

Transport Poverty Hub: Mapping accessibility for social and territorial cohesion in the EU

European Commission – Joint Research Centre (JRC.C6)

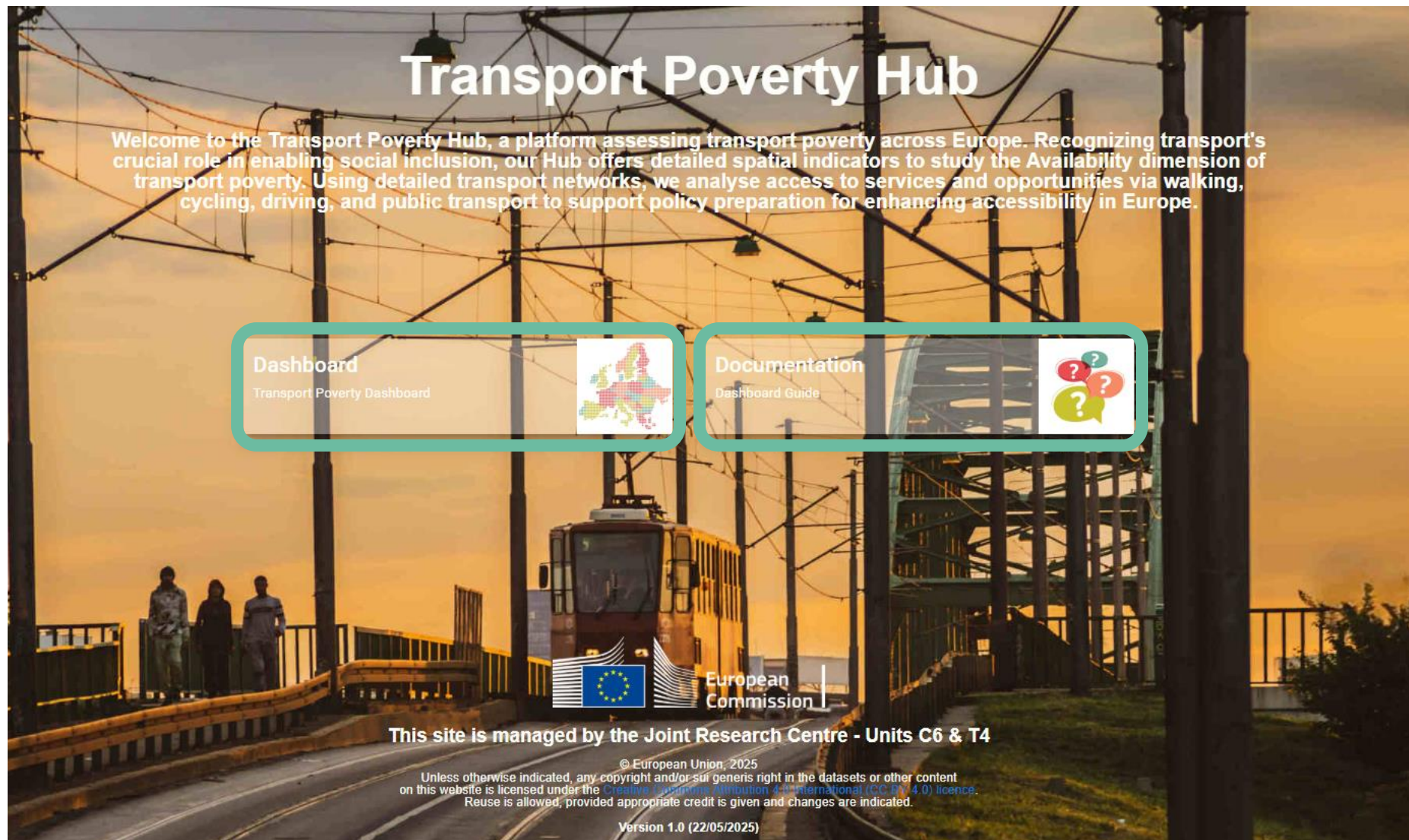
Alessandro Giordano

October 8th, 2026

NAP Users Multimodal Forum

Disclaimer: The content of this presentation and views expressed are purely those of the authors and may not in any circumstances be regarded as stating an official position of the European Commission.

Transport Poverty Hub



The screenshot shows the Transport Poverty Hub website. The background is a photograph of a tram on a bridge at sunset. The website has a white header with the title 'Transport Poverty Hub' and a welcome message. Below the header are two main navigation buttons: 'Dashboard' and 'Documentation'. The 'Dashboard' button has a map of Europe icon, and the 'Documentation' button has a speech bubble icon. At the bottom, there is a European Commission logo and a management statement.

Transport Poverty Hub

Welcome to the Transport Poverty Hub, a platform assessing transport poverty across Europe. Recognizing transport's crucial role in enabling social inclusion, our Hub offers detailed spatial indicators to study the Availability dimension of transport poverty. Using detailed transport networks, we analyse access to services and opportunities via walking, cycling, driving, and public transport to support policy preparation for enhancing accessibility in Europe.

Dashboard
Transport Poverty Dashboard

Documentation
Dashboard Guide

 European Commission

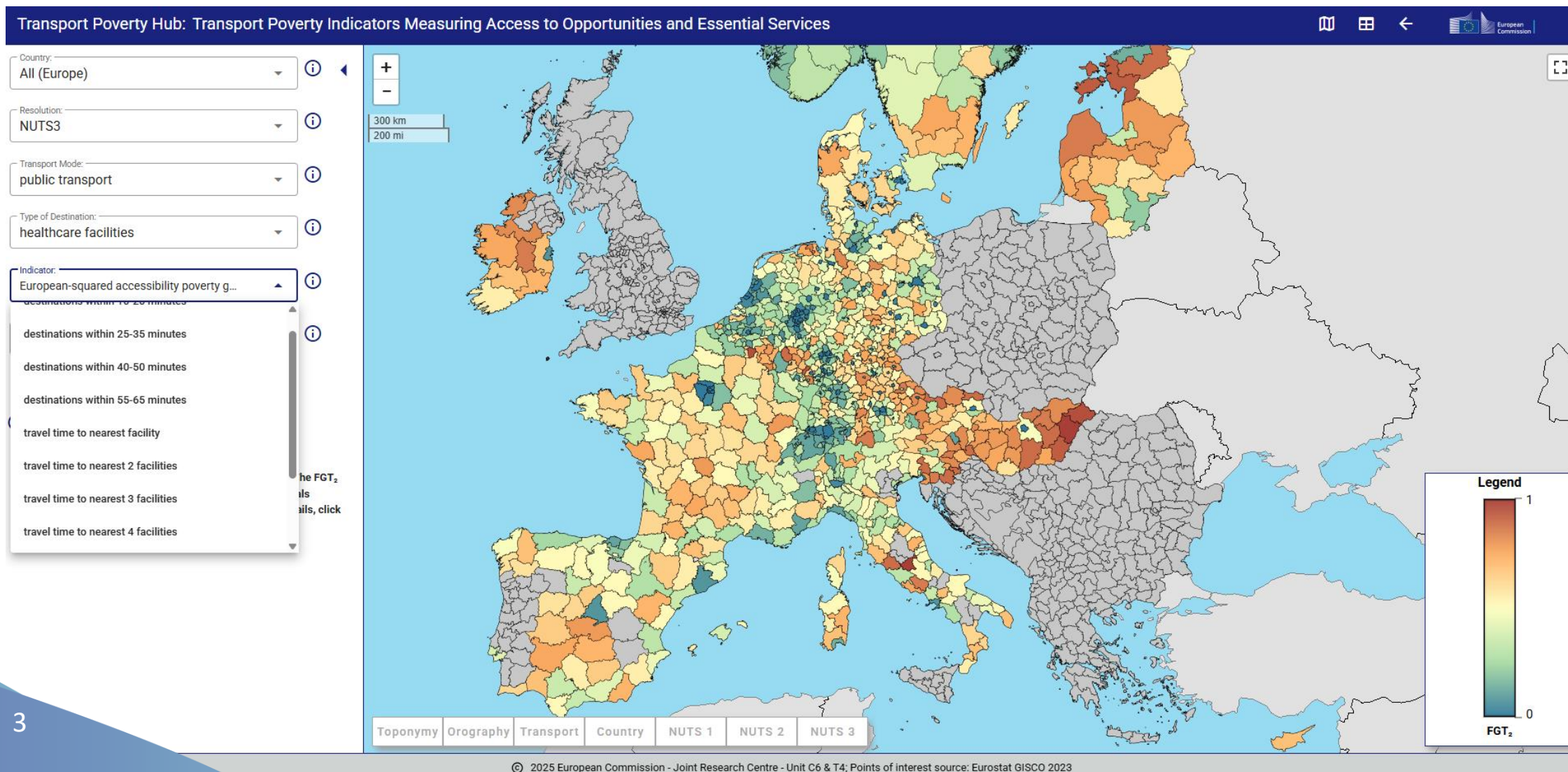
This site is managed by the Joint Research Centre - Units C6 & T4

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Version 1.0 (22/05/2025)

Transport Poverty Hub: Dashboard

[Transport Poverty Hub](#)



Transport Poverty Hub: A portal mapping transport poverty in Europe

[Transport Poverty Hub](#)



First platform measuring accessibility and transport poverty relevant indicators at both high-resolution and pan-European scale



The Hub was launched on 22/5/2025 and is accessible through the EU-Login

Enabled download of selected results in CSV format and as PNG images

Need for high-resolution spatial analyses at pan-European level

The Hub aims at supporting the preparation of strategies addressing transport poverty –including the [Social Climate Plans](#) and the [EU Anti-Poverty Strategy](#)

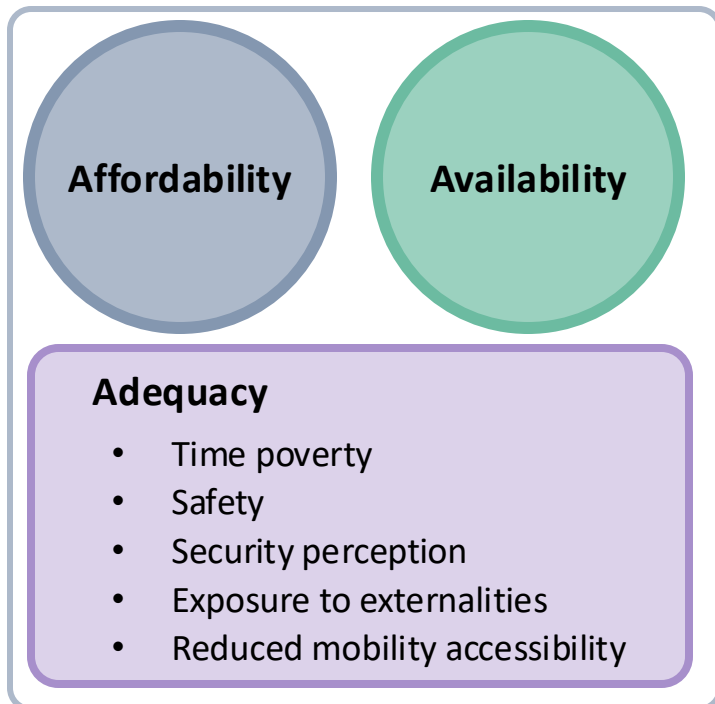
- [Transport Poverty Hub](#) launched together with the [EC Recommendation on transport poverty](#)
- [Accessibility analyses](#) to assess how the transport system works for the people it serves, to support the [EU Fair Transition Observatory](#) and [European Semester](#) activities



May 22nd 2025 (MOVE)

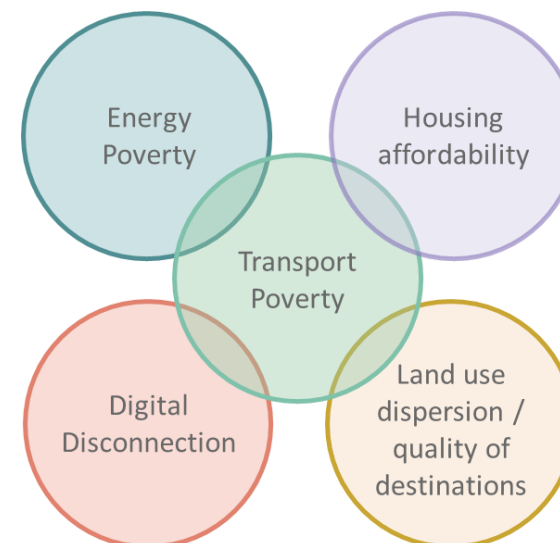
Transport Poverty: a multi-dimensional problem

Accessibility



Transport poverty multi-dimensional complexity,
Cludius et al. (2024)*

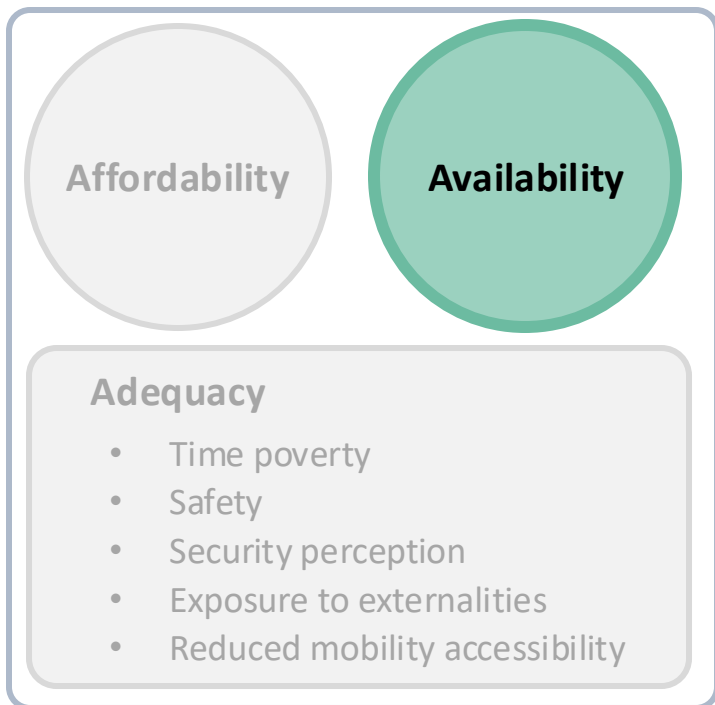
- Double vulnerabilities



Considering a **single composite indicator** of Transport Poverty **risks obscuring** the multidimensionality of the problem and possible **trade-offs** between the different dimensions

Focus on Accessibility and Availability dimension

Accessibility



Transport poverty multi-dimensional complexity,
Cludius et al. (2024)*

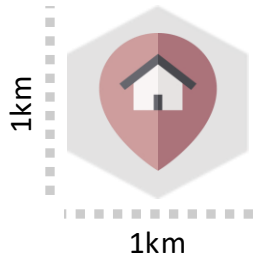
- Focus on the **Availability** and **Accessibility** dimensions
- Accessibility indicators included in the Dashboard:
 - Number of reachable destinations within fixed travel time thresholds
 - Travel time to the nearest (predefined number of) destinations
 - Normalised indicator measuring extent and severity of transport poverty

Results are provided at varying levels of spatial resolution

Aggregation at administrative level (LAU 2023, NUTS 2024)

Results produced at

↓
1km² populated
grid cells
GISCO 2021
(June 2024 release)



Local Administrative Units (LAU)



NUTS 3



NUTS 2

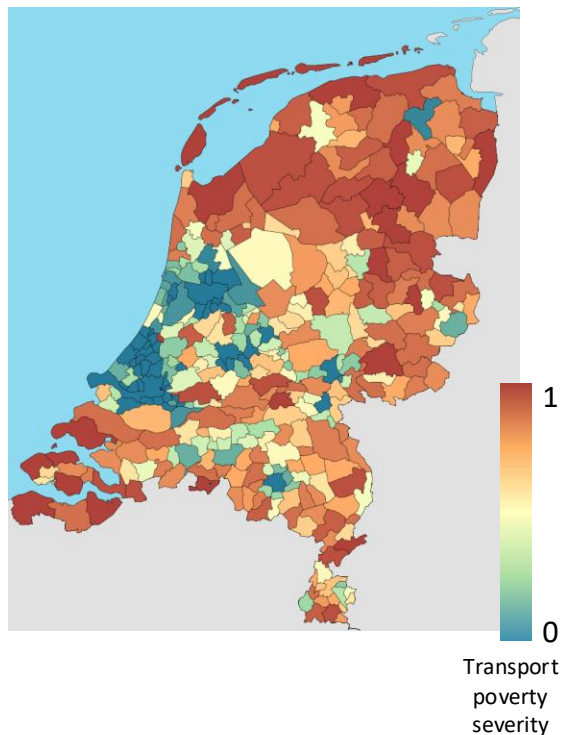


NUTS 1

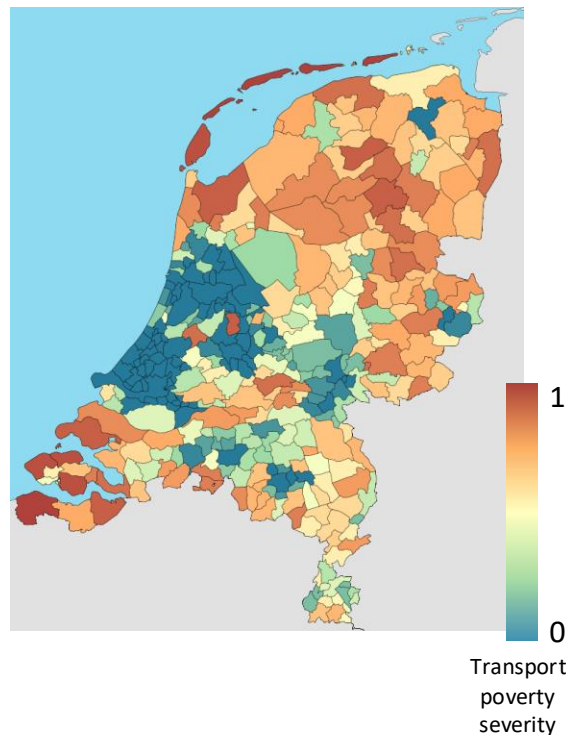


Statistical aggregations of grid-level results for LAU and NUTS resolutions

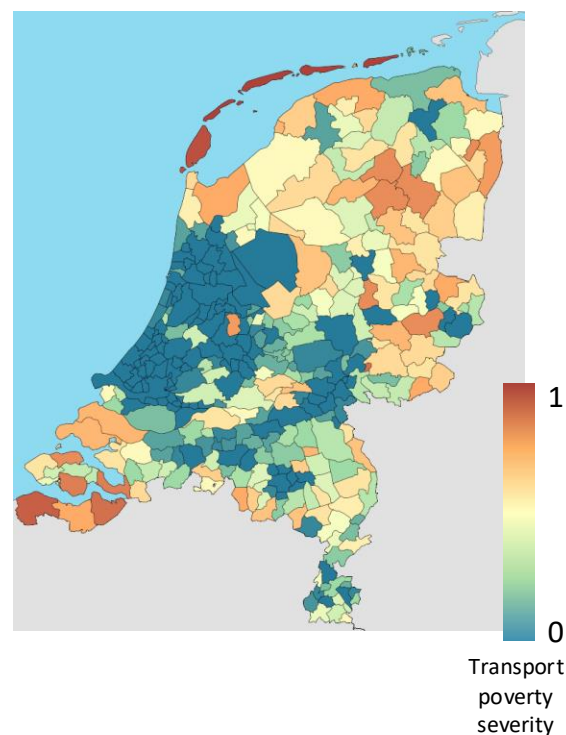
Bottom 20th percentile



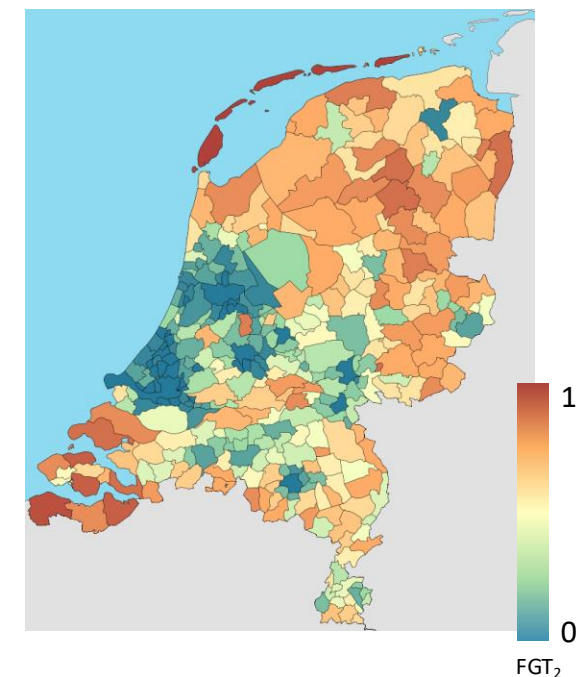
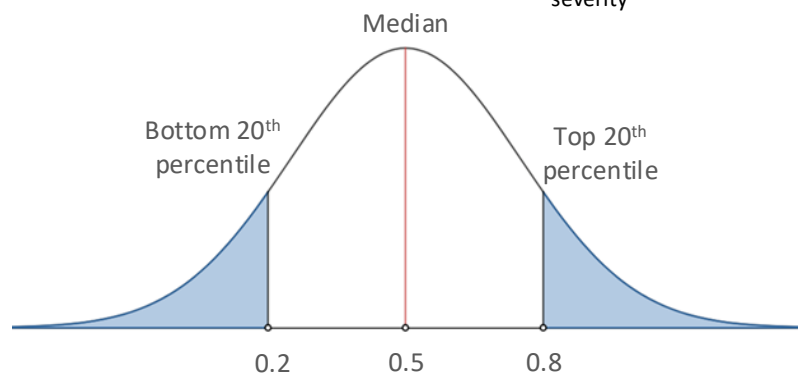
Median



Top 20th percentile



Average

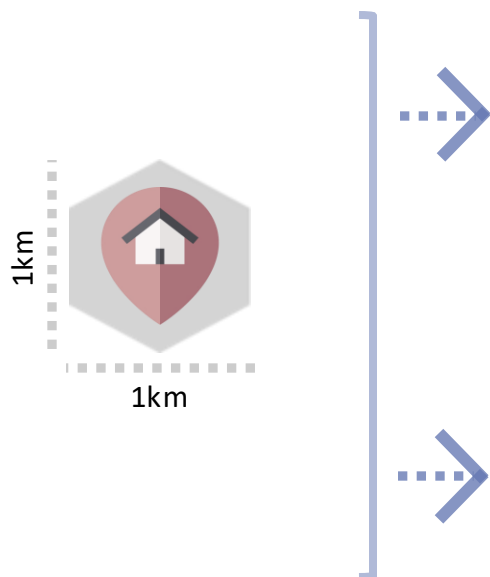


Distribution of 1km² results
within each LAU aggregation
(population weighted)

Results consist in measuring access to essential services and opportunities for four modes of transport

Origins (O)

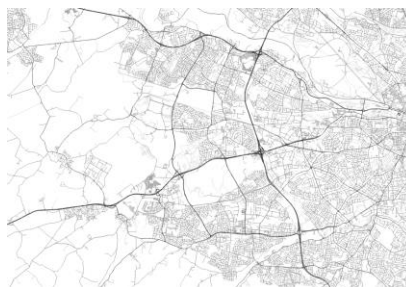
Resident
population



Earliest-arrival routing solutions

Networks (four transport modes)

Road networks

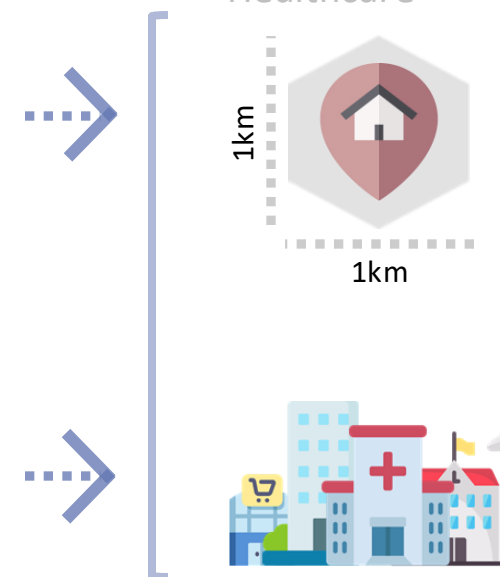


Multimodal public transport
network



Destinations (D)

- People
(Opportunities)
- Primary schools
- Healthcare



GISCO data on origins

- Resident population – pan European (GISCO 2021, GISCO 2018)



Where people



○ 100 m² – 1 km² (+ degree of urbanisation at 1 km²): GISCO [2018, 2021]

Populated grid
cells 1 km²:
~ 2 000 000

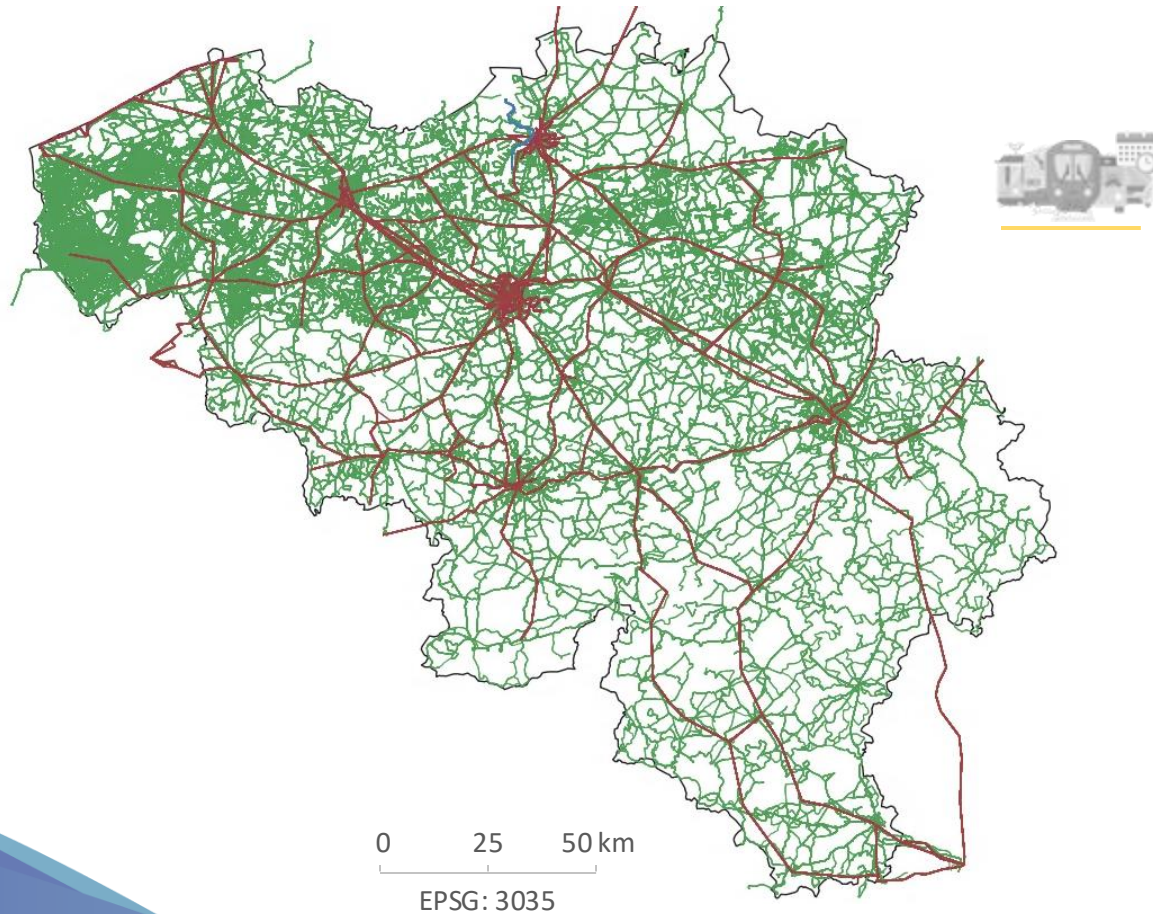
→ Including the UK, Iceland, and
Balkans (from GISCO 2018)

Populated grid
cells 100 m²:
~ 34 000 000

→ Only EU Member States, plus Norway and
Switzerland (i.e., same data coverage of
GISCO 2021 at 1km²)



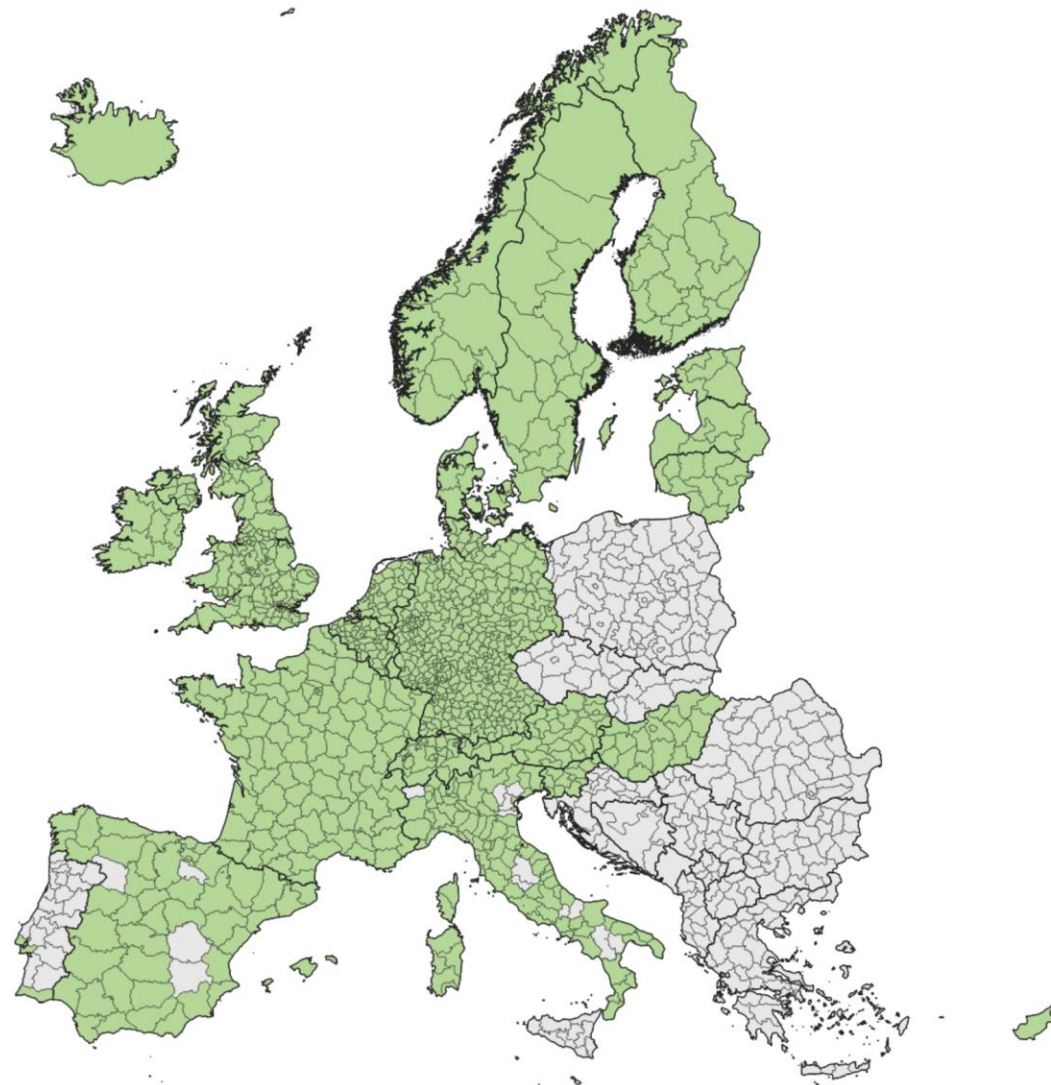
Routing over detailed public transport networks



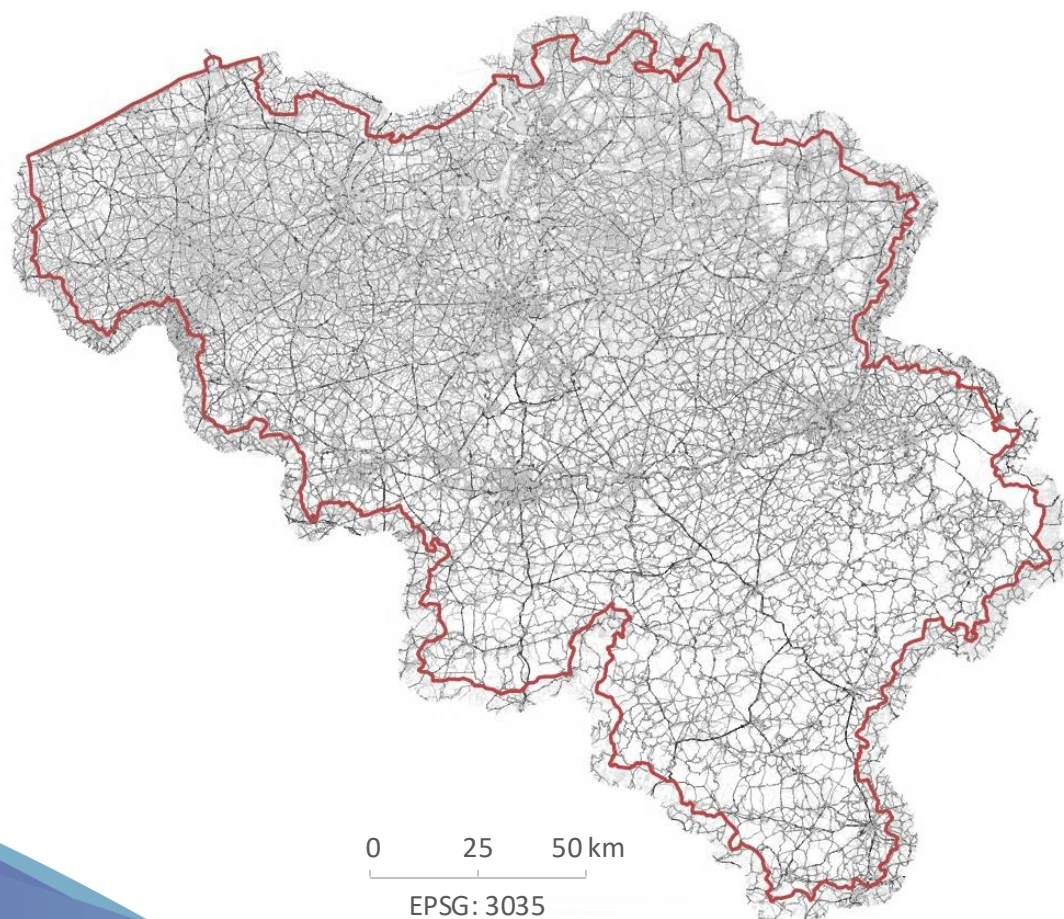
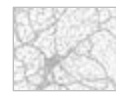
Public transport networks (from [National Access Points](#))

- Static schedule data (GTFS or NeTEx)
- Time window: (e.g.,) **7:30-9:30 a.m.** (specific weekday dates)
- Multimodality: long-distance coaches, urban buses, trams, metros, trains, ferries, on-demand buses,.. (+ short walks of 1-2km)
- **Earliest arrival** routing solver (VelociRaptor)

Public transport network data coverage from National Access Points



Routing over detailed road networks



Road networks

- TomTom MultiNet: 2023 onwards (implemented)
- OpenStreetMap: 2023 onwards (future implementation)



- Driving (+ congestion **7:00-9:00 a.m.**)



- Walking



- Cycling

- **Earliest arrival** routing solver (MATLAB, VelociRoad)



Topography



Copernicus Digital Elevation Model: 10-meter resolution (relevant for walking and cycling)

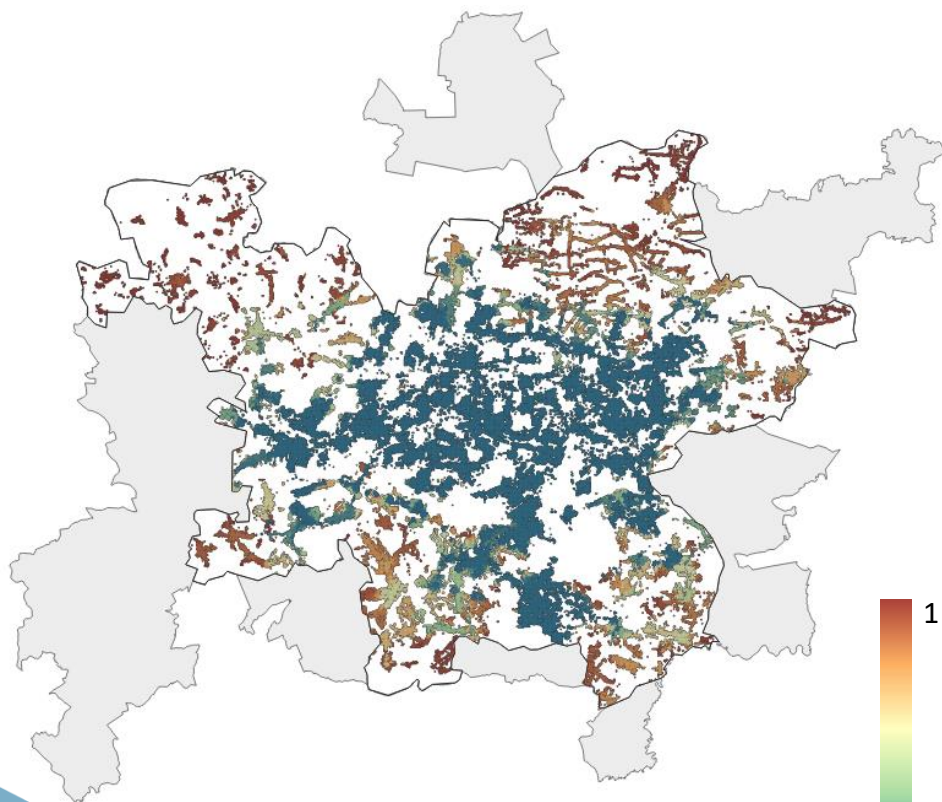
What to expect in future releases of the Transport Poverty Hub

- **Removal** of the EU-login and development of a **new platform to be released in 2027**
- Inclusion of further **accessibility indicators** and characterization of results by **degree of urbanisation**
- Inclusion of further **services or points of interest**
- Possibility to focus on specific **Cities** or **Regions**

Going at the city level (100m resolution, access to people)

KATOWICE

Public transport mode

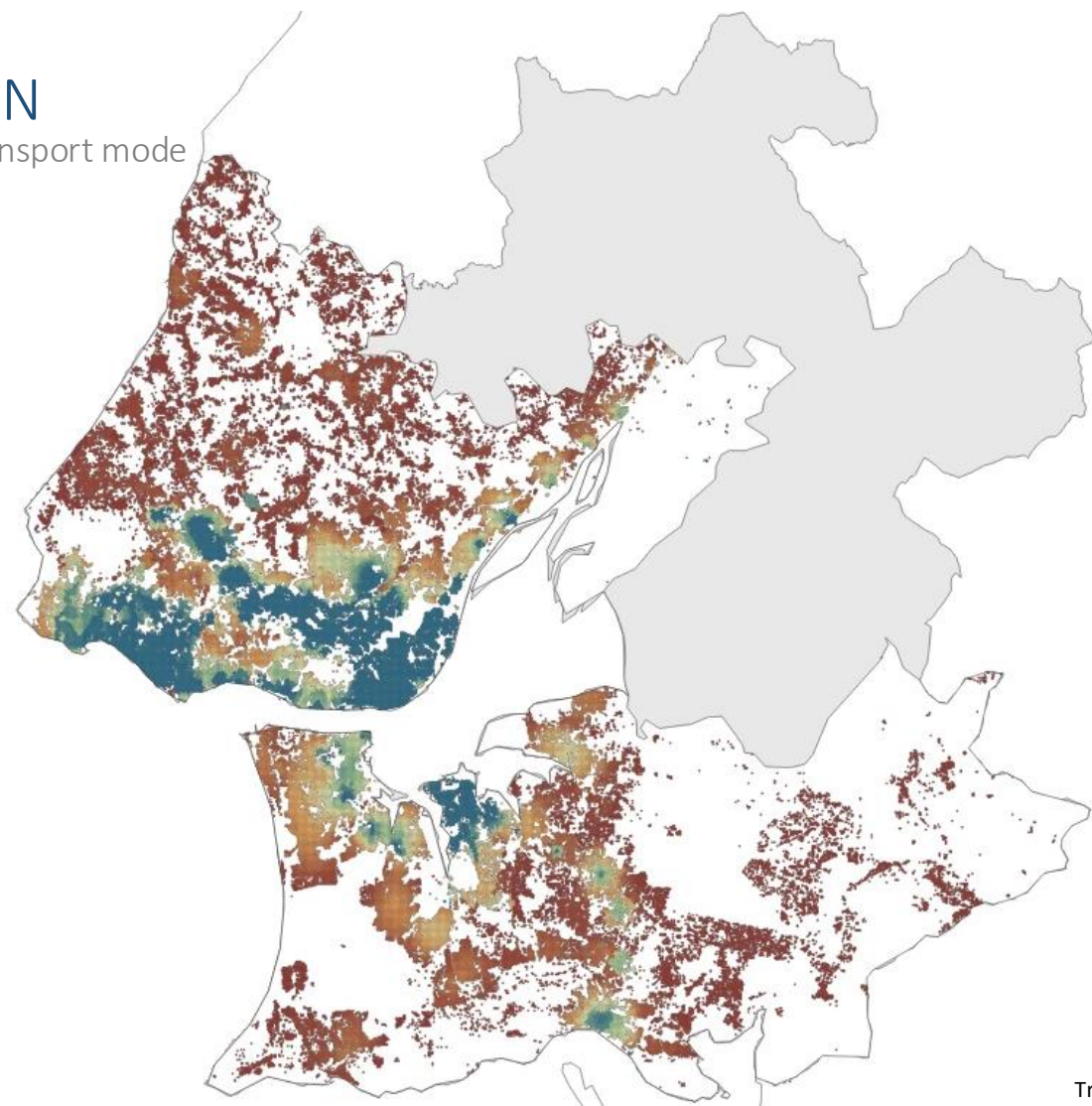


Sufficiency threshold
(set at country-level):
70,990 people

Transport
poverty
severity

LISBON

Public transport mode

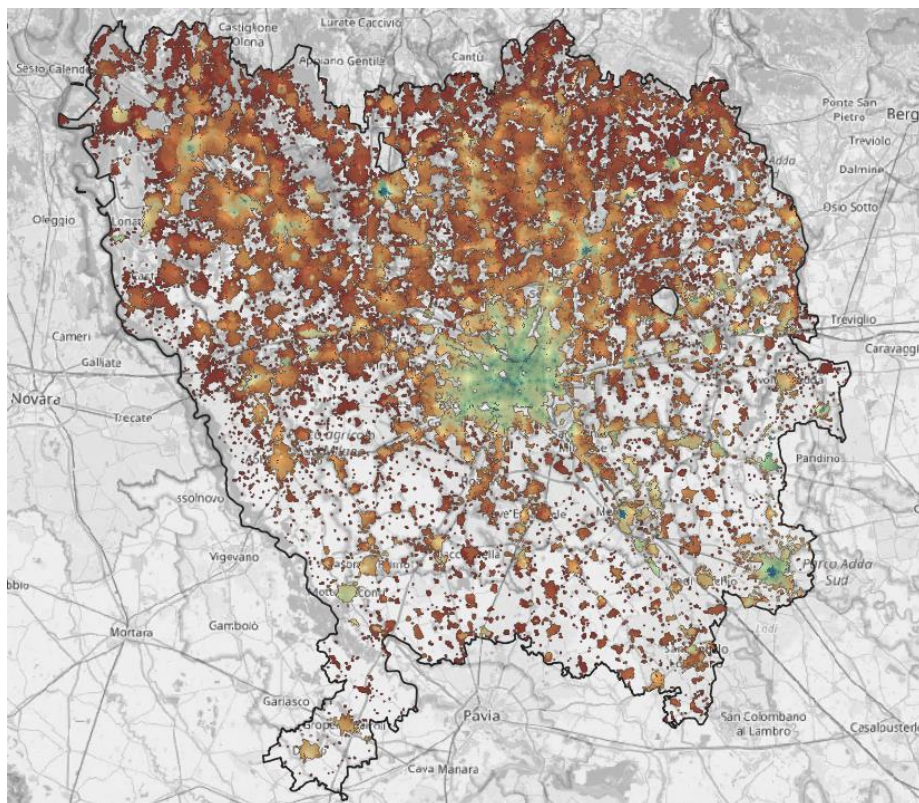


Sufficiency threshold (set at country-level):
133,890 people

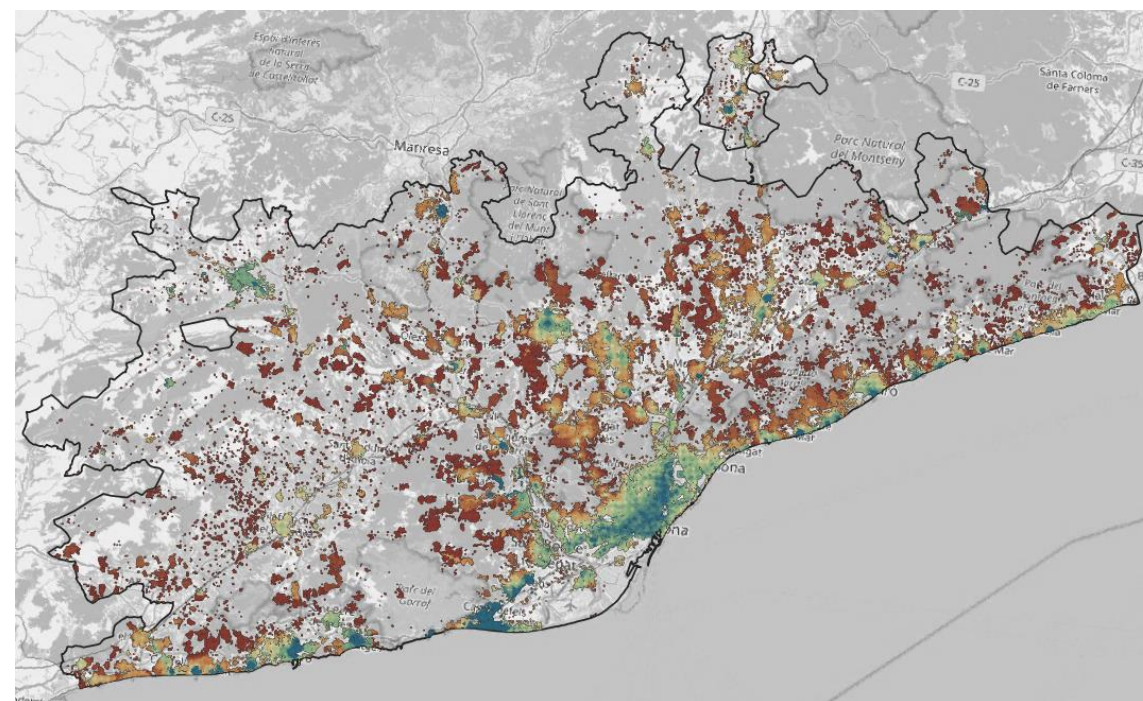
Transport
poverty
severity

Going at FUA level: performance by public transport in access to people

MILAN

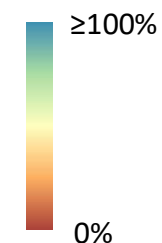


BARCELONA



People reachable in 40-50 min by public transport
Resident population in a 11 km radius

X 100



What to expect in future releases of the Transport Poverty Hub

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- Inclusion of further **services or points of interest**
- Possibility to focus on specific **Cities** or **Regions**
- **Monitoring progress** of results, and enhanced **Coverage** for public transport mode
- **Further enhancing transport modelling** targeting **specific individual profiles and network characterisations** -- e.g., punctuality, level of traffic stress, heat exposure,
- ...
Inclusion of **Affordability** and **Adequacy** dimensions

Advancements addressing the Affordability dimension of the problem in the EU (exploratory phase)

- Disadvantage overlap metrics

Personal income (ideally discounted by housing costs) + accessibility by public transport

- Vulnerability metrics

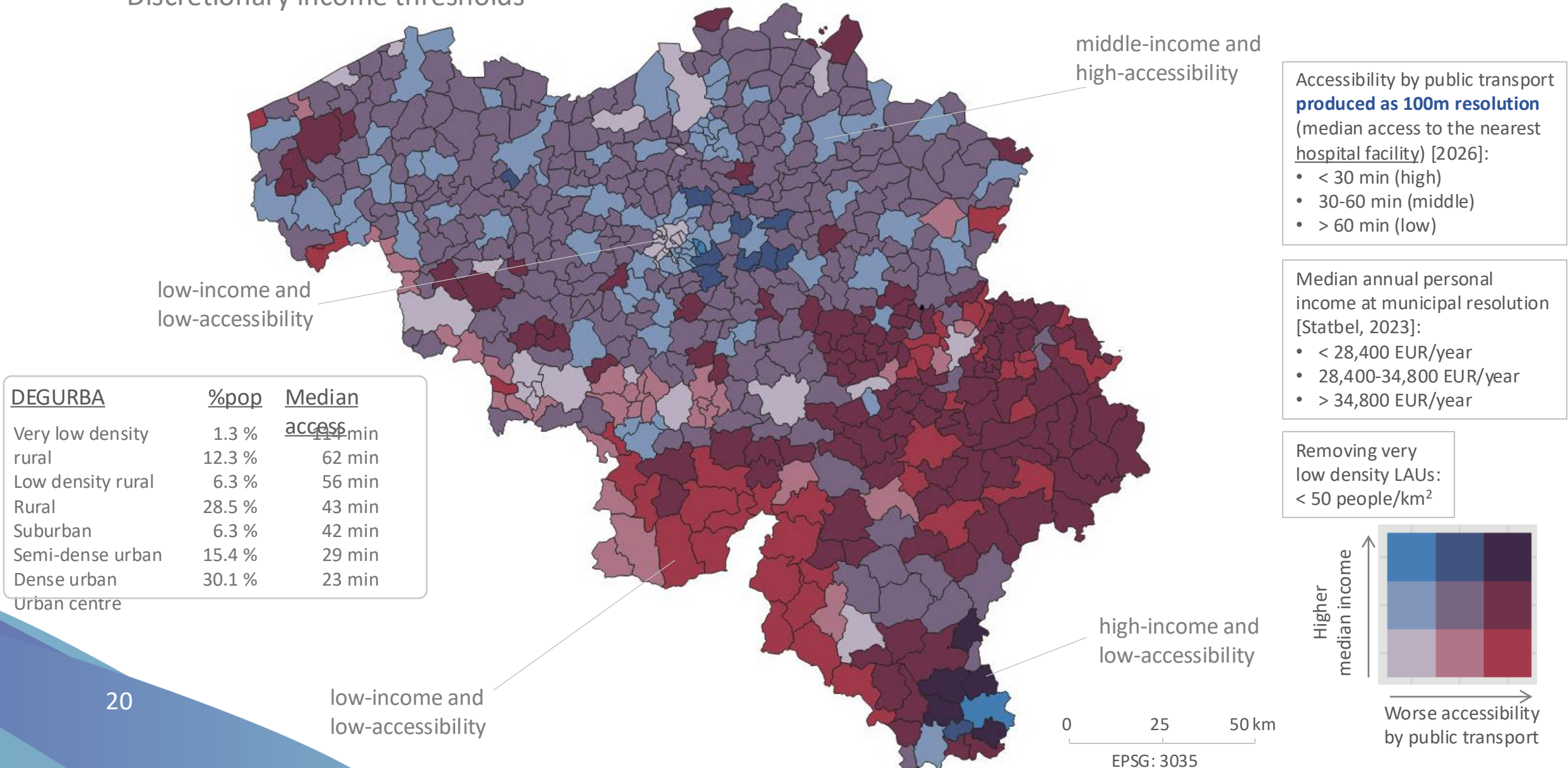
Exposure + Sensitivity + Adaptive capacity

- Cost metrics

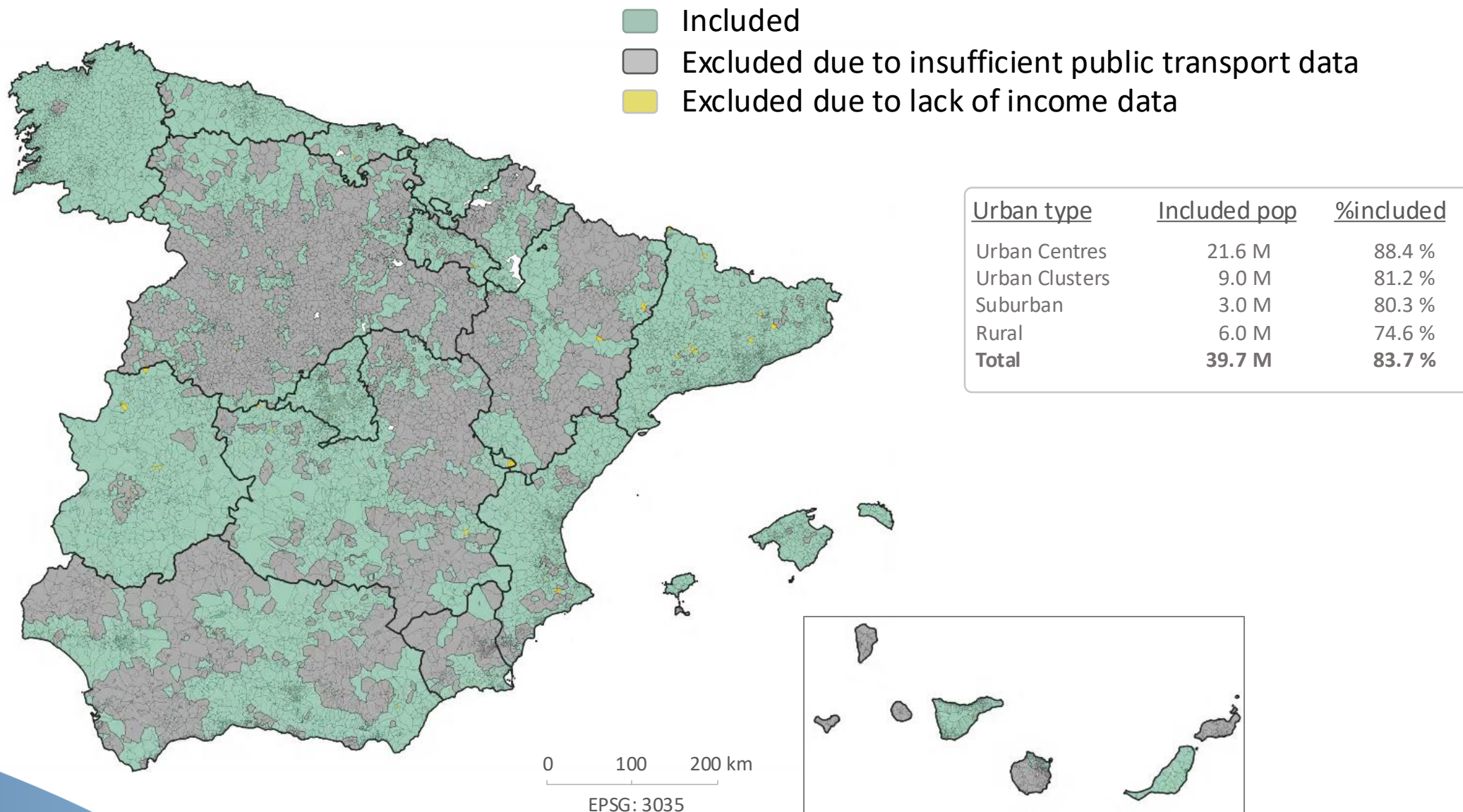
Accessibility with budget considerations or accessibility with cost minimisation

Identifying areas of low-income and low-accessibility in Belgium

Discretionary income thresholds

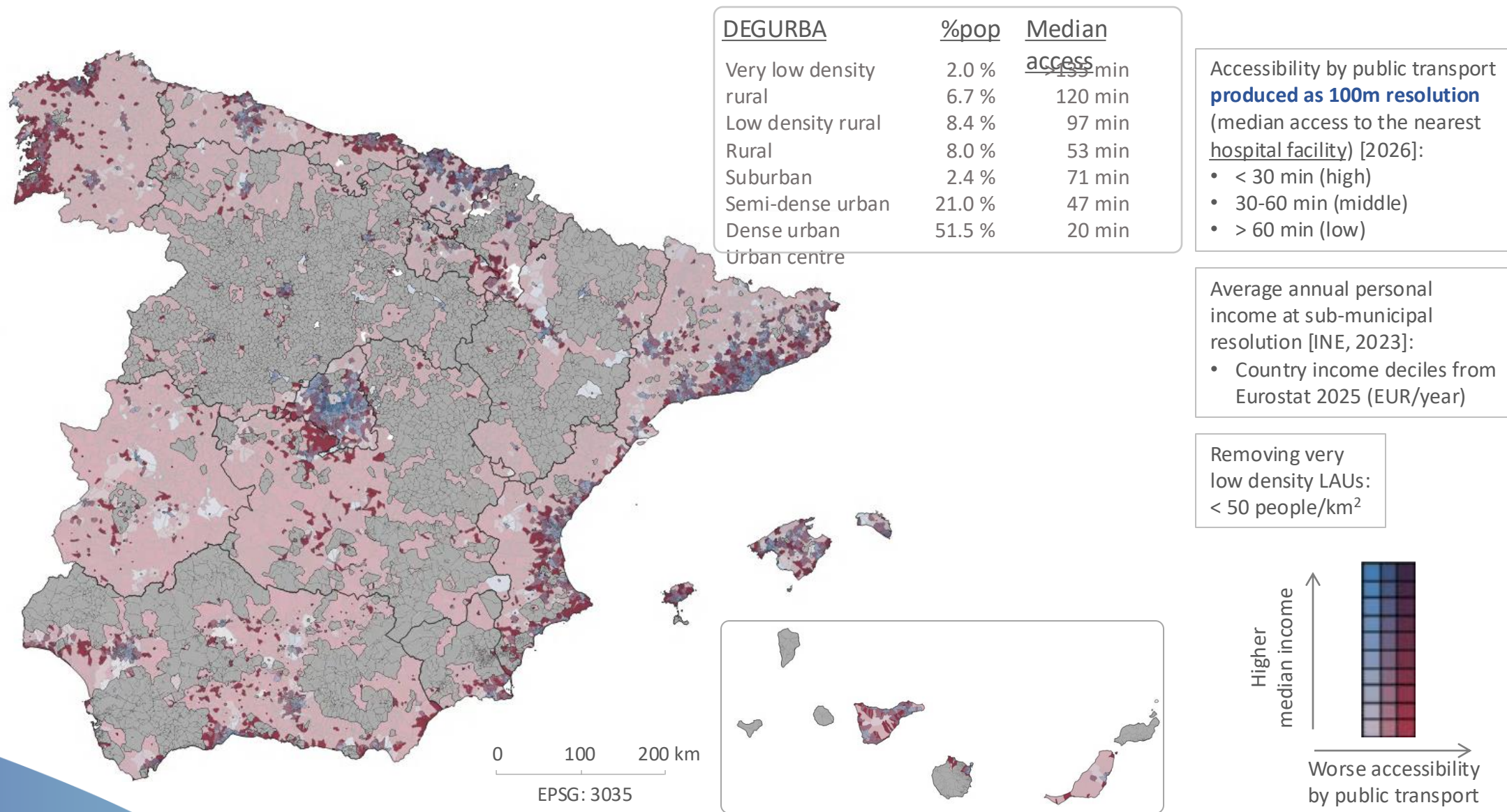


Public transport data coverage (static timetables) in Spain

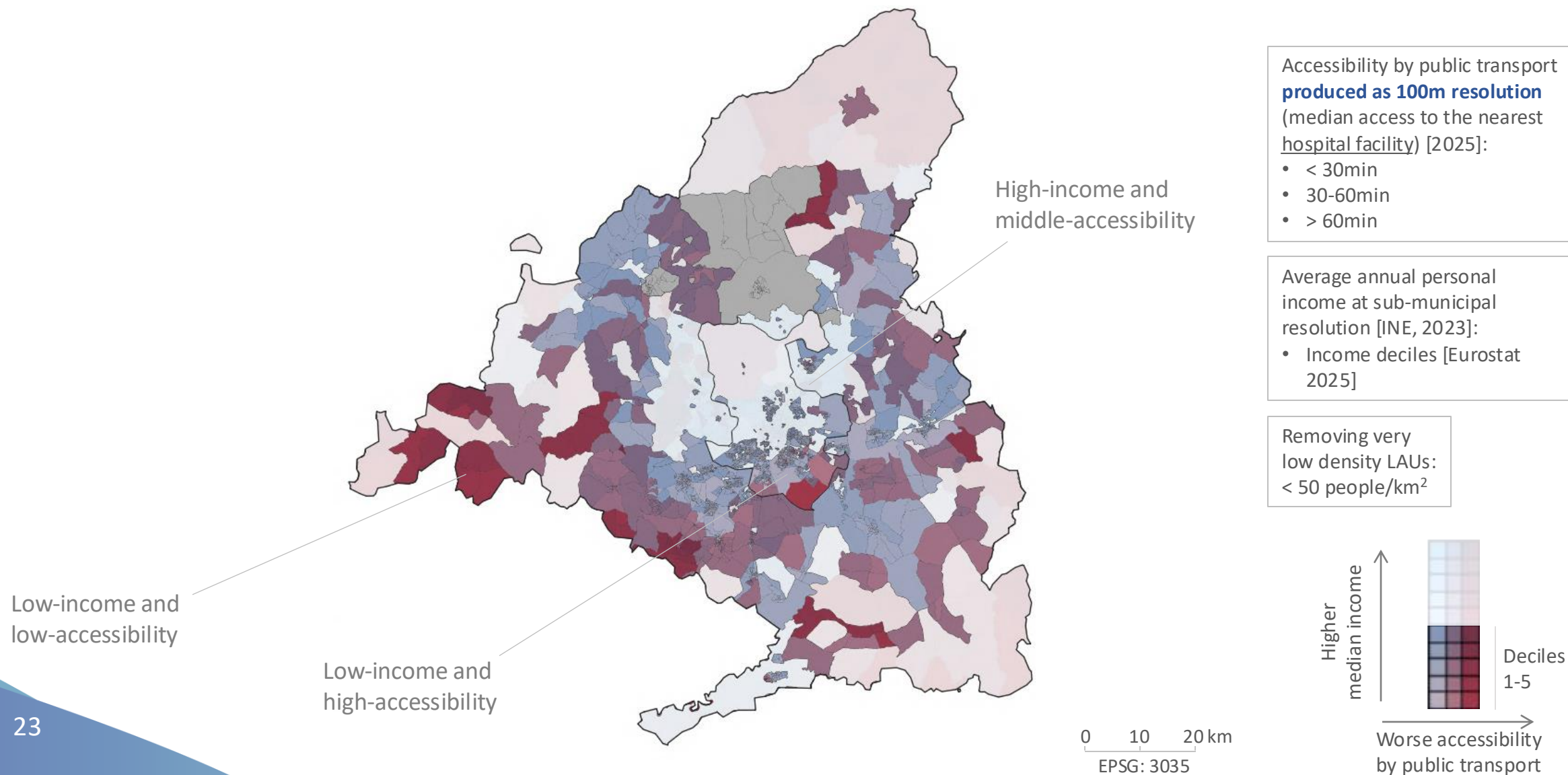


Identifying areas of low-income and low-accessibility in Spain

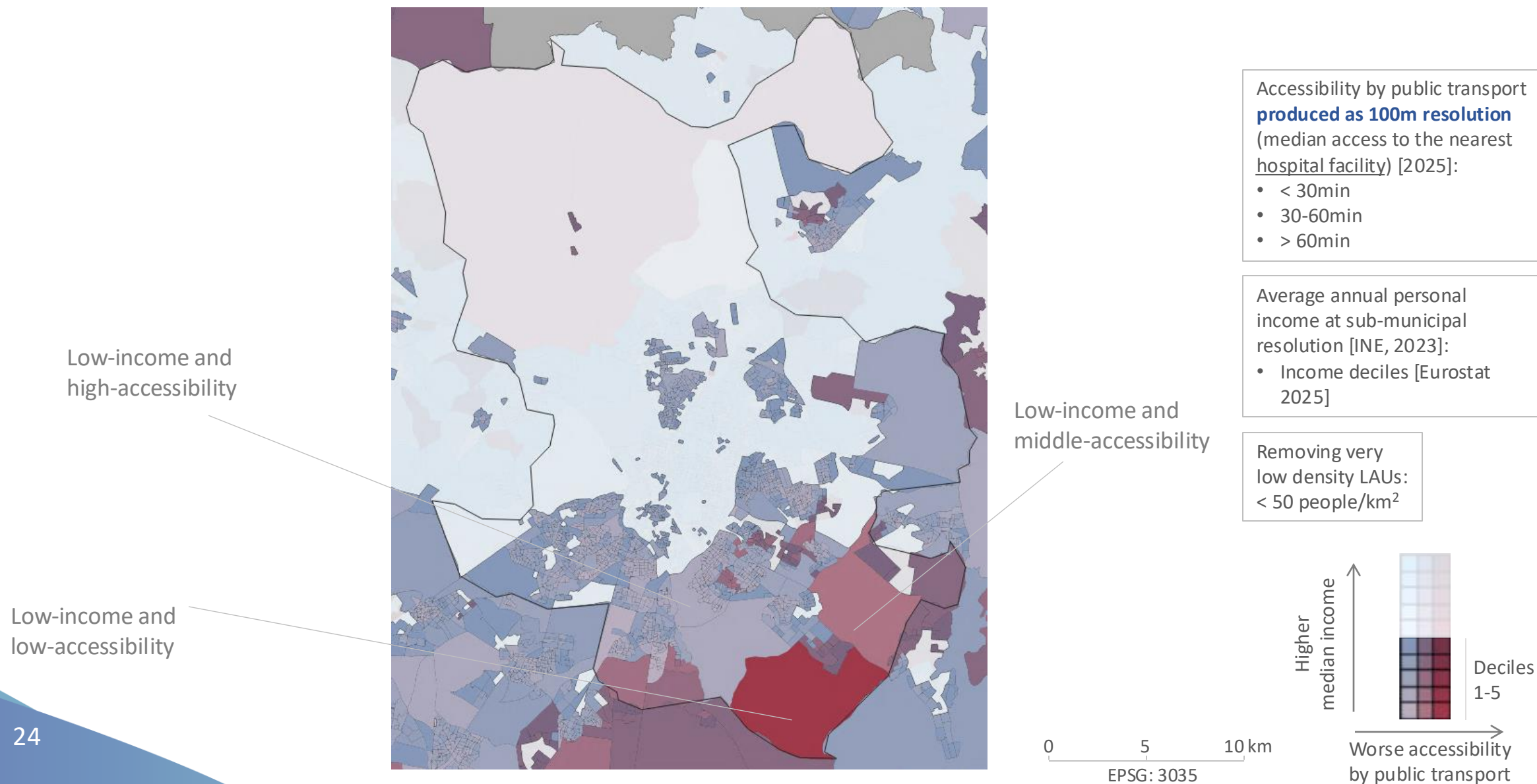
Income decile thresholds



Identifying areas of low-income and low-accessibility in Madrid (LAU)



Identifying areas of low-income and low-accessibility in Madrid (LAU)



Transport Poverty Hub: A growing and engaged community

The first *Transport Poverty and Accessibility Workshop* took place in Seville, on the 10th -11th of June 2026

- The material will soon be publicly available on the [event's dedicated webpage](#)





Thank you

For suggestions on indicators or (destination/network) data to include in future releases, or issues you may experience when using the platform, please contact jrc-c6-tnet@ec.europa.eu