How INSPIRE could better support EU GIS analysts

Julien Gaffuri – Eurostat/GISCO

EuroSDR/EuroGeographics workshop on "Use of INSPIRE data: past experiences and scenarios for the future"

27/28 November 2018 (Warsaw, Poland)

About GISCO

- *Service of the European Commission (Eurostat)*
- *Role: Answer needs of European Commission for geographical information at EU/national/regional levels.*
    - **Provision of GIS (reference) data, services and software**
    - **Support cartographic and spatial analysis activities**
    - **Support activities on the integration of statistical and geospatial information**
    - **Coordinates commission-wide GI activities**
    - **Stimulate the use of GIS to support commission activities**

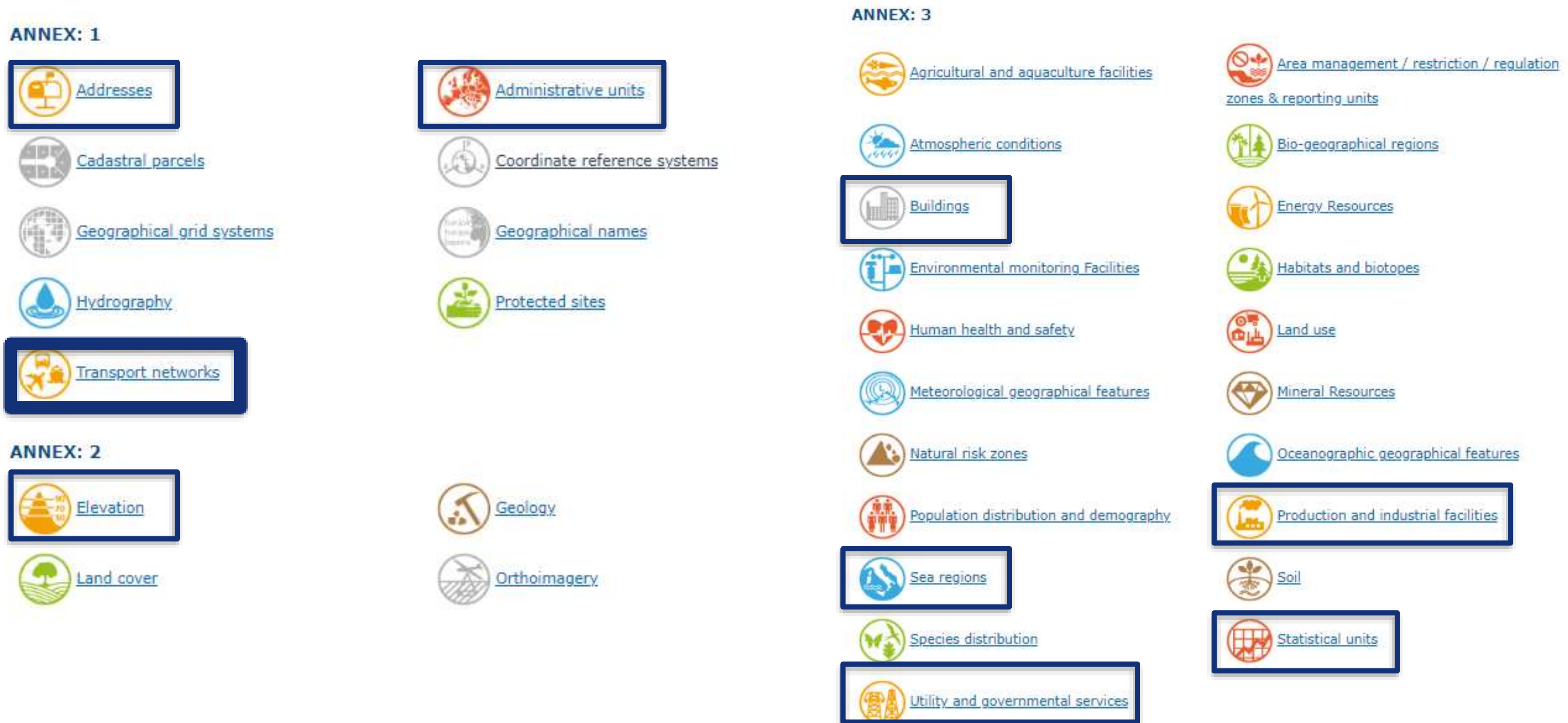
Overall data needs

- *Thematic scope*
- *Geographical extent*
- *Cross-country comparability*
- *Resolution – level of detail*
- *Timeliness and update frequency*
- *Access, licensing and sustainability*

- ***How could INSPIRE data better support these needs?***

Thematic scope

- *Main strength of INSPIRE: Broad thematic scope.*



ANNEX: 1

- Addresses
- Administrative units
- Cadastral parcels
- Coordinate reference systems
- Geographical grid systems
- Geographical names
- Hydrography
- Protected sites
- Transport networks

ANNEX: 2

- Elevation
- Geology
- Land cover
- Orthoimagery

ANNEX: 3

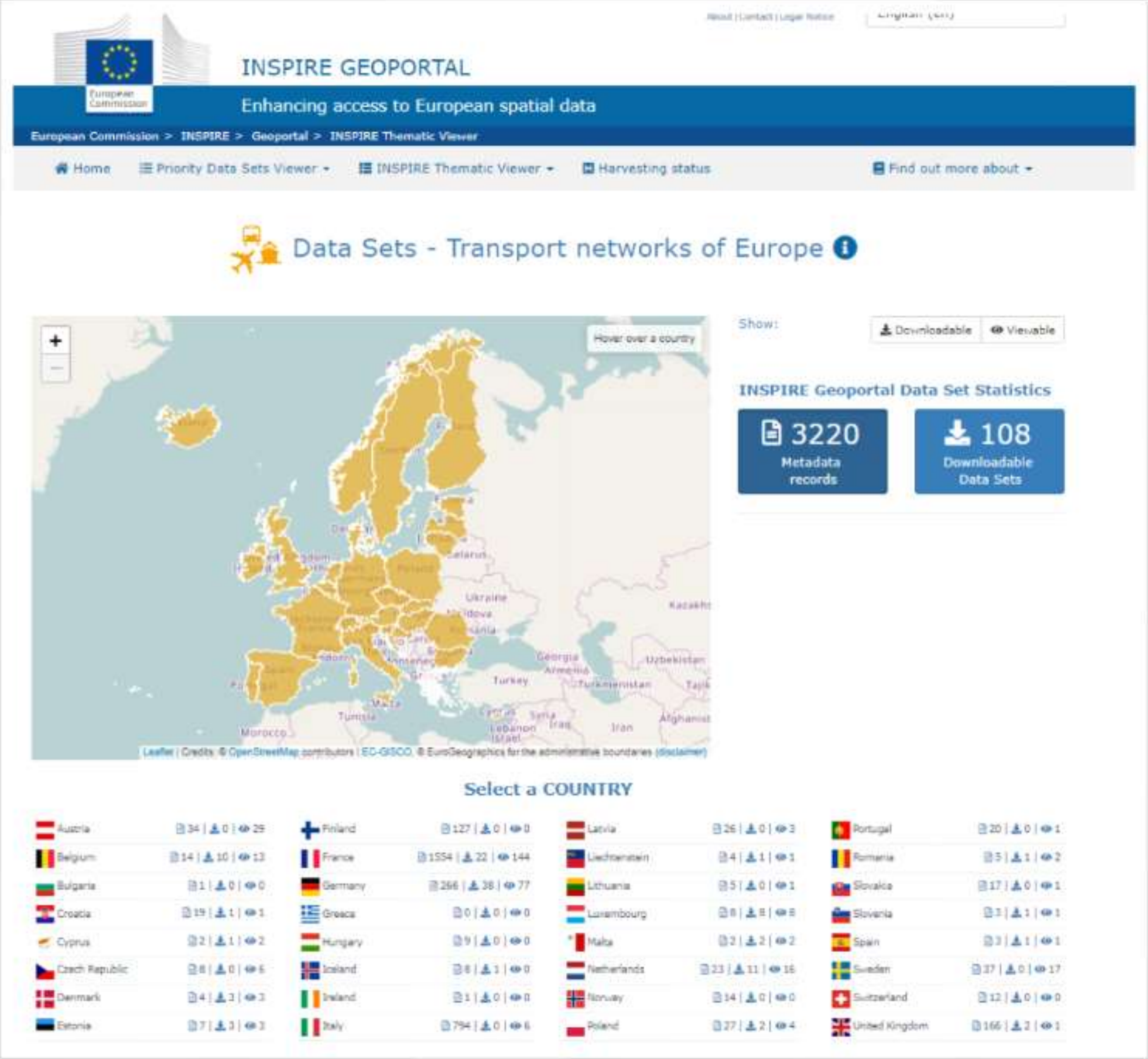
- Agricultural and aquaculture facilities
- Atmospheric conditions
- Buildings
- Environmental monitoring Facilities
- Human health and safety
- Meteorological geographical features
- Natural risk zones
- Population distribution and demography
- Sea regions
- Species distribution
- Utility and governmental services
- Area management / restriction / regulation zones & reporting units
- Bio-geographical regions
- Energy Resources
- Habitats and biotopes
- Land use
- Mineral Resources
- Oceanographic geographical features
- Production and industrial facilities
- Soil
- Statistical units

Thematic scope

- *Uncovered needs:*
  - **Economic activities**
  - **Energy production and transport**

Geographical extent

- *Need for pan-European datasets*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Data Sets - Transport networks of Europe

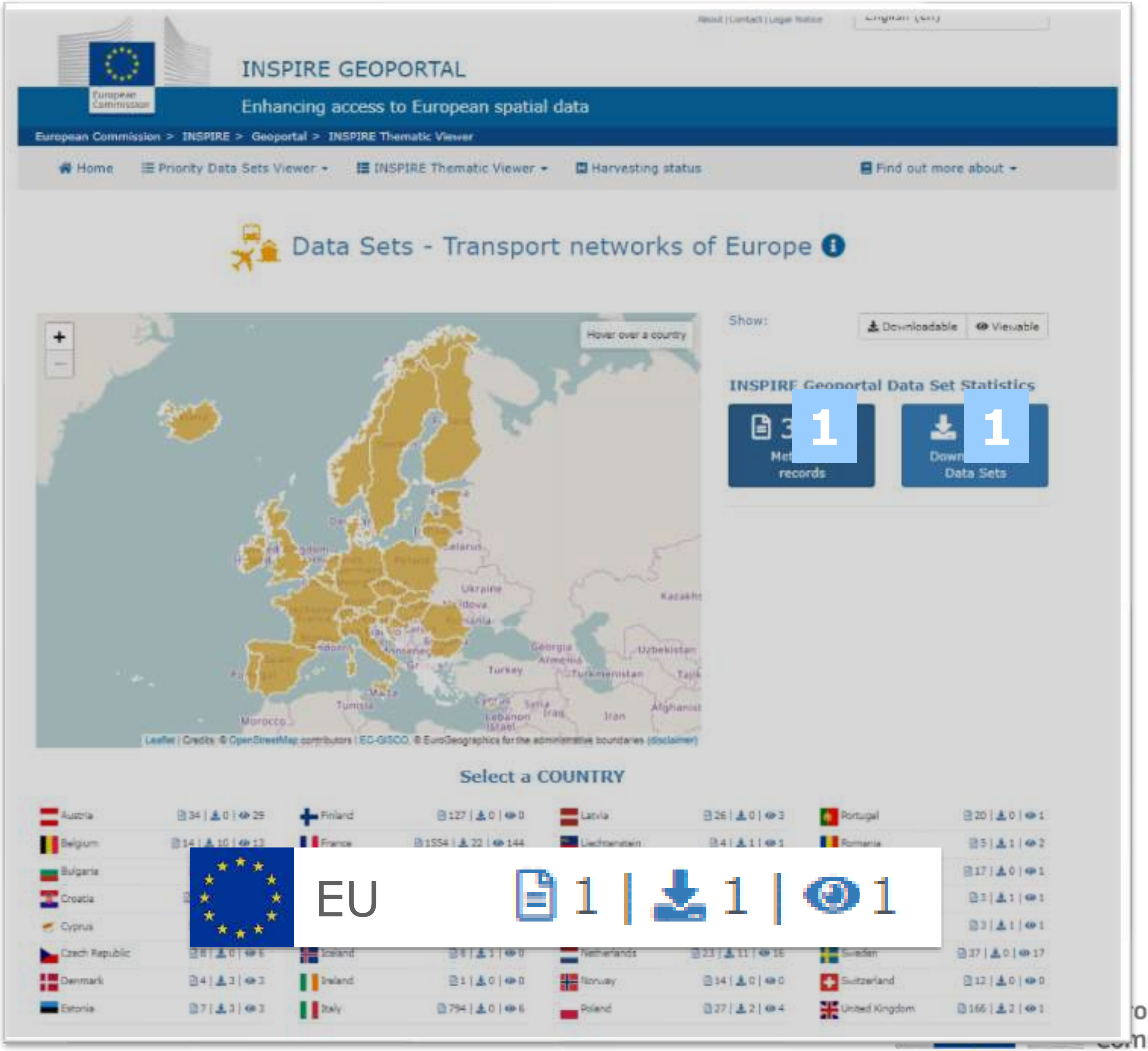
INSPIRE Geoportal Data Set Statistics

3220 Metadata records

108 Downloadable Data Sets

Select a COUNTRY

	🗎	⭳	👁
Austria	34	0	29
Belgium	14	10	13
Bulgaria	1	0	0
Croatia	19	1	1
Cyprus	2	1	2
Czech Republic	8	0	6
Denmark	4	3	3
Estonia	7	3	3
Finland	127	0	0
France	1554	22	144
Germany	266	38	77
Greece	0	0	0
Hungary	9	0	0
Iceland	8	1	0
Ireland	1	0	0
Italy	794	0	6
Latvia	26	0	3
Liechtenstein	4	1	1
Lithuania	5	0	1
Luxembourg	8	8	8
Malta	2	2	2
Netherlands	23	11	16
Norway	14	0	0
Poland	27	2	4
Portugal	20	0	1
Romania	5	1	2
Slovakia	17	0	1
Slovenia	3	1	1
Spain	3	1	1
Sweden	37	0	17
Switzerland	12	0	0
United Kingdom	166	2	1



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Belarus
Ukraine
Moldova
Romania
Georgia
Armenia
Turkey
Uzbekistan
Turkmenistan
Kazakhstan
Tunisia
Morocco
Malta
Syria
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Show:
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INSPIRE Geoportal Data Set Statistics

3 1 Met records

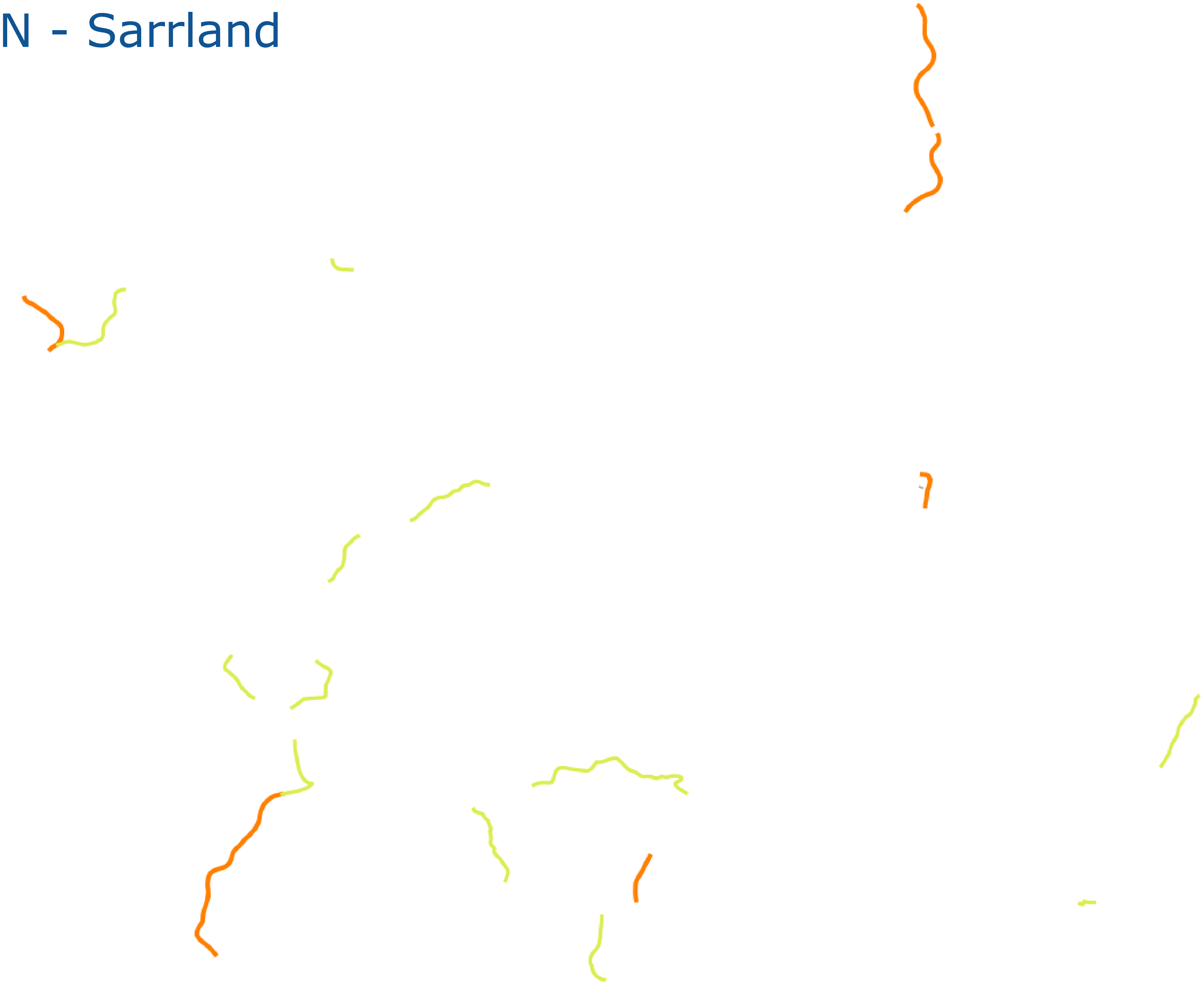
1 Down Data Sets

Select a COUNTRY

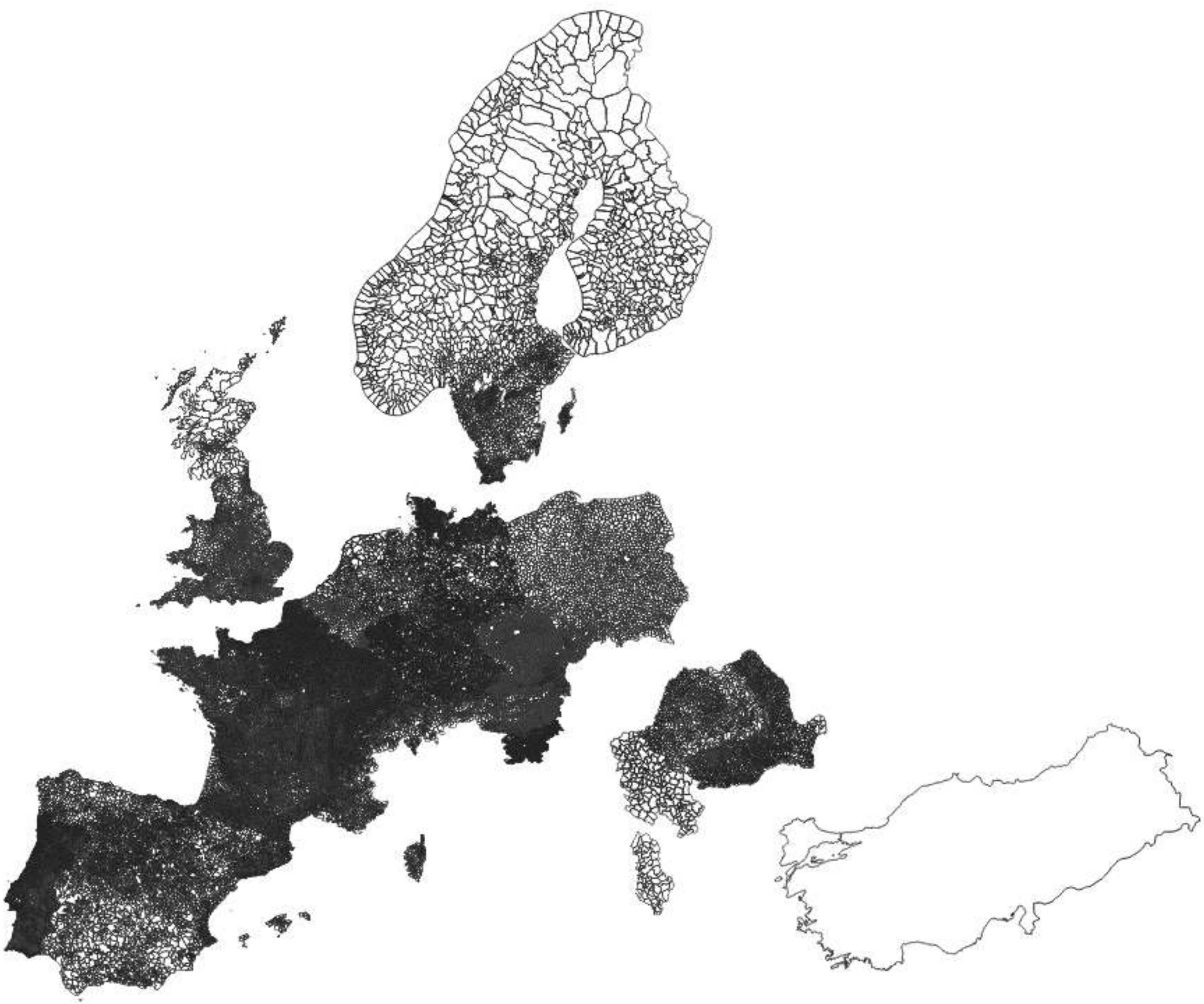
Austria 34 | 0 | 29
Belgium 14 | 10 | 13
Bulgaria
Croatia
Cyprus
Czech Republic 8 | 0 | 6
Denmark 4 | 3 | 3
Estonia 7 | 3 | 3
Finland 127 | 0 | 0
France 1554 | 22 | 144
Iceland 8 | 1 | 0
Ireland 1 | 0 | 0
Italy 794 | 0 | 6
Latvia 26 | 0 | 3
Liechtenstein 4 | 1 | 1
Netherlands 23 | 11 | 16
Norway 14 | 0 | 0
Poland 27 | 2 | 4
Portugal 20 | 0 | 1
Romania 5 | 1 | 2
17 | 0 | 1
3 | 1 | 1
3 | 1 | 1
Sweden 37 | 0 | 17
Switzerland 12 | 0 | 0
United Kingdom 166 | 2 | 1

EU 1 | 1 | 1

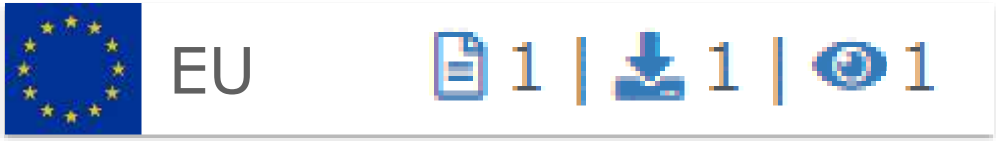
TN - Sarrland



AU – Data from NMCA websites



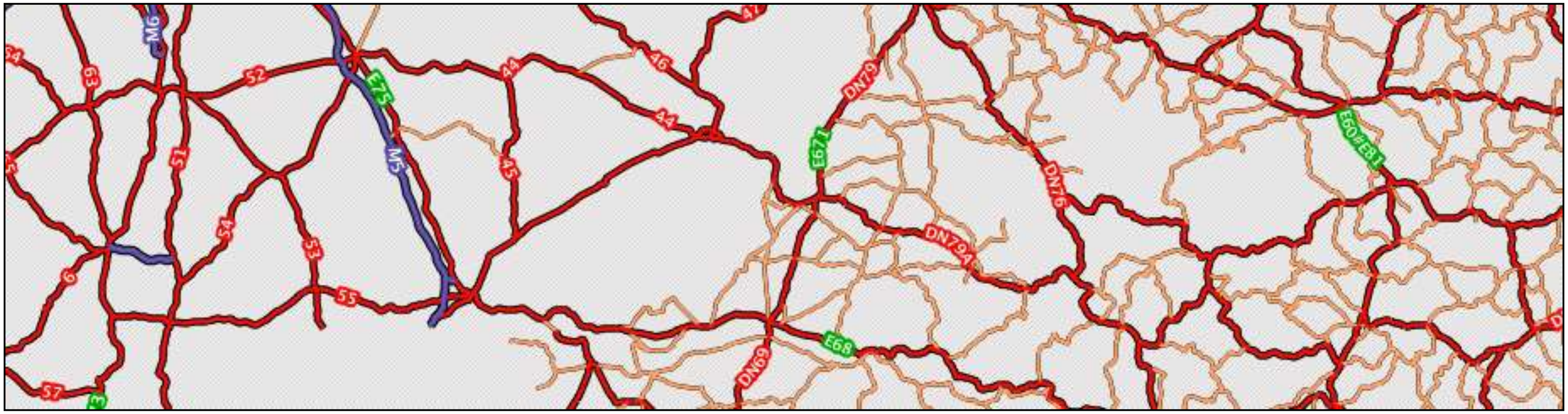
Need for pan-European datasets



- *Edge-matched*
- *Geometrically and semantically harmonised*
- *Cross-thematic consistency*

Need for pan-European datasets

- *Need for cross-country comparability*
  « spatial interoperability »


M6
54
63
52
E75
44
46
47
DN79
E671
DN76
E60#E81
M5
45
51
54
53
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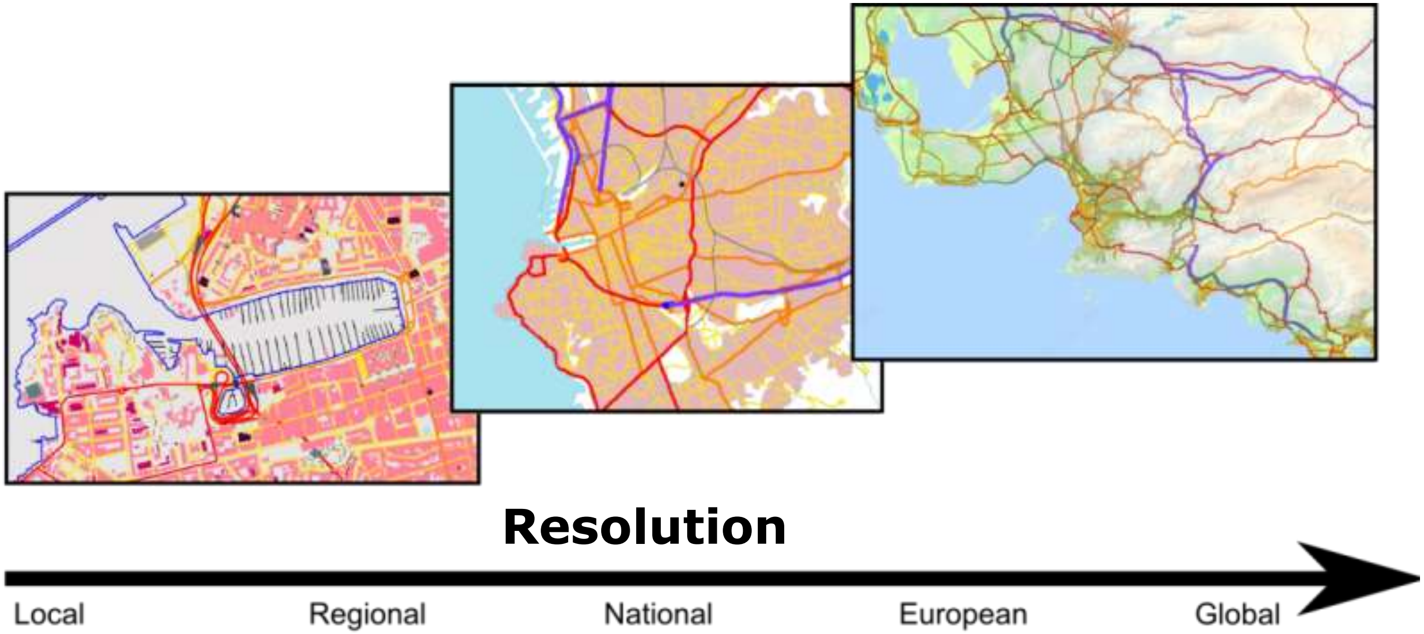
57
E68
DN69
DN79A

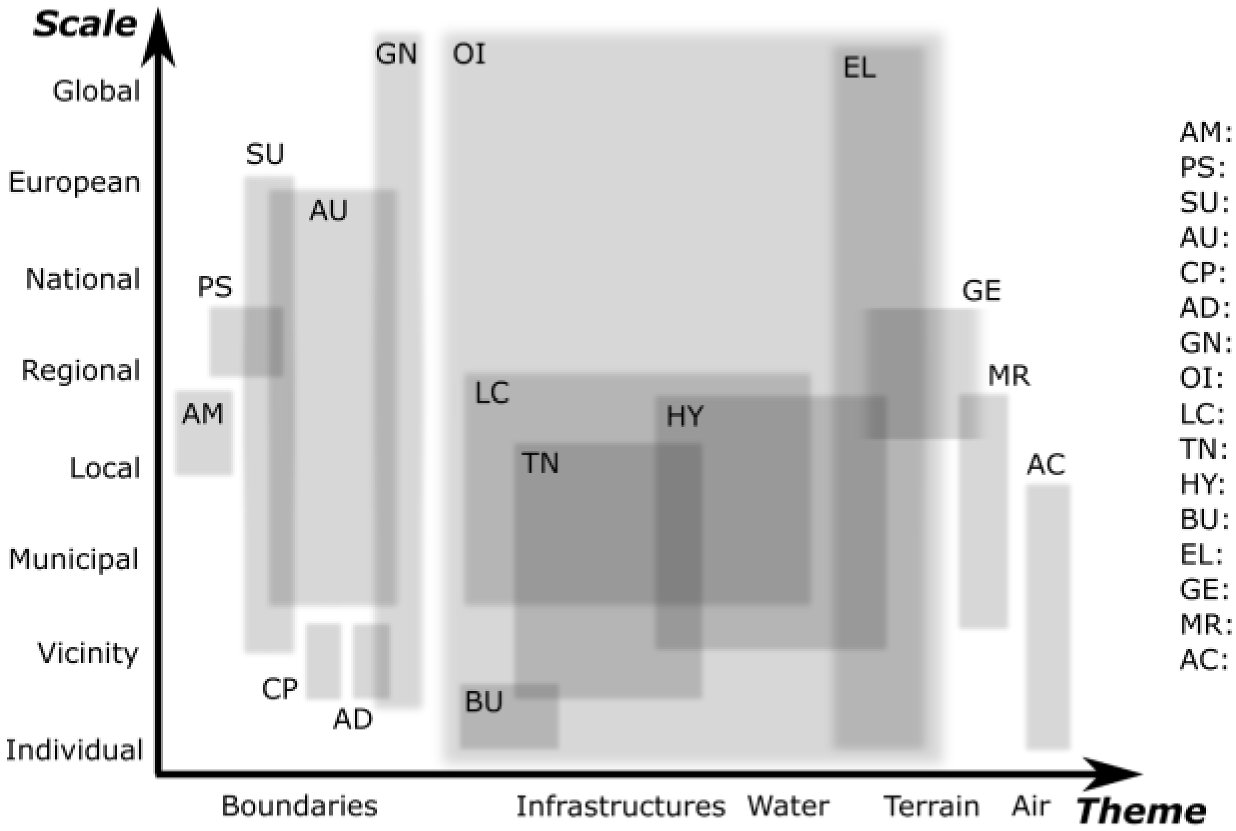
Need for multi-resolution data


Resolution
Local
Regional
National
European
Global

1:50k

1:1M

Need for multi-resolution data


Scale
Global
European
National
Regional
Local
Municipal
Vicinity
Individual
GN
OI
EL
SU
AU
PS
GE
MR
LC
HY
AM
TN
AC
CP
AD
BU
Boundaries
Infrastructures
Water
Terrain
Air
Theme

AM: management zones
PS: protected sites
SU: statistical units
AU: administrative units
CP: cadastral parcels
AD: addresses
GN: geographical names
OI: orthoimageries
LC: land cover
TN: transport
HY: hydrography
BU: buildings
EL: elevation
GE: geology
MR: mineral ressources
AC: atmospheric conditions

Timeliness and update frequency

- *No explicit requirement on updates in INSPIRE*
- *Ultimate goal: Continously updated data*

Access, licensing and sustainability

- *Easy access (download link)*
  - **Weak need for harmonised network services, formats and CRS**
- *Non-restrictive licensing conditions*
  - **Priority for EC-internal use. Public sector access.**
  - **Sub-contractors**
- *Sustainability of the data source*
  - **Short term availability + Long term maintenance**
  - **Stable identifiers**

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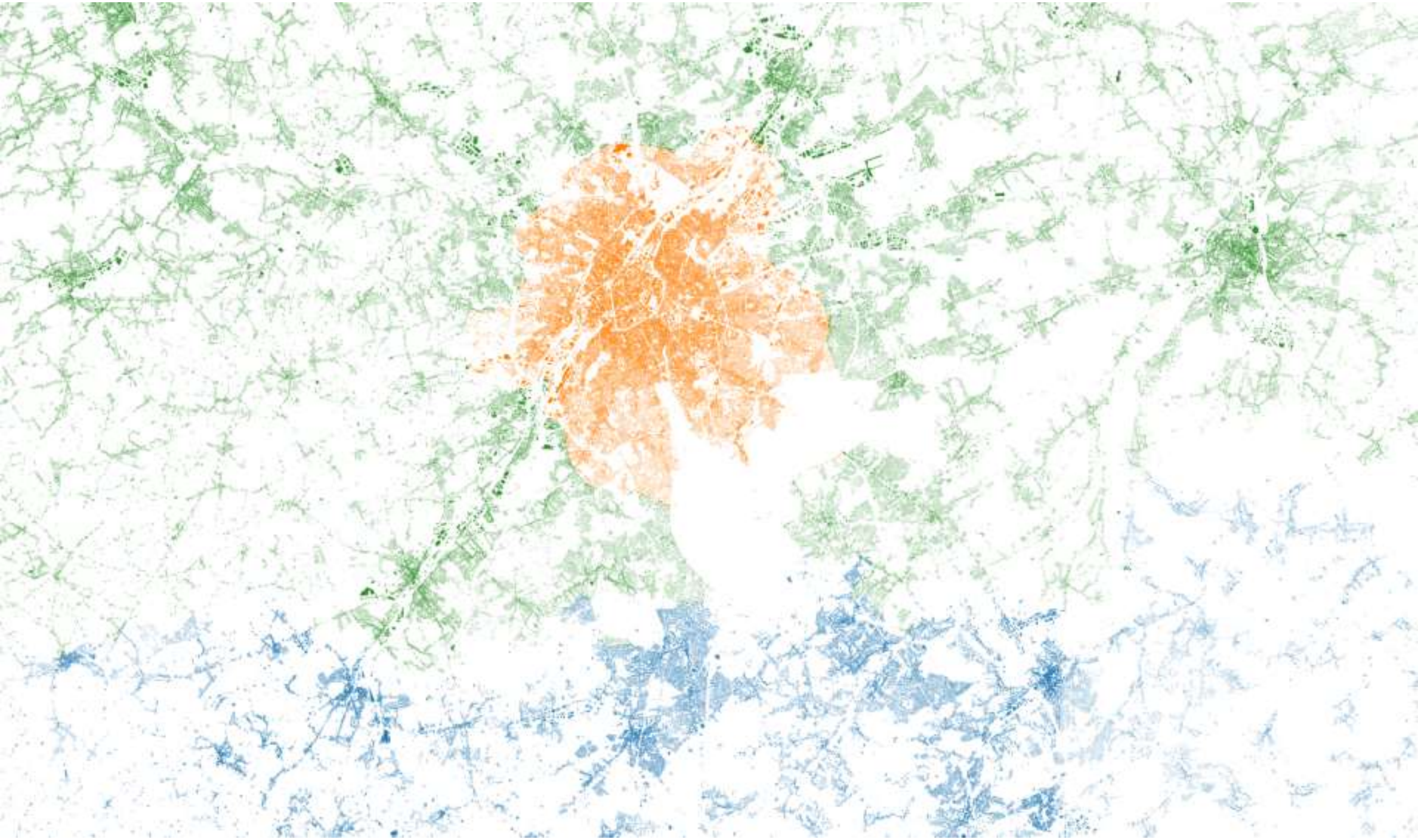
Building – Belgium



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Need for centralisation

- *Most of these requirements cannot be met together in a distributed SDI infrastructure*
  - **Integration, edge-matching, generalisation, continuous updating**
- *Need for a new generation SDI with centrally-managed components*

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« Implementing INSPIRE is not an objective but a means »

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