Germany

Introduction

This country summary is provided to support the assessment of the degree of urbanisation by national statistical institutes. The goal of this assessment is to see whether the degree of urbanisation accurately captures a country's cities, smaller settlements and rural areas.

Please note that inaccuracies in this country summary may be due to data quality. The results presented here are based on a combination of two data sources: population and built-up areas.
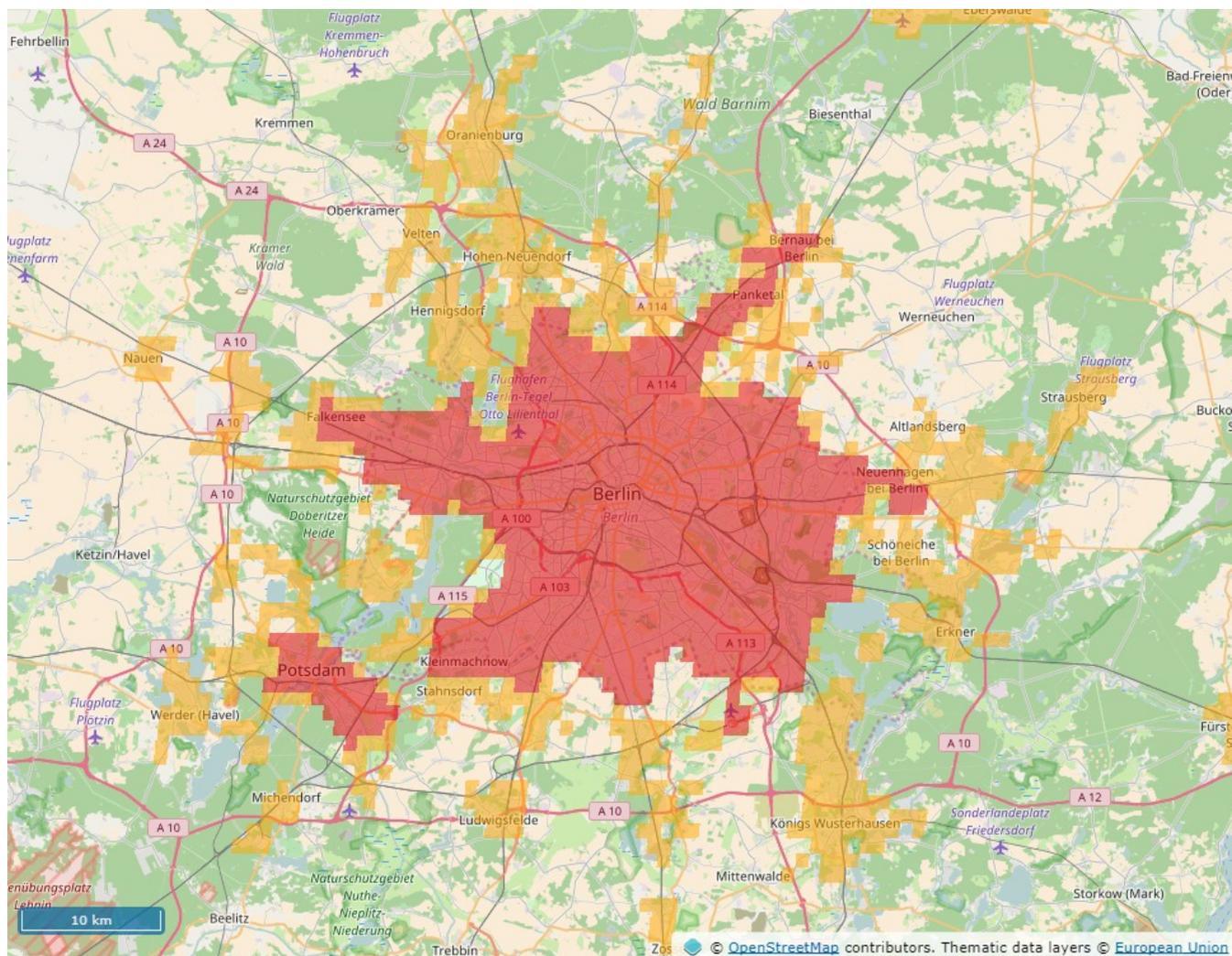
The population source data are collected by the [Center for International Earth Science Information Network (CIESIN)](#) mostly from the national statistical offices - more information on the reference years and the geographic scale can be found below.

Built-up areas are detected by the European Commission's Joint Research Centre using the Global Human Settlement Layer method on satellite imagery from Landsat.

The degree of urbanisation can be applied to other data (e.g. census updates, better spatial resolution) that may improve the available classification.

The degree of urbanisation is applied first to a population distribution grid. The results at the grid level are subsequently used to classify municipalities. This second step could not be applied to the globe as municipal boundaries were not consistently available.
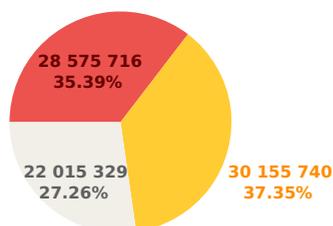
Berlin, Germany

Degree of urbanisation

🟥 Urban centre 🟧 Urban cluster ⬜ Rural grid cell (transparent)

The QR Code on the right opens an interactive version of the map above (minimum screen width resolution required: 600 pixels).
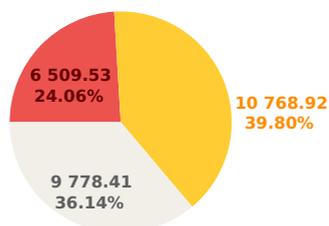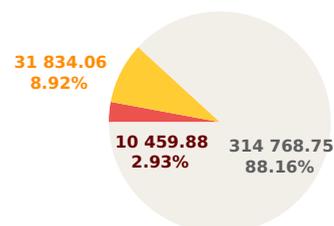
Germany

Population (2015)

28 575 716
35.39%

22 015 329
27.26%

30 155 740
37.35%

Built-up area (sq km, 2015)

6 509.53
24.06%

10 768.92
39.80%

9 778.41
36.14%

Land (sq km, 2015)

31 834.06
8.92%

10 459.88
2.93%

314 768.75
88.16%

Degree of urbanisation

■ Urban centre   ■ Urban cluster   □ Rural grid cell

Population (left) and Built-up area (in sq km, right) by degree of urbanisation

	1975	1990	2000	2015	1975	1990	2000	2015
Urban centres	25 803 795 (33%)	26 411 427 (33%)	28 644 753 (35%)	28 575 716 (35%)	4 649.34 (31.98%)	5 866.73 (26.74%)	6 299.08 (26.12%)	6 509.53 (24.06%)
Urban clusters	32 323 606 (41%)	30 890 497 (39%)	31 378 175 (38%)	30 155 740 (37%)	6 018.06 (41.39%)	9 087.30 (41.42%)	9 899.40 (41.05%)	10 768.92 (39.80%)
Rural grid cells	20 594 216 (26%)	21 710 308 (27%)	21 926 072 (27%)	22 015 329 (27%)	3 871.01 (26.63%)	6 985.97 (31.84%)	7 916.49 (32.83%)	9 778.41 (36.14%)
Total	78 721 617	79 012 232	81 949 000	80 746 785	14 538.41	21 940	24 114.97	27 056.86

Capital and most populated urban centres in Germany (2015)

Urban centre	Population (in the urban centre)
Berlin	3 328 531
Köln (Cologne)	7 305 430
Hamburg	1 791 838
München (Munich)	1 717 737
Stuttgart	1 170 976
Frankfurt am Main	1 145 953
Nurenberg	707 108
Hannover	630 657
Mannheim	602 816
Dresden	510 741

Detailed list of urban centres

Definitions

Urban centre (in red) defines a city:
An urban centre consists of contiguous grid cells of 1 sq km with a density of at least 1500 inhabitants per sq km and a minimum total population of 50 000.
http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Urban_centre

Urban cluster (in orange) defines towns and suburbs:
An urban cluster consists of contiguous grid cells of 1 sq km with a density of at least 300 inhabitants per sq km and a minimum total population of 5 000.
http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Urban_cluster

Rural grid cell (trasparent/light grey) defines rural areas:
Grid cells of 1 sq km with a density below 300 inhabitants per sq km and other grid cells outside urban clusters or centres (see above).
http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Rural_grid_cell

Notes about data:

The degree of urbanisation classifies municipalities based on their population share in three types of grid cells: **'Cities'** have the majority of their population in an urban centre; **'Towns and suburbs'** have the majority of their population in an urban cluster, but are not cities; **'Rural areas'** have the majority of their population in rural grid cells.
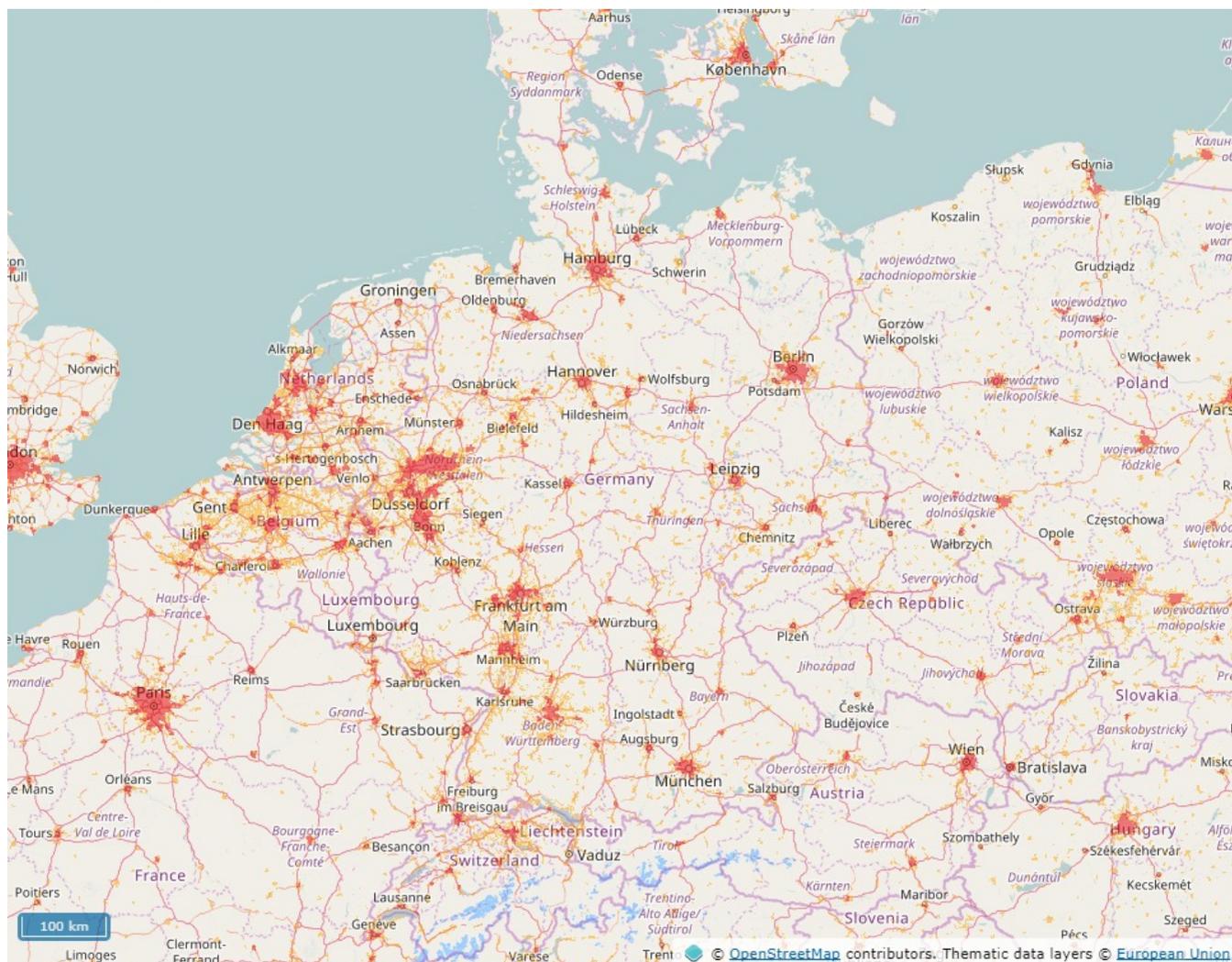For this summary, we have not been able to classify municipalities, but for ease of reading it refers to the types of grid cells using the three classes of municipalities.

In case of cross-border settlement areas, only population and surfaces estimates related to the Country are considered in this summary.

The summary includes results from automatic data analytics workflows including global best available satellite data records collected by the Landsat Earth Observation program and census data made available by National Statistical Offices. The data is aggregated in four reference years 1975, 1990, 2000, 2015. They should be considered as nominal dates aggregating the best suitable data in the given period. Despite the best efforts done, unavoidable information gaps in specific locations can result from unavailability of suitable satellite data or census data. In particular, the uncertainty of the estimates is increasing in the older reference years.

This summary has been generated using multi-temporal GHSL datasets for the years 1975,1990,2000, and 2015, from the 2016 public release. A new version of the data is expected to be available towards the end of 2017.

Joint Research Centre

Germany

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Degree of urbanisation

■ Urban centre   ■ Urban cluster   ☐ Rural grid cell (transparent)

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Baseline data source - Germany

Fostered by the GEO Human Planet Initiative   GROUP ON EARTH OBSERVATIONS

The population distribution layer has been produced using census information provided by CIESIN (GPWv4).

The total number of the populated census units used is 11 292, having the average size of 31.2 km^2.

The reference year of the census or sub-national population data is 2011.

The statistics presented in this document are based on the country borders as defined in the database of Global Administrative Areas, (GADM v2.8).

Disclaimer:

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the European Union concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.
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Interactive versions of the content:

This fact sheet: http://ghsl.jrc.ec.europa.eu/gate.php?a=405012130151
Map of Berlin, Germany: http://ghsl.jrc.ec.europa.eu/gate.php?c=405012130151
Full list of cities for Germany: http://ghsl.jrc.ec.europa.eu/cl.php?c=61
Map of Germany: http://ghsl.jrc.ec.europa.eu/gate.php?m=405012130151

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