

Regions and Cities at a Glance 2020 provides a comprehensive assessment of how regions and cities across the OECD are progressing in a number of aspects connected to economic development, health, well-being and net zero-carbon transition. In the light of the health crisis caused by the COVID-19 pandemic, the report analyses outcomes and drivers of social, economic and environmental resilience. Consult the full publication [here](#).

OECD REGIONS AND CITIES AT A GLANCE - COUNTRY NOTE

GERMANY

- A. Resilient regional societies
- B. Regional economic disparities and trends in productivity
- C. Well-being in regions
- D. Industrial transition in regions
- E. Transitioning to clean energy in regions
- F. Metropolitan trends in growth and sustainability

The data in this note reflect different subnational geographic levels in OECD countries:

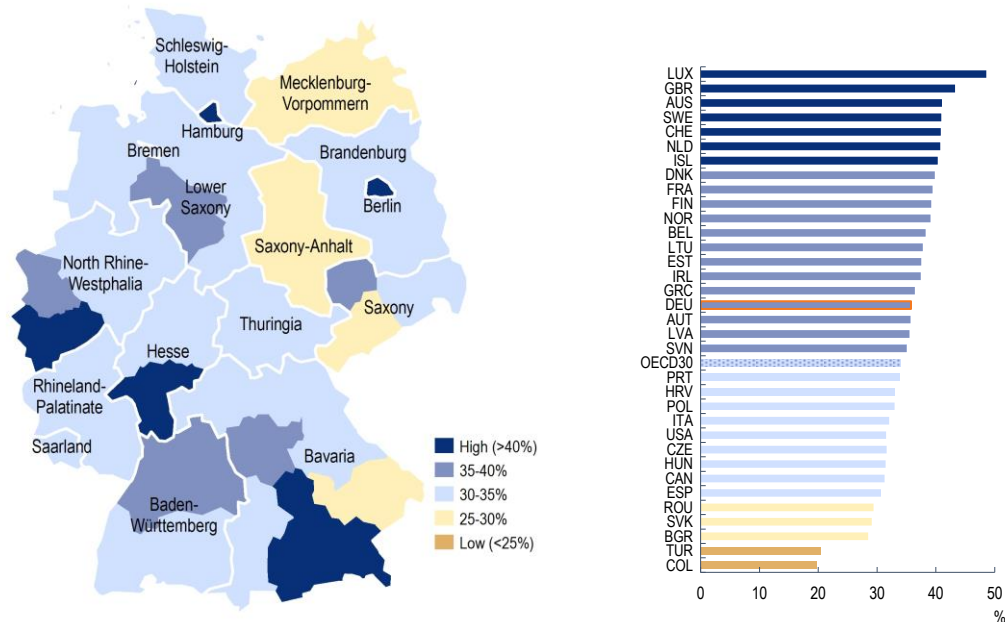
- **Regions** are classified on two territorial levels reflecting the administrative organisation of countries: large regions (TL2) and small regions (TL3). Small regions are classified according to their access to metropolitan areas (see <https://doi.org/10.1787/b902cc00-en>).
- **Functional urban areas** consists of cities – defined as densely populated local units with at least 50 000 inhabitants – and adjacent local units connected to the city (commuting zones) in terms of commuting flows (see <https://doi.org/10.1787/d58cb34d-en>). Metropolitan areas refer to functional urban areas above 250 000 inhabitants.

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Berlin and Hamburg have the highest potential for remote working

A1. Share of jobs amenable to remote working, 2018

Government regions (map)



The shares of jobs amenable to remote working in the German regions range from close to 45% in Hamburg and Berlin to less than 30% in Mecklenburg-Vorpommern and Sachsen-Anhalt (Figure A1). Such differences depend on the task content of the occupations in the regions, which differ in the extent of being amenable to remote working. As in all other OECD countries, occupations available in cities tend to be more amenable to remote working than in other less densely populated areas.

Hamburg has the highest fiber optic availability across large regions (Bundesländer) in Germany with 70% of the buildings connected to the network (Figure A2).

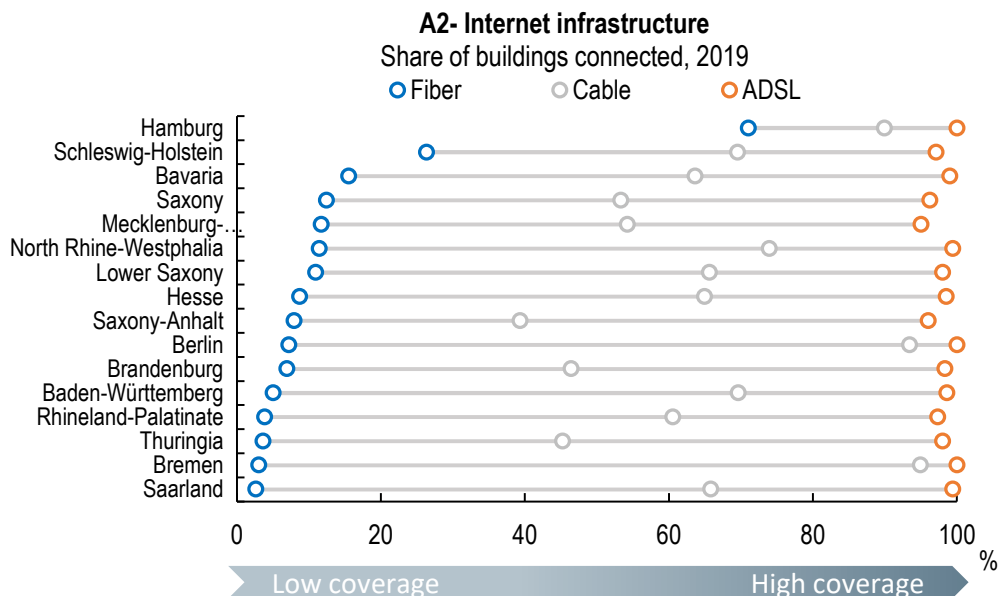
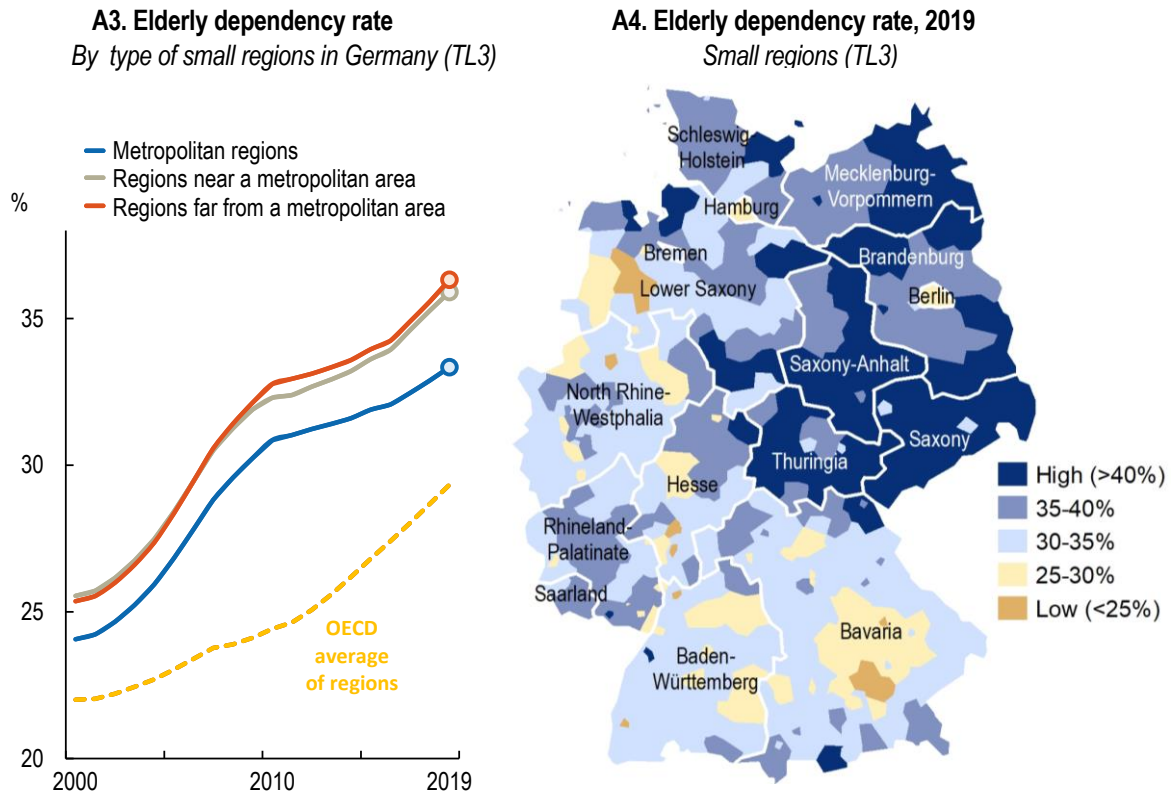


Figure [A1]: The lower percentage range (<25%) depicts the bottom quintile among 370 OECD and EU regions, the following ranges are based on increment of 5 percentage points. Further reading: OECD (2020), Capacity to remote working can affect lockdown costs differently across places, <http://www.oecd.org/coronavirus/policy-responses/capacity-for-remote-working-can-affect-lockdown-costs-differently-across-places-0e85740e/>

Ageing challenges eastern regions and regions far from metropolitan areas more strongly

The elderly dependency rate, defined as the ratio between the elderly population and the working age (15-64 years) population, is high and has further increased in all types of regions in Germany since 2000. Regions far from metropolitan areas show the highest elderly dependency rate (36%) (Figure A3). In almost 20% of the small regions in Germany, there were two elderly for every five working-age residents in 2019 (Figure A4).



German regions have more hospital beds per capita than the OECD average

All regions in Germany have significantly more hospital beds per capita than the OECD average, although the availability of hospitals has fallen in most regions since 2000 (Figure A5). Regional disparities in hospital beds are above the OECD average, with Berlin having the lowest availability of hospital beds per 1 000 inhabitants in 2017, less than half the level in Mecklenburg-Vorpommern.

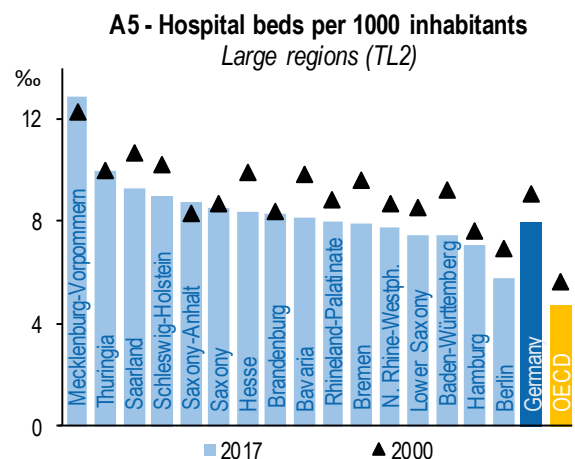


Figure notes. [A3]: OECD (2019), Classification of small (TL3) regions based on metropolitan population, low density and remoteness <https://doi.org/10.1787/b902cc00-en>. [A4]: Small (TL3) regions contained in large regions. TL3 regions in Germany are composed by 401 Kreise.



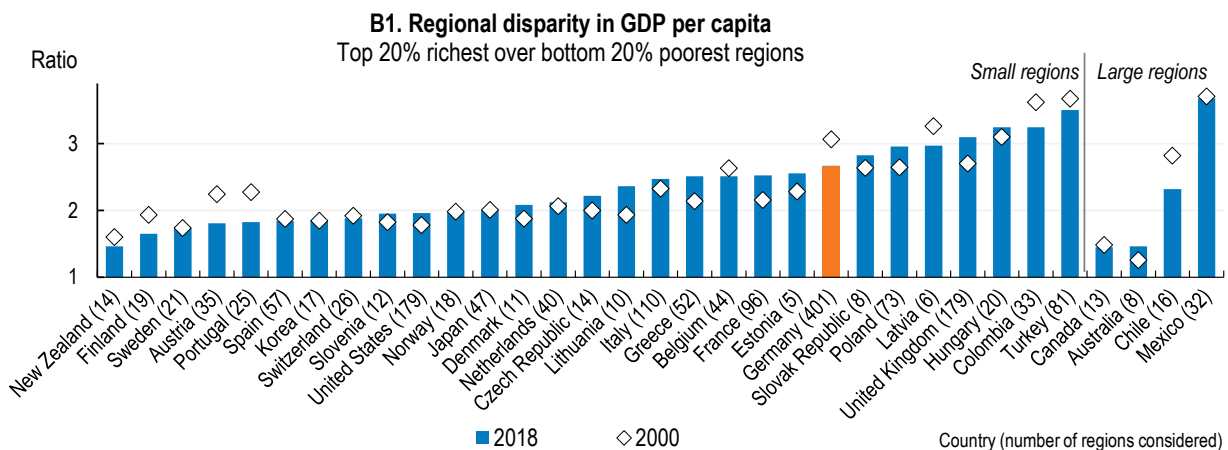
B. Regional economic disparities and trends in productivity

Regional economic gaps have declined since 2000, partially due to lower growth of the most productive regions

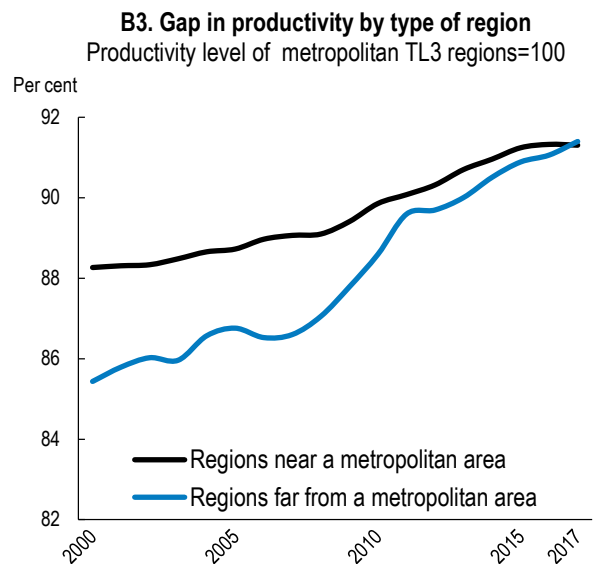
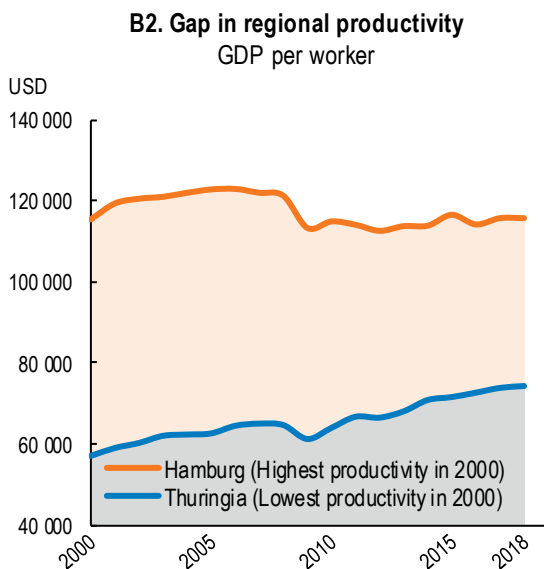
Differences between German regions in terms of GDP per capita have decreased over the last eighteen years. However, regional disparities among remain above the median of OECD countries, with Hamburg having more than twice the GDP per capita than Mecklenburg-Vorpommern (Figure B1).

With a productivity growth of 1.5% per year over the period 2000-18, Thuringia, the region with the lowest level of productivity, is catching up with other regions and Hamburg, the frontier region in terms of productivity in Germany. Hamburg experienced a decline in the same period, the lowest productivity growth in Germany (Figure B2).

After a period of stagnating productivity compared to metropolitan regions, regions far from a metropolitan area of at least 250 000 inhabitants have narrowed their gap to metropolitan regions since 2007, and even exceeded the productivity level of regions near a metropolitan area in 2017 (Figure B3).

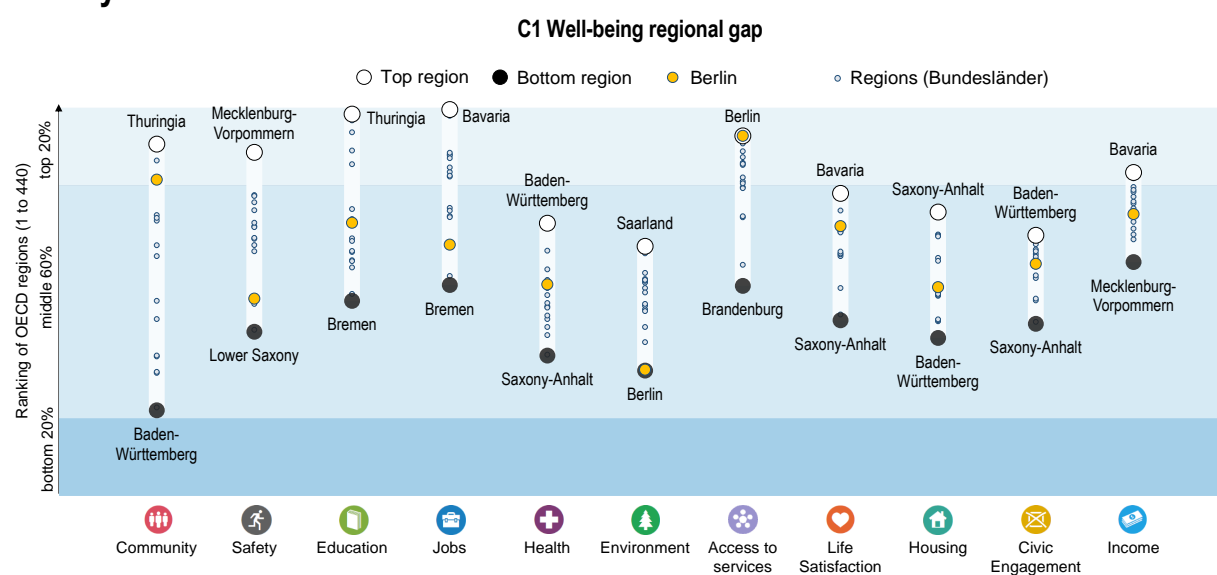


Note: A ratio with a value equal to 2 means that the GDP of the most developed regions accounting for 20% of the national population is twice as high as the GDP of the poorest regions accounting for 20% of the national population.



C. Well-being in regions

Germany faces large regional disparities in the well-being dimensions of community, safety and education



Note: Relative ranking of the regions with the best and worst outcomes in the 11 well-being dimensions, with respect to all 440 OECD regions. The eleven dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

Most German regions rank in the middle 60% of OECD regions in 9 out of 11 well-being dimensions, however, they perform among the top 30% of OECD regions in access to services. In contrast, outcomes across Bundesländer are very unequal in the dimensions of community, safety and education. While Thuringia ranks in the top 5% of OECD regions in terms of education, Bremen is close to the median of OECD regions (Figure C1).

The average of the top 20% German regions ranks above the average of the top 20% OECD regions in 5 out of 13 well-being indicators, particularly in terms of unemployment rates and household income (Figure C2).

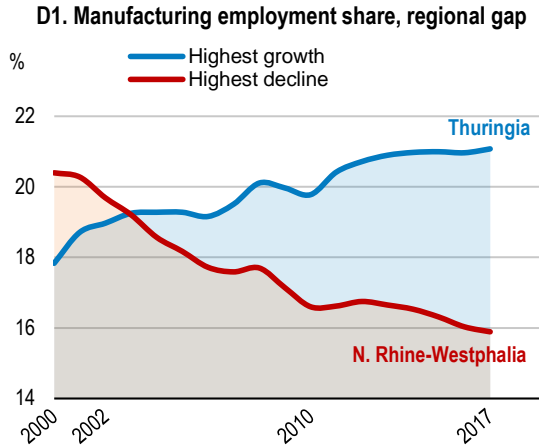
C2. How do the top and bottom regions fare on the well-being indicators?

	Country Average	OECD Top 20% regions	German regions	
			Top 20%	Bottom 20%
Community				
Perceived social network support (%), 2014-18	91.1	94.1	94.0	86.1
Safety				
Homicide Rate (per 100 000 people), 2016-18	1.0	0.7	0.7	1.6
Education				
Population with at least upper secondary education, 25-64 year-olds (%), 2019	86.6	90.3	92.4	82.6
Jobs				
Employment rate 15 to 64 years old (%), 2019	76.7	76.0	79.7	73.4
Unemployment rate 15 to 64 years old (%), 2019	3.2	3.3	2.2	4.4
Health				
Life Expectancy at birth (years), 2018	81.1	82.6	82.1	80.2
Age adjusted mortality rate (per 1 000 people), 2018	8.0	6.6	7.5	8.3
Environment				
Level of air pollution in PM2.5 (µg/m³), 2019	14.1	7.0	10.9	13.8
Access to services				
Households with broadband access (%), 2019	92.0	91.3	94.0	88.9
Life Satisfaction				
Life satisfaction (scale from 0 to 10), 2014-18	7.0	7.3	7.2	6.8
Housing				
Rooms per person, 2018	1.8	2.3	2.0	1.7
Civic engagement				
Voters in last national election (%), 2019 or latest year	76.2	84.2	78.2	73.4
Income				
Disposable income per capita (in USD PPP), 2018	26 083	26 617	28 591	23 087

Note: OECD regions refer to the first administrative tier of subnational government (large regions, Territorial Level 2); Germany is composed of 16 large regions. Visualisation: <https://www.oecdregionalwellbeing.org>.



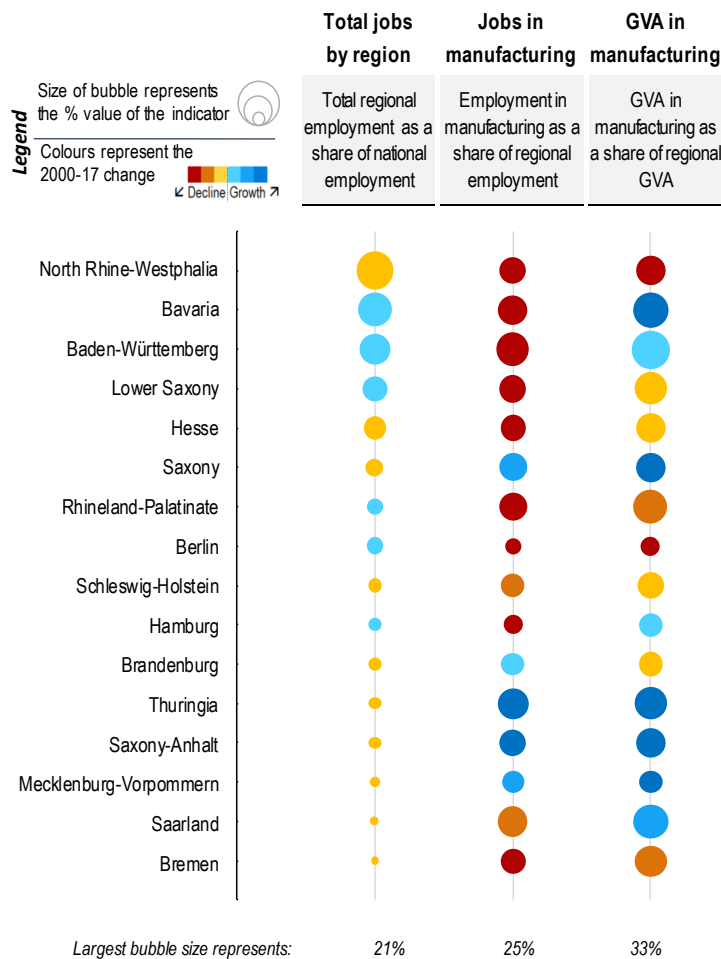
Except for five eastern states, employment in manufacturing is falling all German regions



Between 2000 and 2017, 11 out of 16 large regions in Germany experienced a decline in the share of employment in manufacturing. With a reduction of 4.5 pp in the share of employment in manufacturing, North Rhine-Westphalia, the most populous region, recorded the largest decrease (Figure D1).

Decline in employment in manufacturing coincides with a reduction in manufacturing gross value-added (GVA) in Berlin and in North Rhine-Westphalia (Figure D2). However, the eastern regions Saxony, Brandenburg, Thuringia, Saxony-Anhalt and Mecklenburg-Vorpommern recorded increases in both GVA and employment in manufacturing.

D2. Manufacturing trends, 2000-17



Note figure D.2. : Regions are ordered by regional employment as a share of national employment. Colour of the bubbles represents the evolution of the share over the period 2000-17 in percentage points: red: below -2 pp; orange: between -2 pp and -1 pp; yellow: between -1 pp and 0; light blue: between 0 and +1 pp; medium blue: between +1 pp and +2 pp; dark blue: above +2 pp over the period.



E. Transitioning to clean energy in regions

North Rhine-Westphalia and Baden-Württemberg, which account for 35% of the German electricity production, still highly rely on coal

The larger producer of electricity in Germany – North Rhine-Westphalia – highly rely on coal for electricity generation and use renewable sources only to a limited extent. North Rhine-Westphalia, Baden-Württemberg and generate 42% or more of their electricity using coal and less than one fourth using renewables. In contrast, Lower Saxony and Bavaria are advancing towards low-carbon electricity generation. In 2017, Bavaria produced only 3% of its electricity using coal and 40% using renewable sources (Figure E1).

E1. Transition to renewable energy

	Total electricity generation (in GWh per year)	Regional share of renewables in electricity generation (%)	Regional share of coal in electricity generation (%)	Greenhouse gas emissions from electricity generated (in Ktons of CO ₂ eq.)	
North Rhine-Westphalia	152 406	6%	73%	107 822	Nor.
Lower Saxony	81 893	48%	15%	16 529	Low.
Bavaria	73 511	40%	3%	13 139	Bav.
Baden-Württemberg	69 570	24%	42%	28 139	Bad.
Brandenburg	62 339	57%	37%	22 881	Bra.
Schleswig-Holstein	57 448	73%	7%	4 755	Sch.
Saxony	33 261	23%	70%	20 664	Sax.
Saxony-Anhalt	31 029	68%	20%	8 252	Sax.
Hesse	16 453	29%	50%	8 853	Hes.
Mecklenburg-Vorpommern	12 960	70%	21%	3 128	Mec.
Berlin	12 809	6%	39%	7 931	Ber.
Saarland	12 246	4%	93%	9 511	Saa.
Hamburg	10 846	7%	88%	8 220	Ham.
Thuringia	10 143	79%	0%	1 737	Thu.
Rhineland-Palatinate	8 894	39%	1%	2 943	Rhi.
Bremen	5 905	13%	80%	4 135	Bre.

Carbon efficiency in electricity generation is very unequal across German regions. While Schleswig-Holstein releases 83 tons of CO₂ per gigawatt hour of electricity produced, North Rhine-Westphalia emits around 710 tons of CO₂ per gigawatt hour. For this reason, in 2017, North Rhine-Westphalia alone was responsible for 40% of Germany's CO₂ emissions from electricity generation, although it only generated 23% of the electricity (E2).

E2. Contribution to total CO₂ emissions from electricity production, 2017

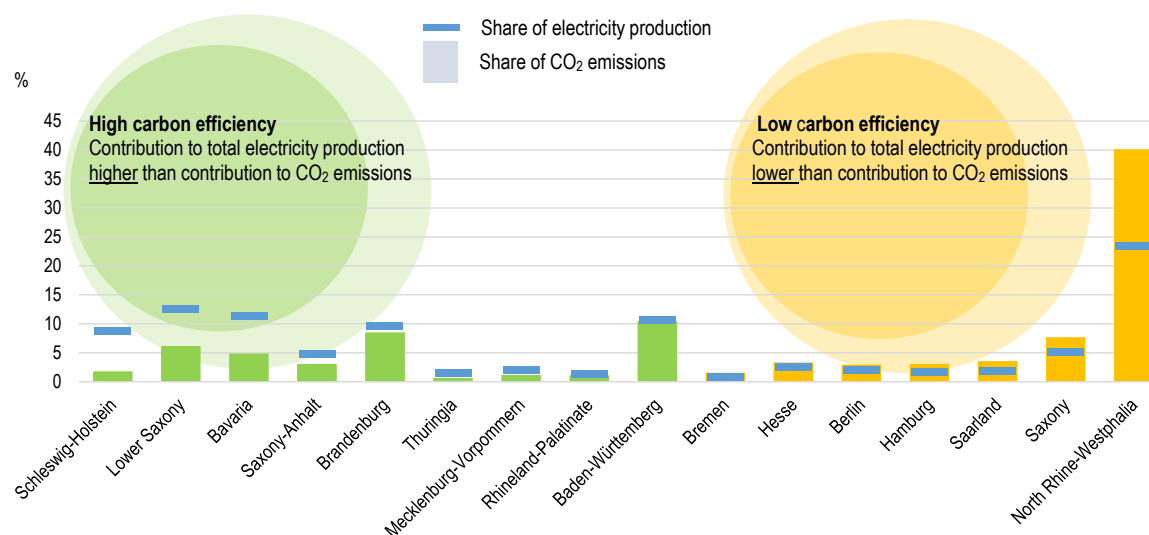


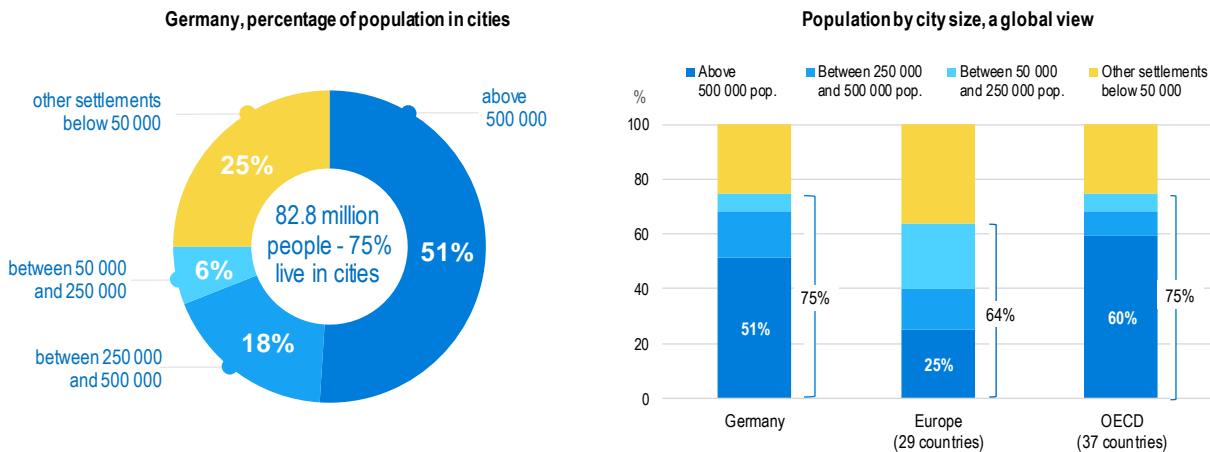
Figure notes: Regions are arranged in Figure E1 by total generation, and in Figure E2 according to gap between share of electricity generation and share of CO₂ emissions (most positive to most negative). These estimates refer to electricity production from the power plants connected to the national power grid, as registered in the Power Plants Database. As a result, small electricity generation facilities disconnected from the national power grid might not be captured. Renewable energy sources include hydropower, geothermal power, biomass, wind, solar, wave and tidal and waste. See [here](#) for more details.



Compared to the OECD average, Germany has a higher concentration of people in medium-sized metropolitan areas of 250k to 500k inhabitants

In Germany, 75% of the population lives in cities of more than 50 000 inhabitants and their respective commuting areas (functional urban areas, FUAs), which corresponds to the OECD average. The share of population in FUAs with more than 500 000 people is 51%, lower than the OECD average of 60% (Figure F1). However, in Germany relatively more people live in medium-sized FUAs.

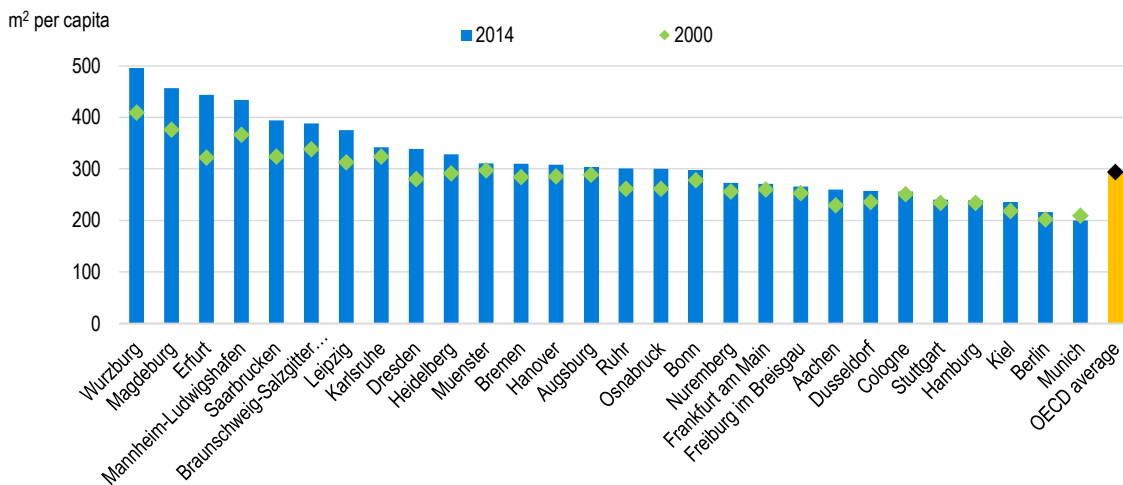
F1. Distribution of population in cities by city size
Functional urban areas, 2018



Built-up area has increased faster than population in most metropolitan areas

Built-up area per capita has increased in most functional urban areas in Germany since 2000, especially in Wurzburg, Magdeburg and Erfurt where the difference between the growth of urbanised area and change in population is most pronounced. Munich is the only functional urban area in Germany where population grew more than the built-up area (Figure F2).

F2. Built-up area per capita
Functional urban areas with more than 500 000 inhabitants



Source: OECD Metropolitan Database. Number of metropolitan areas with a population of over 500 000: 28 in Germany compared to 349 in the OECD.

Several metropolitan areas in eastern Germany are catching up in terms of GDP per capita, having recorded faster growth than other metropolitan areas since 2000

Munich metropolitan area has the highest GDP per capita in Germany (Figure F3), and is also among the top 5% of OECD metropolitan areas with more than 500 000 people. Yet, many mid-sized and especially eastern metropolitan areas recorded faster growth in GDP per capita.

F3. Trends in GDP per capita in metropolitan areas
Functional urban areas above 500 000 people

