Economy and housing

GDP and GDP/capita

Indicator definition

Gross Domestic Product (GDP) is defined by the Organisation for Economic Co-operation and Development (OECD) as the standard measure of the value of final goods and services produced by a country during a period minus the value of imports.

The projected GDP in Million EUR for the EU-28 Member States was extracted from GEM-E3 model and disaggregated at NUTS 2 level. The GDP per capita is the country or regional total annual projected GDP derived from GEM-E3 divided by the total annual projected population from EUROPOP2010. The higher the value of the indicator, the higher the productivity per person. The indicator is given in million euros per capita (person).

Units: Million euros per capita

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050

Methodology

The projected Gross Domestic Product (GDP) was derived by a computable general equilibrium (CGE) macro-economic model ‘GEM-E3’ (General Equilibrium Model for Energy-Economy-Environment), run by the National Technical University of Athens, and provides annual GDP national detail (National Technical University of Athens, 2010). The national GDP was disaggregated at regional level (NUTS 2). The GDP per capita is the gross domestic product divided by the population of a country/region.

The projected population was obtained from the EUROPOP2010 (European Commission/ DG Economic and Financial Affairs, 2011).

Main references


More information


Responsibility and ownership: European Commission, Joint Research Centre

Recreation potential

Indicator definition

Potential opportunities for nature basic recreation activities.

The indicator was built in the context of EU biodiversity strategy Improve the knowledge of ecosystems and their services in the EU; it is part of Action 5: Mapping and Assessing Ecosystems and their services.

Units: Dimensionless

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050

Methodology

The model quantifies the recreational opportunities according to presence and importance of the following components: degree of naturalness; presence and distance from water bodies; presence of natural protected areas.

Main references


More information


Responsibility and ownership: European Commission, Joint Research Centre
Share of residential areas over the total land area

Indicator definition

Share of residential areas measures the total urban fabric area (including continuous and discontinuous residential areas, sport and leisure, and green urban areas) as a proportion of the total surface area of land in the country expressed in percentage.

Units: % of total land

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050

Methodology

The share of residential area is the result of the division of the residential area in Km$^2$ by the total surface of the administrative unit (NUTSx). As residential areas we include the urban fabric land uses classes (*CLC11X residential (continuous and discontinuous), and CLC 14X green urban areas, sport and leisure facilities.

*Corine land cover

Main references


More information


Responsibility and ownership: European Commission, Joint Research Centre

Residential areas per inhabitant

Indicator definition

The 'residential areas per inhabitant' measure the land consumption by comparing the size of the urban fabric with the population expressed in sq. m per mn inhabitants (m$^2$ per person).

Units: square meters per person

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050
Methodology

The residential areas per inhabitant (m² per person) is the total sum of the land uses classified as urban fabric including, *CLC11X residential (continuous and discontinuous), and CLC 14X green urban areas, sport and leisure facilities divided by population of the region (NUTSx).

*Corine land cover

Main references


More information


Responsibility and ownership: European Commission, Joint Research Centre

Population density

Indicator definition

Population density is calculated by dividing the number of people by land area in a region.

Units: inhabitants per km²

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050

Methodology

The population density at 100m² is an output of the LUISA model. The average population density per NUTSx region was estimated using the administrative boundaries and then converted from square meters into square kilometres.

Main references

More information


Responsibility and ownership: European Commission, Joint Research Centre

Share of ICS areas over the total land area

Indicator definition

Share of industrial/commercial/services areas measures the total industrial/commercial/services area as a proportion of the total surface area of land in the country expressed in percentage.

Units: % of total land

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050

Methodology

The share of industrial/commercial/services areas over the total land area is the total sum of the land uses classified as urban fabric including, *CLC121 industrial and commercial land.

The share of industrial/commercial/services area is the result of the division of the industrial/commercial/services area Km² by the total surface of the administrative unit (NUTSx).

The ICS areas are derived from the projected land use maps from LUISA platform.

*Corine land cover

Main references


More information

Responsibility and ownership: European Commission, Joint Research Centre

ICS economic output per unit of ICS area

Indicator definition

The ‘industrial/commercial/services (ICS) economic output per unit of ICS area’ is the ratio of the Gross Value Added (GVA) of the industrial, commercial and services sectors by the industrial, commercial and services land use, and it is expressed as million EUR per hectare. The higher the ICS GVA in million EUR/hectare, the higher the level of productivity.

Units: Million euros per hectare

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050

Methodology

The ICS economic output per unit of ICS area is computed by diving the projected annual GVA by the projected industrial/commercial/services areas.

The industrial, commercial and services GVA is derived from the macro-economic model ‘GEM-E3’ (General Equilibrium Model for Energy-Economy-Environment), run by the National Technical University of Athens, and which provides annual GVA growth rates with national and sector detail, respecting the long term economic forecast by EC DG ECFIN (Ageing Report 2012). The growth rates from GEM-E3 are used to project GVA from 2009, and generate a trajectory of future GVA.

The ICS areas are derived from the projected land use maps from LUISA platform.

Main references

- Batista e Silva et. al (2013). Direct and Indirect Land Use Impacts of the EU Cohesion Policy Assessment with the Land Use Modelling Platform Contact information. [http://doi.org/10.2788/60631](http://doi.org/10.2788/60631)

More information

- Lavalle, C.; Batista e Silva, F (2015): LF422 - ICS economic output per unit of ICS area (REF2014 LUISA Platform) [10]. European Commission - Joint Research Centre

Responsibility and ownership: European Commission, Joint Research Centre
Share of built-up area over the total land

Indicator definition

Built-up areas measures the total built-up area as a share of the total surface area of land in the country expressed in percentage.

**Units**: % of the total land

**Spatial coverage**: NUTS0 and NUTS2

**Temporal coverage**: 2010, 2020, 2030, 2040 and 2050

**Methodology**

The built-up area in km$^2$ is the total sum of the land uses classified as urban fabric including, CLC11X residential (continuous and discontinuous), *CLC121 industrial/commercial land, and CLC 14X green urban areas, sport and leisure facilities.

The 'share of built-up area' is the result of the division of the 'built-up area in Km2' by the total surface of the administrative unit (NUTSx).

*Corine land cover

**Main references**

- Batista e Silva et. al (2013). Direct and Indirect Land Use Impacts of the EU Cohesion Policy Assessment with the Land Use Modelling Platform Contact information. [http://doi.org/10.2788/60631](http://doi.org/10.2788/60631)

**More information**


**Responsibility and ownership**: European Commission, Joint Research Centre

**Productivity of built-up areas**
Indicator definition

Land productivity compares the total economic output (GDP) to the size of the built-up areas (this includes residential area, industrial/commercial land, green urban areas, sport and leisure facilities). The indicator presents data for the year 2010, and the net changes in a short term period (2010 - 2020) and in a long term period (2010 - 2050), for all EU 28 Member States in GDP Million euros (volumes in constant prices of year 2010) per Km².

Units: EUR per km

Spatial coverage: NUTS0 and NUTS2

Temporal coverage: 2010, 2020, 2030, 2040 and 2050

Methodology

The 'productivity of the built-up areas' is defined as the Gross Domestic Product divided by the surface of built-up areas (Km²). Built-up areas are the sum of the land uses classified as urban fabric, including CLC11X residential (continuous and discontinuous), CLC121 industrial/commercial land, and CLC 14X green urban areas, sport and leisure facilities. Ideally, the productivity of land should be expressed in purchasing power standards (PPS) to facilitate comparisons of productivity of built-up area between countries during one time period. However, the projected GDP figures were available only expressed in GDP Million euros (volumes in constant prices of year 2010) and the conversion of the GDP was not possible with the projected data available.

*Corine land cover

Main references


More information


Responsibility and ownership: European Commission, Joint Research Centre

Built-up area per person

Indicator definition

The built-up area per inhabitant measure the land consumption by comparing the size of the built-up
areas with the population. The indicator presents data for the year 2010, and the net changes in a short term period (2010 -2020) and in a long term period (2010 - 2050), for all EU 28 Member States.

**Units**: square metres per person

**Spatial coverage**: NUTS0 and NUTS2

**Temporal coverage**: 2010, 2020, 2030, 2040 and 2050

**Methodology**

The 'built-up areas' in km$^2$ is the total sum of the land uses classified as urban fabric including, CLC11X residential (continuous and discontinuous), *CLC121 industrial/commercial land, and CLC 14X green urban areas, sport and leisure facilities.

*Corine land cover

**Main references**


**More information**


**Responsibility and ownership**: European Commission, Joint Research Centre


**Links**
