

# Soil sealing index (sdg\_11\_32)

ESMS Indicator Profile (ESMS-IP)

Compiling agency: Eurostat, the  
statistical office of the European Union

## Eurostat metadata

### Reference metadata

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## Eurostat Quality Profile

<a href="#">4.5. Source data</a>	European Environment Agency (EEA)
<a href="#">5.1. Frequency of dissemination</a>	Every 3+ years
<a href="#">5.2. Timeliness</a>	> T+2 years
<a href="#">6.1. Reference area</a>	All EU MS
<a href="#">6.2. Comparability - geographical</a>	All EU MS
<a href="#">6.3. Coverage - Time</a>	> 10 years
<a href="#">6.4. Comparability - over time</a>	> 4 data points

Description of Eurostat quality grading system under the following [link](#).

For any question on data and metadata, please contact: [Eurostat user support](#)

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## 1. Contact

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<b>1.1. Contact organisation</b>	Eurostat, the statistical office of the European Union
<b>1.2. Contact organisation unit</b>	E2: Environmental statistics and accounts; sustainable development
<b>1.5. Contact mail address</b>	e-mail contact: <a href="mailto:ESTAT-SDG-MONITORING@ec.europa.eu">ESTAT-SDG-MONITORING@ec.europa.eu</a>

## 2. Metadata update

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<b>2.1. Metadata last certified</b>	26/03/2023
<b>2.2. Metadata last posted</b>	12/06/2024
<b>2.3. Metadata last update</b>	08/05/2024

### 3. Relevance

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The indicator is part of the EU Sustainable Development Goals (SDG) indicator set. It is used to monitor progress towards SDG 11 on making cities and human settlements inclusive, safe, resilient and sustainable and towards SDG 15 on protecting, restoring and promoting sustainable use of land; which are both embedded in the European Commission's Priorities under the European Green Deal.

SDG 11 aims to renew and plan cities and other human settlements so that they offer opportunities for all, with access to basic services, energy, housing, transportation, green public spaces and others, while improving resource use and reducing environmental impacts.

SDG 15 seeks to protect, restore and promote the conservation and sustainable use of terrestrial, inland-water and mountain ecosystems. This includes efforts to sustainably manage forests and halt deforestation, combat desertification, restore degraded land and soil, halt biodiversity loss and protect threatened species.

The [Soil Strategy for 2030](#) has set a goal of no net land take by 2050.

### 4. Statistical Indicator

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#### 4.1. Data description

The indicator estimates the increase in sealed soil surfaces with impervious materials due to urban development and construction (e.g. buildings, constructions and laying of completely or partially impermeable artificial material, such as asphalt, metal, glass, plastic or concrete). This provides an indication of the rate of soil sealing, when areas change land use towards artificial and urban land use. The indicator builds on data from the imperviousness High Resolution Layer (a product of the Copernicus Land Monitoring Service). The indicator is presented in the following units: Index 2006=100 % of total surface total sealed surface in km<sup>2</sup>

#### 4.2. Unit of measure

Index 2006 = 100  
% of total area  
km<sup>2</sup> sealed surface

#### 4.3. Reference Period

Calendar year

#### 4.4. Accuracy - overall

The amount of soil sealing was modelled on a 1km grid for all reference years, by making use of visually interpreted reference measurements and a non-linear regression function. The accuracy of all layers in the time series reached over 90%.

#### 4.5. Source data

**European Environment Agency (EEA)**

Data source: [Copernicus land monitoring services](#)

Data provider: European Environment Agency (EEA)

### 5. Frequency and Timeliness of dissemination

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#### 5.1. Frequency of dissemination

Every 3+ years

Data are disseminated every 3 years.

## 5.2. Timeliness

### > T+2 years

New data points are normally disseminated within three years after the reference year.

## 6. Coverage and comparability

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### 6.1. Reference area

#### All EU MS

All EU Member States plus Iceland, Liechtenstein, Norway, Switzerland, Bosnia and Herzegovina, Montenegro, North Macedonia, Albania, Serbia, Turkey and Kosovo.

### 6.2. Comparability - geographical

#### All EU MS

Data are comparable between all EU Member States and the other presented countries.

### 6.3. Coverage - Time

#### > 10 years

Presented time series (including EU aggregates) starts in 2006.

### 6.4. Comparability - over time

#### > 4 data points

Length of comparable time series without methodological break is longer than 4 data points.

## 7. Accessibility and clarity

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### 7.1. Dissemination format - Publications

Analysis of indicator is presented in Eurostat's annual monitoring report on Sustainable development in the EU (progress towards SDGs in the EU context).

### 7.2. Dissemination format - online database

see table [sdg\\_11\\_32](#)

### 7.3. Dissemination format - other

Eurostat dedicated section on SDGs: <http://ec.europa.eu/eurostat/web/sdi/overview>

## 8. Comment

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[External data and metadata](#)

[European Environment Agency Datahub, Soil Sealing Index](#)

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