2 %) and 2025 (-0.9 %) before their volume rises again in 2026 (+1.5 %). But the losses will be less pronounced than for the new construction volume, which is due to spare capacity of construction tradespeople, rising energy prices and less bureaucratic lending conditions for measures on existing buildings.

The high interest rates for loans also leave traces in the commercial construction sector. For 2024, the construction volume is predicted to fall by 3.3 % as a result of a declining construction demand. In 2025 (+0.8 %) and 2026 (+2.0 %), however, real construction volume is forecast to go up. General uncertainties and the pandemic-related home office regulations slow down the commercial building construction sector. Commercial civil engineering construction, however, seems to be generally stable and, according to the 2024 forecast, will decrease by 1.7 % in real terms before rising in 2025 (+2.4%) and 2026 (+1.1 %).

Public construction volume grew by 1.5 % in 2024, but a decline of 2.6 % is expected in 2025. The German Government's provisional budget management currently does not permit new projects (as of February 2025). Even if the new government is formed quickly, new projects will probably not take effect until 2026. In addition, there is little room for investment by local government, which is responsible for about 60 % of public construction activity.

The rapid increase in construction prices continues to lose momentum. Although construction prices kept rising in 2024 (+2.9 %), the growth figures from the previous years 2022 (+16.3 %) and 2023 (+8.4 %) are not being achieved. The latest construction price forecasts, created by Kiel Economics Research & Forecasting on behalf of the BBSR, confirm that prices are not forecast to fall. A rise (+1 %) is predicted for 2025, and also for 2026 (+0.8 %) and 2027 (+1.5 %).

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18th Federal Congress on National Urban Development Policy

From 16 to 17 September 2025, the Federal Ministry for Housing, Urban Development and Construction, together with the Conference of Building Ministers of the Federal States, the German Association of Cities and Towns and the German Association of Towns and Municipalities, is hosting the 18th Federal Congress on National Urban Development Policy in the Hanseatic city of Rostock.

Everywhere in Germany, in small and large cities, good ideas are currently being turned into 'neighbourhoods with a future'. Here, a high-quality social infrastructure and public spaces with a high quality of stay, with a functioning mix of uses and diverse property structures, with short distances and sustainable mobility, with measures for climate protection and climate adaptation have almost become standard. Nevertheless, sustainable neighbourhood development geared towards the common good remains a challenging ongoing task.

According to the motto "Social. Productive. Green - Neighbourhoods made good", the congress will discuss current approaches and strategies for cooperative neighbourhood development in urban development and exchange ideas for the sustainable, integrated design of urban neighbourhoods and rural areas at national, European and international level.

Further information on the congress can be found at:
https://nsp-kongress.de/

More information can be found at
www.bbsr.bund.de [in German]