

Navigating Urban Landscapes: Unveiling Green and Blue Infrastructure through Strategic Mapping

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City growth impact: As cities expand, the pressure on natural ecosystems grows.

Conflicting Demands: Urban and peri-urban areas face competing needs, leading to:

- Fragmented green infrastructure
- Disrupted links between rural and urban zones

Call for Action:

- UN SDGs: Emphasizes accessible and inclusive green urban areas (SDG 11.3).
- EU Biodiversity Strategy 2030: Urges for greener urban spaces.
- Nature Restoration Law (2024)

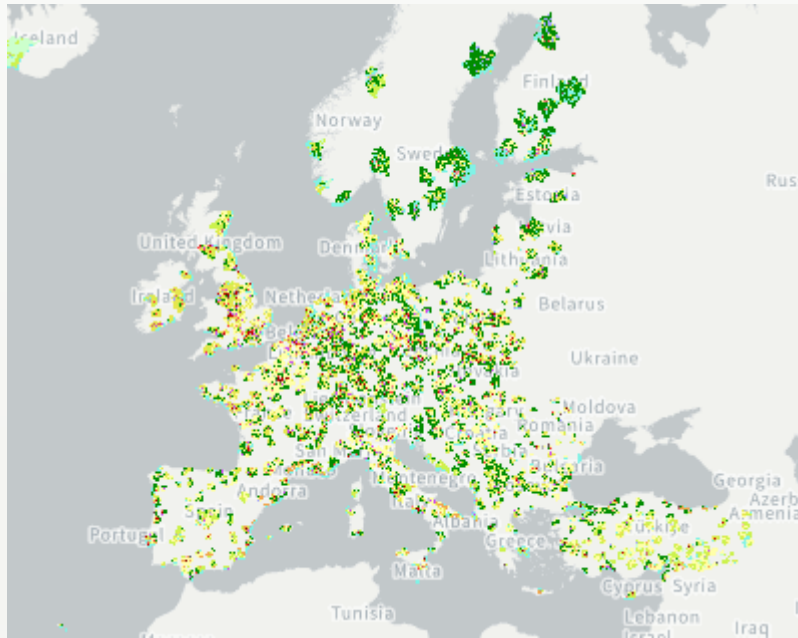
Need for tools (at European level)

- Assess the evolution of green spaces
- Characterise green spaces (use, composition,...)
- Evaluate the impact of actions (implementation of NBS)
- Use & reuse of available data: coherence, comparability, continuity and reproducibility across Europe

Need for a systematic approach

There is still a significant lack of comparable knowledge and data regarding the status of green and blue spaces in Europe's urban areas and their functional links to ecosystem services (ES).

Copernicus Urban Atlas



788 cities > 50,000 inhabitants
(2012, 2018, 2021)

Land use/land cover for 17 urban
classes, including **green urban
areas** (parks)

Minimum mapping unit 0,25 ha

Additional attributes: population,
building block height, street tree
layer

2012, 2018, 2021

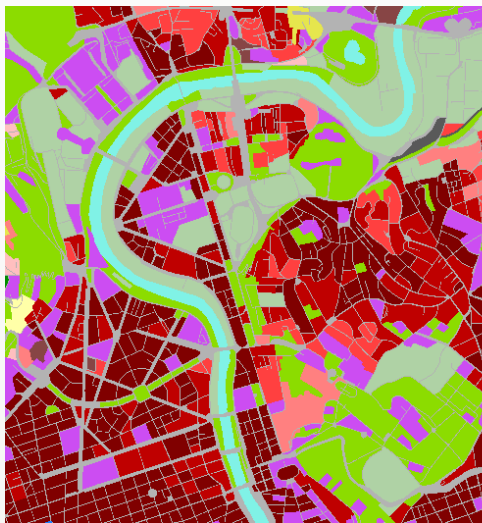
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Copernicus CLMS

Combining data: land use, HR thematic information

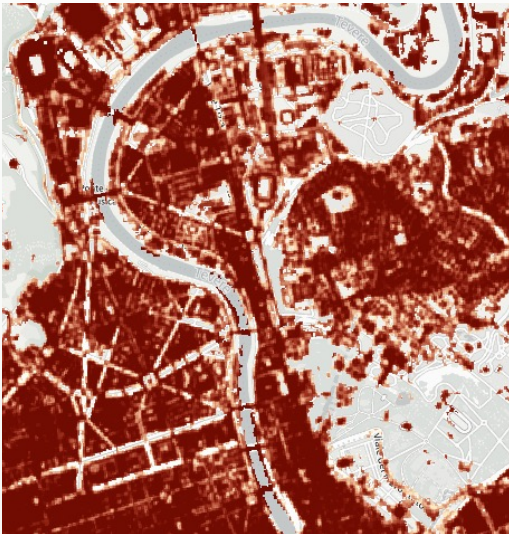


Urban Atlas



MMU 0,25 ha
2012, 2018, 2021

HR Imperviousness



10 m
2012, 2015, 2018, 2021

HR Tree cover density



10 m
2012, 2015, 2018, 2021

Street Tree Layer

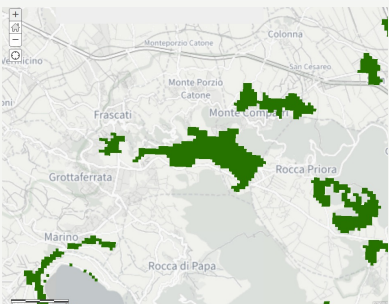


MMW 10 m, contiguous patches 500 m²
2012, 2018, 2021

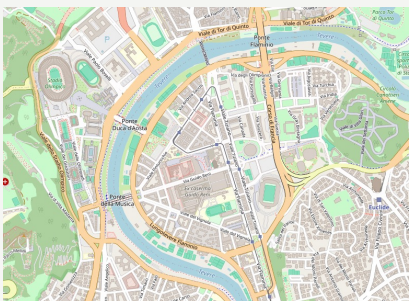
Copernicus
CLMS

High nature
value farmland

100 m
2012



Open street
map



Ancillary
datasets



Urban Atlas

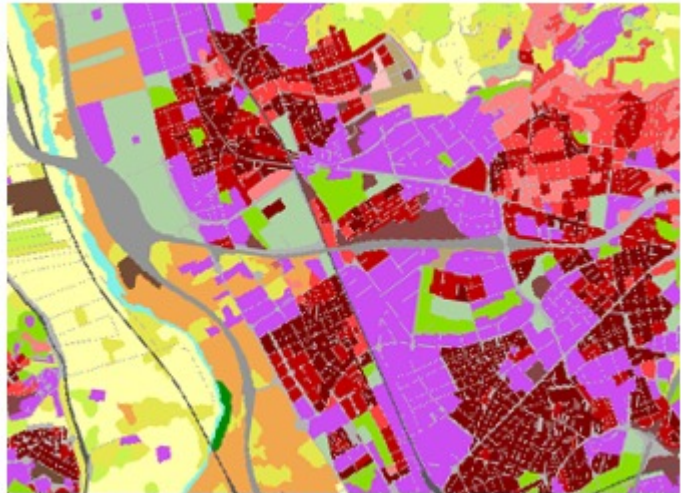
Imperviousness

Street tree layer
Tree cover density

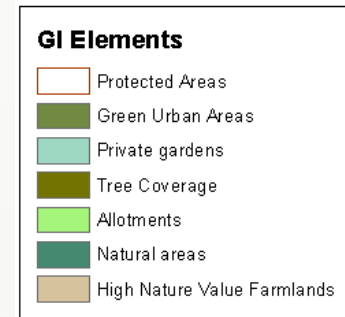
HNV farmland

A map showing HNV farmland as green patches on a grey background. The green areas are irregularly shaped and scattered across the landscape.

788 maps (raster geotiffs) for each FUA



788 Functional Urban Areas (FUA) with more than 50,000 inhabitants in EEA38 countries & the UK



Downloadable from:

<https://sdi.eea.europa.eu/catalogue/srv/eng/catalog.search#/metadata/36778099-d630-498d-bc6e-3cd92edd99c1>



And an analytical dashboard:

<https://www.eea.europa.eu/en/analysis/maps-and-charts/urban-green-infrastructure-2018-dashboards>



Eua Name =



EU27+UK

Country

(Multiple values)

city or commuting zone

(All)

Sort by value

TOTAL green infrastructure

Sort order

Descending

GI component

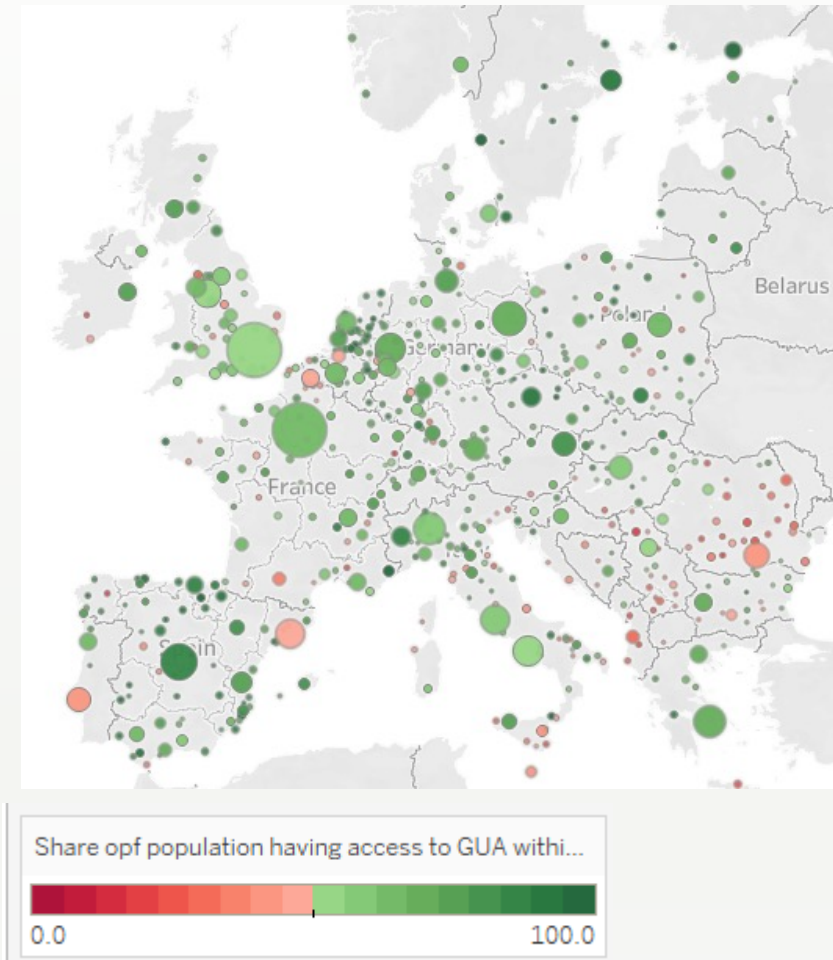
- Water & wetlands
- HNV farmland
- Allotments
- Private gardens
- Sport and leisure
- Natural and semi-natural
- Trees (street trees, isolated ...)
- Green urban areas

City or commuting zone

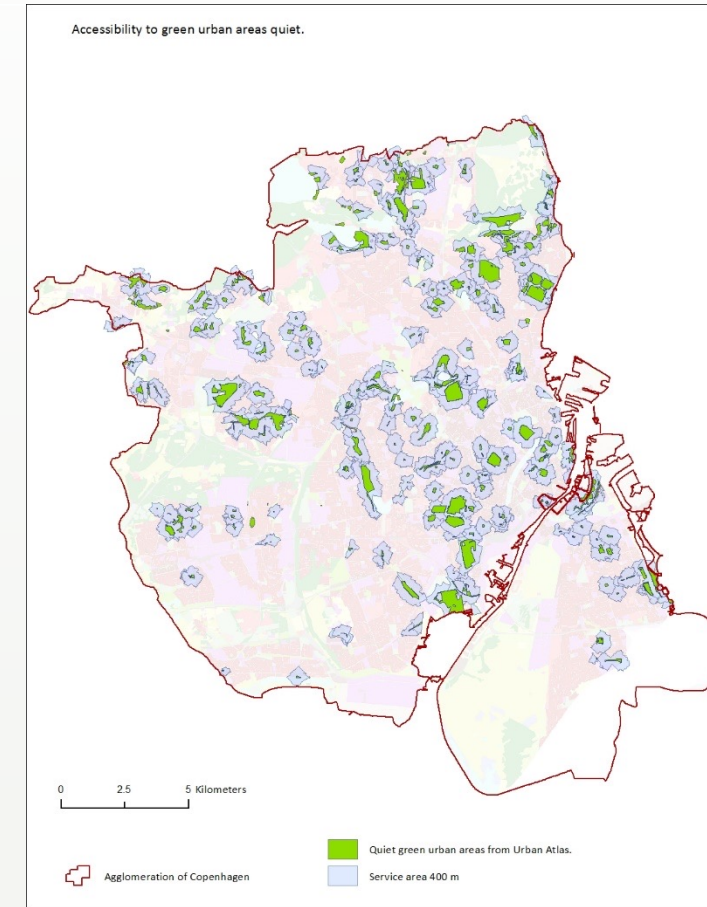
(All) ▼



- **Accessibility to green and public areas within 400 m walking distance.** Extend the methodology developed by Poelman et al. (DG Regio) to all publicly accessible green areas



- **Green and quiet areas.** The Environmental Noise Directive requires the protection of areas unaffected by environmental noise.
- Assessing the resilience of the vegetation to face extreme weather conditions (e.g. droughts)
 - CLMS High Resolution Vegetation Phenology and Productivity
 - Change of growing season
 - Impact of droughts
 - Productivity



Thanks!

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