



RESEARCH NEWS

No 2 / November 2016

Dear Readers,

Urbanisation is a worldwide trend. Forecasts of the United Nations estimate that two thirds of the global population will live in urban areas by 2050. That would mean additional 2.5 billion urban dwellers, 90 per cent of them in Asian and African countries. In Germany the urbanisation rate will reach remarkable 83 per cent by then.

The United Nations and its member states respond to this trend. Together with engaged stakeholders and citizens they developed the New Urban Agenda as a global guideline for urban development. HABITAT III – the UN Conference on Housing and Sustainable Urban Development – brought them all together in October 2016 in Quito (Ecuador).

Urbanisation constitutes a challenge, but it also offers opportunities. Against the background of the Sustainable Development Goals of the 2030 Agenda and the Paris Agreement, it will be for us to take this chance and design our cities in an inclusive, safe, resilient and altogether sustainable way.

The BBSR will assume its role in this evidence-based policy process and be part of monitoring and evaluating urban trends, integrated urban development policies, urban planning instruments, funding programmes for urban project and revenue-sharing mechanisms in order to make our cities what they should be: livable and vital places for all.

Having this in mind we wish you a happy reading.

The editors

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Impacts of transnational cooperation



Interreg-funded projects cover a range of topics including innovation, reduction of emissions, environmental protection, transport, climate change as well as governance. While these topics are funded to different degrees across the programme areas, some of the impacts, that transnational cooperation projects achieve, are similar across these themes. This is due to the set-up of such projects, tackling issues that do not stop at administrative borders and that require coordinated actions.

The Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) – on behalf of the Federal Ministry of Transport and Digital Infrastructure – currently runs a research project carried out by Ramboll Management Consulting GmbH that analyses the cross-sectoral impacts of Interreg. It captures such effects of funded projects that only occur after their completion and which were initiated by these projects but not directly caused by them. These effects are generated outside the direct partnership of the project and therefore show the contribution that Interreg funding has on the development

Further information

(in German):
<http://www.bbsr.bund.de> >
 Programme > Allg.Ressort-
 forschung > Raumordnung >
 Untersuchung der Wirkungen

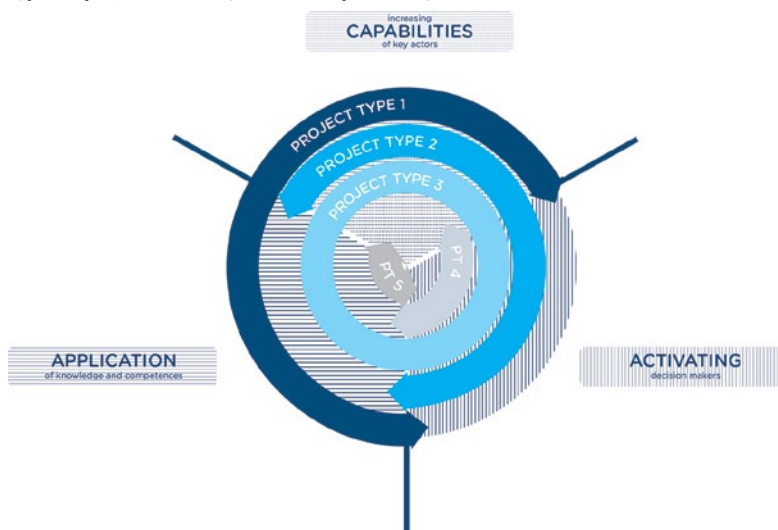
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of the particular Interreg programme area. Impacts include:

- **CAPABILITIES:** actors addressed by a project, e.g. political stakeholders and stakeholders in public administrations are provided with new solutions increasing their capability to initiate positive developments in their regions.
- **ACTIVATION:** describes the increased awareness of the topic addressed by a project and its higher importance on the political agenda by activating decision-makers. Secondly, it describes an increase of joint action within decision-making processes. Transnational projects lead to an improved reconciliation of interest across different sectors and administrative levels in the long term.
- **APPLICATION:** Describes the increased application of social and technical innovations, achieved by projects through targeted trainings, increased exchange and improved conditions. Secondly, this impact describes that Interreg projects lead to more efficient and effective working processes. They include standardized methods, improved approaches and forward-looking decisions. Lastly, it covers improvements in the social, ecological or business environment of the regions concerned. This is achieved by means of improved planning and steering processes or via pilot applications leading to new offers for the benefit of the regions' inhabitants.

Types of projects covering different impact categories



Source: Ramboll Management Consulting, English translations by BBSR

The study shows that most Interreg projects cause more than one impact. E.g. many projects increase the CAPABILITIES of key actors and, on that basis, address the APPLICATION of concrete measures, improve processes and initiate positive developments (see Project type 1 in the figure).

However, it is important to note that it is not necessary for a project to cover as many of the impacts as possible to be successful. The coverage largely depends on the preconditions existing in the thematic field and the maturity of cooperation structures in the area. Successful projects achieving impacts in their region can thus be found within and across any of the impact categories identified: capabilities, activation and application.

Transnational programmes gather pace: numerous projects approved

Autumn was exciting! Five of the six Interreg B programme areas with German participation had to decide upon project applications. Around 1,230 expressions of interest for transnational projects were submitted within six programmes with German participation this summer. The related funds from the European Regional Development Fund (ERDF) applied for thus amount to far more than 1.5 billion euros. The interest is impressive and shows that the programmes and their funding priorities meet with current challenges and requirements.

Jointly with partners from other countries, the BBSR, which represents the German Federal Government in the transnational programme committees, in September and October has

adopted 97 projects (full applications) with an ERDF volume of around 192 million euros within the Alpine Space, North Sea Region and North-West Europe programmes and the Danube Transnational Programme. 13 of these projects have a German lead partner. The international consortia of the successful projects can now jointly implement the projects and tackle the joint challenges through cooperation.

Furthermore, in September, preliminary decisions were taken within the North Sea Region, the Baltic Sea Region and the North-West Europe programmes: Another 111 consortia were invited to develop their project ideas into a full application. The related decisions will be taken by the middle of 2017.

Interreg_B
Zusammenarbeit. Transnational.

For more information on transnational cooperation, please see www.interreg.de.

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The future of European cooperation in territorial development – a project supporting German and European policy-making

Planning, designing the future is a continuous process, characterized by different stages and milestones. There are two policy issues related to European cooperation in territorial development coming up in the next years, which are of utmost importance for Germany: the EU Presidency in the second half of 2020 and the discussions on the future of Interreg, which will start in 2017. There is now the chance to influence changes strategically. The Federal Ministry of Transport and Digital Infrastructure and the BBSR have launched a project to support the German position by knowledge and evidence in the discussion about the future of Interreg and in preparing the German EU Presidency

The project will place European territorial cooperation and territorial development policies in a broader context, exploring interdependencies and synergies between policies (e.g. EU2020, territorial development policy, cohesion policy) and it will monitor the changes in the policy framework over the project lifetime. It will take up two major aspects in order to strengthen territorial cohesion: it will investigate existing territorial visions in Europe and the extent to which the EU cohesion policy promotes territorial cohesion. It will explore and evaluate several potential policy scenarios in the field of

territorial development under the German EU Presidency, taking achievements of previous and upcoming Presidencies into account as well as experiences, since the Lisbon Treaty entered in force.

The transnational cooperation programmes have an important role in achieving the objectives of the European territorial development policy. Although the implementation of the 2014-20 programmes is in an early stage, the already upcoming discussions may help to improve the framework in which programmes will operate after 2020. The project will therefore critically assess the changes between different funding periods in the history of Interreg, it will evaluate the experiences with the novelties of the 2014-20 programmes and will support the definition of the unique selling point of Interreg and transnational cooperation in terms of their added value compared to other programmes.

The project runs for two years until November 2018. The results of the project will contribute to the discussions on the future of Interreg and on the European territorial development policy already during the project lifetime. The project is financed by the German Demonstration Projects of Spatial Planning programme.

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Urban Development

HABITAT III – New Urban Agenda – new basis adopted for global cooperation in urban development

Approximately 30.000 participants of the UN Conference on Housing and Sustainable Urban Development (HABITAT III) and around 100.000 representatives of states and citizens engaged in the two years preparatory process together with the member states of the United Nations discussed the implementation of the New Urban Agenda as a guiding document for urban development from 17 to 21 October 2016 in Quito (Ecuador) and proposed it for adoption by the UN General Assembly in December 2016.

The New Urban Agenda aims at strengthening cities and communities as livable places for all. On behalf of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the BBSR was part of the closing negotiation on the New Urban Agenda as well as of the three sessions of the Preparatory Committee.

At the invitation of the United Nations, the BBSR staged an official event on urban finances and it presented solutions on sustainable and integrated urban development in the context of the accompanying exhibition at the German Pavilion. Cities and communities need a sound financial basis in order to increase the life quality in urban areas and to be able to reach environmental and climate-related targets. The event explained the regulatory framework of the financial capability of cities and communities in Germany as well as it presented revenue-

sharing mechanisms. In addition, programmes for financial support, investments and loans aiming at sustainable and integrated urban development were discussed with the “Kreditanstalt für Wiederaufbau KfW”. State Secretary Gunther Adler opened the event on behalf of the Federal Building and Environment Minister Dr. Barbara Hendricks. Dr. Eva Lohse, President of the German Association of Cities and Mayor of Ludwigshafen, introduced into the situation of cities and communities in Germany.

Growing urbanisation constitutes one of the dominant trends of the 21st century. 54 per cent of the global population already lived in cities in 2014, a percentage that is forecasted by the United Nations to reach 66 per cent by 2050. The rate of urbanisation in Germany added already up to 75 per cent in 2014 and will presumably reach 83 per cent in 2050. If two thirds of humankind will live in cities by 2050, this would mean additional 2.5 billions of urban dwellers – most of them living in cities in Asia and Africa. This would cause huge challenges for urban development policies in those countries and for each single community. Yet, manifold opportunities are offered in order to design these development trends and make use of them in a positive way. Cities are engines for economic development and places of societal transformation as well as social integration.

Without a sustainable development of cities and communities the climate- and energy-related targets of the global community cannot be reached. With regard to monitoring systems at the local and regional level, HABITAT III and its follow-up are thus part of the Sustainable Development Goals of the 2030 Agenda and the Paris Agreement. HABITAT III means for Germany to promote communities as key stakeholders of the integrated development of urban areas.

As part of the follow-up process, the BBSR together with the German Association of Cities will discuss core aspects of implementing the New Urban Agenda that are related to urban planning and urban development. It will thus contribute to the overall discussion of the National Urban Development Policy as well as to processes of urban development in the context of the European Union.

Further information:
<https://www.habitat3.org>

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The photo shows an event at the German Pavilion in the presence of the President of the German Association of Cities, Dr. Eva Lohse



Rent law and energy efficiency-improving refurbishments in Europe

CO₂ reduction, energy conservation and energy efficiency are central requirements of the EU's environmental, climate and energy policy. They find expression in numerous EU directives, especially the Energy Efficiency Directive. These legal commitments of the member states, which only come into force following national implementation provisions, have an indirect or direct effect on the allocation of costs between house owners and tenants. Depending on the national rent law and the role of the rental market segment for the national housing market, it can be expected that the related EU legislation will have different impacts on the member states' housing markets, on tenants and owners and, consequently, on the national social systems securing housing supply. In the context of different housing market structures and different national rent law regimes including regulations on refurbishments improving the energy efficiency in 14 selected European countries, the project, launched in 2014, aimed to find out the different effects on tenants and landlords resulting from EU provisions targeting to improve energy efficiency.

By involving national reporters, a large information basis on national housing markets in the form of comprehensive country profiles was first of all developed. Subsequently, the countries were categorised based on a review of the relevant EU legislation, a comparative analysis of national rent laws considering (a) general rental provisions, (b) incidental expenses and (c) rental provisions on energy efficiency and an analysis of national incentives promoting energy efficiency-oriented refurbishments as well as based on a comparative description of the various contexts and implementation strategies. The classification reveals similar and different trends explaining the current state of the rental and energy efficiency system in each country and helps to analyse future trends and needs for action.

As expected, the study revealed that first of all the national rent law is essential to analyse the impact of energy efficiency-improving refurbishment measures on tenants and landlords. National laws are also crucial with regard to the question whether, in case of energy efficiency-related refurbishment measures, the rent law allows an appropriate

distribution of benefits between tenants and house owners according to Art. 19 of the 2012/27/EU Energy Efficiency Directive.

In most of the investigated countries, the amount of rent can be freely fixed when concluding the tenancy agreement while rent increases in existing tenancies are limited by law. Unlimited tenancy agreements are used although their national legislations allow limited agreements as well in the majority of the analysed countries. Rent laws in countries with unlimited agreements normally do not permit the termination of an agreement to increase the rental revenue but often allow a termination aiming to take (energy efficiency-improving) refurbishment measures. Limited tenancies theoretically offer the chance to take energy efficiency-oriented measures at short notice in case of change of tenants, but especially in countries with short-term agreements, a comparatively low number of energy efficiency-improving measures is taken.

Only a few rental regulations lay down explicit obligations of tenants to tolerate energy efficiency-oriented refurbishment measures. Nevertheless, they could be taken at short notice in most countries and without causing any restraints to the owner. Such measures might, however, cause problems in those countries where the tenants' obligation to tolerate refurbishment measures is strongly

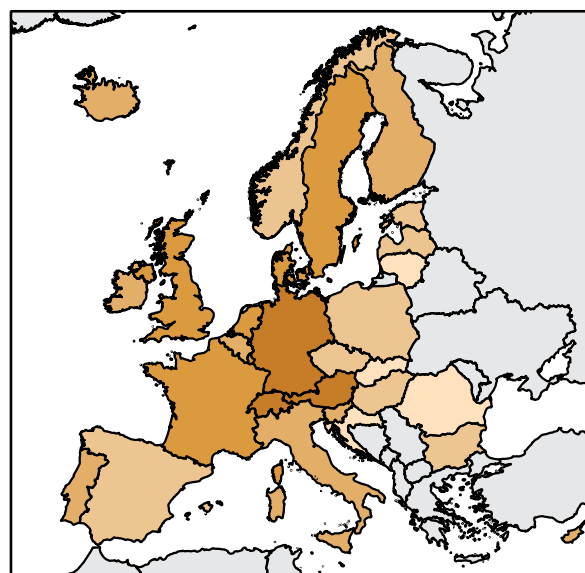
The study will soon be published as BBSR special publication in English and German.

More information:

www.bbsr.bund.de >
Programme > Allg. Ressort-
forschung > Bereich Wohnungs-
wesen

Percentage of rented flats in EU countries in 2011

0 up to below 10
10 up to below 20
20 up to below 30
30 up to below 40
40 and more



Source: Eurostat

Housing

limited and where, alternatively, tenancies cannot be terminated at short notice.

The possibility to transfer refurbishment costs to tenants by increasing rents is an important precondition for dividing up the benefits of energy efficiency-improving refurbishment measures adequately according to Art. 19 of the 2012/27/EU directive. It is all the more relevant as, due to the usual division of heating costs, it is the tenant who mainly benefits from energy savings while the owner has to finance the refurbishment measures.

In those countries investigated, in which the amount of rent even within an existing tenancy is not clearly regulated but is instead determined by the market situation, special regulations concerning rent increases following refurbishment measures do not exist. The classification shows that especially those countries have a higher need for energy efficiency-improving refurbishment. Another important result is that none of the examined member states obliges private house owners directly or unconditionally to take extensive energy efficiency-oriented refurbishment

measures. Such obligations might include regulations to increase the energy efficiency up to certain deadlines and with fixed target values or concrete sanctions if these regulations are not observed.

When the existing legal framework is making the funding of energy-efficient refurbishment for landlords difficult or even impossible, financial incentives become relevant. Subsidising energy efficiency-improving refurbishment measures is done in most of the investigated countries by a combination of loan support and grants or by allowing incentives with regard to sales, income and/or corporation taxes.

The research findings altogether indicate that those countries, which show differentiated rental housing markets with strong stakeholder structures and interest groups organised in associations, a high share of non-profit landlords as well as specific and effective legal regulations concerning the share of energy efficiency-oriented refurbishment costs, have good preconditions to implement energy efficiency strategies adequately.

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BBSR-Analysen KOMPAKT 07/2016 – new results from the BBSR Housing Transaction Database

The market activities on the German housing transaction market in the first half of the year 2016 have been published in BBSR-Analysen KOMPAKT 07/2016. The publication analyses the current developments in sales activities in the past six months, takes a closer look at key players and their strategies and gives a profound analysis of the distribution of market events. The database observes the transaction market for the period since 1999 and with its semi-annual analysis provides useful fundamentals and suggestions for housing policies.

In the first six months of 2016, transaction activities have considerably declined: While sales figures in the current phase with 333,000 sold units peaked in 2015, they dropped to 34,000 units in the first half-year of 2016. The decline is due to the missing availability of large portfolios and no more large takeovers of entire residential companies like in recent

years. With 19 sales between January and July, the number of transactions matches the long-time average of transactions for half a year. Subsequently, with 1,800 sold units, the transaction average is much lower than in previous years. Not a single sale with more than 10,000 housing units and just one trade with more than 5,000 units were recorded. The current market situation creates the impression that the second peak phase is coming to an end. However, in contrast to the sudden conclusion of the first peak phase in 2008, the lacking supply of residential portfolios and not the collapsing demand causes the drop in the transaction volume this time.

The detailed analysis is published in German in BBSR-Analysen KOMPAKT 07/2016 and can be ordered from forschung.wohnen@bbr.bund.de.

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Development trends in the European construction sector

In 2015, in the whole EU, around 1.3 trillion euros were invested in residential and non-residential buildings. In spite of considerable declines especially in the Spanish construction sector, 72 % of all construction investments are made in Germany, France, Italy, Spain and the United Kingdom, which is 916 billion euros.

In the European housing sector, the situation has not really improved for nearly a decade. Investments within the EU are considerably below the maximum value of 2007 although the trend has been moving into the positive direction since 2013. In Spain, investments have increased in 2015 for the first time in a long time. All in all, they are around 60 billion euros below the value of 2007. The housing investments in France and Italy show a very negative trend, i.e. they are around 21 billion euros and 31.5 billion euros, respectively, below the values of 2007. In the United Kingdom, housing investments have been strongly increasing since 2010, although the trend is currently going down.

In Germany, housing investments have only slightly increased in the last year although, with nearly 270,000 units, the building permissions have reached a new peak since 2000. During the same period, completions of buildings, which in the last two years amounted to around 216,000 units, have stagnated. This could be explained by the fact that the capacities of the construction sector are nearly completely utilized. Building permissions cannot be realised and therefore related investments cannot be made.

Investments in non-residential buildings (commercial and public buildings as well as civil engineering projects) are around 695 billion euros. In Germany, the non-residential housing investments compared to the residential housing investments are much lower. The development of the non-residential housing sector remains undynamic and on the level of 2007. In France and Italy the situation is similar as in the residential housing sector. During the last decade, a negative trend in the non-residential housing investments also seems to have established there. Spain was recently able to record an increase after

the building activities in the non-residential housing sector had nearly halved. Only the development in the United Kingdom has been strongly going up since 2010.

Altogether, negative trends like in Italy and France seem to become established. On the one hand, they might be caused by the unstable economic situation in the commercial building sector, which is due to the European national debt crisis. On the other hand, the contractionary measures in the context of the European fiscal policy, necessary to reduce the national debts, lead to decreasing public building investments. It remains to be seen in how far the "Brexit" will slow down the positive trend in the United Kingdom and whether the trend in Spain will move into a positive direction.

Detailed results will soon be published in the context of the "BBSR-Analysen Kompakt" series (in German).

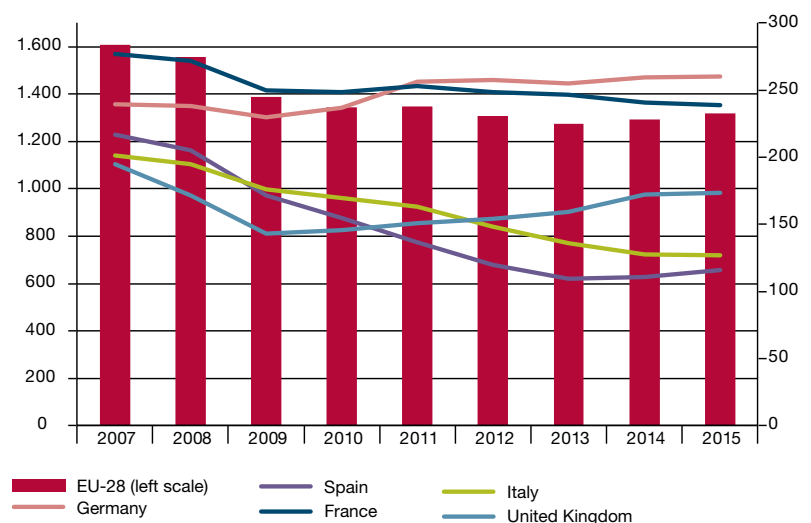
Further information:

www.bbsr.bund.de >Startseite >Themen > Bauwesen > Bauwirtschaft und Bauqualität > Bauwirtschaft > Veröffentlichungen

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Real building investments in Europe (in million euros, chain linked volumes (2010=100))



Source: Eurostat, own illustration

GIS-ImmoRisk – a geographical information system helping to evaluate climate change-related natural hazards

Further information:

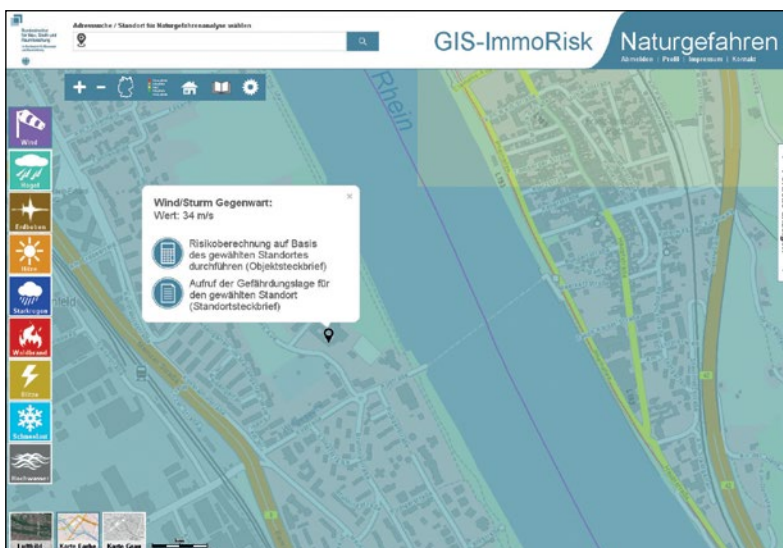
www.bbsr.bund.de > English > Programmes > ExWoSt > Fields of Research > Risk assessment of the future effects of climate change for the real estate industry (ImmoRisk)

Climate researchers and reinsurers acknowledge a growing number of loss-causing events in this century due to an accelerated climate change. Enormous (property) damages to real estate caused by increasing extreme weather events such as storm, hail or heavy rainfall and related floods confront house owners and project developers with completely altered hazardous situations. In the affected regions, financial losses are likely if no appropriate strategies and measures are implemented which either reduce the risk, spread it or transfer it to third parties such as insurance companies. Therefore, property owners, buyers and developers need a target group- and action-oriented basis for decision-making helping them to identify and manage climate risks when selecting development sites and properties to purchase or deciding on investments in their property portfolio.

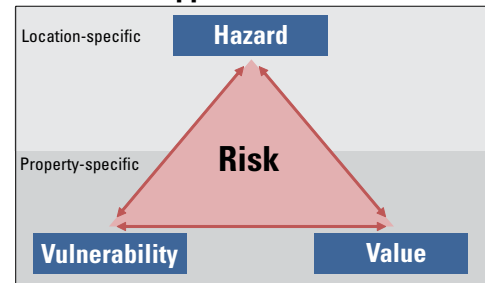
This is why, in a first step, the ImmoRisk Tool was developed in the research field ImmoRisk – risk assessment of the future effects of climate change for the real estate industry. The tool enabled an assessment of current and future climate risks for 15 pilot locations based on available data. In a further step, GIS-ImmoRisk, a nationwide geographical information system for risk analysis and assessment of natural hazards, is being developed since autumn of 2015.

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Methodical approach



Methodical approach

Data source: BBSR, GIS-ImmoRisk

The three-part methodical approach combines the threat from the exposure of the respective location with the damage-relevant vulnerability of a property or portfolio (entered by the user) against the respective natural hazard and relates them with the resulting and system-calculated extent of damage to be expected. The system is able to generate both a hazard profile of the selected location as well as a property-specific risk profile. Where the database currently does not allow a quantification of the respective risk, a qualitative classification is given.

The system also provides background information for interpreting the results, on the databases used as well as for possible precautionary and adaptation measures.

The extendable GIS-ImmoRisk system is supported by a project-accompanying expert advisory board from science and practice which will also be consulted during the operating phase of the system. The GIS-ImmoRisk is expected to be released to the public in 2017 when all necessary tests have been completed.

Visualisation GIS-ImmoRisk Naturgefahren

Data sources: BBSR, GIS-ImmoRisk, Geometric basis: The Federal Agency for Cartography and Geodesy (BKG)

The future of building in Germany

New publication series provides insight into current construction research activities with strong practical orientation.

People who would like to know more about current issues and challenges in the German construction sector can find more information in the publication series "Zukunft Bauen: Forschung für die Praxis". Within this series, the BBSR publishes special research results in the field of sustainable, energy-efficient and cost-effective building. The series addresses architects, planners and experts in the scientific, political and construction sectors. It shall help to put the research knowledge more quickly and comprehensively into practice.

Applied construction research in Germany is dynamic and diverse. The "Future Building" research initiative of the Federal Ministry of Transport and Digital Infrastructure, implemented by the BBSR, is an important contribution. More than 700 research projects have been funded or commissioned since 2006. The final reports of the funded projects can be downloaded free of charge from the research initiative's website www.forschungsinitiative.de. The BBSR selects those with extraordinary findings or being of high benefit for users and prepares them as

special issues, e.g. for publication within the new series.

So far, four issues have been released. The "ready" project marked the beginning. It dealt with the question which measures can be taken by the housing industry to prepare accessible housing in new constructions. The brochure met with high approval and has already been reprinted several times. The "best practice" project, formulating qualitative features for a socially sustainable architecture of residential buildings, formed the second issue. It is characterised by an original research methodology and good illustration of case studies. The third issue "RENARHIS" deals with the sustainable, energy-efficient modernisation and restoration of historic urban neighbourhoods. Within the publication, recommendations of action referring to a case study were formulated on an interdisciplinary basis. The fourth and latest issue is dedicated to the use of ecological building material and shows how construction with a low level of harmful substances may succeed.

All brochures can be ordered free of charge and can also be downloaded from www.forschungsinitiative.de. They are in German and partly contain English abstracts.

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Zukunft Bauen: Forschung für die Praxis: ISSN 2199-3521
The publication can be ordered free of charge at: zb@bbr.bund.de

ready – prepared for housing
for the elderly



best practice – social factors of
sustainable architecture



RENARHIS – sustainable,
energy-efficient modernisation
and restoration of historic urban
neighbourhoods



Using ecological building materials
– aspects of the complex planning
task "How to construct with a low
level of harmful substances"



Latest Map

Wind energy in Europe 2016

In spring 2016, around 93,500 wind turbines in Europe produced wind energy, 3,300 of them offshore . Nearly 27,800 of these turbines are situated in Germany alone, around 20,000 in Spain. Around half of all European windmills are situated in these two countries. They are followed by the United Kingdom with 8,000, Italy with 7,200 and Denmark and Spain with around 5,600 wind turbines.

The installed capacity in Europe is around 148 GW, which corresponds to about 105 large thermal power stations with a capacity of 1.3 GW. Just under 11 GW of installed capacity can be found in offshore windparks. In Germany, a capacity of around 41 GW is installed in wind power stations.

Compared with 2011, the year in which the BBSR had for the first time analysed wind power stations in Europe, the number of turbines has increased by around 25% in Europe. In general, the installed capacity is increasing together with the number of wind parks, in Germany by about 20% each. Different trends can be observed in Denmark and the Netherlands: The number of turbines is increasing by 4% and 10%, the installed capacity, however, by 10% and even 47%.

These figures show the raised capacities of existing power stations. The share of wind power in the electricity generation steadily increases and in 2014 in the EU28 reaches a share of just under 9% in the gross electricity generation. Altogether 257,000 GWh of electricity are produced in the European Union this year. With a share of 41% in the electricity generation, wind power in Denmark is the most important energy source in Europe followed by Portugal with 23%, Spain and Ireland with around 19%. Germany and the United Kingdom have a share of around 9%.

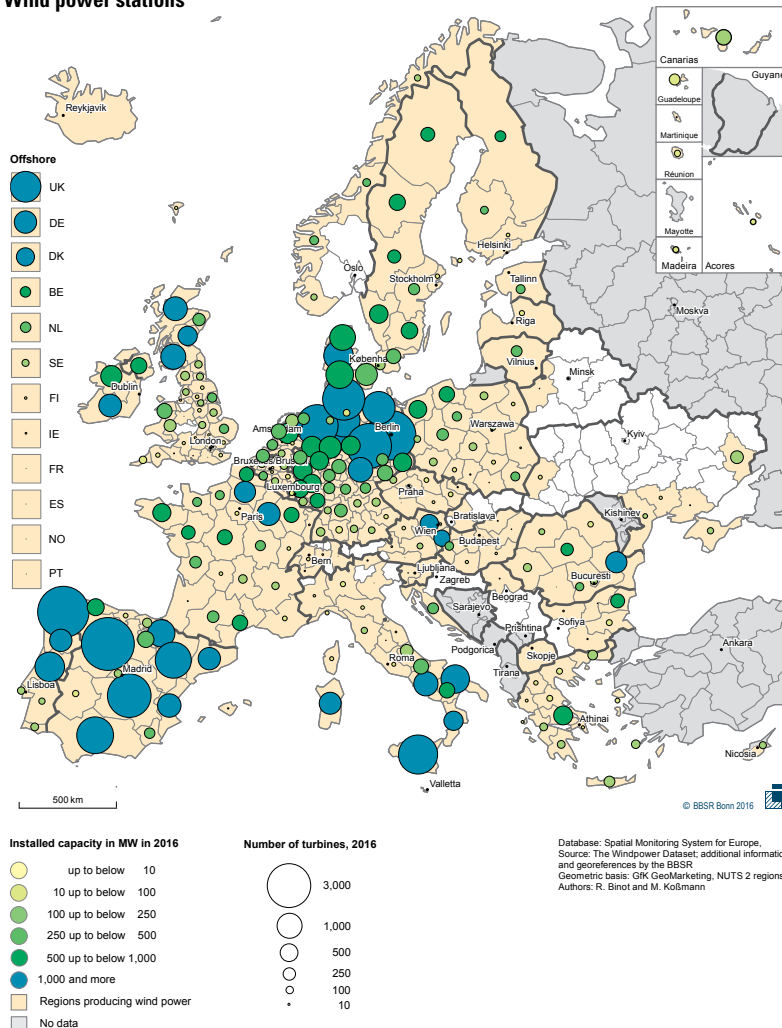
A spatial concentration and an expansion of wind parks on the North Sea and in the Northern German lowlands are evident. In Spain the capacities are regularly increased over the whole country whereas in France the wind power stations do not concentrate in the western coastal regions but in the north-eastern Hauts-de-France und Grand-Est regions. In the United Kingdom, Scotland is becoming the stronghold of electricity generation based on wind power.

With around 5.9 GW produced by 3,800 wind turbines, Brandenburg is the NUTS 2 region with the highest installed capacity in Europe. It is followed by the Spanish Castilla region with over 4,300 turbines and a capacity of 5.7 GW. German (Schleswig-Holstein, Weser-Ems) and Spanish regions (Castilla-La Mancha, Galicia, Andalucia), Sicilia in Italy and the Centro region in Portugal count among the top 10 wind power regions in Europe. These 10 regions alone deliver around 40 GW of installed capacity, and 29,600 turbines produce wind energy.

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Wind power stations



Landflucht? Gesellschaft in Bewegung (Rural exodus? Society on the move)

Informationen zur Raumentwicklung (IzR), Issue 2.2016,
Ed.: BBSR, Bonn 2016

More and more people are drawn into the cities, while rural areas are continuously losing population. Recently the media have also been mentioning the rural exodus. Many studies are confirming this development, while the results are often pithily reduced to "crowded cities" and "ailing villages". However, the differentiated reality shows that some rural regions are experiencing the demographic change particularly strongly, while other rural regions are gaining population. Many large cities and larger medium-sized cities are booming, but others are affected by out-migration as well. It depends on the regional context, the economic structure and often also on the neighbourhood, i.e. on the proximity to centres or agglomerations. In this issue the subject "rural exodus" is therefore discussed objectively, outlining facts, statistics and the scientific discourse.

Im Schatten der Reurbanisierung? Suburbias Zukünfte (In the shadows of re-urbanisation? Suburbia's futures)

Informationen zur Raumentwicklung (IzR), Issue 3.2016,
Ed.: BBSR, Bonn 2016

Suburbanisation – a discontinued model? In stagnating large city regions, the first building areas remain without construction because of lacking demand. In shrinking large city regions, the migration losses of the central cities to the surrounding areas have been decreasing for a longer period of time. Where suburban housing quarters were developed during the 1960s, the 1970s or the 1990s in one mould, a homogeneous ageing of the population is emerging today. However, if supply, leisure and service facilities have also moved there in the meantime, chances for a generational change sometimes even exist in shrinking regions. How is the situation of suburbia today? What do different development paths look like, and how have the population structures changed? How emancipated is the suburban area today and which qualities does it have that the central city does not offer, but that may complement the functionality of the central city just for this reason? These are the questions which are considered in this issue in different research contexts.

Straßenbahnen und Stadtentwicklung (Trams and urban development)

Informationen zur Raumentwicklung (IzR), Issue 4.2016,
Ed.: BBSR, Bonn 2016

It is not long ago that trams vanished from the image of the city. The bus or the underground were considered to be modern. Meanwhile trams are "in" again – not as a fashion, but

on the basis of convincing strengths for urban development and urban mobility. Cities which held on to trams have a good starting position today to pursue a sustainable transport and urban development. This is particularly true for climate protection, the energy turnaround as well as municipal environmental protection. But how can the extension and the operation of trams be financed? Which economic and social impacts do trams have in a city? Which different aims and strategic concepts do the municipalities and the transport enterprise follow? And what can Germany learn from other countries? The special issue considers these and other questions from the perspective of science and practice – not without taking a glance at current and future developments.

Metropolregionen – Kooperation und Wettbewerb in Deutschland und Europa (Metropolitan regions – cooperation and competition in Germany and Europe)

Informationen zur Raumentwicklung (IzR), Issue 5.2016,
Ed.: BBSR, Bonn 2016

Metropolitan regions have been existing in Germany for 20 years. This spatial category has established itself – not only as a concept in spatial planning but also in various ways in people's everyday lives. A numerical game also makes this clear: in the German National Library, more than 1000 publications are registered under the key word "metropolitan region". This means that in the past 20 years, one new publication per week has been added. This indicates the great scientific interest in the subject. The success of the metropolitan regions is also due to the fact that they have been associated in an initiative circle for 15 years now. The 15-year existence of the Initiative Circle of the Metropolitan Regions in Germany (IKM) is also the occasion for this issue. Scientists, planners and representatives from the metropolitan regions consider current as well as future developments and give answers to various questions: how does the cooperation in and between the individual metropolitan regions proceed? How do they resolve new challenges such as more strongly adjusted land use planning? And how can it be guaranteed that, if possible, all metropolitan regions can keep pace in the strong competition around top clusters?

The journal Informationen zur Raumentwicklung (Information on Spatial Development) (IzR) is available in German language with English abstracts. Some issues contain articles in English language. The abstracts are available as free downloads (www.bbsr.bund.de > English > publications > Informationen zur Raumentwicklung).

The IzR can be obtained from the Franz Steiner Verlag (service@steiner-verlag.de) and from bookshops. It can be ordered as single issue or by yearly subscription. The price for a subscription is 72 euros, a single issue costs 19 euros. All prices plus postage and packing.

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News

BAU 2017 World's Leading Trade Fair in Munich on 16–21 January 2017 Future Building research initiative participating with stand and special events

Innovative ideas for buildings of tomorrow and building with robots: These will be the topics presented by the Future Building research initiative at the BAU 2017 in Munich on 16–21 January 2017. Interested persons are kindly invited to visit exhibition stand and special events and to talk with experts.

More information:

www.forschungsinitiative.de
www.bau-muenchen.com

The Future Building research initiative will participate with a stand of 150 square metres in Hall B0. Large models and exhibits concerning the topic "Building with robots" will be presented. TU Dresden's CONPrint3D concrete printer will prove that whole buildings can be printed with 3D concrete printers in the future. The University of Kassel's PLOTBOT-

CRAWLER will also be presented: As a mobile printer it puts energy-producing coatings on concrete surfaces. Furthermore, the research initiative informs about sustainable, cost-effective and barrier-free building.

It carries out various symposia and special events alongside the fair:

- Building materials and robotics
- Efficiency House Plus – plus energy in practice
- Resource efficiency
- Energy-efficient building and intelligent facades
- (Barrier-free) Building for everyone
- Sustainable > ecological > healthy: planned quality of life based on material ecology
- Efficiency House Plus Standard – a building standard for the future?
- PowerSkin Conference

The BAU 2017 gathers the whole construction sector with more than 2,000 exhibitors from 42 countries. It mainly addresses architects, engineers, the construction industry and the construction trade.



Photo: Messe München International

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