



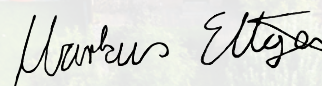
Dear Readers,

Germany is still far from reaching its target of reducing the land consumption used for settlement and transport purposes to 30 hectares per day by 2030. According to information provided by the Federal Statistical Office, 54 hectares of land per day were consumed for housing, commercial, industrial, transport, sports, leisure and recreational purposes in 2020. Calculations by the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) have revealed that almost two thirds of the new land used for settlement and transport purposes between 2016 and 2020 was in rural areas - based on the number of inhabitants, this figure is well above average.

At the same time, there is great potential for inner development: A BBSR study estimates that there are at least 99,000 hectares of land with building potential in towns and municipalities throughout Germany. In order to use the scarce resource of land sparingly, it is therefore crucial to increase the focus on this potential outside the cities: This requires political will, more cooperation between the municipalities in the issue of land development and less competitive thinking.

Official statistics are not the only good indicator to show how land consumption is developing in Germany. The incora project, implemented by the BBSR together with partners, indicates how satellite data can be used to help improve monitoring. The dashboard resulting from the research project presents the most important results in a user-friendly manner. Read more about it in this issue.

I hope you will find this interesting.



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

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Length of journeys to
work varies considerably
from region to region
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The BBSR at the 11th
World Urban Forum in
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Housing market:
no easing of tension in
sight
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Current land use in Germany

by Silas Eichfuss

Change in the main types of land use according to types of settlement-related districts 2016-2020 in km²

Type of settlement -related district	Settlement and transport area	Agriculture	Forestry
Large city independent of a district administration	47	-108	29
Urbanised district	301	-536	6
Rural district with signs of urbanisation	250	-429	46
Sparsely populated rural district	343	-629	415
National territory	941	-1,702	496

Source: BBSR

Germany has an area of around 357,600 square kilometres, a diverse landscape and is used in various ways. Land use data is published annually by the Federal Statistical Office in the context of the official land statistics (soil area by type of actual use) and presents in detail the land take of the most important land uses. In the context of the sustainable development goals of the Federal Republic of Germany, it is important to reduce the land take, i.e. the conversion of open spaces into settlement and transport areas, to protect open spaces and to prevent landscape fragmentation. The objective is to reach a daily new land take for settlement and transport purposes of less than 30 ha/day from 2030. For example, within the last 20 years, daily land take has been more than halved from 120 ha/day to 54 ha/day.

At present, about 15 % of Germany's area consists of settlement and transport areas, about 51 % of agricultural land and about 30 % of forest areas. The areas are differently distributed and for 2020 can be viewed via the following map views.

A look at the various land uses within the BBSR's settlement-related districts shows that 51 % of the uses in large cities independent of a district administration are settlement and transport areas, 26 % agricultural areas and 18 % forest areas. The other types of districts show varied proportions: Around half of the remaining areas are agricultural and just under a third are forest areas. Settlement and transport areas range from 17 % of the area of urbanised districts to 10 % of the area of sparsely populated, peripheral regions.

In addition to the figures on general land use, population-weighted indicators can also be applied to help achieve the above-mentioned land take target of less than 30 hectares per day by 2030. Here, an important indicator is the amount of settlement area: This indicator defines the settlement and transport area per inhabitant in m² and represents the efficiency of the use of settlement and transport areas. A smaller amount may imply a higher efficiency of land use, while a larger amount may imply higher infrastructure costs and a higher land take. As a rule, rural regions have a much more extensive settlement area than urban ones.

Between 2016-2020, the settlement and transport area sharply increased by 941 km², while the decrease of the agricultural area was particularly high with 1,702 km². In the same period, forest areas increased by 496 km². In relation to the BBSR's settlement -related districts, the loss of agricultural land in sparsely populated rural (-629 km²) and urbanised districts (-536 km²) is highest, while the loss was lower in large cities independent of a district administration. The increase in settlement and transport areas in large cities independent of a district administration (+47 km²) is small compared to rural districts. Furthermore, there was a marked increase in forest areas in sparsely populated rural districts (+415 km²).

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Aktuelle Flächennutzung in Deutschland [in German]

Capturing settlement areas on a small scale by remote sensing – latest exploratory land data from the incora project

by Silas Eichfuss

The German Federal Government's Sustainable Development Strategy aims at reducing land take, protecting open space and preventing landscape fragmentation. By 2030, the aim is to limit the average daily increase in settlement and transport areas in Germany to less than 30 hectares. In order to reliably assess whether the target has been achieved, detailed monitoring and knowledge about the growth of settlements is required. The data source for examining the above-mentioned sustainable development goals, the land survey by type of actual use, is derived from the Authoritative Real Estate Cadastre Information System (ALKIS) and is limited in terms of temporal and spatial resolution. It captures the land use, which is why reliable knowledge is needed about the particular land uses. Capturing this information is time-consuming and prone to errors due to the different ways of interpreting the rules on which land use is based.

Furthermore, land uses are limited to minimum coverage thresholds, i.e. areas, that cannot be captured, are added to the adjacent area, which is why details are lost. The incora project helps to identify the information required for detailed monitoring of settlement areas in theory and practice. It also helps to analyse the possibility of closing gaps with spatial and temporal accuracy by analysing land cover changes based on remote sensing. Although land cover provides less information than land use, depending on the grid resolution, it can depict details better and provide more up-to-date data regardless of minimum coverage thresholds.

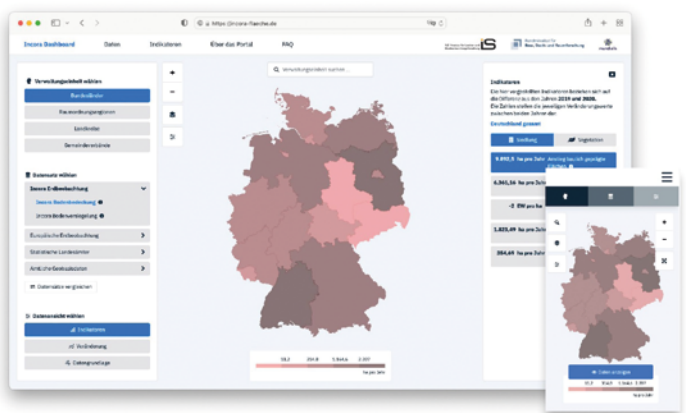
The main objectives of the incora project were the automated production of land cover data and the calculation of indicators on the development of settlement areas. To this end, Germany-wide land cover classifications were derived from Sentinel-2 satellite image data for 2016, 2019 and 2020, i.e. the incora land cover.

In order to test and further develop the methodology, indicator concepts were developed and tested for theoretical feasibility. An indicator pyramid, which serves as a basis for the targeted monitoring, includes a selection of 34 indicators covering the following areas:

- built-up land
- vegetation and green areas
- urban densification potentials
- urban sprawl
- protection of open spaces
- development structure

The results show that remote sensing based on open source data can be used to assess the development of built-up land (including change and structural indicators), soil sealing and vegetation. The incora land cover can be a valuable addition to established data such as the land survey by type of actual use.

The dashboard resulting from the research project presents the most important results in a user-friendly manner. It serves as an exploratory information tool to examine issues concerning the development of settlement areas in a data-based and critical manner. Some datasets are mapped and statistically displayed. Furthermore, issues concerning the development of settlement areas are presented with the most important indicators on various thematic areas.



Example page of the Web GIS incora-flaeche.de

Source: BBSR

Shaping structural change!

by Gala Nettelblatt and Radoslaw Gluba



Keyvisual: Ideenwettbewerb "Wir gestalten den Strukturwandel"
(Ideas competition "We shape structural change")

Source: BBSR

On 1 September 2022, Federal Building Minister Klara Geywitz launched the ideas competition "Mitmachen, gemeinsam machen: Wir gestalten den Strukturwandel in unseren Regionen" (Participation and engagement: Shaping structural change in our regions).

The ideas competition addresses actors from local authorities, civil society and non-profit organisations in the regions affected by Germany's coal phase-out, which is to be completed by 2038 at the latest. The German Bundestag and Bundesrat adopted the phase-out of coal power on 3 July 2020 and passed an Act on Structural Change in Coal Mining Areas (Strukturstärkungsgesetz). This Act is intended to help affected regions manage the structural transformation. These regions

include Lusatia, the Rhenish and Central German mining areas. In this context, the goal of the competition is to honour outstanding project ideas that aim at improving the local quality of life and strengthen social cohesion in the regions. The five winners will each receive prizes of 20,000 euros.

Federal Building Minister Klara Geywitz said that "The people in the regions are experts: They know best what is needed to improve their social and built environment. They know their region's strengths and local opportunities for development – both in socio-economic and ecological terms. The best ideas for shaping structural change are born locally, in cities, towns and villages. I am looking forward to many inspiring competition entries – and I am confident that many ideas will eventually become reality."

The competition is open to all topics concerned with structural change in the context of the exit from coal and its related objectives of regional development. Topics can address fields such as education and employment, civic participation, environmental sustainability, improvement of public space, temporary land uses as well as tourism, cultural and creative industries. In order to foster an exchange between municipalities affected by the coal phase-out, proposals for regional, national and international city partnerships are also welcome.

The Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) is coordinating the competition through its Competence Centre for Regional Development in Cottbus. The Competence Centre supports the regions affected by the coal phase-out with academic expertise and actively assists local communities in creating an exemplary transformation process towards increased climate protection and a modern economic structure. The focus is on the creation of positive future prospects for the local population. A jury of representatives from the Federal Ministry for Housing, Urban Development and Building and the BBSR as well as experts from the scientific and regional planning sectors will select the best project ideas. The BBSR will support the winners on their way to the development of a project eligible for funding.

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New life for decommissioned railway lines

by Dr Bernd Buthe



BBSR study detects positive effects on the development of rural areas

Source: candy1812 – stock.adobe.com

The revitalisation of decommissioned railway lines in rural areas contributes to improving mobility and upgrading regions, thus making them more appealing as places to live, locations for companies and destinations for tourists. This is the conclusion of a study published by the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR).

According to the results of the research, reactivation projects have a positive impact on the population development of a region, as the advantages of living in the country can now be combined with the employment and leisure offers available in surrounding towns. The projects studied clearly confirm this conclusion. The revitalisation of the railway lines therefore also relieves the pressure on the housing markets in large cities. Residential and business locations in rural areas become more attractive and ensure a lasting demand on the local housing and real estate market. A reactivated railway line can also become a local brand, enhance the profile of a region and raise its attraction as a tourist location. Traffic volumes on roads and railways are relieved, especially in conurbations and tourist regions. The reactivation of railway lines as an alternative to the construction of new roads or railway routes can help reduce the growing fragmentation of the landscape and the consumption of land to create new traffic routes. Reactivation also contributes to making regions accessible without harming the environment.

"Since 1994, more than 5,000 kilometres of railway lines have been closed down in Germany, yet only slightly more

than 1,000 kilometres of railway lines have been reactivated during the same period. The revitalisation of lines has a signal effect. It is an investment in the future sustainability of a region," says Dr Markus Eltges, Director of the BBSR. "Apart from structural policy motives, the federal states can strengthen railways as a means of transport by reactivating decommissioned railway lines, which is an important part of the transformation of mobility."

The study carried out by PricewaterhouseCoopers (PwC), indicated that the federal and state governments need to simplify and accelerate planning processes in order to boost reactivation projects. In addition to studies only dealing with economic feasibility, potential impacts on the development of a region should always be included in the decision process for reactivation projects. Furthermore, the federal states and regional planning authorities should call for tenders for premium-quality transport services in a competition procedure. The focus must be on turning stations along the railway lines into mobility stations in order to strengthen connecting mobility and to bundle offers such as stations for car and bike sharing possibilities.

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Räumliche Effekte reaktiverter Schienenstrecken im ländlichen Raum [in German]

Length of journeys to work varies considerably from region to region

by Thomas Pütz



Rush hour traffic on an urban four lane road in two directions, morning commuters

Source: dj_mono – stock.adobe.com

Number of long-distance commuters grows

Commuters covered an average of 16.9 kilometres on their way to work in 2021. The average commuting distance has thus remained stable since 2016. However, there are big regional differences. Commuting distances are longer particularly in the environs of the large labour market centres such as Berlin, Munich and Hamburg as well as in sparsely populated areas. This is shown by an evaluation of the Federal Institute for Research on Building, Urban Affairs and Spatial Development.

Across Germany, the number of commuters rose by 6.6 per cent in five years – from 18.4 million employees in 2016 to 19.6 million employees last year. This means that 59.5 per cent of all employees subject to social security contributions commuted (2016: 59.4 per cent). The number of commuters who travelled a one-way commute of more than 50 kilometres

has also increased. While there were 3.3 million such employees in 2016, the figure in 2021 was 3.6 million (+7.4 per cent). The increase in the number of commuters is mainly due to the increase in the number of employees subject to social security contributions.

Compared to all districts, commuters in the districts of Ludwigslust-Parchim (27.9 kilometres), Altmarkkreis Salzwedel (27.3 kilometres), Märkisch-Oderland (27 kilometres), Landsberg am Lech (26.6 kilometres) and Dahme-Spreewald (26 kilometres) covered the largest distances.

Commuter stronghold Munich

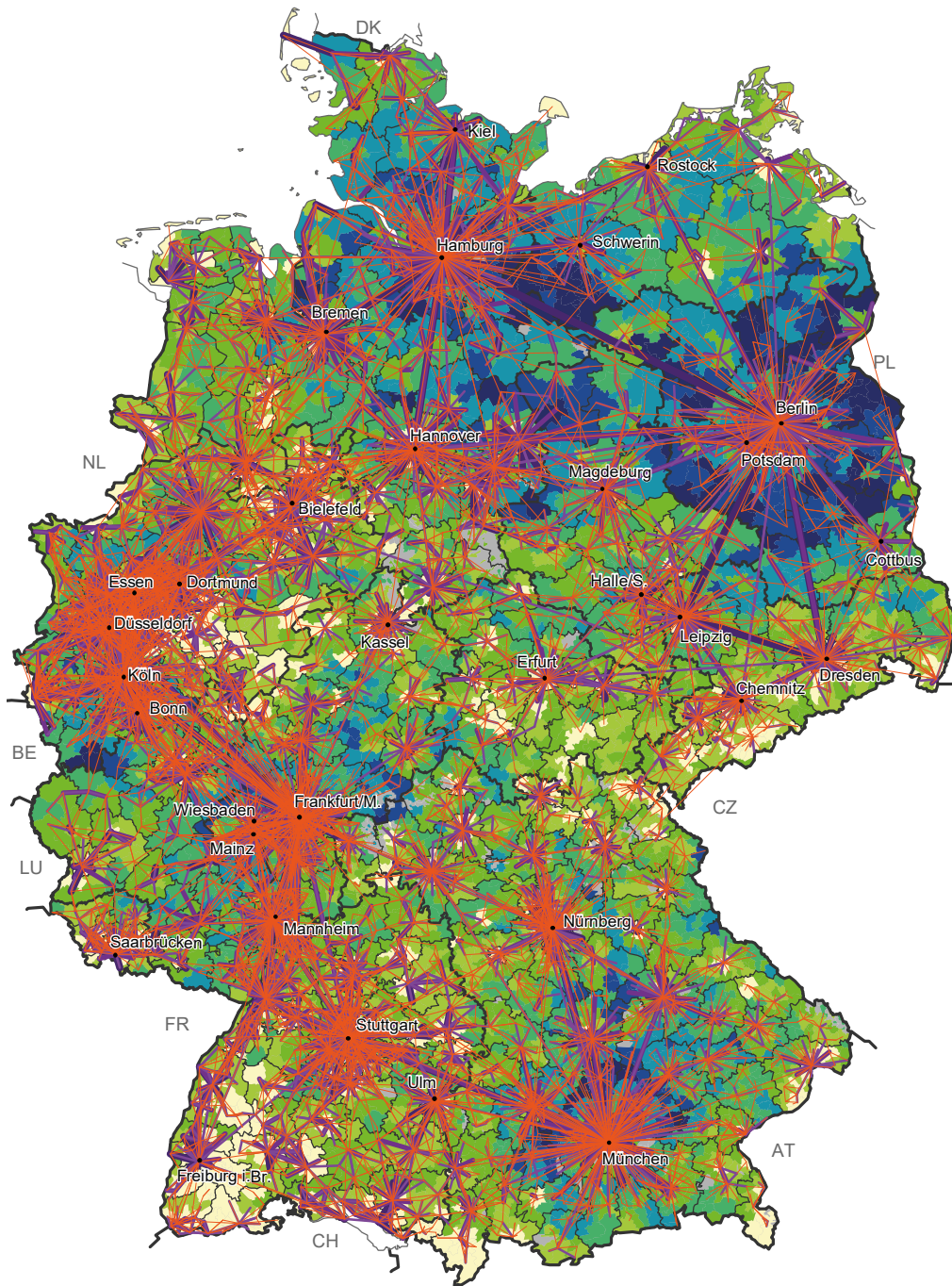
Munich continues to top the list of large cities with the most inbound commuters. In 2021, 399,900 employees commuted to the city. Their number has thus increased by 9.5 per cent since 2016. It is followed by Frankfurt am Main (384,800, +9.4 per cent compared to 2016), Hamburg (355,500, +5.2 per cent), Berlin (326,900, +12.4 per cent) and Cologne (281,800, +8.8 per cent).

In only a few large cities, the difference between inbound and outbound commuters is negative. This mainly applies to smaller large cities in the immediate vicinity of large labour market centres – such as Fuerth, Offenbach and Bergisch-Gladbach – as well as to some cities in the Ruhr area, for example Oberhausen, Herne, Bottrop, Hamm, Moers and Gelsenkirchen.

The evaluation is based on data from the Federal Employment Agency. The statistics show the place of residence and the place of work of employees subject to social security contributions as of 30 June 2021. The statistics do not show how many people actually visited the workplace or have worked from home during the reporting period. It is also not clear from the data which means of transport were used on the journey to work.

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Commuting distance



100 km

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Average commuting distances of all employees subject to social security contributions at place of residence 2021 in km

- | | | | |
|--|----------------|--|----------------|
| | to under 15 | | 24 to under 27 |
| | 15 to under 18 | | 27 to under 30 |
| | 18 to under 21 | | 30 and more |
| | 21 to under 24 | | no value |

Commuting interactions between associations of local authorities according to number of commuters 2021

- | | |
|--|----------------------|
| | 200 to under 500 |
| | 500 to under 1 000 |
| | 1 000 to under 2 000 |
| | 2 000 and more |

Data source: © Federal Employment Agency's statistics: inbound and outbound commuters at local level, Nuremberg 2022
 Geometric basis: associations of local authorities (generalised), 31/12/2021 © GeoBasis-DE/BKG
 Author: T. Pütz

Ideas for the sustainable development of the Baltic Sea region

by Jens Kurnol

The Summer School 2022 of the VASAB international spatial planning network took place from 22 to 26 August 2022 at the University of Greifswald under the tagline: ‘Sustainable Futures in the Baltic Sea Region’.

A group of 20 students and young professionals jointly developed project ideas for a sustainable development of the Baltic Sea region in the areas of climate change, mobility, energy, environment as well as demographic change and social cohesion. The event was hosted by the Federal Ministry for Housing, Urban Development and Building (BMWSB) and the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) together with the VASAB Secretariat and the University of Greifswald

The participants came from Germany, Finland, Estonia, Latvia, Lithuania, Poland, and Sweden. During seminars and excursions, they learned more about the challenges of cross-border planning activities in the Baltic Sea region, innovative approaches to spatial planning and how to put sustainability goals into practice. They were advised and supported by

researchers and experts from the University of Greifswald, BMWSB, BBSR, and other institutions.

The young planners developed their project ideas within five interdisciplinary teams. The ideas ranged from the re-use of opencast mining areas for renewable energies, the promotion of green roofs, approaches for more inclusion in urban neighbourhoods to solutions for better networking of actors with regard to sustainable agriculture in the Baltic Sea region. The jury was particularly impressed by the project entitled “Splashing Benefits of Rail Baltica”. It outlines a way to better connect rural regions along the new Rail Baltica railway line, which is currently under construction. This team will present the results of its work at a ministerial meeting and conference on 1/2 June 2023.

The authorities of the Baltic Sea countries responsible for spatial planning and development work together in the VASAB – Vision and Strategies Around the Baltic Sea network with the aim of jointly shaping spatial development in the region. Germany currently holds the VASAB chairmanship.



The results of the Summer School are available on the VASAB website

Source: VASAB

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Federal programme “Adapting urban areas to climate change”

by Ricarda Ruland and Ulrike Tillmann

In November 2020, the German government launched the federal programme “Adapting urban areas to climate change” by which project-related grants are awarded to municipalities to set investment priorities. The Federal Ministry for Housing, Urban Development and Building (BMWSB) has commissioned the BBSR to supervise the programme. Up to now, 228 municipalities have been funded with a total amount of 290 million euros. Another call for project proposals with a funding volume of 176 million euros has just ended and funding will start in 2023.



Anpassung urbaner Räume an den Klimawandel

The investment programme sees itself as the Federal Government’s contribution to sustainable urban development by specifically supporting the development and modernisation of the blue-green infrastructure. It supports towns and cities in implementing measures to secure and strengthen their green and open spaces. The focus is on urban green areas under particular threat (roadside vegetation, parks and gardens) in the compact, densely used urban areas and their special relevance for the future quality of life of cities. This is where environmental and social challenges intersect, which requires a new, integrated approach and further testing.

Exemplary and forward-looking projects are intended to strengthen resilience to extreme weather events and their consequences and to promote the reduction of greenhouse gas emissions. Integrated planning, as well as a natural, biodiverse, multifunctional design must also take into account the other manifold demands on green and open spaces, i.e. their vital importance for healthcare, as social meeting places, as a biotope network and for sustainable mobility.

Support is provided for investment in planting and infrastructure as well as associated planning and preparatory measures that preserve and further develop the vitality and functional diversity of urban open spaces. The submitted funding projects represent a wide range of measures in accordance with the various objectives and possibilities. They include, inter alia, the rehabilitation and safeguarding of existing green structures by using climate-resilient

plants and smart irrigation systems, the revitalisation of urban waters, the establishment of sustainable rainwater management and the provision of retention areas for extreme rain events, the unsealing and creation of new (e.g. roadside) green structures and façade and roof greening for the buildings adjacent to open spaces.

Annual network meetings will be held for municipalities to exchange information and to communicate essential findings. During these meetings, presentations will demonstrate strategic approaches, current scientific results and practical examples on how to tackle climate change in urban areas.

In addition to implementing the projects at local level, the funding programme will be evaluated with a focus on climate protection and adaptation to climate change. The indicators used in research and municipal practice will be converted into a suitable set of quantitative indicators.



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www.bbsr.bund.de > Forschung > Programme > Anpassung urbaner Räume an den Klimawandel [in German]

The BBSR at the 11th World Urban Forum in Katowice

by Dr André Müller, Dr Andrea Jonas and Thomas Schönberger

The United Nations and its UN-Habitat Human Settlements Programme held the Eleventh Session of the World Urban Forum in Katowice (Poland) from 26 to 30 June 2022. With around 17,000 participants, it is the world's largest specialist congress on the sustainable development of our cities, towns, villages and regions. This year it was dedicated to the New Urban Agenda and the Sustainable Development Goals (SDGs) and – due to Russia's war of aggression against Ukraine – to the resilience of sustainable urban and spatial development.

Within the context of the New Urban Agenda and the SDGs, the BBSR and the National Institute of Urban Affairs New Delhi (NIUA) presented the urban-spatial analyses of some SDGs they had jointly developed as part of their research cooperation. During the forum, they first discussed with experts data-related challenges arising from the current analysis of SDG 7 (affordable and clean energy). In addition, the BBSR moderated an expert workshop of the NIUA and the University of Glasgow on the urban-spatial aspects of SDG 10 (reduced inequalities).

In the French Pavilion, the BBSR introduced the methodology of the National Progress Report on the Implementation of the New Urban Agenda. France is currently preparing a similar progress report together with a representative group of the country's approximate 35,000 municipalities. It intends to draw on Germany's analytical approach and the elected representation of its approximate 11,000 municipalities.

In an expert discussion at the UN-Habitat's Global Urban Observatory, the BBSR reported on the specialist support of German, European and international municipalities of different sizes and geographical locations. It was launched this year as part of the Experimental Housing and Urban Development (ExWoSt) project "Implementing the 2030 Agenda locally through urban development". The methodology, on which it is based, includes the applied and implementation-based multilevel analysis of urban-spatial processes and trends. It serves as a support system for decision-making. The districts, cities, towns and villages involved in the project will develop their own analyses, to be known as Voluntary Local Reviews. Among other places, they will be presented at the Review of SDG 11 during the High-Level Political Forum of the United Nations in New York in July 2023. The data-related aspects also contribute to the work of the UN Statistical Commission, which will also have their next session at the headquarters



Source: UN Media

of the United Nations in spring 2023. The ExWoSt project is methodically based on the National Progress Report on the Implementation of the New Urban Agenda.

The German Pavilion, organised by the Federal Government, was opened on 27 June 2022 by Federal Minister Klara Geywitz. There, the BBSR supported the Federal Ministry for Housing, Urban Development and Building at the stad:mobil information stand of the National Urban Development Policy initiative as well as in an event on traffic calming principles. Based on the example cities of Belo Horizonte, Berlin and Rotterdam, the participants discussed challenges for reducing car dependence and shifting demand to multimodal mobility options as well as related issues of land development.

The BBSR has thus been continuously represented at these United Nations events with scientific contributions since the 6th World Urban Forum in Naples in 2012. The 12th World Urban Forum is scheduled to take place in Cairo in 2024.

The urban-spatial analyses of some of the SDGs are published in the series BBSR-Analysen KOMPAKT in German and English.

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Narratives: a new topic for urban research in the BBSR

by Stephan Willinger

Since the 2000s, the universal importance of storytelling has led to a “narrative turn” encompassing sectors ranging from humanities, cultural and social sciences to economics. With his “Narrative Economics”, Nobel laureate Robert J. Shiller (2019), for instance, considers economic developments to be a consequence of storytelling. This is why narratives are increasingly seen as a crucial framework for all phases of urban and spatial development, from the problem definition, the formulation of goals and the choice of implementation instruments to the evaluation of success or failure of urban development measures. This not only applies to action in cities, towns and neighbourhoods, but also to action at federal state and federal government levels.

A closer look at this emerging research field shows that narratives provide urban actors with a repertoire of ideologies, patterns of interpretation, motives and myths which they can use for their perceptions and actions. Already in 2002, the task of urban development, according to Healey, was “to mould multidimensional conceptions of ‘city’ which both reflect and interrelate the rich diversity and complexity of contemporary urban life while generating a discursive public realm”. In addition, in a fundamental essay in 2003, Sandercock formulated how urban development policy actors could deal more systematically with narratives.

Open processes for polyphonic narratives

In the course of this, the understanding of the term has broken away from its long-dominant use as a marketing instrument towards the complex processes of creating narratives in the mixture of urban and global public spheres. The BBSR’s research work on this topic from 2018 initially concentrated on the importance of narratives for the transformation towards a more cooperative and participatory urban development in terms of “co-production” by municipalities, enterprises and civil society. The focus was on the persistent tendencies of dominant narratives, but also on the speaking skills and communicative offers of new city makers. The phenomenon was also addressed in the context of the process of the National Action Plan on Integration (NAP-I) and identified as a decisive basis for the success or failure of integration policy measures. At the same time, the BBSR has been investigating the effects of narratives with regard to various topics like the role of smart city narratives as a political instrument or new narratives for the development area between Berlin



Source: BBSR, Photo: BBSR/Hans Friedrich

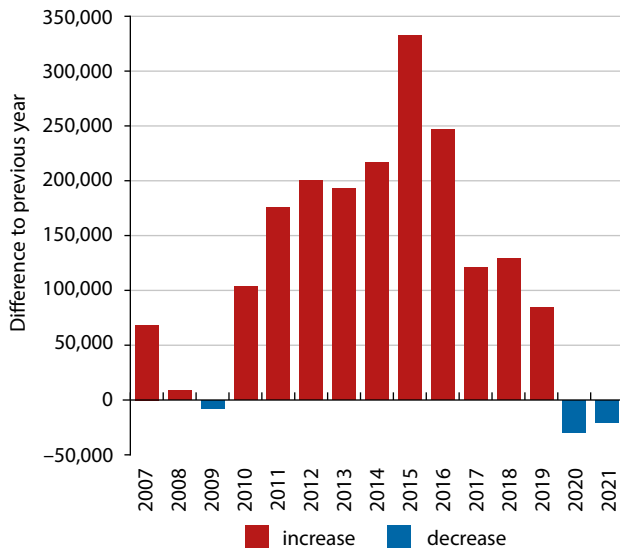
and Cottbus. Since summer 2022, “Narrative Methods and Strategies” are investigated in the context of a study funded under the Experimental Housing and Urban Development programme. It asks how common models and objectives in planning processes can be developed collaboratively with narrative methods? From the results, recommendations for the governance of urban transformation in inner cities or arrival districts are to be derived.

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 Narrative in der Stadtentwicklung [in German]

New omen for urban development?

by Jürgen Gödecke-Stellmann

Year-over-year population change in the IRB cities



Source: Inner-City Monitoring System, Data origin: local statistics of IRB cities, own estimations (basis: 48 IRB cities) © BBSR Bonn 2022

For several years, the BBSR has been operating a small-scale urban monitoring: the Inner-City Monitoring System (Innerstädtische Raumbewachung IRB). It enables the mapping of differences in population development in various city areas. This cooperative project currently involves 56 cities and provides small-scale (district-based) data on the basis of a coordinated catalogue of variables.

The BBSR uses this data basis for differentiated small-scale analyses of urban development. It has also taken over the office function for the IRB and organises the data collection and data transfer to scientific projects. One focus of the project is on small-scale evaluations of the population structure and their changes over the course of time.

In the last few years, urban development has been subject to constant population growth, especially in metropolitan cores. Tight housing markets, price pressure on property markets, rising quoted rent prices and other factors have been impacts on this growth. Recently, the population growth has slowed down, and in some cities there has even been a downward trend. In the following, the population development is first examined at the overall city level since 2006.

Taking the annual rates of change in the population since 2006, over the majority of years there has sometimes been considerable population growth, with 2015 being an outstanding year. With a total of over 330,000 inhabitants, a year-on-year comparison of all 48 cities evaluated shows an overall population increase corresponding to a large city of the size of Bonn or Bielefeld. At the small-scale level, the average population increase is strongest on the outskirts of a city. Compared to the initial population of around 10.5 million, an increase of 825,000 inhabitants had been registered there by 2020 which shows the impact of the pressure of population growth on cities.

While the population growth in the cities surveyed in 2015 is mainly due to refugee in-migration, urban growth over the entire period was also driven by internal migrations of young educational and professional migrants. Since 2015, population growth has been decreasing from year to year, even declining in the last two reporting years. The COVID-19 pandemic and reduced migration to cities have slowed down the momentum of urban population growth.

After having overcome the pandemic, a catch-up in migration to cities – for example by students – can be expected at least in some areas. However, the refugee movements caused by the war against Ukraine, are once again increasing the pressure on the migration to IRB cities. From this perspective, monitoring population developments promises to deliver further surprises.

Considerable differences in growth of rental prices

by Alexander Schürt

Following significant increases up to the beginning of 2019, the quoted rental prices of advertised dwellings in Germany have slowly increased in recent years. In the second half of 2021, they rose again significantly but slightly relaxed again in the first half of 2022. Nationwide, they increased by 3.3% to €9.51 per m² exclusive of utility costs compared to the same period of the previous year.

However, in recent years, purchase prices for residential property, have risen considerably more than quoted rents. At the end of 2021, the Federal Statistical Office's house price index had increased by 12% compared to the same period of the previous year. From the beginning of 2022, growth rates have slightly declined to 10% in the second quarter of 2022.

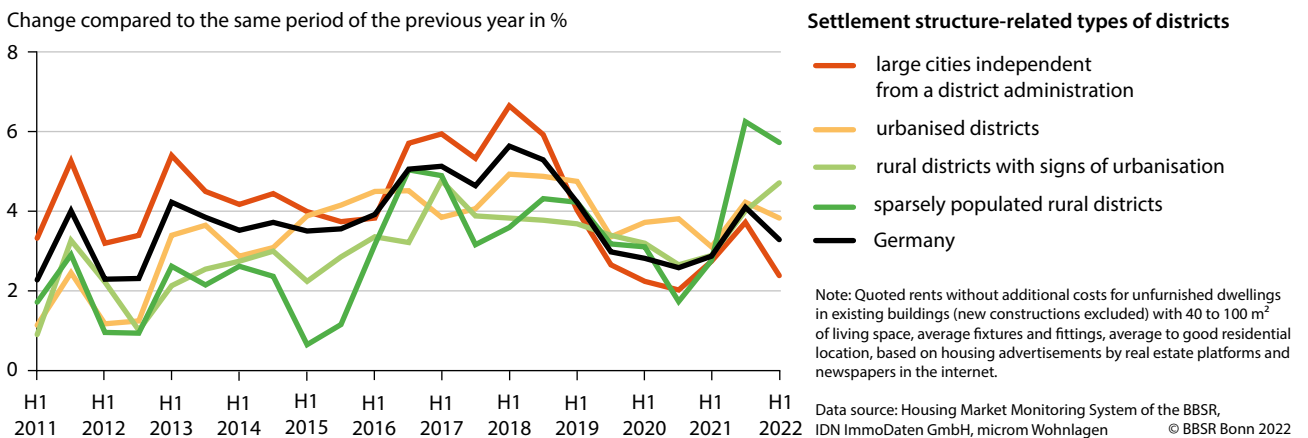
In the first half of 2022, the re-let rents of all German cities independent of a district administration averaged €10.80 per m² and were thus significantly higher than those of districts. In large cities, however, the growth rates of 2.4% were noticeably lower than a few years ago. Particularly in the metropolitan areas of Munich, Stuttgart, Hamburg, in the North-Rhine Westphalian region along the River Rhine and in the Rhine-Main region, the high quoted rents extend from central areas to surrounding areas as housing demand in these regions is high and supply is low. The advertised

rents are also above average in the attractive tourist regions on the edge of the Alps and in the Lake Constance region. In sparsely populated rural districts though, tenants paid an average of €7.30 per m² when moving in. However, in rural districts – starting from low rent levels – rent increases have been stronger in the last two half-years than in large cities and surrounding districts.

With regard to cities independent of district administrations and districts, it is clear that the gap between expensive and cheap regions remains very large. In the city of Munich, existing dwellings were advertised for €18.97 per m² on average, in the cheapest peripheral rural districts for less than €5.30 per m² on average.

The current situation, which is characterised by numerous crises, makes it difficult to predict the future changes in quoted rents. The continuous demand on the rental housing markets and the various obstacles to housing construction may cause rent increases. They make it more difficult for rental households to own their own homes and hamper investment in new rental properties. Nevertheless, the strongly increasing utility costs as well as the rising cost of living may restrain the rent increase margins of landlords if the willingness or ability of home seekers to pay is exhausted.

Change of re-let rents of advertised flats according to types of counties 2011 to 2022



Housing market: no easing of tension in sight – Results of the 2021 Real Estate Market Expert Panel of the BBSR

by Eva Neubrand and Nicole Brack

Every year, the participating market players are surveyed in the housing, office, retail and logistics segments of the real estate market. Interest is directed towards the assessment of current economic and general market trends. The survey is commissioned by the Federal Ministry for Housing, Urban Development and Building.

After the results of the previous year's survey (survey period: end of 2020) suggested trends towards a cautious relaxation in the housing markets, the experts surveyed are observing an opposite trend in both new housing construction activities and the housing stock at the end of 2021: The expected rises in housing demand are again still exceeding the housing supply by a considerable margin. In addition, rents and purchase prices are considered to be on the way up again. These assessments characterise the economic situation in the housing market at the end of 2021, when many of the current crises and their serious impacts on real estate markets could not yet be foreseen.

Supply in the new housing construction sector (see map) is rated much more optimistically than in the previous year, both for the rental segment and for detached and terraced houses in all four major regions (North, East, South and West Germany). The Federal Government's housing offensive is apparently taking effect. In 2020, for the first time in almost 20 years, more than 300,000 new dwellings were built and 400,000 new units per year are planned to be constructed in the future (see BBSR 13/09/2021).

Although the downturn in supply appears to have been overcome, this will not be sufficient to meet the continuous increase in demand for housing. As in previous years, the demand values clearly exceed the supply estimates. The survey respondents assume that housing demand will continue to increase and remain high, which means that the demand for detached and terraced houses has strongly increased.



These market conditions suggest rising rents and purchase prices. More will have to be paid in future, particularly for new-build owner-occupied flats and single-family houses. Owner-occupied houses (terraced or detached houses) are more severely affected by declining vacancy expectations and increasing demand than rental and owner-occupied flats. The already low vacancy rates in at least urban regions are therefore

likely to further decline and to exacerbate the bottlenecks in housing supply.

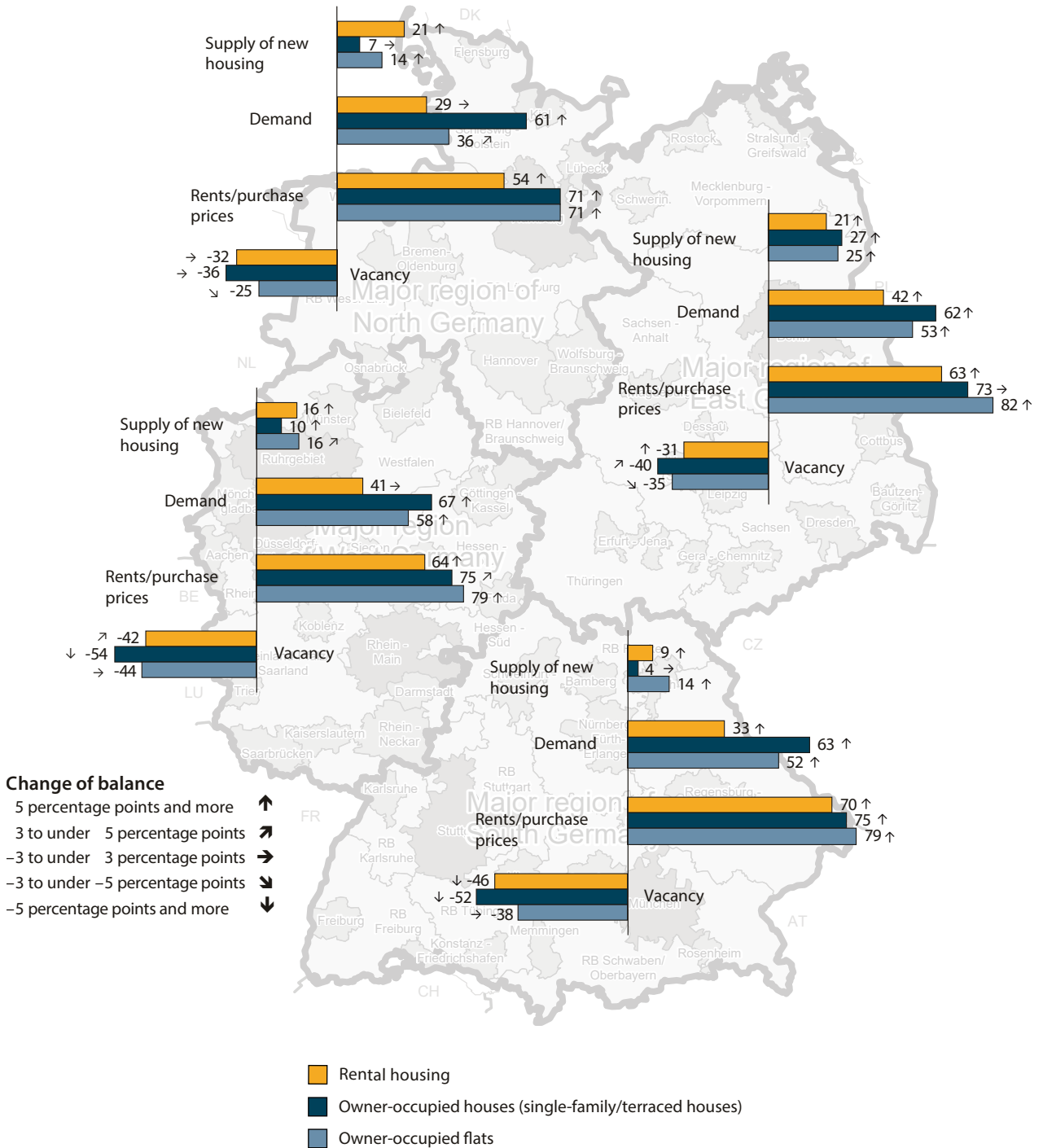
In the opinion of the experts, home seekers must expect even less favourable market conditions for new dwellings than existing dwellings: The demand for used rental or purchase properties is said to be very high. A weakening of demand momentum, as it became apparent in the previous year's survey, can no longer be discerned. On the contrary, the survey participants expect demand to increase significantly. It will meet with a very low supply of existing rental and owner-occupied housing. The gap between supply and demand is larger in existing than in new housing. This trend, which has been evident for several years, therefore continues and the demand gap continues to widen. The same applies to the vacancy rate, which will continue to decrease in some regions. The resulting market tensions are also reflected in the expectation of further rises in purchase prices and rents.

In its evaluation of nationwide re-let rents of advertised dwellings in existing buildings, the BBSR has identified a rent increase of 3.5 % to an average of € 9.29 per m² in 2021. In the largest German cities, however, the rental price momentum has considerably slowed (see BBSR 24/02/2022).

The trend expectations for the "rents/prices" and "vacancy" indicators, which in the housing market research sector are considered indicators of market tensions, have accelerated again at the end of 2021. This is why in many regions, there are no signs that the tensions in the housing markets will ease. The calming of the markets suggested in the previous year's survey does not continue and must be retrospectively interpreted as an effect of restrained market activities as a result of the COVID-19 pandemic.

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Trend expectations in the new housing construction sector 2021 according to major regions



Example of reading:
 In the case of „0“, the share of interviewees expecting a rising trend equals the share of interviewees expecting a falling trend.
 Figures = balance of percentage of interviewees.

Source: 2021 Real Estate Market Expert Panel of the BBSR

How the construction overhang is regionally distributed

by Alexander Schürt

Urban areas particularly affected

According to an evaluation by the BBSR on cities independent from a district administration and districts, at the end of 2021 the cities with the most dwellings approved for construction by the building authorities, but not yet completed were: Berlin (65,800), Munich (36,600) and Hamburg (26,500). They are followed by the cities of Frankfurt am Main (15,800), Leipzig (10,500) and Greater Hanover (9,400). The 14 German cities with more than 500,000 inhabitants accounted for nearly a quarter of the overhang in activities – 205,000 dwellings.

The construction overhang affects urban areas more than rural areas: according to the BBSR, 69.5 per cent of the construction overhang (around 588,300 dwellings) are found in urban areas, 30.5 per cent (around 258,100 dwellings) in rural areas. According to the Federal Statistical Office, at the end of 2021, the total construction overhang amounted to 846,500 dwellings.

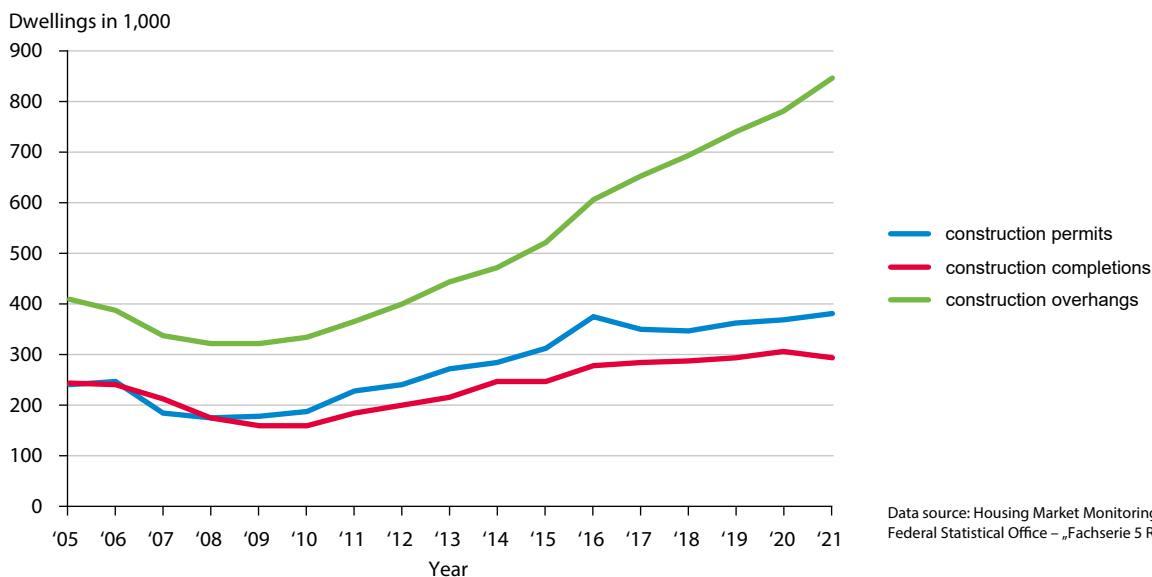
Apart from large cities, particularly the surrounding areas of Berlin and Munich had high population-related values.

In these areas, there has been large increase in the demand for housing in recent years. Some districts in the wider surrounding areas of the two metropolises and along the River Rhine stood out with high values.

“The continuous increase in the construction overhang can also be attributed to longer construction times,” says BBSR housing market expert Alexander Schürt. “In the past decade, multistorey construction activities have significantly increased as a share of all permits. Such construction projects take longer to complete. In addition, the shortage of construction workers and higher prices for construction services are slowing down the construction of new housing”.

The proportion of approved projects that have not yet begun has hardly changed in recent years. In 2021, as in previous years, it was 40 per cent. In 29 per cent of the approved projects, the shell had not yet been completed, although this proportion has increased in recent years. Dwellings approved in 2021 accounted for 41 per cent of the construction overhang. This means that the proportion of recently approved projects is very significant.

Construction permits, completions and overhangs of dwellings 2005 to 2021



Zukunft Bau Pop-Up Campus

by Helga Kühnhenrich and Dr Arnd Rose

BMWSB and BBSR support university projects for the transition of construction

Federal Building Minister Klara Geywitz opened the Festival Weeks of the “Zukunft Bau Pop-Up Campus”, which is part of the Zukunft Bau (future building) innovation programme, in Aachen on 29 August, 2022. The innovation programme is funded by the German Ministry for Housing, Urban Development and Building (BMWSB). Minister Geywitz discussed new approaches for the efficient use of building materials and the development of the building stock with students, graduates and researchers.

The Pop-Up Campus is a new format of Zukunft Bau, which builds bridges between the latest scientific findings, their integration into teaching, translation into practical building applications and communication to the wider public. The projects presented on the Campus – an empty office building in the city centre of Aachen – illustrate how the building stock can be reused and improved to counteract material shortages, to promote circular construction methods and reduce construction waste and emissions. During the Festival Weeks up to 9 September, 2022, the participants of the Zukunft Bau Pop-up Campus presented their projects on the Campus premises and in various other locations in the city. Interested people were able to attend numerous events such as colloquia, workshops, photo exhibitions, city walks or discussion events. A retrospective view of the events, pictures and other media is available on the website www.pop-up-campus.de.

In explaining its purpose, Federal Building Minister Klara Geywitz said, “On the Zukunft Bau Pop-Up Campus, solutions are being developed and presented that show how we can achieve more by using fewer materials in the construction industry. Material shortages and increasing prices can be counteracted by designing and building more efficiently. We have to start with the building stock. Implementing good ideas for the development and further use of existing buildings is more sustainable than simply demolishing and replacing them with new ones. The universities’ projects combine research and teaching in a very innovative way. I am impressed by the way everyone involved is using the Campus as an experimental space to develop solutions for climate protection and resource conservation, design quality and affordability of building and living. We



Federal Minister Klara Geywitz opens the Zukunft Bau Pop-Up Campus

Source: Ivo Mayr

are supporting the 31 projects together with the Federal Institute for Research on Building, Urban Affairs and Spatial Development, because the universities are a driving force for a sustainable transformation of the entire field of activity involving buildings.”

The projects presented on the Campus deal with a wide range of topics from components made of materials with a low carbon footprint like wood, textiles and paper to digital design and manufacturing processes. The projects developed ideas showing how to re-use existing buildings and to repurpose (sub-)urban spaces. They visualise the architectural qualities of existing buildings or show strategies for the successful interplay of climate protection and the protection of historical monuments.

The Zukunft Bau Pop-Up-Campus 2022 was initiated by The Federal Building Ministry together with the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR). It was hosted by RWTH Aachen University and implemented jointly with the City of Aachen.

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BBSR research prototype at digitalBAU 2022 trade fair

by Michael Lautwein



A small-scale robotic manufacturing demonstrator at the BBSR trade fair stand

Source: FG Experimentelles und Digitales Entwerfen und Konstruieren, Universität Kassel

“By far the most beautiful and innovative stand at the show!” was a frequently expressed comment in praise of the BBSR trade fair stand at the digitalBAU 2022 in Cologne. The BBSR had announced an implementation competition for the trade fair on the digitalisation of the construction industry. The competition is part of the “Zukunft Bau” (future building) innovation programme. The aim was to conceptualise, develop and construct an experimental roof structure as a trade fair stand – a vision of how future planning and building can be digital and sustainable. In doing so, the focus was on using a continuous digital process chain and a multifactor optimisation of various criteria using AI (artificial intelligence) algorithms.

In the context of the cooperative research project “3DWoodWind”, the prizewinners of the competition, a consortium of the universities of Kassel and Hanover, developed an attractive lightweight timber construction and produced the exhibition stand by means of an innovative robotic winding process with endless wood veneer tapes. The three-dimensional winding process has high innovation potential, since it enables the development of hollow components made from veneer with adapted structural properties. The natural grain of the wood is structurally optimised for this purpose, resulting not only in high-performance components, but also using the increasingly scarce resource of wood in a very material-efficient and sustainable way. An AI-controlled design logic enables the intelligent combination and construction of

the modular components into multistorey structures. Due to their high performance, in future they will be able to serve as substitutes for concrete or steel systems.

This applied research project showed how the scientific findings on new and innovative digital process structures in the fields of design, manufacturing and assembly could be visualised and demonstrated to the public via a real-life research demonstrator. The design and manufacturing process was visualised by videos and illustrated with a winding robot on a smaller scale. In the related forum programme, the prizewinners explained the research project and were supported by two lectures by members of the competition jury.

This innovative type of trade fair stand provided an effective platform for visualising the BBSR’s topics in the professional world. Tenders will therefore be invited again for another design and construct competition for the digitalBAU 2024. The 3DWoodWind construction was presented at this year’s documenta in Kassel, at the “Zukunft Bau” Pop-Up Campus and will also be presented at the BAU 2023 trade fair.

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Study sees few negative consequences for construction projects despite high number of future closures in the construction industry

by Stefan Rein and Christian Schmidt

In the next ten years, the owner of every second company in the construction industry is due to retire. These are 163,000 companies in absolute terms. This is the conclusion of the study “Unternehmensnachfolge im Baugewerbe” (Company succession in the construction industry) published by the BBSR on 5 May 2022.

The study was based on a representative survey of over 2,500 participating building contractors across Germany. For the first time this provides reliable information on the particularities of successions in the construction industry – also specifically for the main construction industry and the building completion sector.

According to the study, only about 12,000 to 15,000 of the 163,000 companies are actually being run by owners with retirement plans. The majority of companies will probably be shut down – not least because no successors can be found for these mostly small companies.

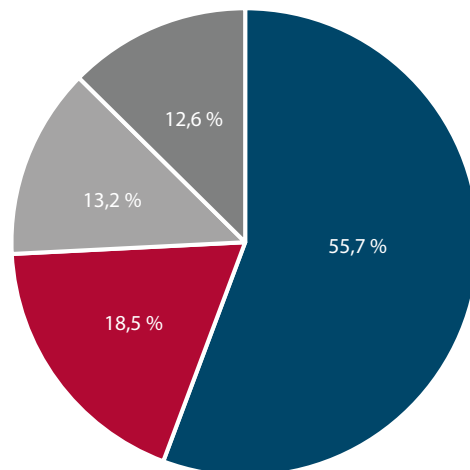
The study does not envisage many severe negative economic impacts on construction projects in Germany. The reason is that the majority of jobs and orders at risk are likely to be taken over – either by other companies from the construction industry, or from other sectors and from abroad. Nevertheless, calculations show that unplanned closures account for a loss of jobs and around 6% of value added in the construction sector. “Regional effects should also not be underestimated when closures concentrate in certain regions. The chambers of commerce and industry as well as the chambers of trades should keep this in mind through forward-looking monitoring”, says the director of the BBSR, Dr Markus Eltges.

At the same time, the survey also provides information about implemented successions. Similar to companies in other sectors, the owners of companies in the construction industry – clearly prefer succession by a family member. Among all the businesses handed over in the last decade, almost 60% are continued by family members. At the time of handover, the companies taken over had an average of eight employees.

“In order to successfully hand over a company outside your family, you need tailor-made information and good preparation,” says Eltges. “The owners of companies should deal with the strategically important issue of succession in good time. Better use of advisory services and formats that bring together owners and potential successors can make the long-term preservation of the company an attractive proposition.”

The BBSR had commissioned two private research institutes to carry out the study, “Institut für Mittelstandsforschung” (IfM) in Bonn and DIW Econ. It is available on the German-language BBSR website.

The orders of the closed company



- will be taken over by companies within the construction industry
- will be taken over by companies from abroad
- will be taken over by companies from other sectors
- will not be carried out

Source: BBSR

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🌐 www.bbsr.bund.de > Forschung > Programme > Zukunft Bau > Ressortforschung > Unternehmensnachfolge im Baugewerbe [in German]

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Save the date: Ninth Day of Urban Development Promotion

On 13 May 2023, all cities and municipalities nationwide are once again cordially invited to participate in the ninth Day of Urban Development Promotion. The nationwide day of action is a joint initiative of the Federal Government, the federal states, the Association of Cities German and the German Association of Towns and Municipalities.

This year more than 565 cities and municipalities showed how they create attractive neighbourhoods, city and district centres and promote coexistence in lively neighbourhoods with the help of urban development funding and the participation of citizens.

We again hope for many events and actions in presence, such as city walks, building site inspections, workshops, city rallies, open days, exhibitions and district festivals. Virtual actions are also welcome. Further information on the call for projects, registration options, conditions of participation and preparations will be available at an early stage.



More information can be found at:

www.tag-der-staedtebauforderung.de
(in German).