



# Focus on user requirements

Session 'Getting Ready for the Decade of Action'

*17th May 2022 – Eurogeographics General Assembly*

*Márta NAGY-ROTHENGASS - Eurostat E4 – GISCO*

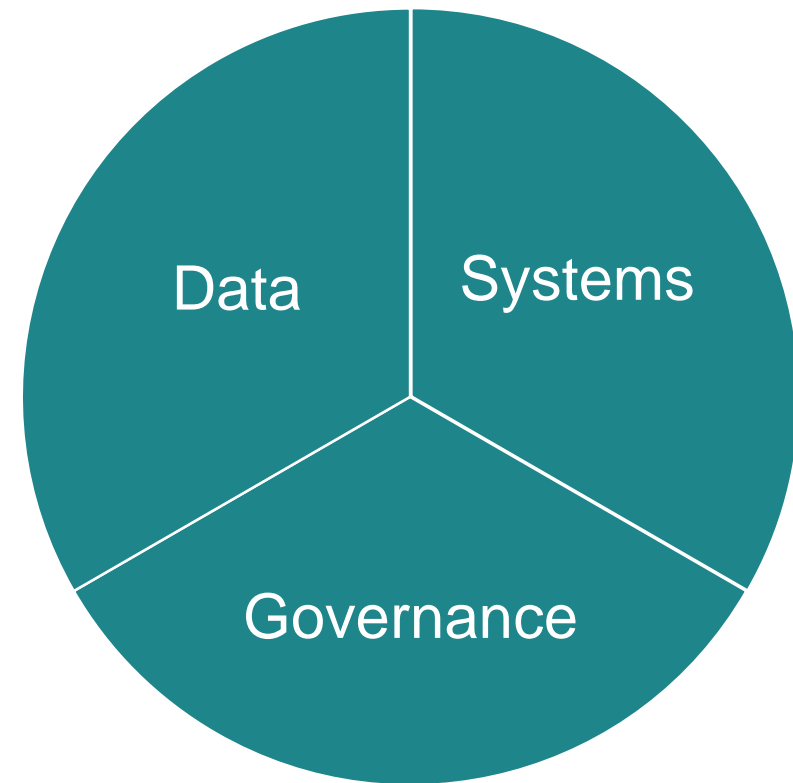
# Outline

1. Collaboration
2. Statistics and GI applications are supporting European policy implementation and its monitoring
3. Main requirements for pan-European datasets

# Geographical information management

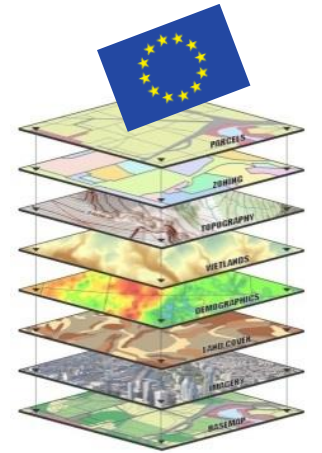
- Management of the Geographical Information System of the European Commission (GISCO)
- Collection of core data sets
- Maps and visualisation services
- GI tools and infrastructure management
- Collaboration in the European Statistical System and international

Main pillars



# Goals

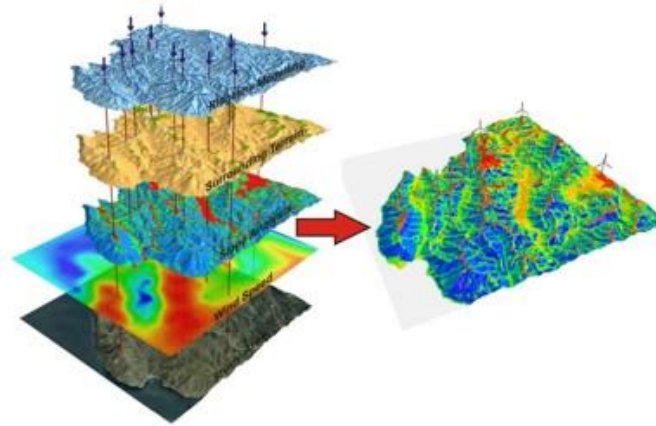
- Provide a consolidated and consistent overview of GI needs at the Commission and beyond
- Set out cross-cutting and domain specific requirements for having harmonised geospatial information EU wide
- Support to Sustainable Development Goals and to EU policies
- Obtain more and better quality data in collaboration with agencies of the Member States and other actors
- Support the integration of statistical and geospatial information



# Localise – Analyse - Visualise

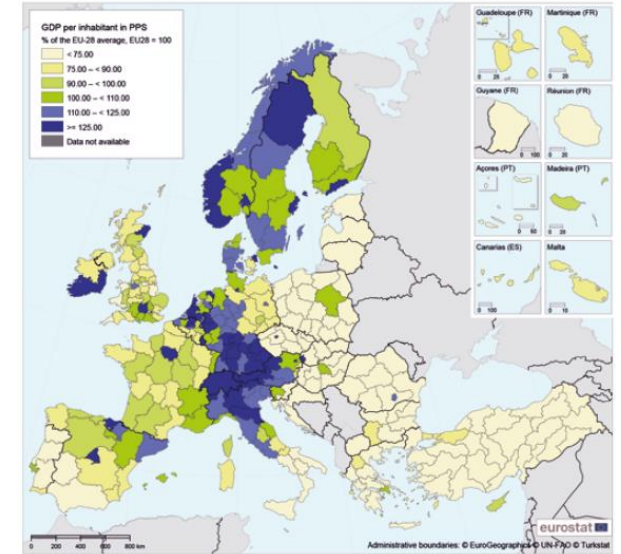


- Regions
- Population (grid)
- LUCAS data points
- Points of Interest



- Spatial analysis
- Accessibility analysis
- Publications
- Presentations

Map 1: Gross domestic product (GDP) per inhabitant, in purchasing power standard (PPS), by NUTS 2 regions, 2011



- Interactive visualisations
- Statistical Atlas
- IMAGE map making tool
- LUCAS viewer

# Relation with EuroGeographics and NMCA

- Long-standing collaboration
- Yearly GISCO working group on the integration of geographical and statistical information with NMCA and NSI representatives and EuroGeographics
- Purchase of EuroGeographics' pan-European datasets and data dissemination inside of the EC
- EuroBoundaryMap as main information source for administrative and statistical units at Eurostat
- Definition of requirements



EuroBoundaryMap



# Future cooperation

- Increasing data needs
- More open data
- Closer collaboration between NSIs and NMCAAs
- Better alignment on requirements on geographical extent, thematic domains, time, quality, scale & resolution, licensing, governance & resources

# International collaboration within UN GGIM and UNECE

- Long-standing collaboration
- Contribution to various Working Groups:
  - The UN-GGIM Expert Group on the Integration of Statistical and Geospatial Information
  - The UN-GGIM Inter-agency and Expert Group on the Sustainable Development Goal Indicators (IAEG-SDGS)
  - The UN-GGIM: Europe Working Group on Core Data
  - The UN-GGIM: Europe Working Group on Data Integration
- Joint definition of user requirements



Statistics and GI applications  
are supporting European  
policy implementation and its  
monitoring

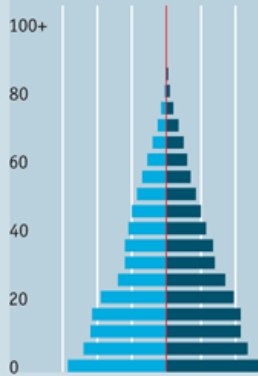


## Challenges the EU is facing require reliable European Geographical Information

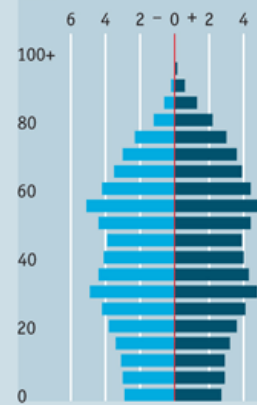
From pyramid to

Japan's population by

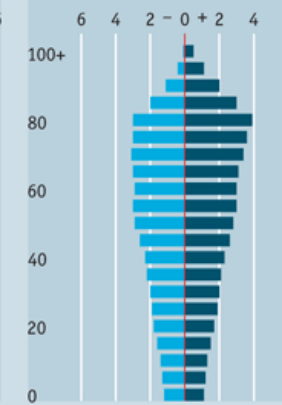
1950



2005



2055 forecast



Source: National Institute of Population and Social Security Research



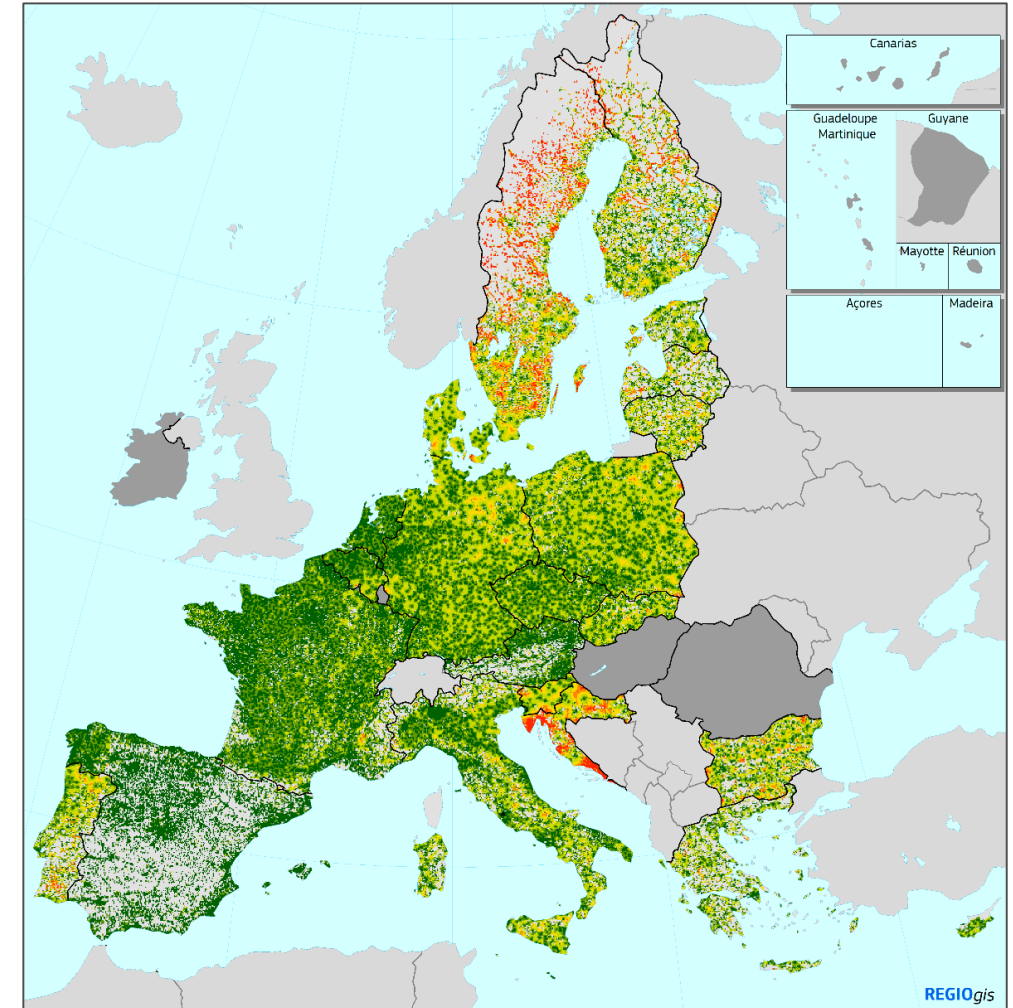
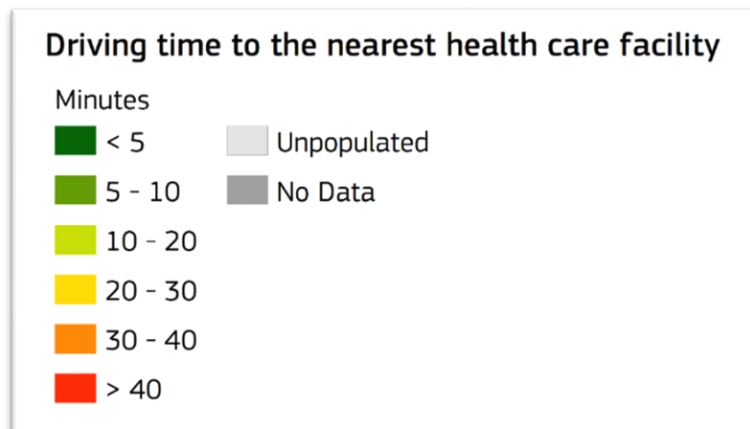
# Addressing EU priorities

- The 6 European Commission's priorities
  - A European Green Deal
  - A Europe fit for the digital age
  - An economy that works for people
  - A stronger Europe in the world
  - Promoting our European way of life
  - A new push for European democracy



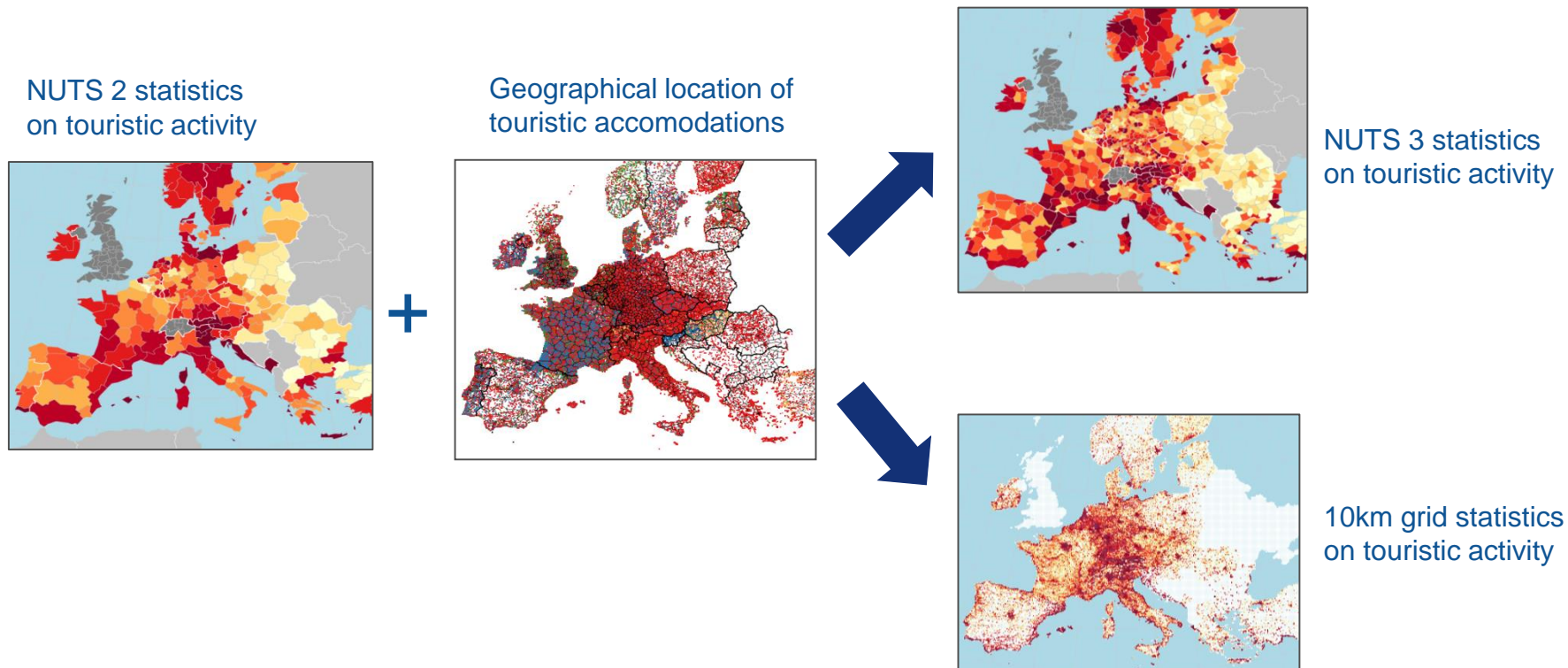
# GI for accessibility (Eurostat – DG REGIO)

- Accessibility to health care and education services in Europe
- With GI on road transport, health care and education services and population



# GI for tourism statistics (Eurostat)

- Disaggregation of tourism statistics, from regional to local and 1km grid level
- With GI on administrative units and touristic accommodation





# GI for accessibility (DG REGIO)

- Accessibility to universities and passenger flights
- GI on road transport, airports, universities and population



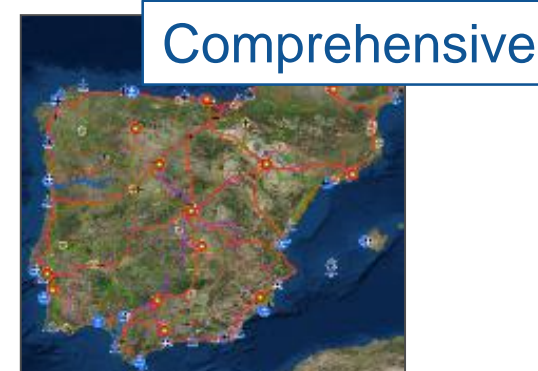
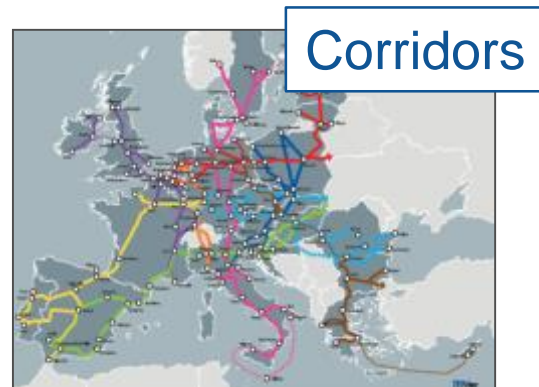
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# GI for transport (DG MOVE/ENER)

- Definition of Trans European Networks of Transport (TEN-T)
- GI on transport infrastructure: roads, railways, inland waterways, ports, airports, multimodal platforms
- 3 levels of generalisation: Corridors, CORE, comprehensive



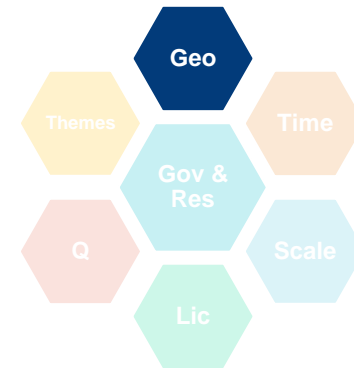


# User requirements

7 main requirements for pan-European core GI datasets

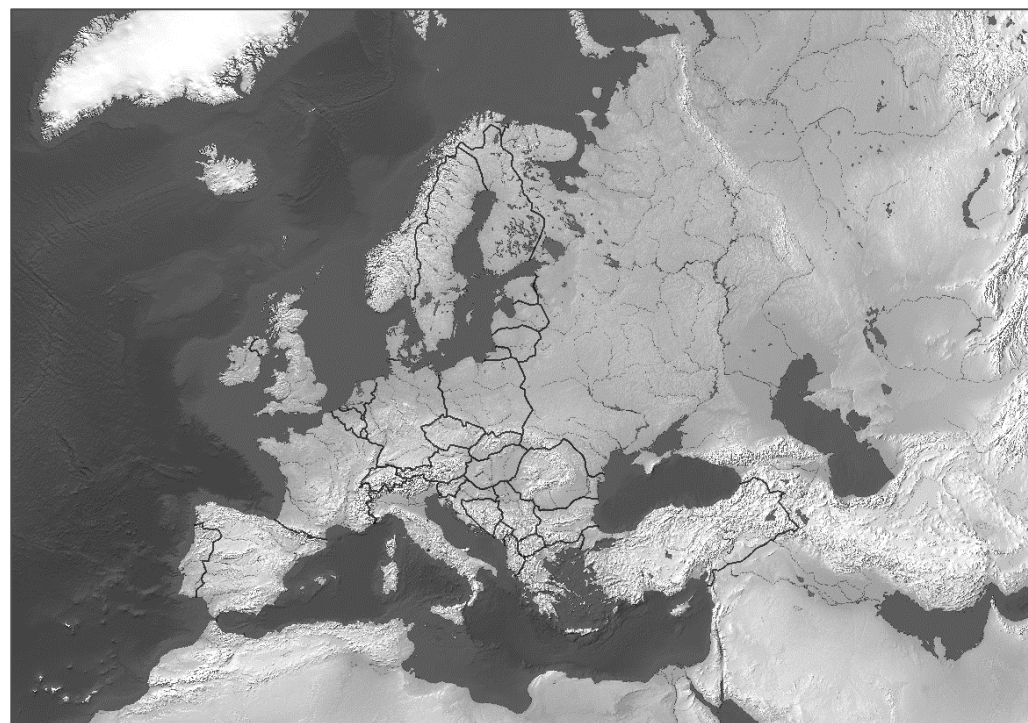


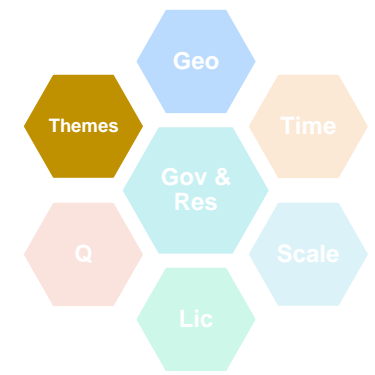
# Geographical extent



- **European coverage**

- European Union
- + EFTA, candidate countries
- + Neighbour countries (EEA 39, etc.)
- + Oversea territories
- + Maritime space
- ...





# Thematic scope

- Ideally: Priority areas of the EC
- **General purpose themes** - content of national topographic databases

Transport networks (road, rail, air, water, cable, telecom, energy, etc.), administrative units, geographical names, buildings, cadastral parcels, land cover, elevation, hydrography, addresses, postal codes, activity areas, energy production, regulation zones, etc.

- **Focus on existing data** – UN-GGIM: Europe core data recommendation for content



BD-L-TC, ACT Luxembourg



ATKIS-DLM, BKG Germany



BDOT 10k, GUGiK Poland



BDTopo, IGN France

Etc...

# Time



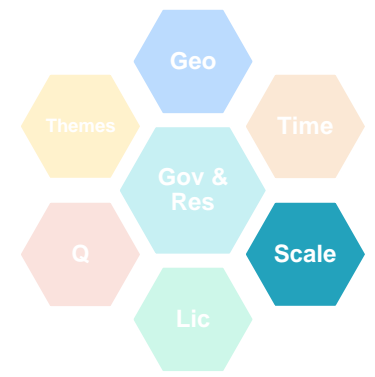
- Need for **up-to-date data**:
  - With known reference date, as close as possible from the publication date
  - Updated as frequently as possible and necessary (depending on the theme and scale/resolution)
  - Continuous updates
- Dissemination of updates only VS entire new datasets (snapshots)
- Availability of historical data
- **Sustainability** of the data source (update calendar, versioning)

# Quality

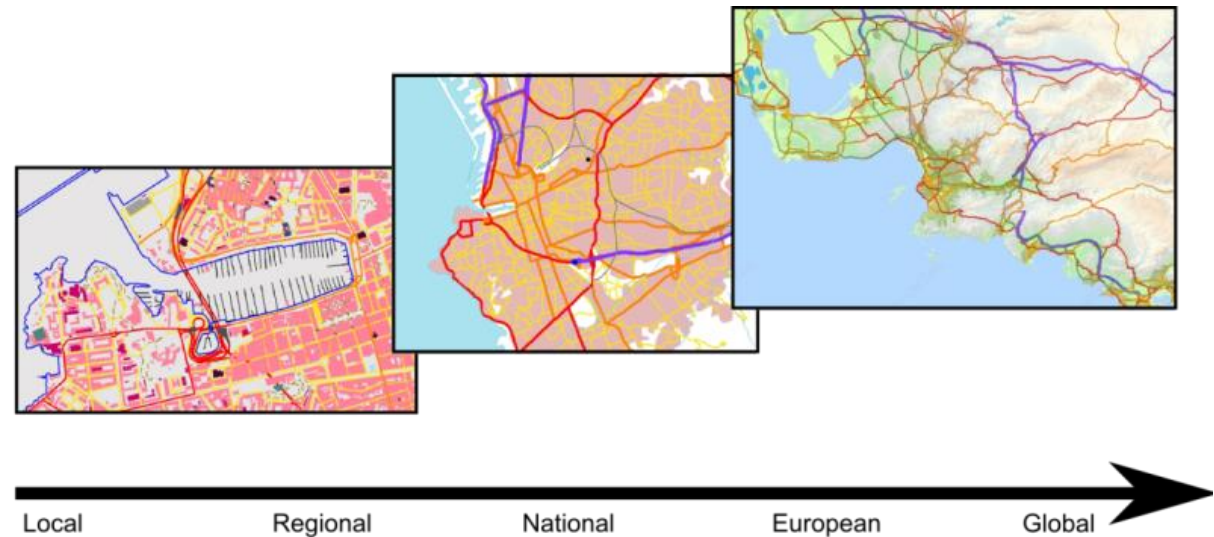
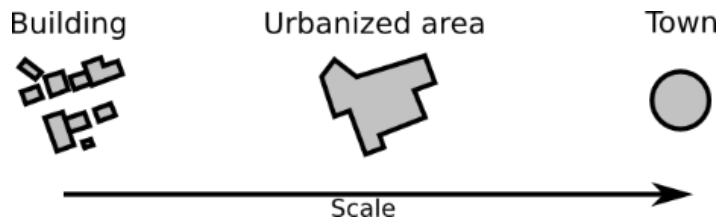


- Requirements for **high-level quality**
  - Completeness (omission/completion), positional accuracy, semantic accuracy, topological consistency, homogeneity for spatial comparability, etc.
- Ensure **connection at borders** (edge-matching)
- Enable **cross-country comparability**
- Sustainability of the data source – reliability across time
- Quality must be known, and documented

# Scale & resolution



- Need for multi-scale data



- Need for detailed (1:10k) **and** generalised data (1:50k, 1:100k, 1:250)
- Possibilities for **automated generalisation**



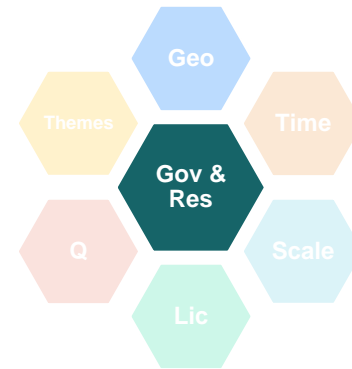
# Accessibility and licensing



- Who is allowed to use the data (raw & derived), for what purpose
  - Ideal: Open data
  - Minimum: EC internal use in priority, with possibility to disseminate analyses outcomes and derived data
- Extend Copernicus emergency service license agreement for broad EC internal use
- Open access within the European Statistical System (ESS): administrative units, addresses and buildings



# Governance and resources



- Producing pan-European datasets is **difficult** and requires **resources**
- Need for **sustainably** maintained pan-European datasets
- Rely on existing country data:
  - NMCAs, ministries, governmental agencies, NGOs, private sector, OSM, etc.
- Importance of **coordination** among various stakeholders and existing resources at national and European level
- Importance of a progressive and AGILE methodology

# Conclusions

1. Collaboration across boundaries is a mutual interest
2. Statistics and GI applications are efficiently supporting European policy implementation and help visualising trends and developments
3. Common user requirements for pan-European datasets
4. Importance of coordination (i.e. methodology, scope and timing)

# Keep in touch



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# Thank you.

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