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Future Challenges: Sustainable Spatial Development of the European Continent in a Changing World

National Report of Germany for the 15th CEMAT Conference 2010

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1 Global evolution of territorial structures and imbalances over the past five years

1.1 Demographic evolution

The demographic development in Germany has for several decades been subject to considerable changes which will have a formative character for the future as well. Demographic change confronts society with significant challenges for policy and planning.

Already 40 years ago, the birth rates in Germany started to drop. For 30 years, the reproduction level has remained at a steady two-thirds, i.e. within each generation the potential parent generation is decreasing by one third. A growing life expectancy and declining birth rates result in an ever-ageing society which is becoming increasingly individualised: elderly people make up a large part of single-person households. These trends are slowed down by immigration.

The trends of population decline, ageing and internationalisation, which have been expected well in advance, had for a long time been overlaid and covered by the initial situation with related special conditions at that time whose – mostly political or economic – causes date back many years or even decades (world wars, economic cycles, phases of political upheaval). The regional population forecasts of the BBSR also show that ageing and internationalisation will happen everywhere – although with different intensity – but that the population decline will by no means affect all regions. At least for the next two decades, growing and shrinking municipalities and regions will continue to coexist.

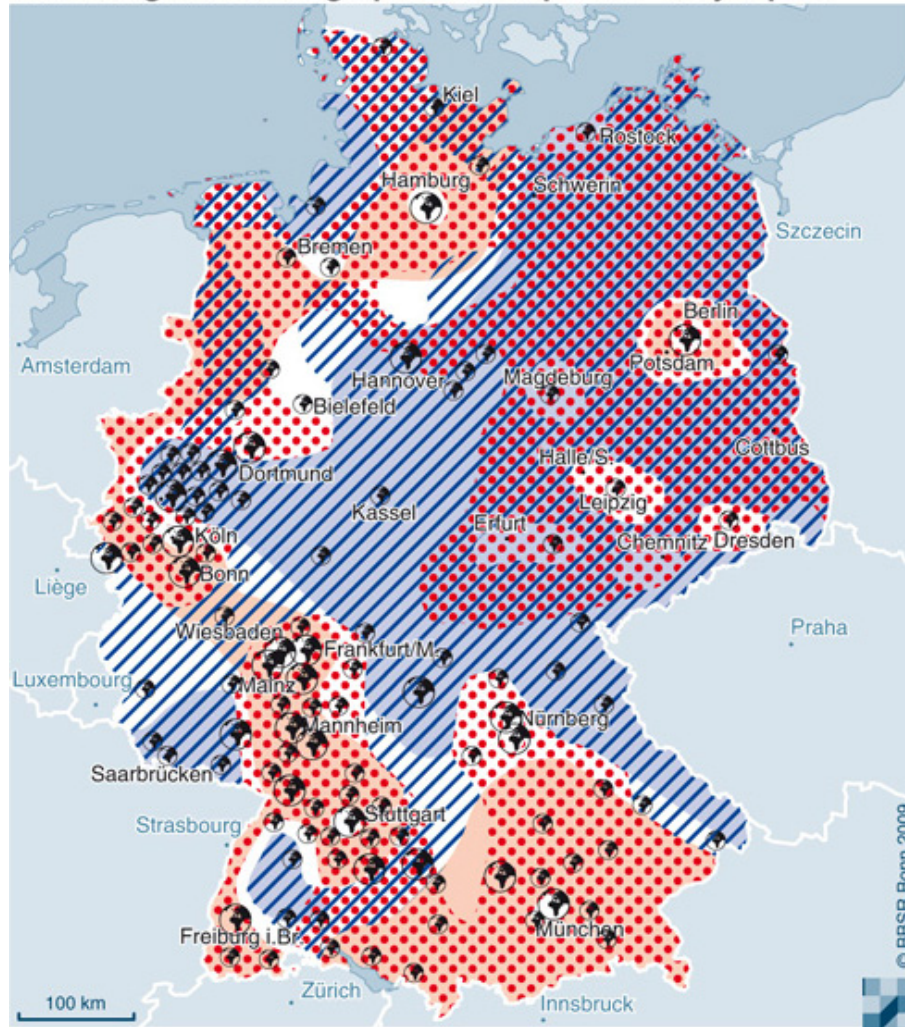
This shows that demographic change has different geographic focal points which partly overlap and partly reveal opposite trends. The following map summarises the main results of the population forecast thus answering two questions:

- Where are the geographic focal points of demographic change?
- Where do different components of demographic change coincide?

The following main statements can be derived:

- increasing population in the south and the north-west, also increasing number of elderly people;
- decreasing size of school-age cohorts in most regions with population decline, while the number of the very old people partly increases, especially in the rural areas of the new German federal states (“Länder”), which is an important problem area in terms of adaptation to demographic change;
- increasing population with a migrant background, especially in cities. In the old Länder, smaller towns and densely populated counties (“Kreise”) in agglomeration areas in southern and western Germany are increasingly affected. In the new Länder, however, the increase of population groups with a migrant background is limited to a few core cities.

Future regional demographic development – a synopsis



Occurrence of components of demographic change by 2025

Large-scale population dynamics	Ageing	Impact of international migration
considerable decrease	strong decrease in the size of school-age cohorts	strong
considerable increase	massive increase of very old people	very strong

Source: BBSR-Bevölkerungsprognose 2005-2025/bbw

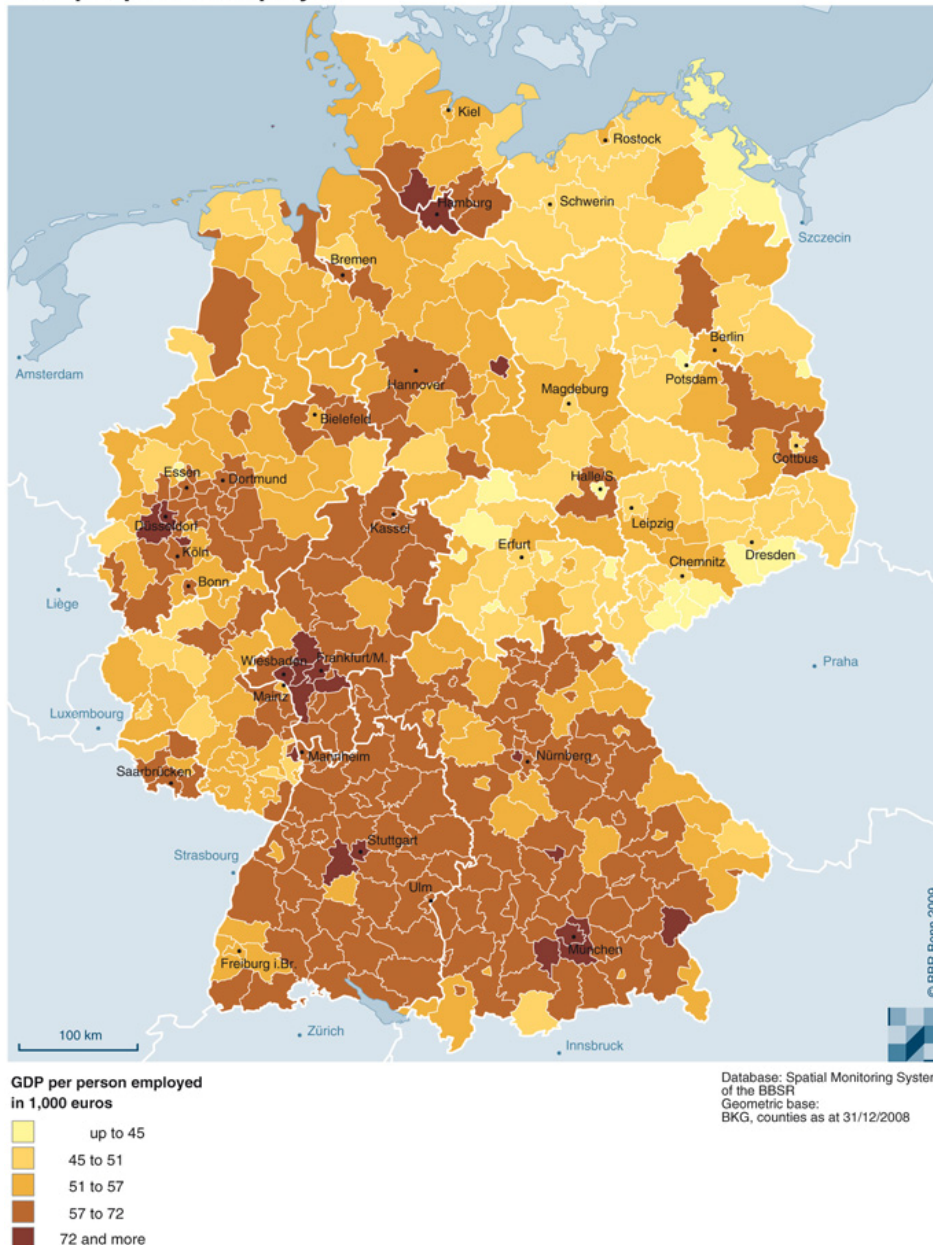
Principally, the population trends mentioned require both adaptation strategies, mainly in rural areas (combining infrastructure supply, mobile services etc.), and new considerations in many political areas in order to counteract demographic change (family policy, birth promotion, labour market policy, child care facilities, housing policy etc.).

1.2 Economic evolution

Growth regions – gross domestic product

The regional economic development in Germany is still characterised by a strong east-west divide. Especially metropolitan regions and agglomerations reveal the strongest growth and the most innovation potential and are mainly situated in the west of Germany. Apart from the east-west divide, a certain north-south divide – except for some regions (e.g. Hamburg) – is apparent (cf. map “GDP per person employed”).

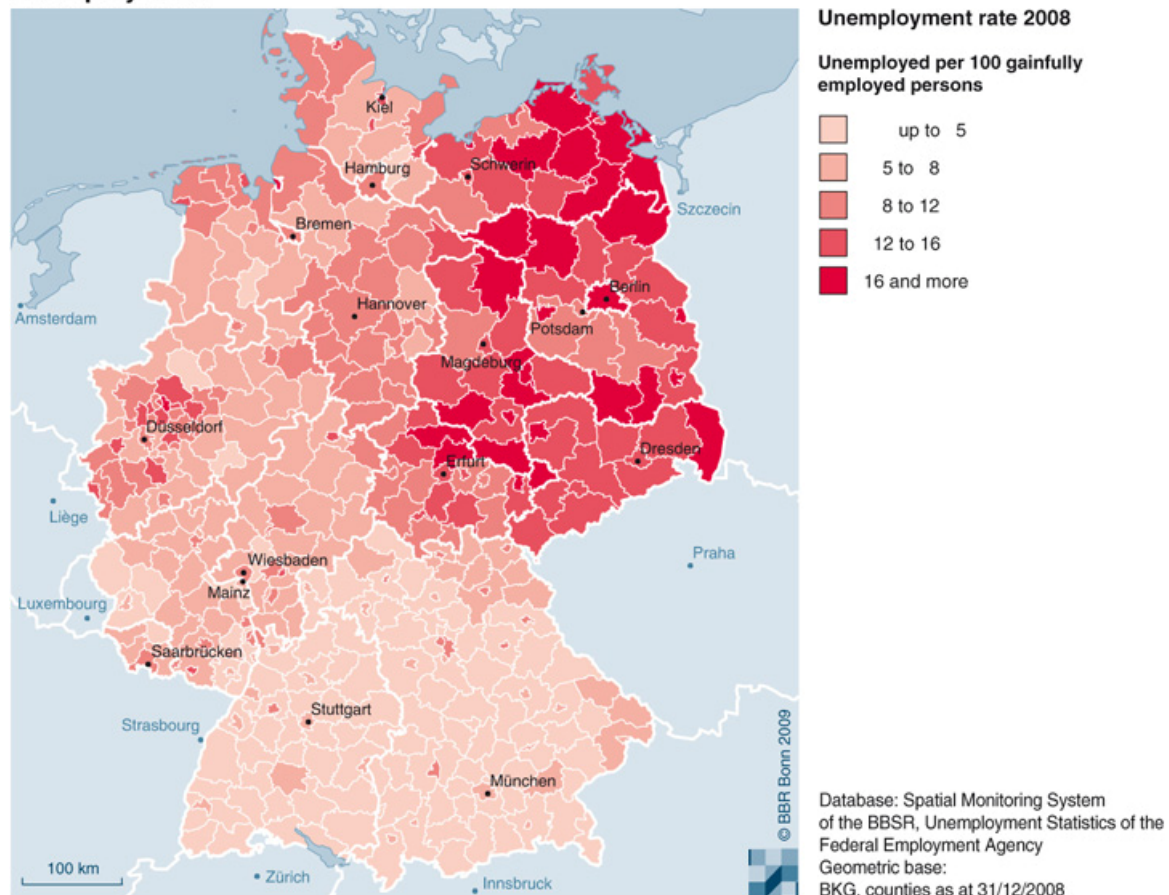
GDP per person employed



Gainful employment – unemployment

The macroeconomic employment trend of the last few years is characterised by regional disparities. More distinctly than between the Länder, where the range of employment increases in the period 2003-2008 goes from 6.3% for Hamburg to -2.5% for Saxony-Anhalt, the employment trend differs within the Länder and according to aspects in terms of the spatial structure. Similar to the cyclical upturn phases of the past, the macroeconomic employment growth was regionally concentrated. In general, it becomes clear that not only agglomerations have faced an above-average increase of employment but also some urbanised or rural regions in north-west Germany and Bavaria. More eastern German regions for the first time also had net employment gains, i.e. losses in shrinking segments were compensated by growths in increasing segments. Nevertheless, most regions with employment losses continue to be in eastern Germany.

Unemployment



Following the financial crisis, the German economy according to the Federal Employment Office has stabilised after the strong slump in the winter half year 2008/09. According to the Federal Statistical Office, “the real, seasonally and calendar-adjusted gross domestic product in the third quarter has grown by 0.7 per cent following +0.4 per cent in the second quarter, but -3.5 per cent in the first quarter”¹. As the previous year’s level has not yet been achieved though, this has much more negative impacts on the labour market. However, due to the slight upturn, the rise in unemployment figures is less steep than expected. The German labour market is still stabilised by short-time work, its abolition might imply a rise of unemployment especially in regions with industries sensitive to the economic cycle (cf. Chapter 2.5).

Economically underdeveloped regions

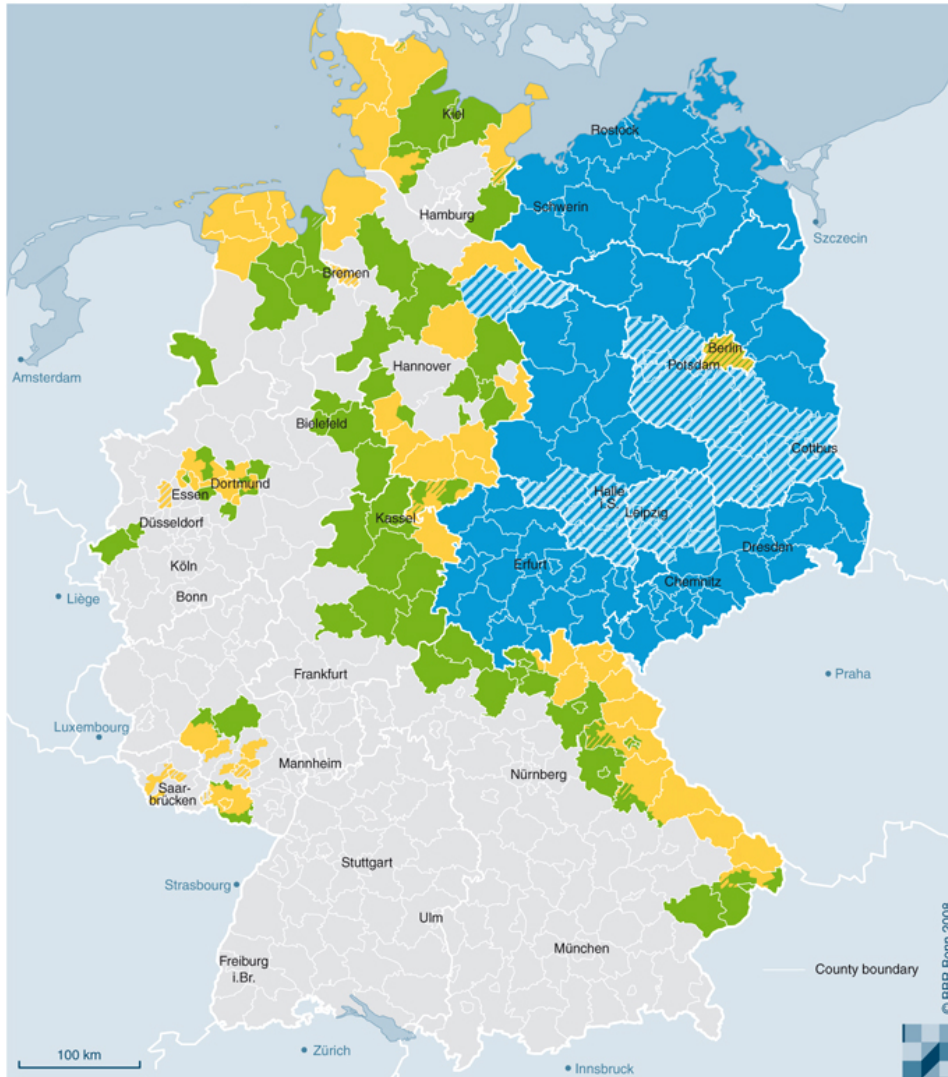
Economically underdeveloped regions in Germany are funded under the Joint Task between the Federal Government and the Länder of “Improving the regional economic structure” (Gemeinschaftsaufgabe “Verbesserung der regionalen Wirtschaftsstruktur” GRW). Under GRW, commercial investments and investments in the local business-oriented infrastructure as well as regional and cluster management projects are supported. Non-capital measures of small and medium-sized enterprises can also be supported within a smaller, clearly defined framework. The investments are to keep jobs competitive and to improve the income situation. The maximum funding rates for investment projects in the industrial economy sector depend on the assisted area status of a region, reflecting the status of economic development, and on the size of the enterprise to be supported.²

¹ „Der Ausbildungs- und Arbeitsmarkt in Deutschland“, Bundesagentur für Arbeit, November 2009

² Cf. information at www.bmwi.de

The following map illustrates economically underdeveloped regions according to the GRW for the period 2007 to 2013. Assisted areas with Status A receive the highest funding, those with Status D the lowest funding. During the current funding period to 2013, the new Länder excluding Berlin are covered by the maximum funding area A. Former border areas along the intra-German border as well as western German coastal regions belong to area C or D.

GRW Incentive Regions 2007-2013



The Joint Task "Improving the Regional Economic Structure" (GRW)
Map of Incentive Regions 2007 - 2013
Municipalities as at 31/12/2007

- Incentive Region A
- Incentive Region A (statistical-effect region)
- Incentive Region C
- partly Incentive Region C (partly municipalities)
- Incentive Region D
- partly Incentive Region D (partly municipalities)
- partly Incentive Region C and partly D
- Non-Incentive Region

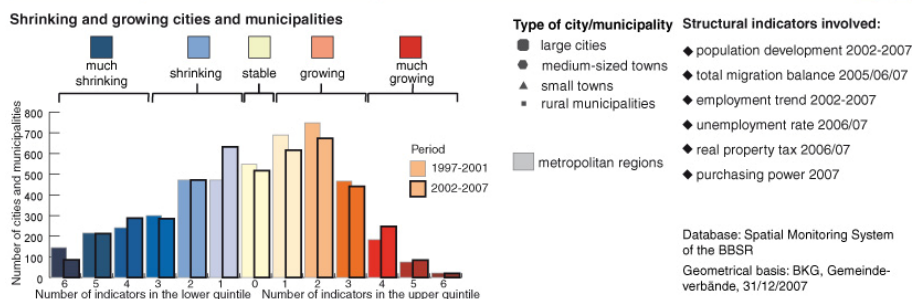
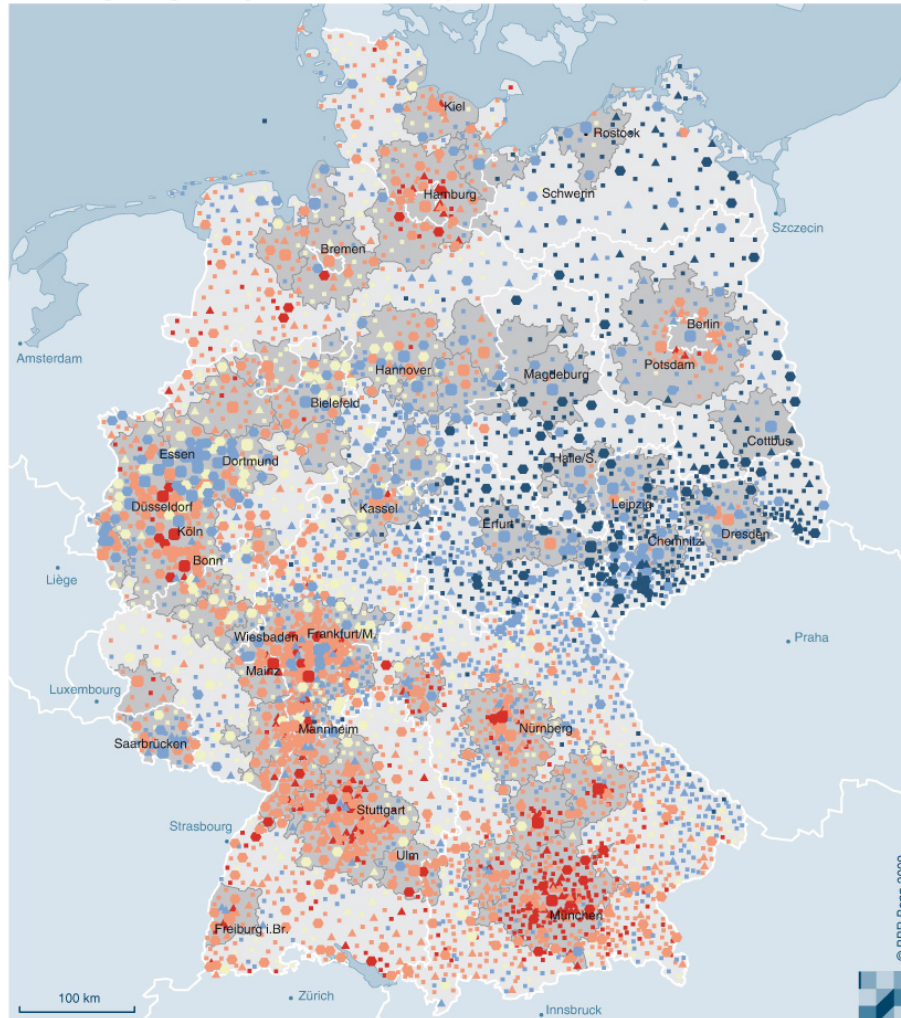
1.3 Significant evolutions in the settlement system

The phenomenon of "shrinking cities" in Germany is clearly linked with demographic change. In order to answer the question as to which cities are going to shrink in the future and which ones prosper and grow, the population dynamics in German cities are regularly analysed.

The following map shows which cities in Germany are going to shrink and which ones grow in the future. A city is the more confronted with the problem of "shrinking" the more the following six indicators point in a negative direction:

1. population development,
2. total migration balance,
3. employment trend,
4. unemployment rate,
5. real property tax,
6. purchasing power.

Shrinking and growing cities and municipalities in Germany between 2002 and 2007



The map shows that shrinking cities mainly appear in the eastern Länder but also in some areas of the west. It is striking that shrinking and prospering cities may be situated closely together. In order to control the negative consequences, locally differentiated strategies impacting small areas are required.

1.4 Significant evolutions of rural areas

Due to a dense network of large cities and medium-sized and small towns of different size and functionality, all rural areas are closely linked to urban areas and efficient settlement centres. Rural areas are not identical to economically underdeveloped areas (see above). Many rural areas have very large and differentiated development potentials, are multifunctional in terms of the European Charter for Rural Areas.

The most important functions are as follows:

- an economic and job-creating function (agriculture and forestry, fishery as well as handicraft centring on north-eastern and north-western Germany as well as Bavaria and eastern Baden-Württemberg);
- a residential function (focusing on areas around large cities);
- an eco-tope and nature conservation function (centring on north-eastern Germany, the Alps and the Prealps, the Palatinate Forest, the German-Czech border area, the Rhön, the Thuringian Forest, the Elbe Sandstone Mountains and the Harz);
- a recreational and tourism function (mainly on the Baltic and the North Sea coast, in the Mecklenburg Lake District, the Black Forest, the Alps and Prealps, the Bavarian Forest, Eifel/Hunsrück, Sauerland and the Harz);
- a resource-providing function – especially in terms of water catchment, wind energy production, mining of non-renewable resources (centring on the brown coal areas of Lusatia and Halle-Leipzig, the North Sea coast, north-western Germany, western North-Rhine Westphalia and the Alpine area);
- locational functions for infrastructure – above all in the area around large cities.

Although rural areas do not generally have structural deficits, there are exceptions: Some rural areas, especially in eastern Germany, are to a great extent affected by the out-migration of the young, especially female population.

Development measures for rural areas in Germany are geared towards flexible solutions to ensure services of general interest, towards maintaining historical cultural landscapes and towards promoting and supplementing development alternatives in the agricultural sector. The Federal Government furthermore carries out demonstration projects to promote an integrated development of rural areas.

1.5 Progress of transnational and cross-border integration

Cross-border cooperation

Cross-border cooperation in Germany is primarily carried out in a decentralized manner by the Länder and the regions and in general mainly by Euroregions and supported by European cross-border cooperation programmes (Interreg A). In the field of spatial development, bilateral spatial planning committees also exist which involve the Federal Government, the Länder and neighbouring countries. They focus on German-Polish and German-Czech cooperation. Important projects are joint spatial development concepts as well as tourism, nature conservation and transport infrastructure projects.

In the field of cross-border cooperation, German border regions participate in 14 cooperation programmes with regions of neighbouring countries, among them a maritime cross-border programme (see map “Cross-border cooperation”).

These programmes promote

- the entrepreneurial initiative especially of small and medium-sized enterprises, tourism,
- cultural activities and cross-border activities,
- the joint protection and management of the natural and cultural heritage and avoiding natural and technological hazards,
- strengthening urban-rural relations,
- reducing isolation by improving access to transport, information and communication networks and services as well as to cross-border water, waste management and energy systems and relevant facilities,
- a common use of infrastructures especially in areas such as health, culture, tourism and education.

Cross-border cooperation



Cross-border cooperation with German participation

Eligible and adjacent areas according to Article 21.2 of the ERDF Regulation (20% limit)

Database: Operational programmes of the cooperation areas
Geometrical basis: GFK MACON, NUTS 3 regions

- | | |
|----------------------------|--|
| ■ Brandenburg – Poland | ■ Bavaria – Austria |
| ■ Germany – Netherlands | ■ "Alpenrhein – Bodensee – Hochrhein" |
| ■ "Großregion" | ■ Upper Rhine |
| ■ Euregio Maas – Rhine | ■ Mecklenburg-Western Pomerania/Brandenburg – Poland |
| ■ Saxony – Czech Republic | ■ "Fehmarnbeltregion" |
| ■ Saxony – Poland | ■ South Baltic |
| ■ Bavaria – Czech Republic | ■ Schleswig/K.E.R.N. – South Denmark |

Cooperation between judicial and administrative authorities, in the field of cross-border integration of the labour market, in the field of local job-creation initiatives, of gender equality and equal opportunities, of further education and social integration and in the field of the joint use of human resources and research and technological development facilities can also be supported.

Cooperation so far has considerably contributed to improving the competitiveness of border regions, to overcoming the disadvantages of the border situation but also to using benefits and has promoted European integration across national borders in general.

Transnational cooperation



Germany participates in five transnational cooperation programmes: Central Europe, North-West Europe, Alpine Space, Baltic Sea Region and North Sea Region. Due to its central European location and the fact that it has the most neighbouring countries in Europe, this cooperation is significant for Germany.

Transnational cooperation



Transnational cooperation areas with German participation 2007 - 2013 (INTERREG IVB)

- Alpine Space
- North-West Europe
- Central Europe
- North Sea Region
- Baltic Sea Region

NUTS 2 and NUTS 3 regions
Geometrical bases: Eurostat GISCO
Source: European Commission

Eligible area of Russian Federation without additional areas for cooperation in the Barents Region (Archangelsk Oblast, Komi Republic, Nenetsky Autonomous Okrug)

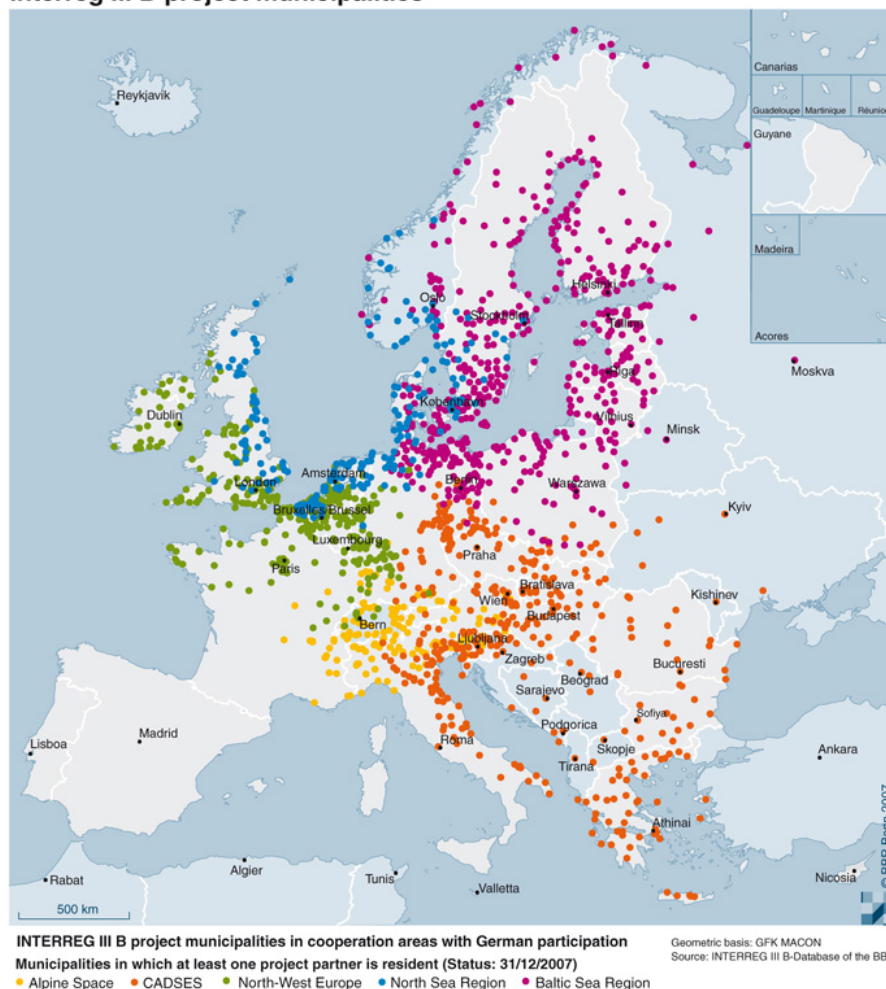
It is important for Germany that the cooperation serves

- to meet challenges to cross-national development in all areas,
- to use international experiences for the development in Germany and to transfer Germany's own good experience to international partners,
- to promote integrated spatial development and territorial cohesion in all areas,
- to support the integration of the European Union and joint action of the neighbouring countries through joint projects and
- to strengthen the international and European competence of stakeholders.

The cooperation concentrates on promoting innovation and the knowledge society, sustainable environmental and risk management, on improving the internal and external accessibility of the cooperation areas as well as on fostering attractive and competitive cities and regions.

German regions, cities and institutions are intensively involved in the cooperation. In the period 2000 to 2006, they participated in two-thirds of the transnational projects in the five cooperation areas and provided 15% of the project partners and 20% of the lead partners. In the current programming period to 2013, the participation of German partners will become even more intensive. They are now involved in nearly 90 per cent of all projects approved so far and provide almost one-third of the lead partners. It is clear that the border and coastal regions of Germany and of all other countries are participating more intensively in transnational projects than central regions (see map Interreg III B projects).

Interreg III B project municipalities



Ongoing projects are mainly geared to the Lisbon and Gothenburg EU strategies, the Territorial Agenda of the EU, the enlargement policy (Instrument for Pre-Accession Assistance IPA) as well as to the objectives of the European neighbourhood and partnership policy and show a number of new quality features:

- a stronger orientation towards implementation, creating exemplary solutions and disseminating results,
- a stronger orientation towards preparing investments and integrating pilot investments,
- taking current topics such as innovation and knowledge society, demographic and climate change into account,
- a more strategic orientation,
- closer links with transnational strategic approaches (e.g. EU Strategy for the Baltic Sea Region, European Danube Strategy),
- better coordination with other programmes and financial instruments,
- strengthened transnational project work (joint project development, implementation and financing).

The project results are manifold and range from transnational studies, manuals, development and marketing concepts to feasibility studies, investment strategies and plans and pilot investments.

Besides project-specific results and effects, transnational cooperation also leads to changes in the decision-making procedures of cities, regions and cooperation areas. Typical impact groups, which can be identified for a variety of projects, are the following:

- mobilising financial resources,
- supporting innovation in the field of new brands, standards and procedures,
- promoting quality management and
- building up new governance structures.

Especially in Germany, the participation of cities, municipalities and institutions in trans-European development projects in many regards has a positive effect on economic and societal development. Direct economic and locational effects, experiences communicated and increased competences as well as benefits drawn from networks have to be mentioned here. The cooperation covers a large variety of projects which also include transport, urban development and restructuring, modernisation of housing, economic cooperation, promoting tourism, using the cultural heritage, flood prevention, armament conversion, bio-energy production and resource management.

Concrete cooperation within projects and the exchange of experiences make it possible to include advanced experiences from other countries and regions in Europe. At the same time, own experiences with economic and societal transformation can be communicated and marketed to other regions in Europe.

Currently emerging networks of authorities, companies and scientific institutions are important as well. Networked institutions, e.g. universities, inland and yacht ports, logistics centres, cultural facilities gain benefits in global competition. Various business contacts with international partners can be used. Rural areas and smaller municipalities are involved in transnational networks as well. Participation in strategic transnational networks and partnerships opens up new chances for economic development.

The competence of the project partners is also improved. For example, European competence is strengthened by improving the ability to apply EU regulations or to cooperate on a European level. Local authorities with international experience are preferred by potential investors. Linguistic competences develop by using English or other languages. Expertise in

the various fields is enlarged by taking up new ideas. The ability of people of different origin and tradition to cooperate, i.e. the intercultural competence, is also improved. The result of these gains in competence is that business areas are enlarged, public tasks are performed in a qualified way, new governance models are developed and regional marketing is strengthened.

2 Territorial impacts of emerging and growing challenges and related driving forces

2.1 Climate change: spatial planning strategies

The impacts of climate change increasingly affect all regions and various areas of life. In Germany, mountainous regions, coastal zones, the Rhine Rift Valley and the north-east are especially affected by climate changes. Central infrastructures and uses are at risk as demonstrated by the increased number of floods and heat waves since 1995 and forecasted by scenarios. This is why action has to be taken – also in times of depression – the more so as the changes will be much more dramatic than so far predicted.

The main role of spatial planning in the German Strategy for Adaptation to Climate Change (Deutsche Anpassungsstrategie – DAS)

In December 2008, the Federal Cabinet adopted the German Strategy for Adaptation to Climate Change (DAS)³, which by 2011 is to be followed by an Action Plan on Adaptation. The DAS creates a framework for adaptation to the consequences of climate change in Germany. It provides a basis for a medium-term process during which the risks of climate change are assessed, objectives are defined, needs for action are formulated and potential adaptation strategies are developed and carried out gradually with the Länder and various social groups. One important objective is to limit global warming to 2°C.

Spatial development is accorded a coordinating role in protecting, ensuring and sustainably developing the settlement, transport and open space structure as well as natural resources and an important role in terms of concrete measures to be taken in regions and cities. Its tasks are to assess vulnerabilities across the related sectoral policies, to moderate an inter-sectoral dialogue on the development of concrete adaptation strategies and to support integrated resilient spatial structures, which have been adapted to climate change.

Identifying risk regions

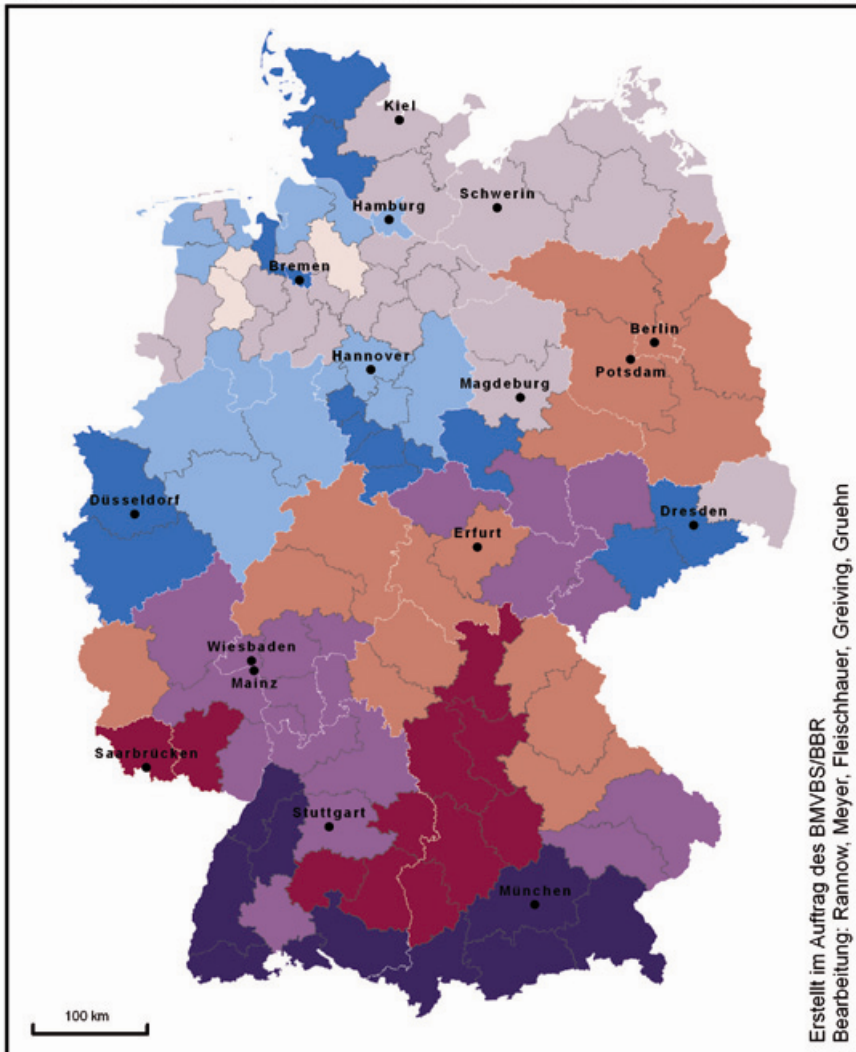
Before taking measures in the field of spatial development or the various sectoral policies, risk areas have to be identified. For Germany, four regional climate models exist describing a rather broad corridor of future development – depending on specific assumptions. For 2021-2050, for example, global warming of 0.5-1.5°C is predicted, for 2071-2100, 1.5 to 3.5°C compared to the period 1961-1990. This range of possible trends is to be considered by future strategies to tackle climate change.

In a pilot study compiled by the Technical University of Dortmund on behalf of the BBSR, potential regional climate impacts were depicted. Based on the changing, spatially relevant climate parameters, specific types of regions were defined in which the various consequences of climate change are perceptible. Several scenarios were projected illustrating different future trends of prevention and adaptation strategies.

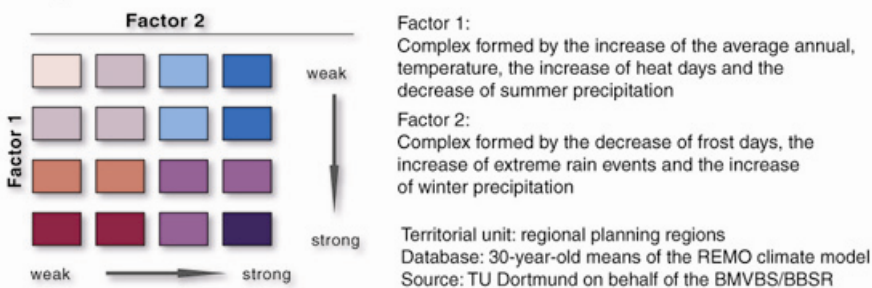
As an example for scenario A1B, the following map shows the changes forecasted for the period 2071-2100 compared to the period 1961-1990. It reveals that especially the Pre-Alps, the Rhine Rift Valley and south-west Germany will suffer from a lot of temperature and precipitation events. In the north-west and along the North Sea coast, intense rain will dominate, in the north-east and in central Germany, drought will increase.

³ German Strategy for Adaptation to Climate Change, adopted by the German federal cabinet on 17th December 2008. The Federal Government 2008.

Types of climate change regions for Scenario A1B in the period 2071 – 2100



Change of climate factors for scenario A1B between 2071 and 2100



Mix of strategies required

The strategies to deal with the climate change impacts are based on two pillars: prevention and adaptation strategies. As the climate change impacts are expected to be very different in geographical terms, a regionally adapted mix of strategies is recommended, i.e. a useful combination of prevention and adaptation strategies closely linked to sectoral policies. In June 2009, Demonstration Projects of Spatial Planning (MORO) entitled “Spatial development strategies to combat climate change” were started. Their aims are to formulate regional climate change strategies and to realise first steps, e.g. climate-proofing, sub-regional agreements on objectives and updating regional plans.

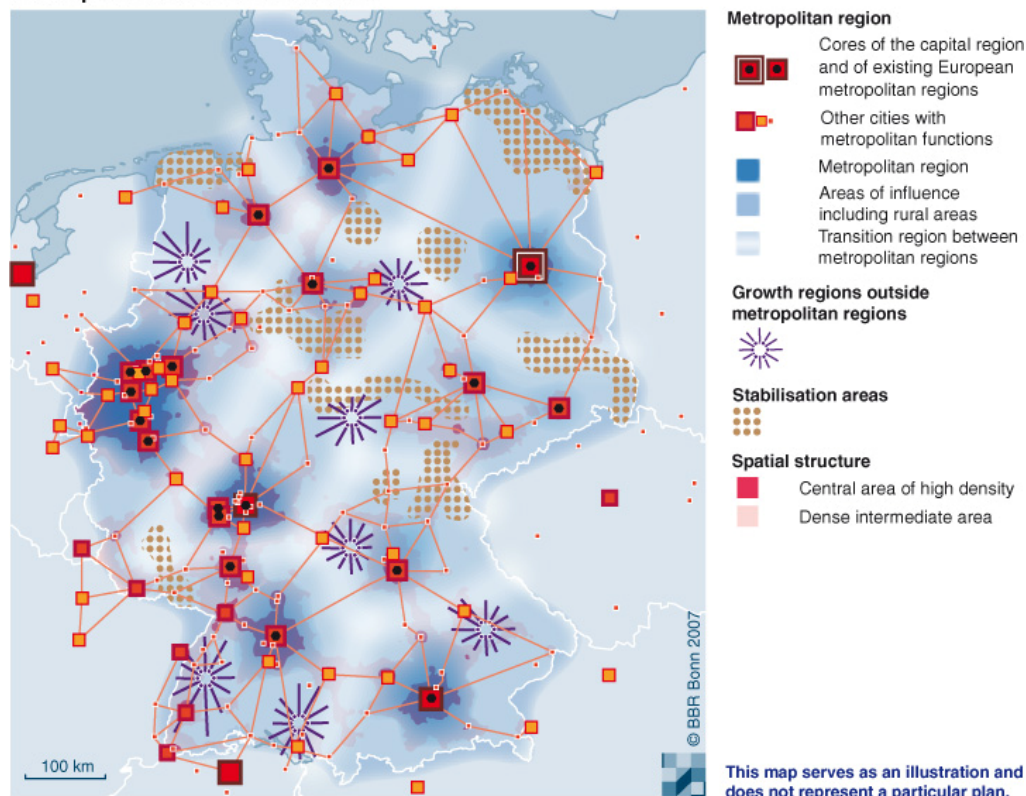
2.2 Globalisation and international division of labour

To compete successfully in the global economy, cities and regions have to adopt innovative approaches. This might, for instance, mean applying a new understanding of planning both including the cooperation of small municipalities, towns and cities, city-hinterland regions up to peripheral regions across different levels and promoting the cooperation of politicians, administrators, scientists, entrepreneurs and citizens.

The concepts of spatial development in Germany take up these objectives and, with the strategic approach of a “large-area community of shared responsibilities” (urban-rural partnership) between cities, metropolises and rural growth regions as well as peripheral and economically underdeveloped regions, create an innovative instrument of a development-oriented and balancing spatial planning policy. Within a partnership of these structurally and economically different types of regions, all sub-areas are to contribute to strengthening especially growth and innovation.⁴

This is closely linked to the ambition to enable all – strong and weak – areas to recognise, concentrate and network their potentials. The aim of “large-area communities of shared responsibilities” (urban-rural partnerships) as a strategy is that “strong” areas fulfil their role as motors even better and also develop responsibility in partnership with “weaker” and peripheral regions. In this way, a large spatial context is created going far beyond the closer surrounding area of cities or the cooperation between neighbouring cities. The “externally functionally interconnected, metropolitan region” presented in the “Growth and Innovation” concept may serve as a guide.

Concept: Growth and Innovation



⁴ The actual implementation of these ideas and objectives is tested by means of Demonstration Projects of Spatial Planning (cf. Chapter 3.1 and 3.2).

2.3 Renewable energy sources

In 2008, renewable energy sources accounted for the following shares of the energy supply in Germany⁵:

- 9.5% of total final energy consumption (electricity, heat, fuels) (9.8% in 2007);
- 15.1% of gross electricity consumption (14.2% in 2007);
- 7.4% of total final energy consumption for heating (7.6% in 2007);
- 5.9% of fuel consumption (7.2% in 2007);
- 7.0% of primary energy consumption (in 2007: 6.9% according to the efficiency principle which is 9.2% according to the substitution method).

In the context of the increasing scarcity of resources and climate change, renewable energy sources have to be increased. As a national contribution to the EU's joint climate change targets, the Integrated Energy and Climate Programme (IEKP) of the German Federal Government was adopted on 5 December 2007 (cf. Chapter 3.5).

Objectives of the German Federal Government (IEKP):

- By 2020 compared to 1990, greenhouse gas emissions are to be reduced by 40%. At the end of 2007, emissions in Germany were at -21.3%.
- Energy productivity is to be raised by 3% annually. That means that energy will be used in 2020 twice as efficiently as 1990.
- The share of renewable energy sources is to be continuously increased, that means their share of
 - final energy consumption from currently around 10% to 18% by 2020;
 - gross electricity consumption from currently approx. 15% to at least 30% by 2020, afterwards the consumption is to be increased continuously;
 - heating energy demand from today just under 8% to 14% by 2020.
 - The share of biofuels is to be increased to such an extent by 2020 that greenhouse gas emissions are reduced by 7% compared with the use of fossil fuels, which is a share of approx. 12% in terms of energy content.
 - The share of energy consumption is to be increased to 50% by 2050.
- The share of combined heat and power (CHP) in electricity production is to be doubled to 25% by 2020.

Source: Erneuerbare Energien in Zahlen, BMU 2009

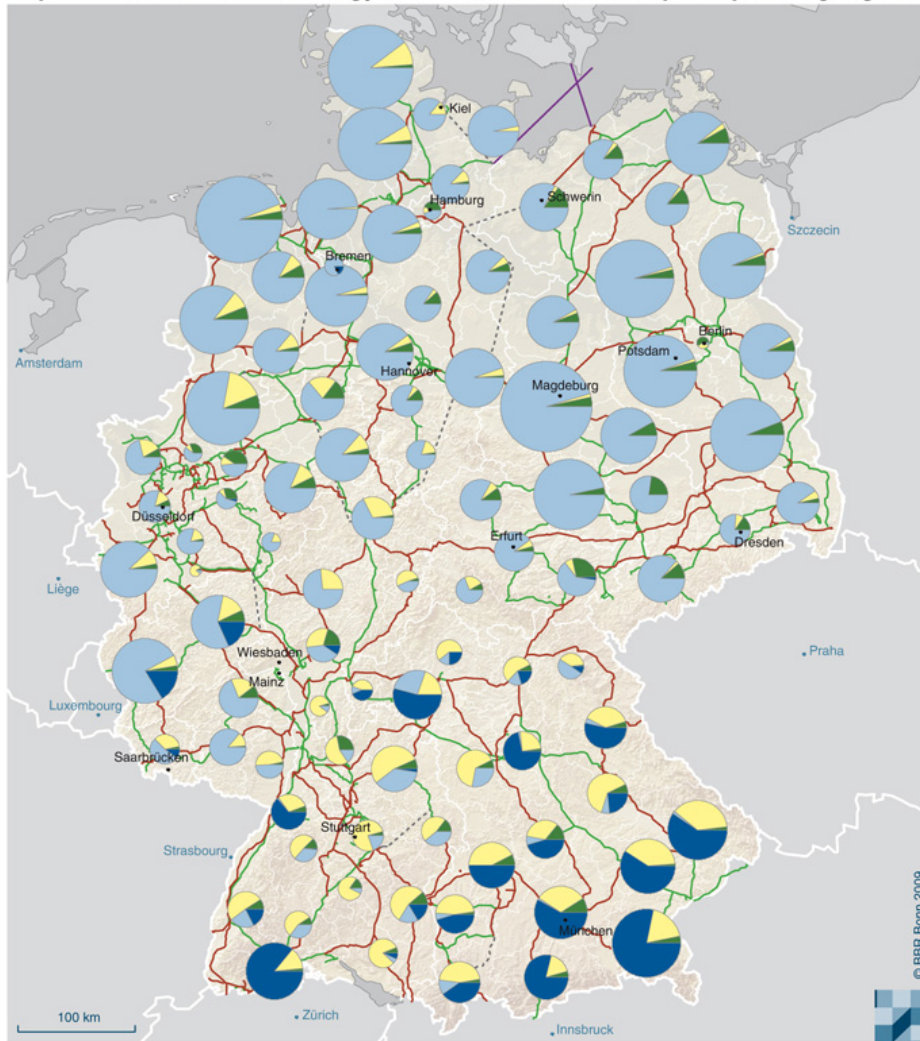
The example of electricity: current installed capacity from renewable energy sources

One of the aims of the IEKP is to increase the share of renewable energy sources in gross electricity consumption by 2020 to at least 30% (see box). In 2008, the share of renewable energy sources in gross electricity consumption was 15.1%. Consequently, the share of "green electricity" has to be doubled by 2020 compared to now. The following map shows the installed capacity from renewable energy sources in the field of electricity in Germany to date.⁶

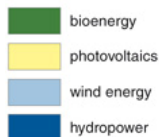
⁵ ERNEUERBARE ENERGIEN IN ZAHLEN – Nationale und internationale Entwicklung, BMU 2009

⁶ When interpreting the map, area size and type of region have to be distinguished: urban regions such as Berlin or Hamburg do not have the area potentials needed for certain energy sources.

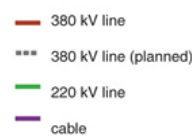
Importance of renewable energy sources on the level of spatial planning regions



Installed electrical capacity from renewable energy sources



Power grid



Database: Spatial Monitoring System of the BBSR, Betreiberdatenbasis, DBFZ, E.on, ENBW, RWE, Vattenfall, 31/12/2007

Note: Hydropower does not include pump storage hydropower plants. Geothermal energy not recorded. Installed geothermal power so far insignificant (220 kW).

The highest installed capacity from all energy sources is presently to be found in the field of wind energy. Regions with a high installed wind energy capacity in northern and eastern Germany are those with the highest installed total capacity. Due to the natural landscape conditions and the social and political acceptance, the distribution of the wind energy capacity reveals a clear north-south divide. The major part of the hydropower capacity is for topographic reasons installed in Bavaria, Baden-Württemberg and Rhineland-Palatinate. Biomass plants are primarily installed in rural areas, especially in regions where factory farming and the cultivation of renewable resources on large areas is practised. The structure of photovoltaics is basically different from other energy sources. Its dispersion is typical, for which the Renewable Energy Sources Act is responsible, which provides a variety of operators of small plants with the necessary funding to supply the electricity network with current.

Spatial impacts of meeting the energy and climate change targets



In order to achieve the targets set by the EU and the German Federal Government by 2020, renewable energy sources need to be further extended. However, this will also intensify the rivalry for areas used for nature conservation, tourism and cultural landscape purposes. This conflict will become particularly important in terms of increasing the electricity or mainly the heat production from biomass.



The two figures illustrate the spatial impacts of growing crops for biogas plants: the choice of crops grown might considerably shape the natural scenery. In addition, the growing of such crops might lead to conflicts with food production:

Firstly, a maize monoculture with related negative impacts on the natural scenery, nature conservation, soil (intensive farming, pesticide input) is depicted, secondly a more diversified cultivation with less serious impacts is illustrated.

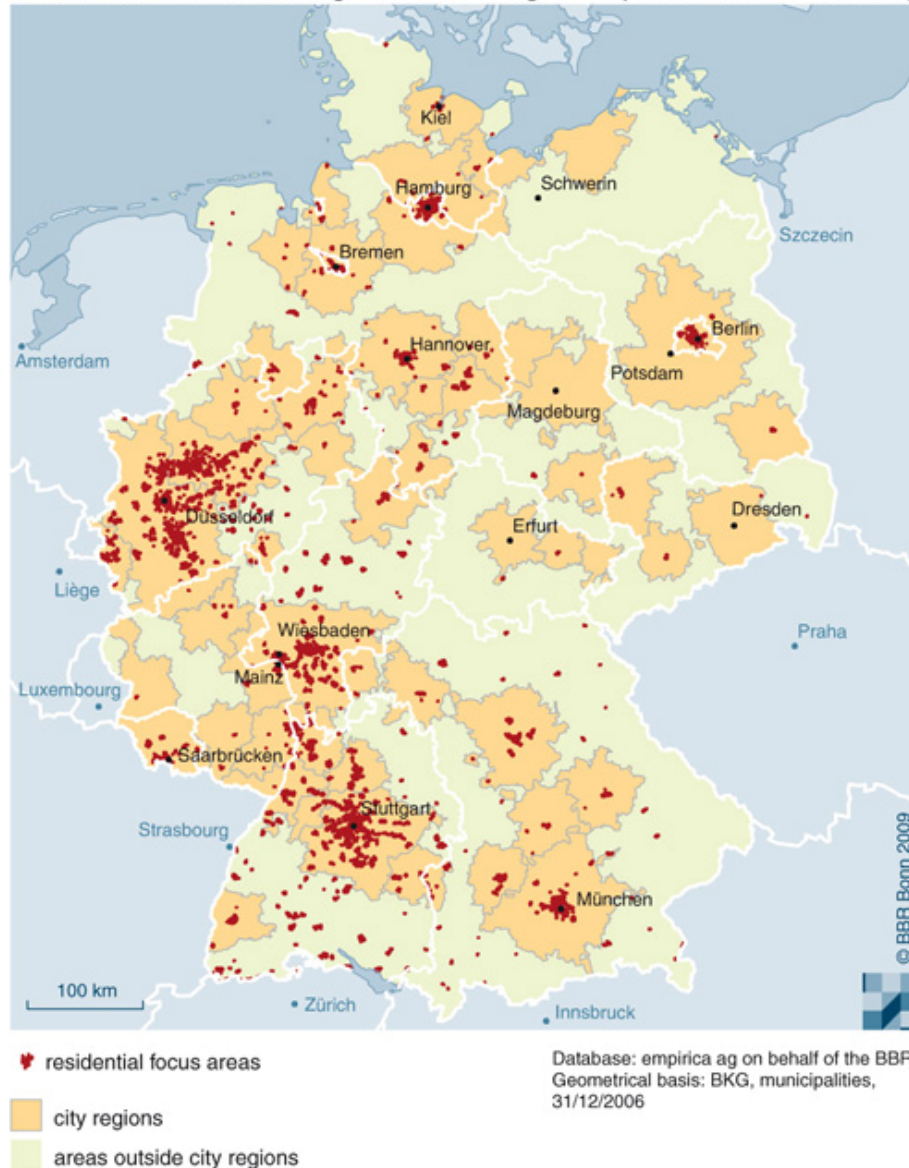
2.4 Areas with increased need for integration

The integration of citizens with a migrant background, the progress and success of which is especially apparent on a low spatial level in residential areas, is a priority task of Federal Government, Länder and local policies. Maintaining integration and socially stable urban districts and neighbourhoods is a basic goal of a sustainable urban development policy. To reach this objective, a problem-oriented analysis of the state of integration, of the need for integration on the level of urban districts, of sustainable concepts and strategies in local authorities and of the future need for action is required. A study on the topic “migration/integration and urban district policy” deals with such integration issues. In the context of the study, all municipalities of the Federal Republic of Germany with more than 60,000 inhabitants and selected smaller municipalities and counties were surveyed. In addition, case studies helped to gain an overview of and to evaluate strategies and strategic approaches to promote integration. Empirical findings also show in how many urban districts in the Federal Republic there is an increased need for integration and which individual integration deficits are exhibited by their residents.

Through the indicators “low purchasing power” and “high concentration of persons with a migrant background” 1500 residential areas, which tend to have an increased need for integration, could be identified in more than 550 municipalities. In the study, they are referred to as “residential focus areas”. They are based on the thesis that only social areas where a high share of migrants face economic weakness have a need for more integration services and related urban district-related strategic concepts. Vice versa, urban districts with a high rate of migrants who are integrated in the labour market due to their education and thus are well off are classified as being less eligible for funding.

The following map presents such residential areas with an increased need for integration, so-called “residential focus areas”.

Residential areas with a high need for integration (residential focus areas)



The study also shows that two-thirds of migrants with the highest individual integration deficits in terms of education, language and social inclusion live in areas with the highest shares of migrants. They mainly live in multi-storey buildings and simple rented flats in deprived urban areas with high population turnover. Ethnic segregation increases sharply as integration deficits increase. “School segregation” is much more distinct in these areas as a comparably high number of children live there. An evaluation of the PISA data indicates why migrant children have poorer qualifications. From a critical value of 30% of migrant pupils, a strong decrease in education achievement by about one quarter can be observed.

The findings confirm the high priority which has to be given to the orientation of integration policy towards social areas. For nearly all municipalities surveyed, integration is an important topic although related integration concepts for residential areas still have to be worked out (cf. examples concerning demonstration projects in Chapter 3.6).

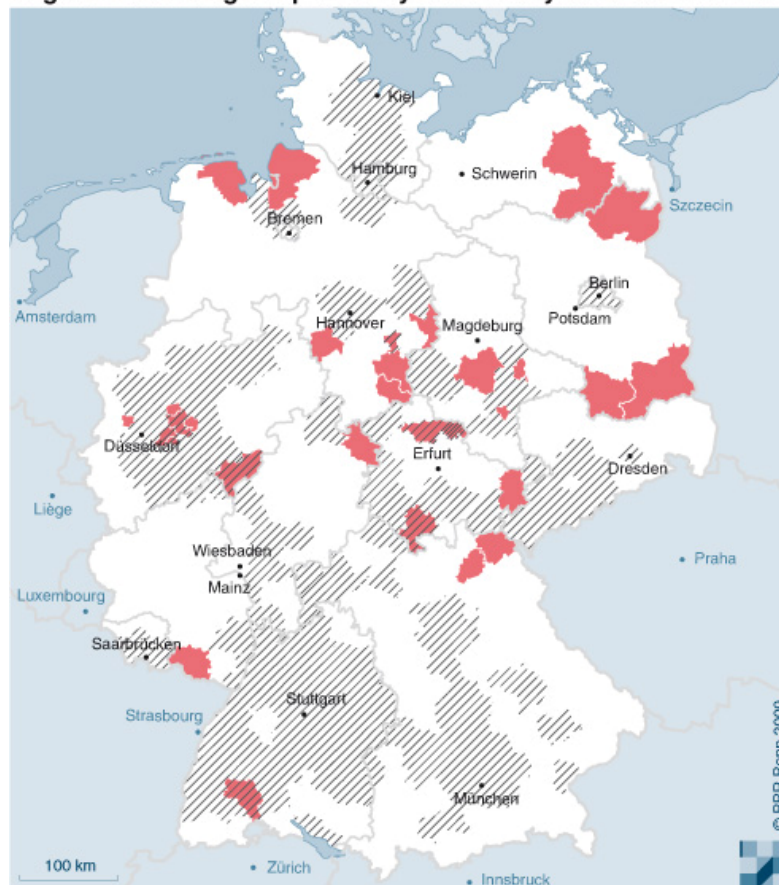
2.5 Areas affected by the economic/financial crisis


Current depression


Compared with the past, the degree and duration of the current recession was aggravated by the international financial crisis and the related lack of confidence in the banking system. There is also some fear that the consolidation of the international financial system will require further time and that the increasing loss of loans to enterprises as a result of the recession will lead to “another wave of depreciation” and also further impede the supply of loans to businesses.

The map gives an overview of regions that are highly sensitive to the economic cycle and have a high share of industries dependent on exports. It mainly shows that the western German regions, due to their strong dependency on exports, are more susceptible, which especially applies to southern German regions with a high concentration of industries in the automotive and mechanical engineering sectors.

Regions with a high dependency on trade cycles and industries



 Regions with a high dependency on industries

 Regions with a high dependency on trade cycles

The regional share of employees in industries dependent on exports in the sum of all employees in industries dependent on exports in Germany is more than 50% higher than the mean formed from the shares of all regions (economic dimension) and/or the share of employees in industries dependent on exports of a region in all employees of this region is higher than 1/3 of the reference value for the old and the new Länder (regional economic dimension).

In all economic (downturn) phases, the employment decrease was below the mean of the old and the new Länder plus half of a standard deviation.

Database: Spatial Monitoring System of the BBSR
 Geometrical basis: administrative borders of the BKG, own calculations;
 Saxony and Saxony-Anhalt: counties 2008
 Other Länder: labour market regions 2006

Among the western German regions, above all the metropolitan regions with a strong orientation towards the banking sector are directly affected. This is a result of the slump in the worldwide demand for capital goods and vehicles and, just as in previous recessions, has a negative impact on export-oriented regions with a strong orientation towards the iron and steel industry, the chemicals industry and some areas of the mechanical engineering industry, the electrical and automotive industries. In booming mechanical engineering sectors, the negative effects were at least in the first half of 2009 reduced by the high volume of orders from the previous year. As due to their industrial structure, the eastern German regions are less involved in the international division of labour and are more characterised by smaller businesses, they will be less affected by the current recession compared with western Germany. There is also a stronger representation of the building sector, which benefits most from economic stimulus programmes I and II (see Chapter 3.8 and 3.9) as they provide for large funds to improve the energy efficiency of social infrastructures and to launch public building measures. Furthermore, the fact that the decrease in the size of the economically active population is higher than in western Germany alleviates the effects on the eastern German labour markets. This is proven by the different unemployment trend which in western Germany rose by around 12% and in eastern Germany by only 0.5% within one year.

3 Evolution of territorially significant policies

In Germany with its federal administrative and planning system, spatial planning is a task of the Länder and the regions. The function of federal spatial planning is to coordinate spatially relevant plans and measures of the Federal Government with federal authorities, the European Union and the Länder, especially by

- evolving the Federal Regional Planning Act,
- launching coordination procedures within the Federal Government as well as reporting on spatial planning matters and maintenance of a spatial monitoring system,
- commenting on the spatial development plans of the Länder and the regions, which again have to consider national goals and principles (principle of countervailing influence),
- participating in the development of pan-European and macro-regional spatial development concepts (e.g. Baltic Sea area, Danube region),
- developing principles and strategic concepts with the Länder in the context of the German Standing Conference of Ministers responsible for Spatial Planning,
- launching research and demonstration projects on topics of national importance.

The horizontal coordination with other federal authorities is above all done in the context of the German inter-ministerial committee on spatial planning (Interministerieller Ausschuss für Raumordnung IMARO). It focuses on spatially relevant policies and projects such as transport infrastructure planning, flood prevention, environmental policy, nature and landscape conservation, agricultural policy, business development policy, urban development and housing, labour market policy, research and higher education policy as well as revenue sharing as a central element of the equalisation policy.

Within spatial planning legislation, new regulations have recently been introduced governing mainly public consultation, formal environmental assessments as well as spatial planning in the Exclusive Economic Zone (maritime spatial planning). The regional level of action was strengthened as well. In the context of the reform of the federal system, the principle of concurrent legislative powers (between the Federal Government and the Länder) was adopted.

3.1 Examples of vertical and horizontal cooperation

In order to realise spatially relevant issues, the Federal Republic of Germany has already been using procedures promoting vertical and horizontal cooperation since the 1990s. These procedures involve stakeholders from different thematic or spatial levels, private and public stakeholders.

Examples of cooperative procedures are Demonstration Projects of Spatial Planning, which will be briefly presented in the following.

Demonstration Projects of Spatial Planning (MORO)

For federal spatial planning, demonstration projects are an important instrument to realise a more process-, action and project-oriented understanding of planning and policies. With the action programme “Demonstration Projects of Spatial Planning (**Modellvorhaben der Raumordnung MORO**)”, the Federal Ministry of Transport, Building and Urban Development (BMVBS) supports the practical testing and realisation of innovative, spatial planning-oriented strategic approaches and instruments involving cooperation between academics and practitioners, i.e. local and regional stakeholders. For this purpose it supports research fields, studies and initiatives.

The Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) within the Federal Office for Building and Regional Planning (BBR) is responsible for the action programme. Some examples are the following:

- *Spatial development strategies to combat climate change (“KlimaMORO”)*

By applying and evolving the spatial planning instruments in eight model regions, regional climate change mitigation and adaptation strategies are both integrated and geared to relevant sectoral policies. Their aim is to formulate regional climate change strategies and to realise initial steps of implementation (see Chapter 3.4).

- *Supra-regional partnerships in functional interconnected cross-border regions– innovative projects to promote cooperation among city regions, networking and to share responsibility over a large area”*

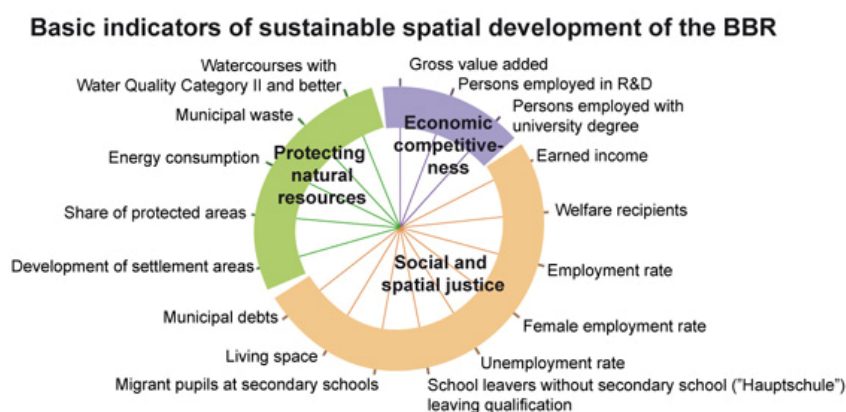
Cross-border agglomerations represent a special category within the network of European metropolitan and city regions. The demonstration project deals with specific potentials and challenges of these border areas and searches for ways to promote the strengths of these regions according to the federal spatial planning concept of “Growth and Innovation” (cf. Chapter 3.3).

- *Strategic approaches of regional planning to guarantee services of general interest*

In the context of the emerging demographic framework conditions, concrete regional planning concepts will be developed in three model regions in order to ensure a sustainable regional infrastructure in terms of quantity and quality. The results are to be directly integrated into regional planning provisions.

3.2 Examples of promoting sustainable spatial development

Many of the demonstration projects presented in the previous chapter serve to realise sustainable spatial development interests. A special strategy to observe the progress but also setbacks in the field of sustainable spatial development is an indicator system developed by the BBSR to measure sustainability deficits. Already in 1999, a catalogue of regional indicators was for the first time developed on the basis of the ecological, economic and social objectives of sustainable development. These basic indicators, which can be flexibly extended, can be found in the following figure.



The indicators are provided with target values.⁷ They indicate regional minimum or maximum standards. The sustainability objectives are at risk of not being achieved where these target values fall below or exceed a defined threshold. The regional sustainability is evaluated by summarising

all indicators. The regions themselves should first and foremost be able to identify specific sustainability gaps or deficits from which the (political) need for action can be derived.

⁷ If explicit political target values are not available - e.g. in the case of the 30-hectare target for land consumption or the 75% limit of the EU structural policy - artificial values are used. Based on the national value, to which the regional objectives may be geared, percentaged deviations are defined. When these deviations fall below or exceed a defined threshold, the sustainability objective is considered to have been achieved or not achieved.

3.3 Examples of increasing competitiveness

Within demonstration projects (MORO, cf. Chapter 3.1), examples of supra-regional partnerships strengthening growth and innovation⁸ – and thus increasing competitiveness - are concretised and tested in 7 model regions in terms of their practical suitability.

The thematic focus is on the following fields of action:

- knowledge and education (e.g. chances of quality management within the educational system; regional networking in the fields of science and research),
- innovation (taking up already existing R&D potentials and capacities),
- clusters (similar or complementary sectors networking across different regions),
- spill-overs (firm establishment based on selected aspects in the regions, e.g. networks of businesses),
- financial networks (regional funds and reallocation of funds),
- joint supra-regional economic development (locational strategies, designation of commercial areas etc.)

The results of the demonstration projects are to produce conclusions on the above-mentioned concept and to give transferable recommendations for future application in the regions and for specific support by Federal Government measures.

3.4 Examples of preventing and adapting to climate change

In December 2008, Germany adopted the German Strategy for Adaptation to Climate Change (DAS, cf. Chapter 2.1), which by 2011 is to be followed by an Action Plan on Adaptation. Within the Strategy, spatial development is accorded a coordinating role in protecting, ensuring and sustainably developing the settlement, transport and open space structure as well as natural resources and an important role in terms of concrete measures to be taken in regions and cities. Its task is to assess vulnerabilities across the related sectoral policies, to moderate an intersectoral dialogue on the development of concrete adaptation strategies and to support integrated resilient spatial structures, which have been adapted to climate change.

A specific regional mix of strategies is needed which pursues prevention and adaptation strategies, wisely combines them and is closely linked to related sectoral policies. Especially the regional level is predestined to implement adaptation strategies while prevention strategies are increasingly realised at the local level.

Adaptation strategies on the regional level

The MORO project “Spatial development strategies to combat climate change” (Demonstration Projects of Spatial Planning, see above, Chapter 3.1) is presented as an example of regional strategies to prevent and adapt to climate change. Based on the existing spatial planning instruments in eight model regions, regional climate adaptation strategies are to be formulated.

The model regions are to formulate a regional climate change strategy and to implement first steps. This includes evolving regional planning instruments in combination with sectoral planning instruments taking existing (regional plans) and additional instruments (e.g. sub-regional agreements on objectives) and the updating of regional plans into account.

⁸ See comments on the Growth and Innovation concept in Chapter 2.2.

Model regions “Spatial development strategies to combat climate change”



The map presents the model regions. They are to formulate regional climate adaptation strategies by 2011. The priorities of climate change mitigation focus on energy-saving and environmentally friendly settlement, transport and land use models. The regional adaptation strategies focus on flood prevention, creation of reservoirs, urban climate change mitigation, coastal protection, protection of mountainous regions, adapted tourism and change of biocenoses.

Climate change-oriented urban development – counteracting causes and consequences of climate change through urban concepts

In cities and city regions, climate change requires a three-dimensional strategy: to develop strategies preventing (mitigating) and adapting to climate change (adaptation) and to coordinate these strategies with other urgent tasks of sustainable urban development.

Important fields of action are to control settlement development, the transport and the technical infrastructure as well as water resources/flood prevention. A focus is laid on developing climate change-oriented settlement structures e.g. via urban land-use planning. The tasks of disaster control and civil defence, health care, nature conservation and soil protection are also affected. Constructional-technical climate change mitigation, e.g. in the context of buildings, social housing or housing in general, however, is only important because such strategic concepts are relevant for the integrated overall concept.

From the end of 2009, urban concepts concerning climate change are to be tested within demonstration projects. Within a study, compiled in the context of an ExWoSt (Experimental Housing and Urban Development) research field on local climate change strategies and potentials, an integrated “local strategy and action set concerning climate change” will be prepared as a decision support tool and tested in model municipalities.

The regional and local demonstration projects were and are accompanied by thematic, interdisciplinary workshops and conferences during which the results achieved as well as potential solutions and adaptation strategies are discussed. In addition, they are to provide initial contributions to the German Adaptation Strategy.

Competition on the energy-efficient refurbishment of large housing estates

In order to support owners of buildings within large housing estates in developing integrated concepts and advancing their refurbishment, Federal Minister Tiefensee on 20 January 2009 invited tenders for the competition “Energy-efficient refurbishment of large housing estates based on integrated urban district development concepts”.



The competition gave the starting signal for developing and advancing integrated development concepts for urban districts involving energy-efficiency aspects. At the same time, an impetus for the further implementation of concepts was also given by investments and social measures. Housing companies, building owners or associations of partners were invited to participate in the competition.

The energy-saving potential of un-refurbished buildings amounts to at least 50 per cent. Energy-efficient refurbishment may help an un-refurbished building to save about 100 kWh of energy per square metre and year. The figure shows a (partly) refurbished residential building.

Climate change mitigation benefits too: by changing to local heat and using renewable energy sources at the same time, emissions can be reduced by around 4 tonnes of CO₂ per dwelling and year. Calculating these figures for large housing estates produces impressive results: they bear a large energy-saving potential which in times of primary energy sources running short and worldwide climate change must be used at all costs. Last but not least, a change to alternative energy sources can also make a contribution to the security of electricity and heat supply.

Prizes were awarded to development concepts for urban districts with different focuses: energy efficiency, participation and implementation.

3.5 Examples of promoting renewable energy sources

The Federal Republic of Germany has a large set of instruments to promote renewable energy sources. They comprise legal provisions, financial incentives, research, awareness raising and various funding approaches. Especially the law on the priority of renewable energy sources, the so-called Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz – EEG⁹) is to promote increased electricity and heat production based on renewable energy

⁹ Gesetz für den Vorrang Erneuerbarer Energien, abbreviated: EEG, date of commencement: 01/09/2009, date of issue: 25/10/2008, status: enacted, source: BGBl. I p. 2074

sources. It provides among other things for a guaranteed feed-in tariff scheme for electricity from renewable energy sources.

The following overview presents a part of the Integrated Energy and Climate Programme of the German Federal Government.

Overview: Selected measures of the Integrated Energy and Climate Programme of the German Federal Government (5 December 2007)

Amended Combined Heat and Power Act (Kraft-Wärme-Kopplungs-Gesetz)

By 2020, the share of highly efficient, combined heat and power plants in electricity production has to be doubled from currently about 12% to about 25%.

Report and amended draft Energy Conservation Regulations (Energieeinsparverordnung EnEV):

In order to increase the energy efficiency of buildings, the energy efficiency requirements for buildings have to be increased by 30% on average from 2009. In a further step (envisaged in 2012), the efficiency requirements are to be increased again by up to the same percentage.

Amended Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz EEG)

The German Federal Government's goal is to increase the share of renewable energy sources in the field of electricity from currently over 13% to 25-30% by 2020. This is why the Renewable Energy Sources Act, which among other things lays down new fees for offshore wind parks, was amended.

Act on the Promotion of Renewable Energy in the Heat Sector (Erneuerbare-Energien-Wärmegesetz – EEWärmeG):

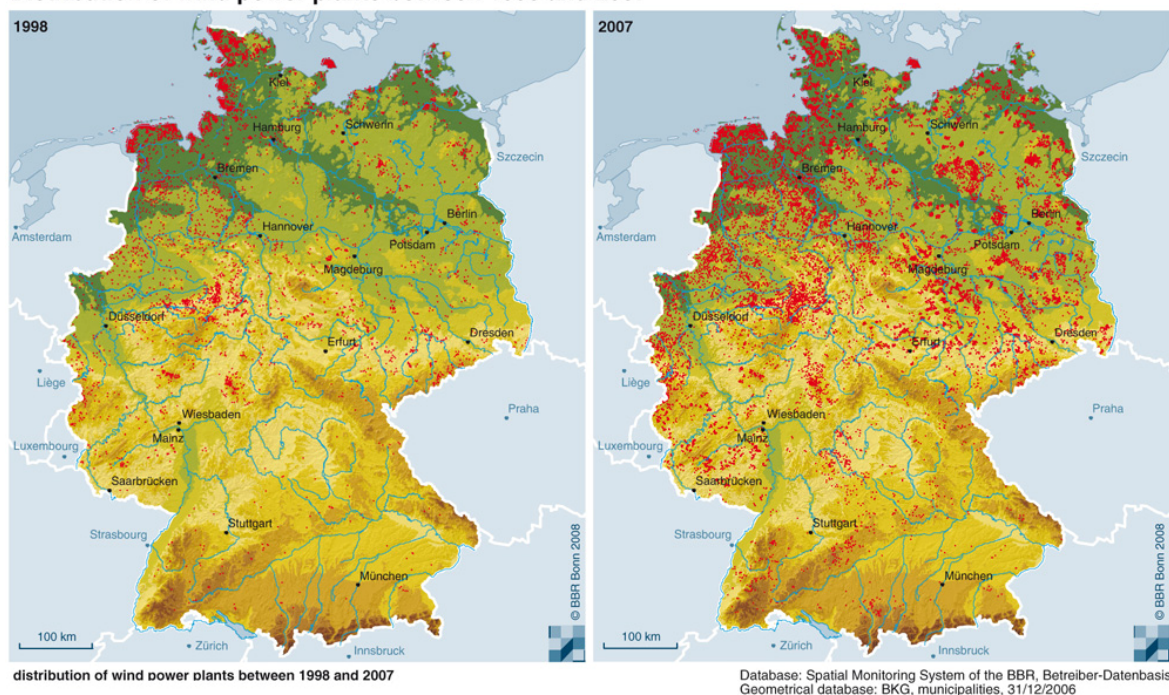
The share of renewable energy sources in the heat supply is therefore planned to increase to 14% by 2020. The Heat Act therefore lays down rules for using renewable energy sources for new buildings and increases the related funding programme for the existing housing stock from EUR 130 million in 2005 to up to EUR 350 million in 2008 and up to EUR 500 million from 2009.

Amended Energy Industry Act (Energiewirtschaftsgesetz EnWG) to deregulate metering

A deregulated electricity metering enables and promotes innovative metering procedures as well as load-dependent, time-variable tariffs. It helps consumers to save energy costs. It also improves the efficiency of using power plant facilities.

The following figure shows the expansion of wind energy between 1998 and 2007, which is due to the special support provided to wind power plants.

Distribution of wind power plants between 1998 and 2007



3.6 Examples of tackling social polarisation, especially in cities

The urban development programme “Urban Districts with Special Development Needs – The Socially Integrated City” (in short: Social City) of the German Federal Ministry of Transport, Building and Urban Development (BMVBS) and the Länder was launched in 1999 with the goal of stopping the “downward spiral” in depressed urban districts and greatly improving the local living conditions. The Social City programme was started in 1999 with 161 urban districts in 124 municipalities. Today there are already 523 areas in 326 municipalities (as per 2008).

Segregation in small areas has since the 90s led to selective up- and downgrading of residential areas in many cities and thus to the development of depressed urban districts. They are mostly characterised by complex problematic situations in terms of urban development and environment, infrastructure, local economy, social affairs, integration and community cohesion as well as image building. The Social City programme counteracts these problems by adopting an integrated and complex neighbourhood development approach.

The broad range of problems but also the potentials, on the basis of which the Social City programme areas have been selected and defined, is reflected by the fields of action of various measures and projects used to solve the problems and to open up the potentials. Measures and projects can be attributed to a catalogue of 13 thematic fields of action. Related demonstration projects mainly focus on the integration of migrants, participation, school and education, community cohesion and other social activities.

Their planning and realisation is supported by instrumental-strategic fields of action (integrated strategic and development concepts, combination of resources, neighbourhood management, activation and participation, evaluation and monitoring).

3.7 Examples of cross-border and transnational cooperation

Cross-border and transnational cooperation is most significant for Germany, the more so as it has many neighbouring countries. Cross-border and transnational cooperation may take different forms:

Examples of cross-border cooperation

Since the 50s, numerous cross-border cooperation structures between local and regional authorities have emerged on the internal and external frontiers of the EU, which are often called Euroregions or Euregios. Euregios serve as a cross-border hub and motor to create contacts and to fulfil cross-border tasks. Irrespective of the kind of members, the euro-regional structures involve political, administrative, economic and social stakeholders as well as citizens and other stakeholders from a cross-border region according to the principle of consensus. They act in line with the concept of multilevel governance according to which different administrative levels cooperate without forming a new administrative level. They either have several offices on both sides of the border or just a joint cross-border office, which is testimony to a high level of integration in cooperation. Other indicators for the growing integration are own (non-project-relevant) funds and staff which are independent from the members. Some Euregios have a cross-border parliamentary representation.

There are still other types of cooperation, e.g. intergovernmental agreements and treaties to promote cooperation between national authorities. Apart from bi-national spatial planning commissions (e.g. on the German-Polish and German-Dutch border) they include agreements putting governmental commissions with a larger area of responsibility into force. By forming thematically oriented commissions, among other things, they partly also offer local and regional authorities the chance to participate in the cooperation, e.g. in the Upper Rhine area or on Lake Constance. Other examples are provided by working consortia dealing with cross-border cooperation across a larger area or across several national borders (e.g. ARGE Alp and ARGE Donauländer). Compared with the Euregios, they mostly do not possess any

legal personality and their cooperation often has a more transnational character. Furthermore, there exist some cross-border urban networks or links such as MONT (Münster-Osnabrück-Netzwerkstad Twente), QuattroPole (Luxembourg, Metz, Saarbrücken, Trier) and the double town of Zgörselic (Görlitz, Zgorzelec).

Project examples of transnational cooperation

The purpose of the projects **SONORA** (South-North Axis – European Development Corridor) and **SCANDRIA** (Scandinavian Adriatic Corridor for Growth and Innovation) is to extend the European north-south axis from the Baltic Sea Region to the Adriatic Sea in order to provide a regional economic development impetus and to activate unused potentials. The project concentrates on upgrading the transport infrastructure, on optimised and inter-modal logistic solutions and on economic networks along the area. In order to guarantee long-term effects, a “transnational cooperation platform” is being built up on which the project partners communicate with economic and social stakeholders (cf. www.sonoraproject.eu and www.scandriaproject.eu).

The **JOSEFIN** (Joint SME Finance for Innovation) project is an important project implemented within the EU Strategy for the Baltic Sea Region. It aims at inducing private banks to grant loans for innovations in small and medium-sized enterprises (SME). Key actors of the innovation process such as technology transfer centres, incubators and public development banks from Germany, Estonia, Latvia, Lithuania, Norway, Poland and Sweden have created two related new instruments:

- focused individual coaching to prepare cooperative transnational innovation projects of SMEs and
- a transnational guarantee fund covered by a counter guarantee of the European Investment Fund (EIF).

Combining the two instruments – individual coaching for SMEs and the transnational guarantee fund offered by the Josefin project partners – will reduce the risk for both parties, enterprises and banks, considerably.

3.8 Examples of spatial impacts of the central economic stimulus acts

In order to tackle the financial crisis, the Federal Government adopted two central economic stimulus acts:¹⁰

Economic stimulus act I

The Federal Government’s package of measures of 5 November 2008 promotes investments and orders of companies, private households and local authorities up to an amount of around 50 billion euros between 2009 and 2010.

Measures to ensure the financing ability and solvency of enterprises guarantee the financing of investments amounting to about 20 billion euros.

The first economic stimulus act includes the following measures:

- safeguarding employment by strengthening growth: an overview of the first economic stimulus act,
- accelerated depreciations for small and medium-sized enterprises,
- extending the period during which short-time working benefits can be claimed,
- extending the special programme for elderly and low-skilled workers,

¹⁰ For information on the economic stimulus acts see www.bundesregierung.de, www.bmwi.de, www.bundesfinanzministerium.de or www.konjunkturpaket.de.

- energy-efficient refurbishment of buildings/promoting energy-efficient construction,
- improved tax deductibility of craft services,
- declining-balance depreciation for movable fixed assets amounting to 25%,
- establishing 1000 additional agent jobs,
- increasing funding within the Joint Target Programme “Improving the regional economic structure”,
- accelerating transport investments,
- additional funding instrument of the KfW (Kreditanstalt für Wiederaufbau/Reconstruction Loan Corporation) with a volume of 15 billion euros,
- increasing the KfW infrastructure programmes for local authorities,
- motor vehicle tax exemption for new passenger cars,
- promoting innovation (ERP innovation programme, ERP start-up fund, special energy efficiency fund).

Economic stimulus act II

On 14 January 2009, the Federal Government adopted the second economic stimulus act, the so-called “employment and stability pact”. This pact includes measures amounting to 50 billion euros. By easing the burdens on citizens, strengthening the economy systematically and safeguarding employment, economic stimulus act II first of all focuses on measures with short- and medium-term effects. Secondly, comprehensive investments in the future-oriented areas of education, infrastructure and climate change mitigation are to strengthen and modernise these areas in the long term.

Promoting infrastructure development is a sector of particular spatial relevance. The construction industry and many handicraft businesses will benefit as the Federal Government, the Länder and the local authorities plan to spend 18 billion euros on infrastructure in the next two years. Additional investments are to be made to support local authorities. The Federal Government plans to contribute ten billion euros to a local investment programme. 6.5 billion euros alone are to be paid for upgrading kindergardens, schools and universities. The rest is intended for hospitals, for urban development and other projects. The Federal Government plans to invest another four billion euros from its own budget, half of it being intended for roads, railways and waterways. The Länder are to contribute around 3.5 billion euros in total. Public procurement law will be relaxed for the investments to take effect rapidly.

3.9 Examples of decentralized measures to tackle the crisis

Economic stimulus acts of the German Länder

Decentralised measures to tackle the depression are mainly taken by the Länder and the regions. In addition to the Federal Government’s two economic stimulus acts, the Länder as well have taken measures to ensure growth and employment in a time of economic downturn. Thus for instance, the loan and suretyship programmes of the Länder’s loan and guarantee banks were adjusted to the current situation or newly launched. The Länder have increased their guarantee ceiling or are ready to increase it. Moreover, it was decided at Länder level to bring forward intended investments in the infrastructure or to launch additional investment programmes.