



Co-financed by the European Regional Development Fund

Inspire Policy Making with Territorial Evidence

Alps 2050

Common Spatial Perspectives for the Alpine Area. Towards a Common Vision

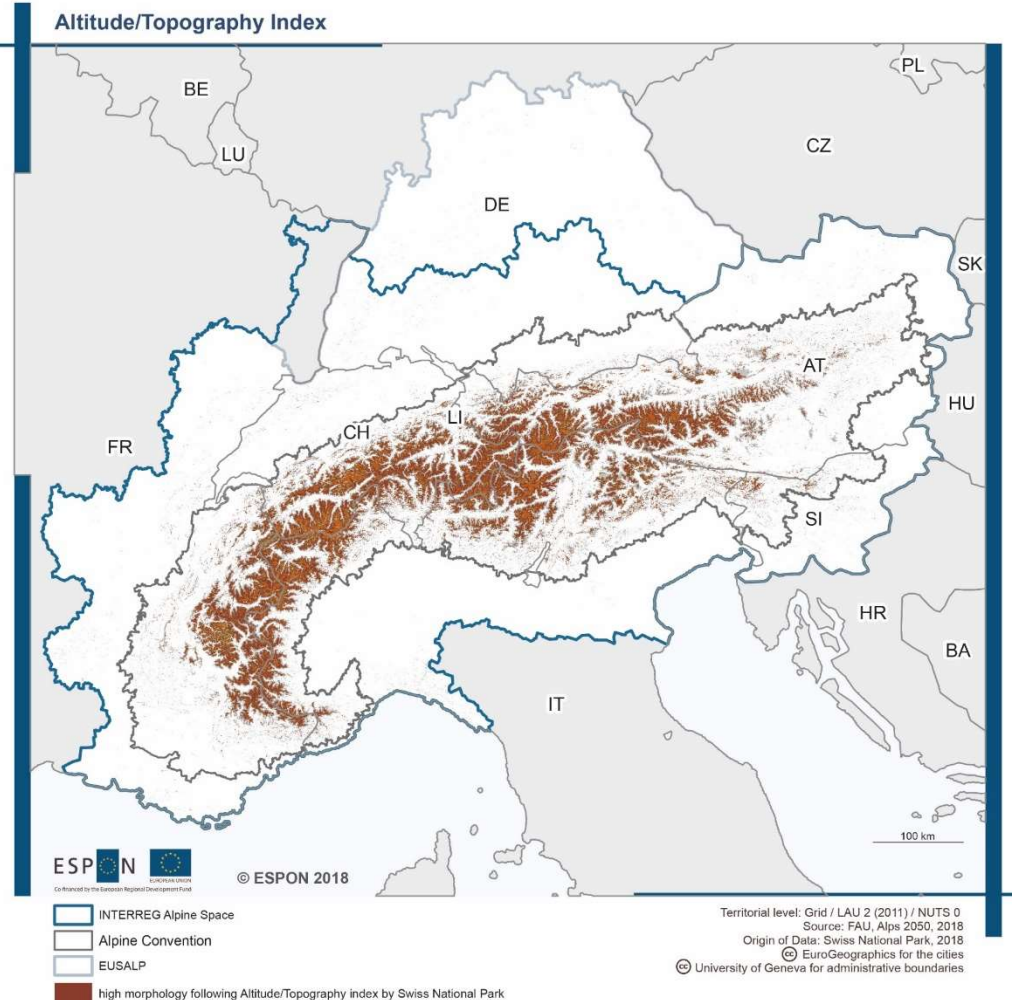
Tobias Chilla, University of Erlangen

The project

Main objectives:

- A territorial **vision** and common spatial perspectives for the Alpine area until 2050.
- **Stakeholders** develop the project idea (Leadpartner DE, partners from AT, CH, FR, IT, LI, SI and Alpine Convention)
- **Research consortium:** Leadpartner DE, partners/subcontractors from AT, CH, FR, IT, SI
- The **programme** ESPON finances the project and coordinating the process
- **Timing:** Nov 2017- Nov 2018

<https://www.espon.eu/Alps2050>



The project

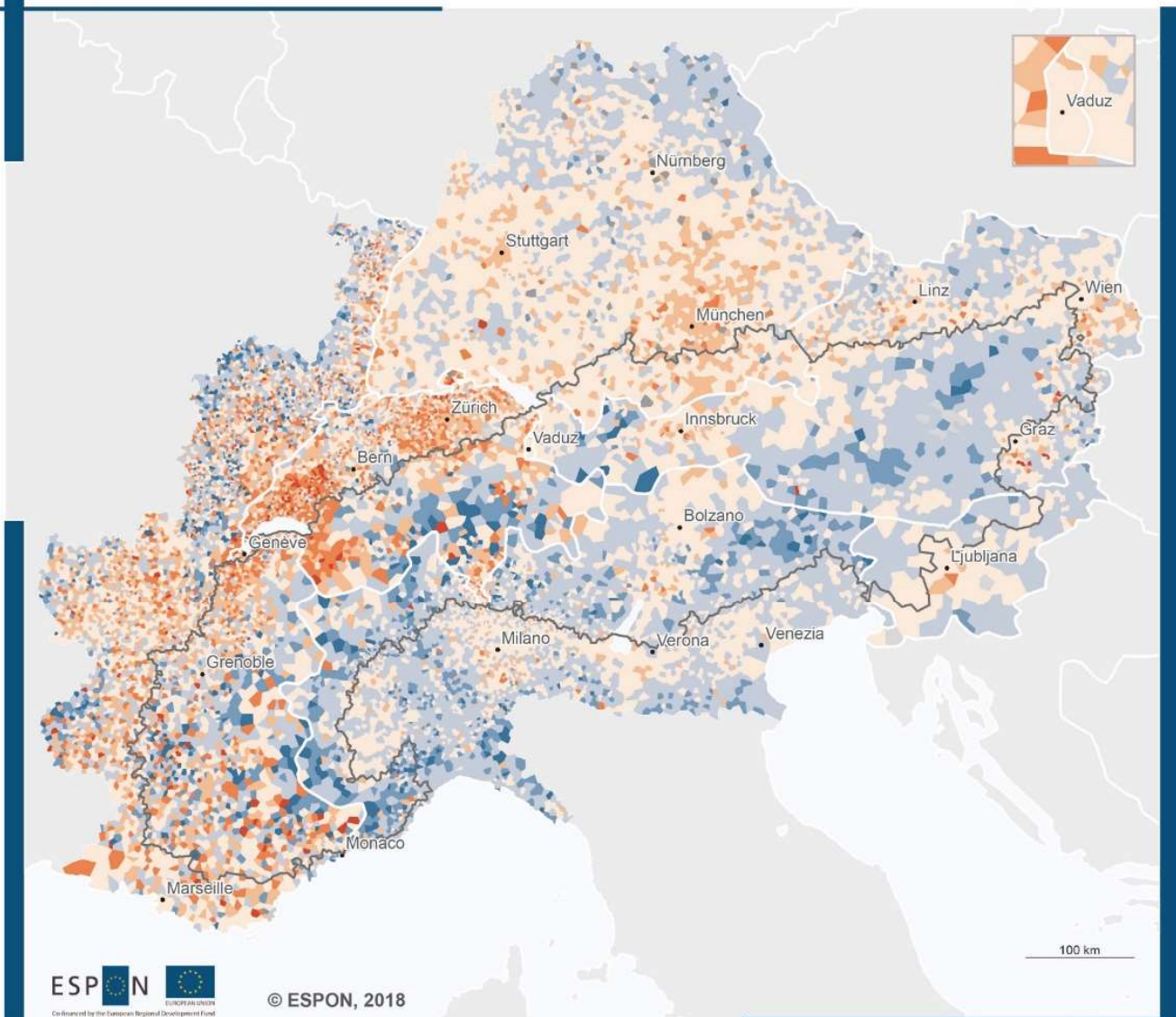


I. Mapping outputs

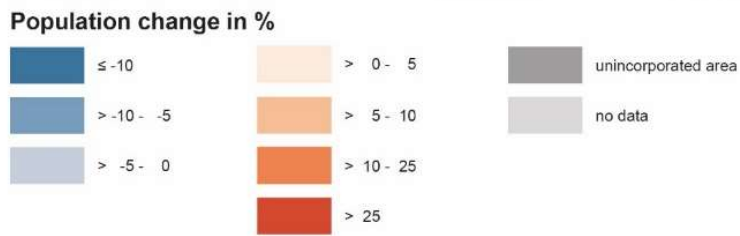
Alps 2050

Demographic development

Population Change 2010-2015



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 © ESPON, 2018

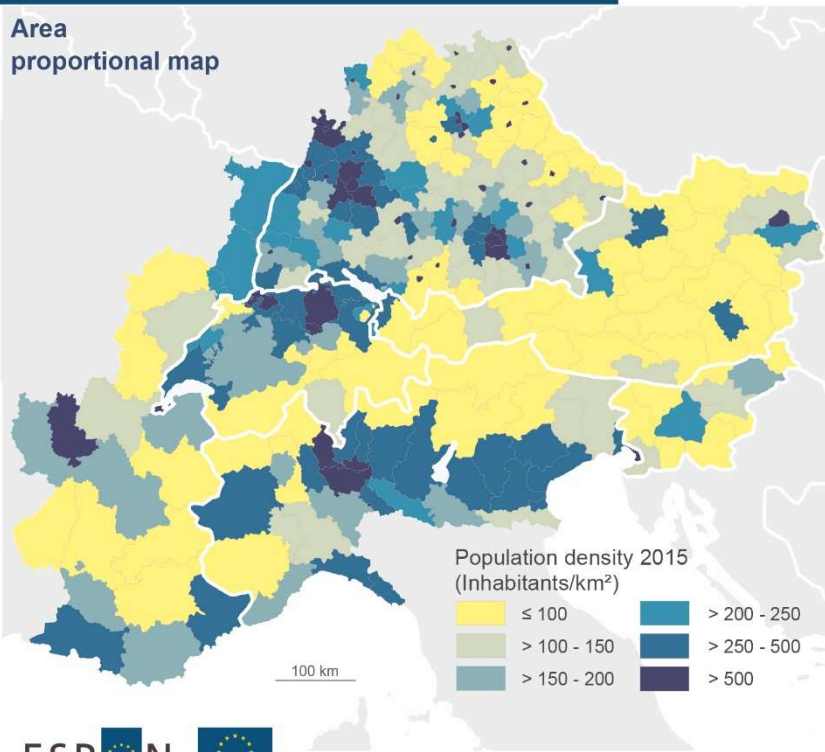


Territorial level: LAU2 (2011 updated)
 Source: Eurac Research & FAU, Alps 2050, 2018
 Origin of Data: Eurostat & National Statistical Offices, 2013
 © EuroGeographics for the cities
 © University of Geneva for administrative boundaries
 Outer perimeter: EUSALP & ASP
 Alpine Convention

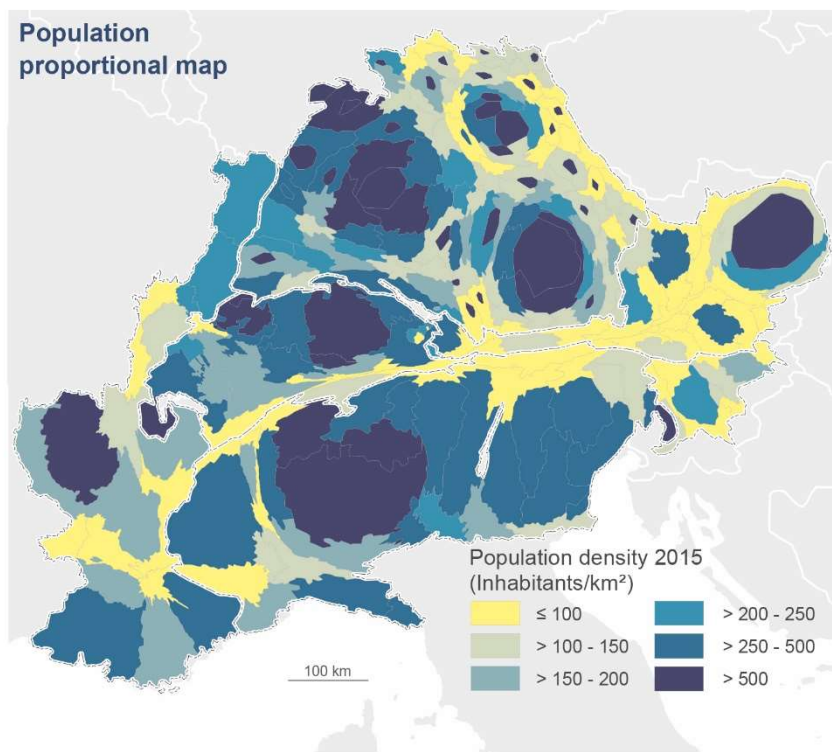
Population density

Population density

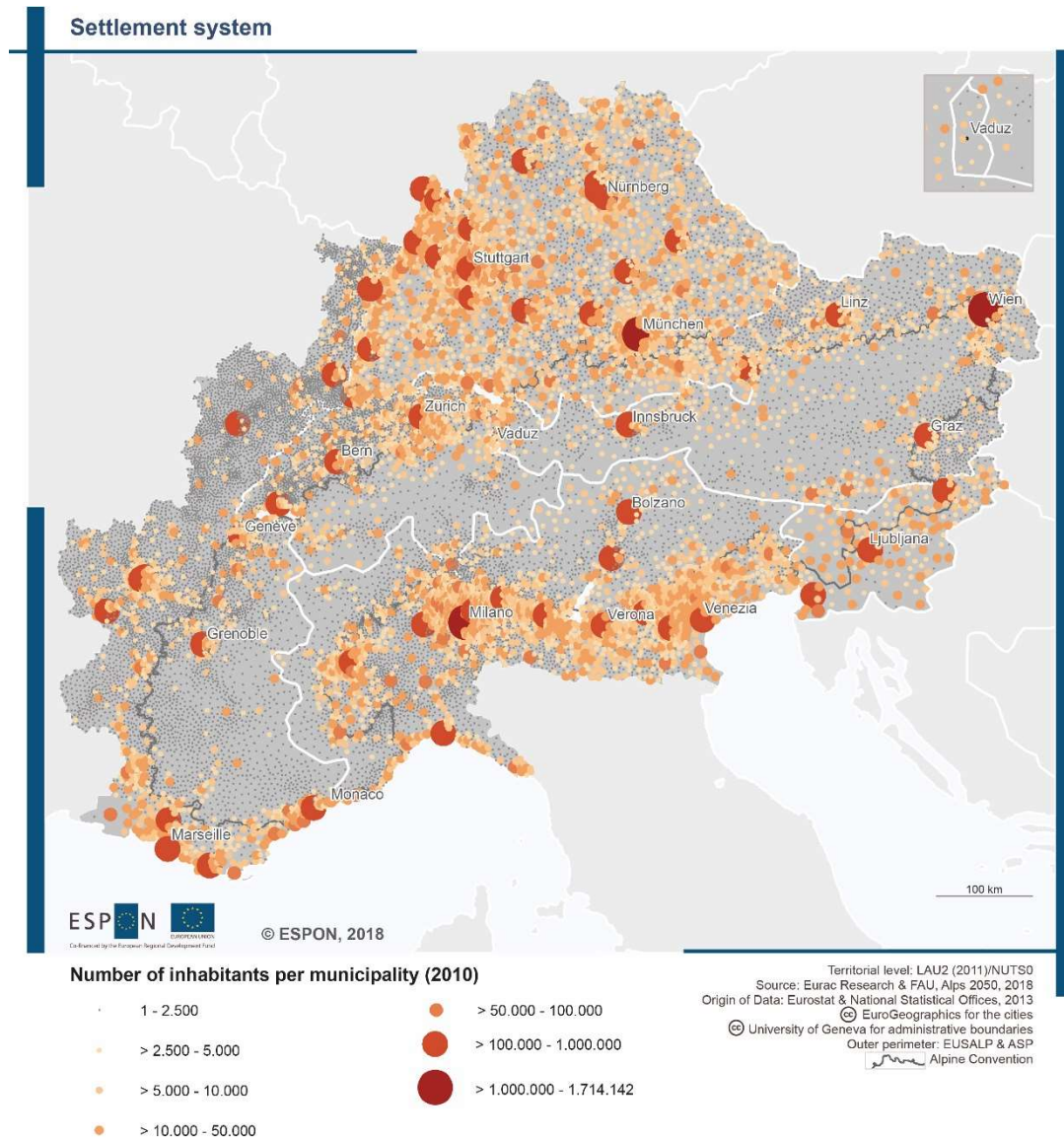
Area proportional map



Population proportional map



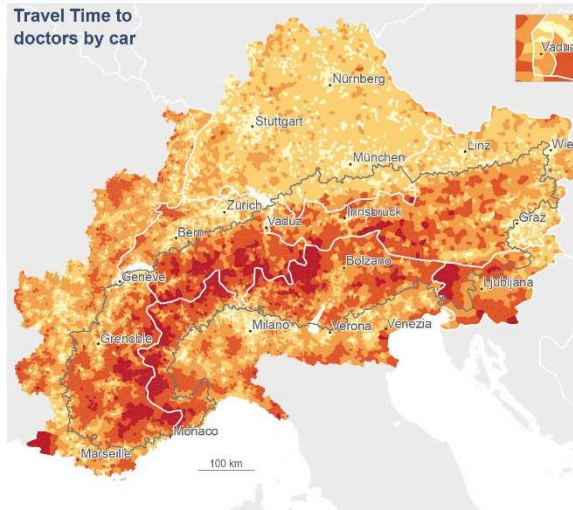
Settlement system



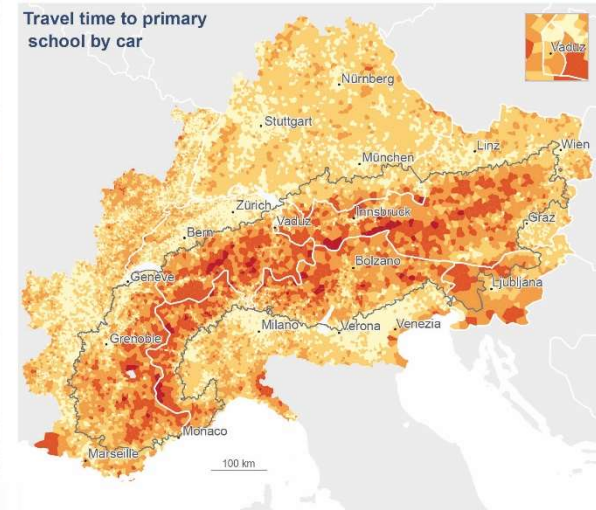
Services of General Interest

Services of general interest

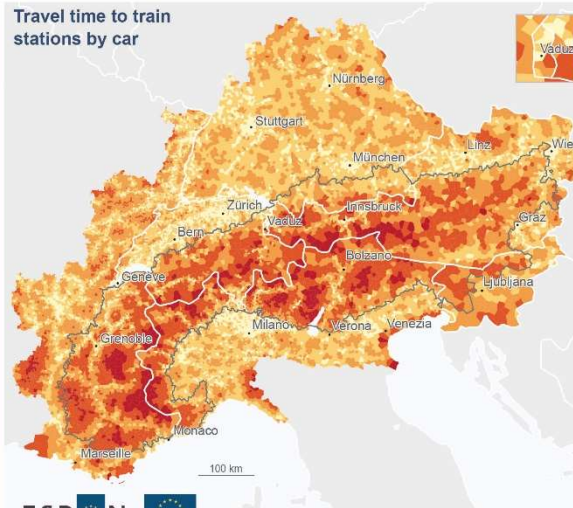
Travel Time to doctors by car



Travel time to primary school by car



Travel time to train stations by car



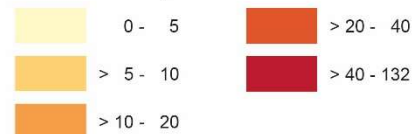
Alpine Morphology



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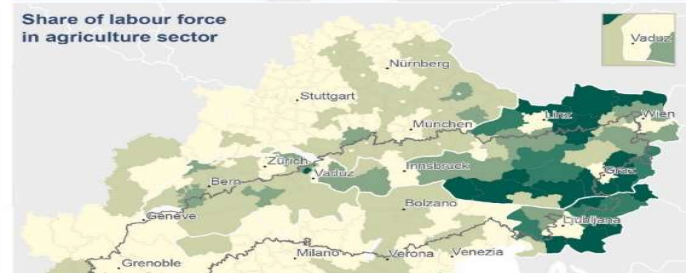
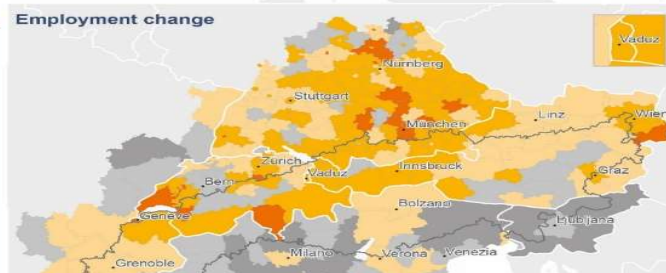
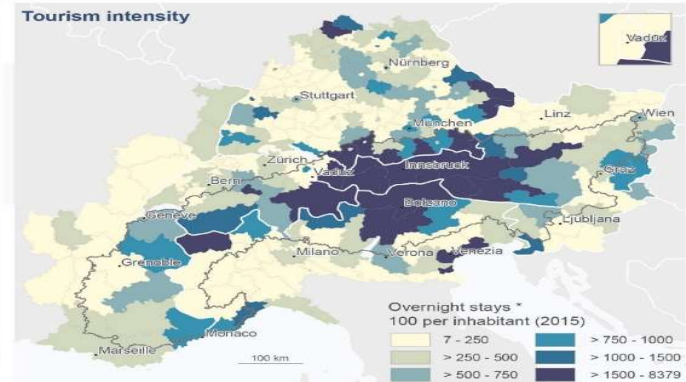
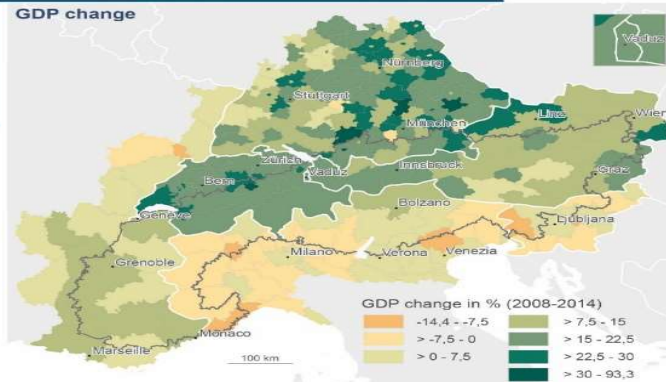
Travel Time by car in minutes



Territorial level: LAU2 (2011)
Source: RRG & FAU, Alps 2050, 2018
Origin of Data: ESPON Profecy, 2017; Swiss National Park, 2018
© EuroGeographics for the cities
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Economic Patterns

Spatial patterns and trends in different economic sectors

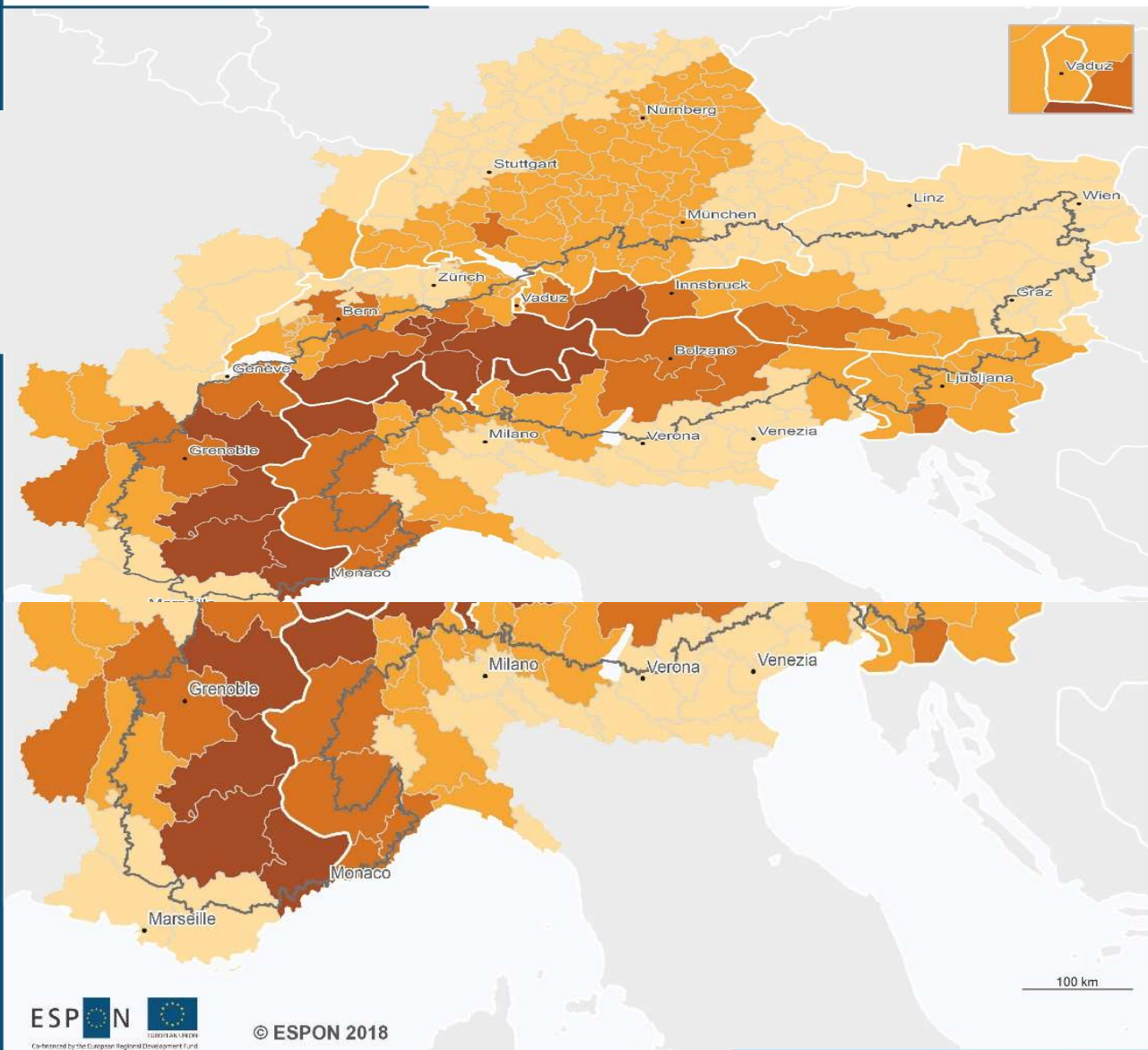


Economic development



Climate change

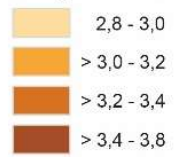
Projected change of air temperatures until 2100




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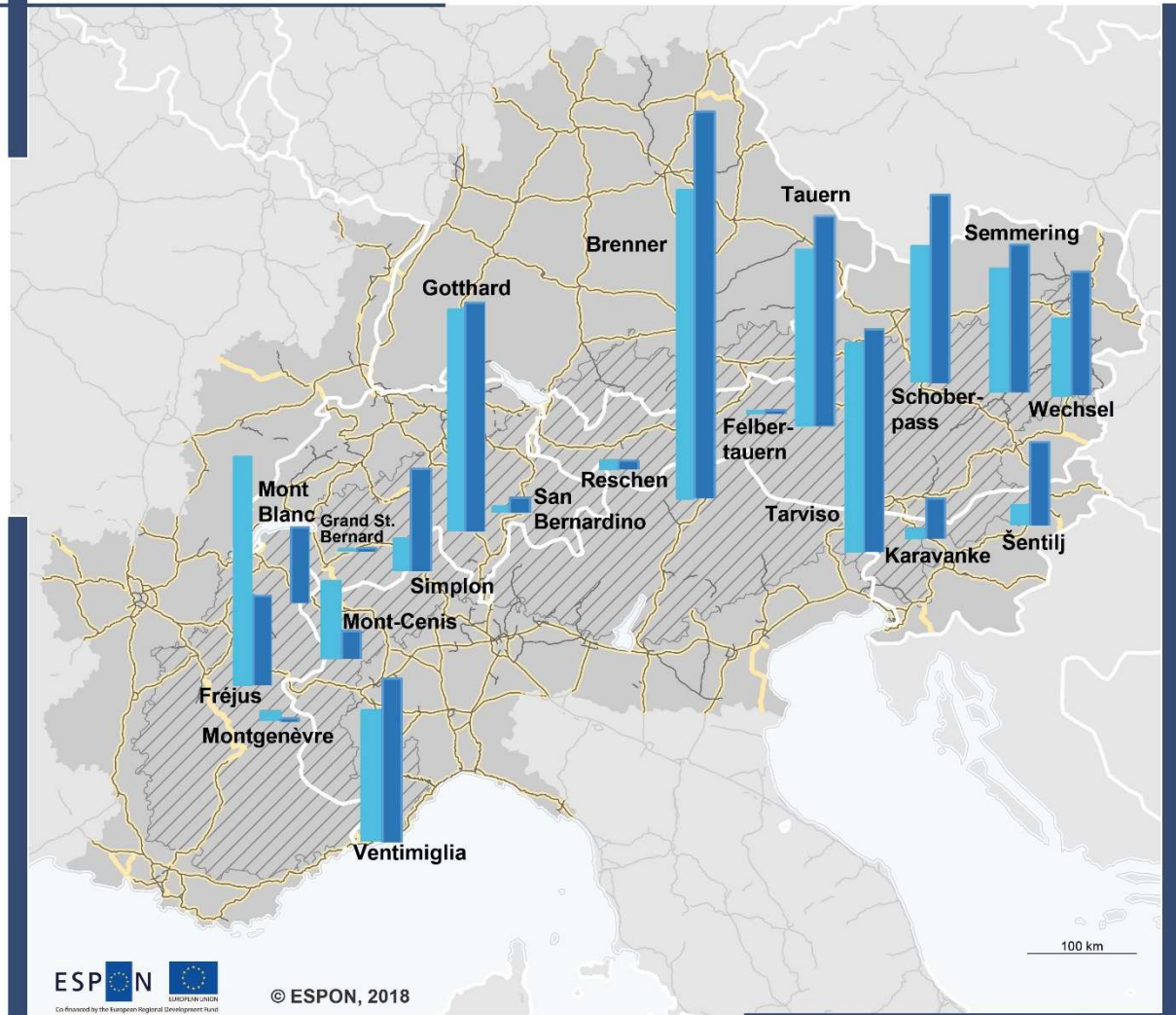
Temperature change in °C



Territorial level: NUTS 3 (2013)
 Source: FAU, Alps 2050, 2018
 Origin of Data: ESPON Climate, 2017
 © EuroGeographics for the cities
 © University of Geneva for administrative boundaries
 Outer perimeter: EUSALP & ASP
 Alpine Convention

Transport

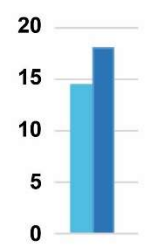
Development of transalpine freight traffic flows 2000-2014



ESPON © ESPON, 2018
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- Motorway
- part of TEN-T network
- Alpine Convention
- Spatial Focus Alps 2050

Total freight transport crossing the Alps in Mio. t*



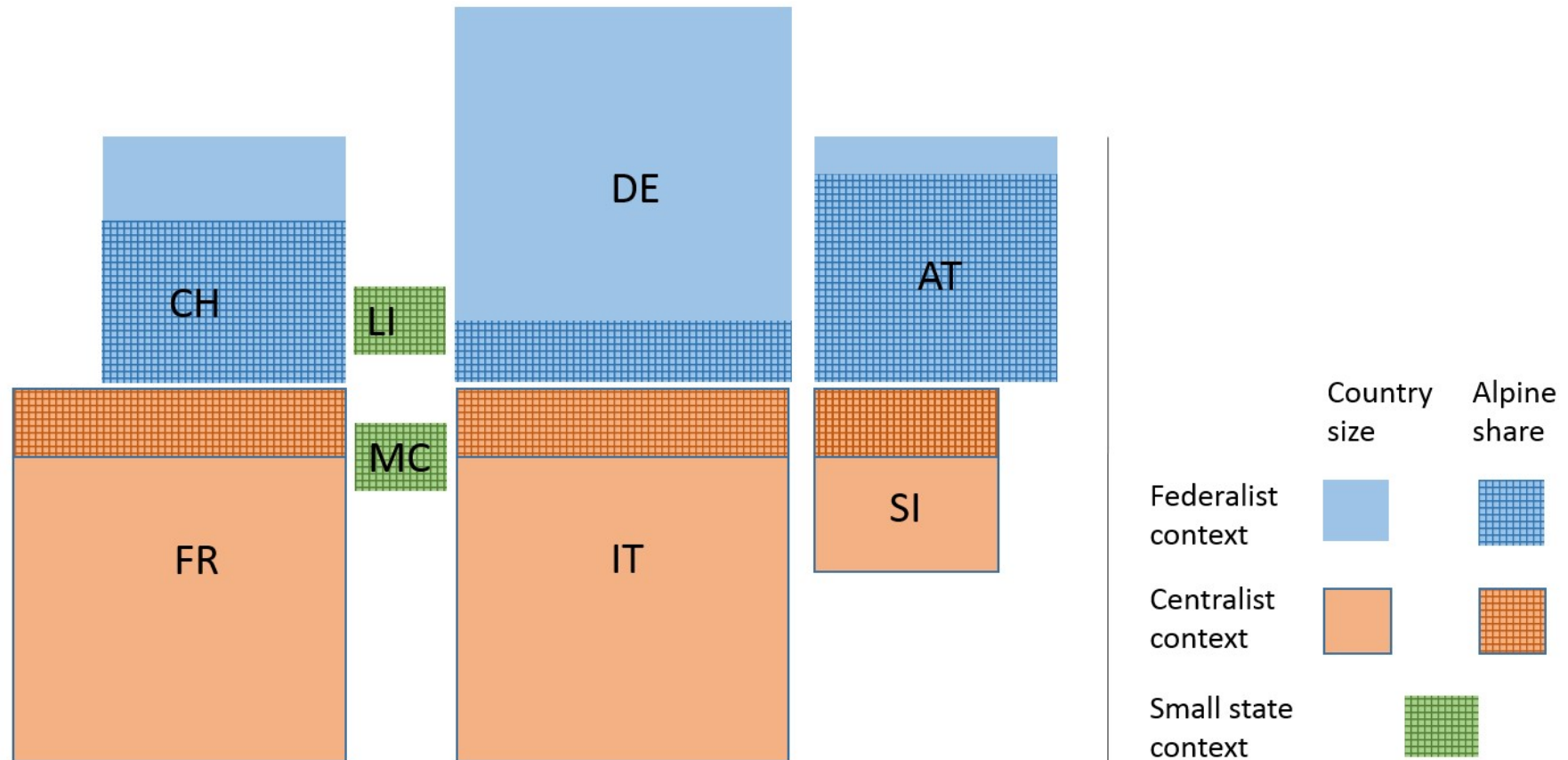
Territorial level: NUTS0 (2013)
 Source: FAU & Eurac Research Alps 2050, 2018
 Origin of Data: Alpinfo 2014
 ©EuroGeographics for cities and roads
 ©University of Geneva for administrative boundaries
 *Karavanke and Sentsilj just road and referring to DRI Investment Management Ltd., Ministry of Infrastructure of the Republic of Slovenia.

II. Macroregional focus and spatial blindness

Alps 2050

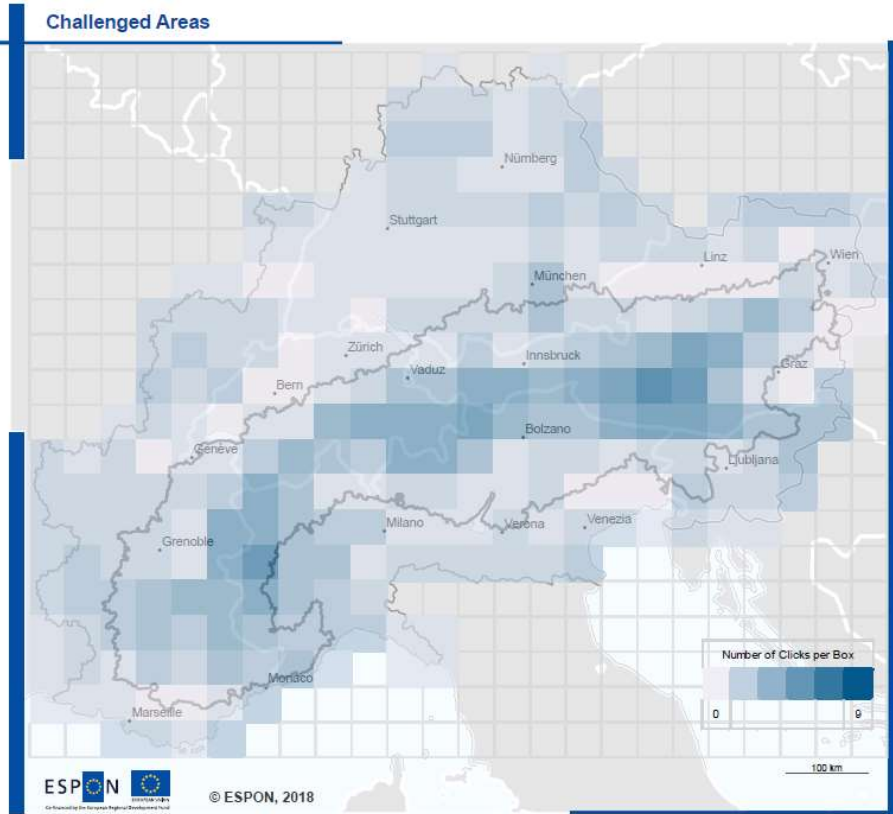
Macro-regional focus

Governance

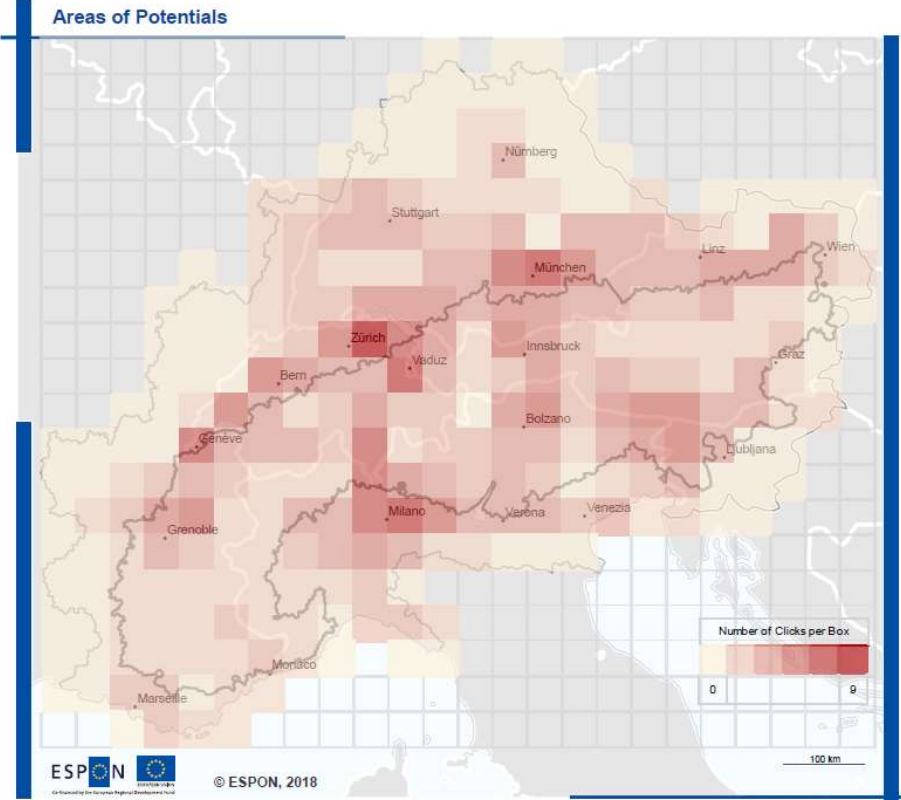


Macro-regional focus

Experts' Delphi assessment



Territorial level: LAUZ (2011)/NUTSO
 Source: Eurac Research & FAU, Alps 2050, 2018
 Origin of Data: European Commission, Alpine Space Programme, EURAC
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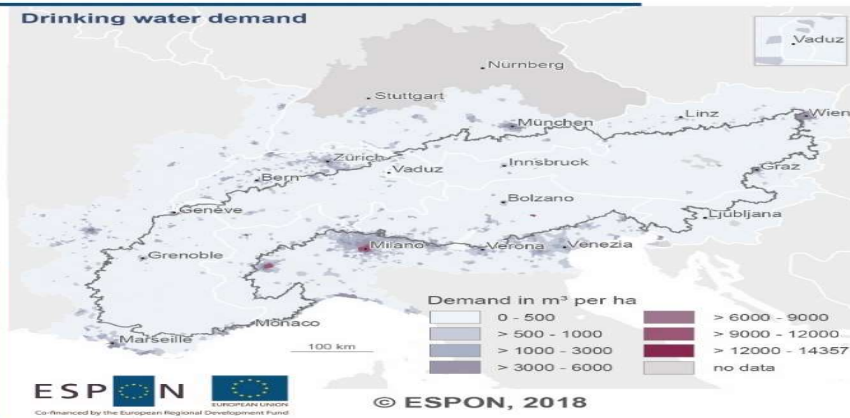


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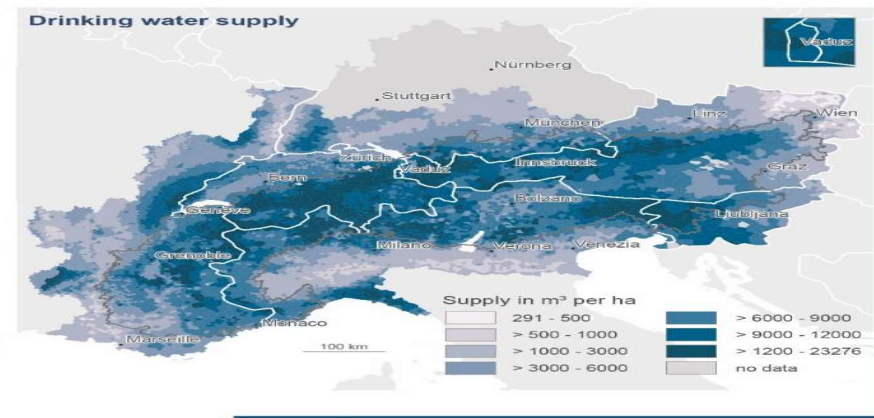
Macro-regional focus

Eco-system services - Drinking water

Drinking water demand



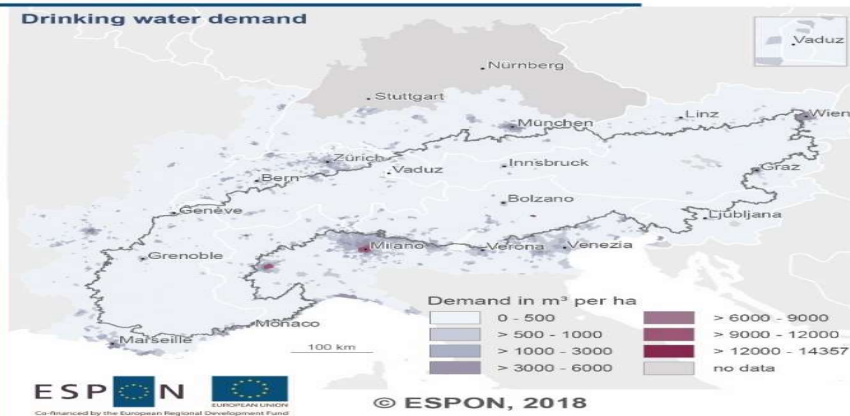
Drinking water supply



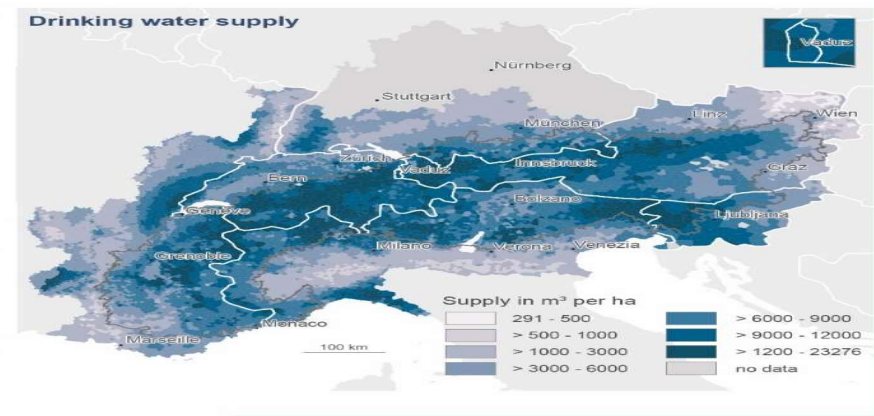
Territorial level: LAU2 (2011 updated)
 Source: Eurac Research & FAU, Alps 2050, 2018
 Origin of data: AlpES, 2018
 © EuroGeographics for the cities
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Eco-system services - Drinking water

Drinking water demand



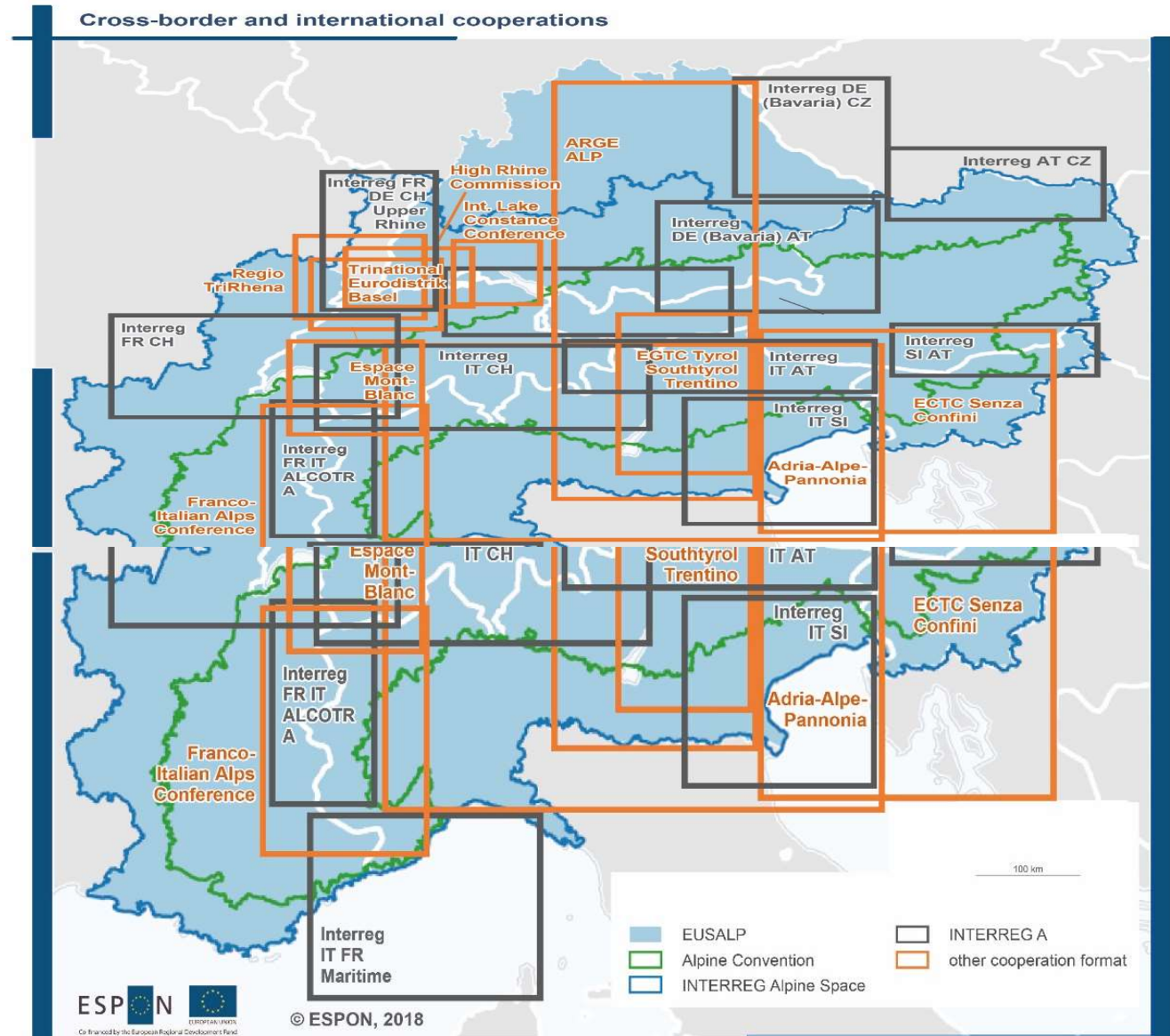
Drinking water supply



Territorial level: LAU2 (2011 updated)
 Source: Eurac Research & FAU, Alps 2050, 2018
 Origin of data: AlpES, 2018
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Macro-regional focus

Governance



Macro-regional focus

Spatial blindness?

Regional / territorial development? Spatial planning/monitoring?

EUSALP Objectives (Action Groups AG)	Alpine Convention Protocols (Working Bodies)	INTERREG Alpine Space priorities (Specific objectives SO)
Economic activities and innovation		
Growth / innovation	Prot. Mountain farming Prot. Mountain forests Prot. Tourism	Innovative Alpine Space
economic development (AG2)		
research & innovation (AG1)		Innovation (SO1.1)
Labour market, education, training (AG3)		
	Mountain Agriculture Platform	
	Sustainable Tourism Working Group	
	Green Economy Advisory Board	
Environment and ecology		
Environment	Prot. Spatial planning and sustainable development Prot. Nature protection and landscape conservation Prot. Energy Prot. Soil conservation	Low Carbon Alpine Space Liveable Alpine Space
	Alpine Climate Board	
	Ad-hoc Expert Group on Spatial Planning	
Energy (AG8)		Low carbon policy instruments (SO2.1)
Green infrastructure (AG7)	Ecological Network Platform Mountain Forests Working Group	Ecological connectivity (SO3.2)
Resources (AG8)	Water Management in the Alps Platform	Cultural and natural heritage (SO3.1)
Risk governance (AG8)	Natural Hazards Platform - PLANALP	
	Large Carnivores, Wild Ungulates and Society Platform - WISO	
Accessibility and services of general interest		
Connectivity [and society]	Prot. Transport	
Mobility (AG4)	Transport Working Group	Low carbon mobility and transport (SO2.2)
accessibility (AG5)		Services of general interest (SO1.2)
Governance	Governance	Well-Governed Alpine Space
	Macro-regional strategy for the Alps Working Group	

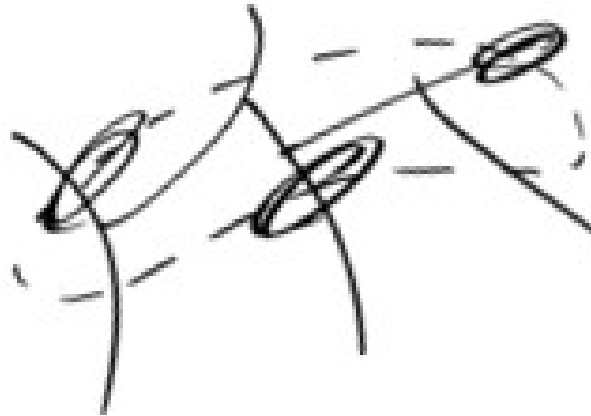
Table 1 Priorities of EUSALP, Alpine Convention and the INTERREG Alpine Space programme (sources: webpages of the mentioned institutions)

III. Contingency and potentials

Alps 2050

Scenarios

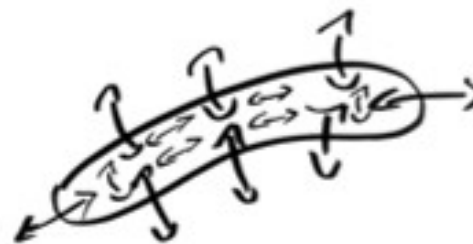
Status quo



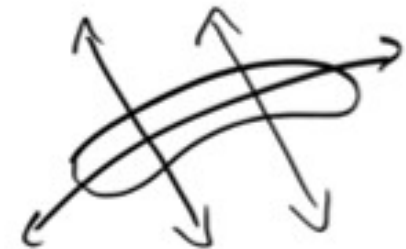
Protected Alps



Functional space



European Core



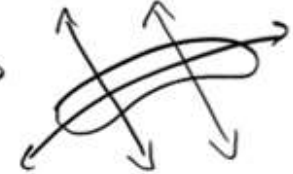
Scenarios

Status quo

Protected Alps

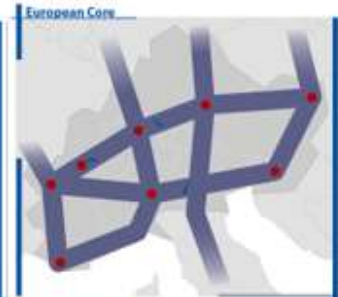
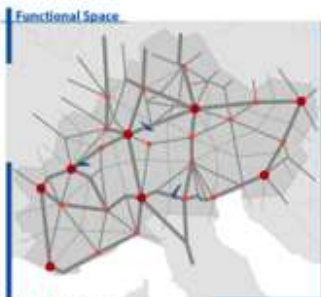
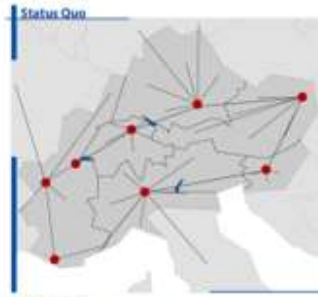
Functional space

European Core

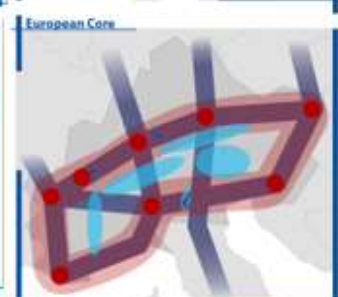
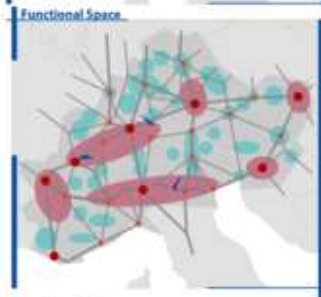
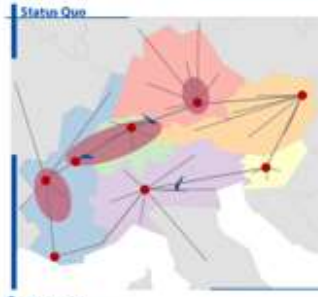


Perspectives

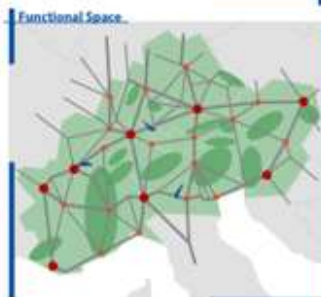
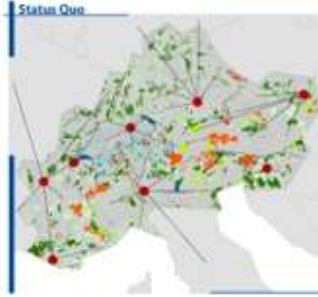
People and territories



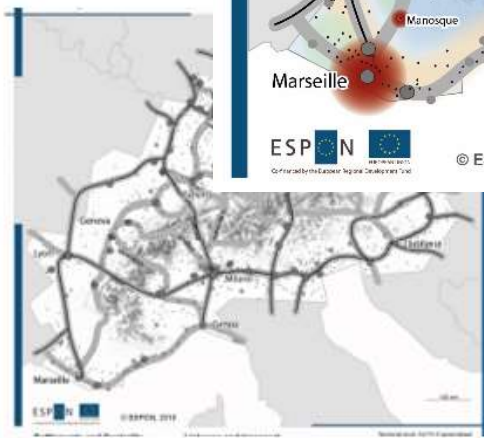
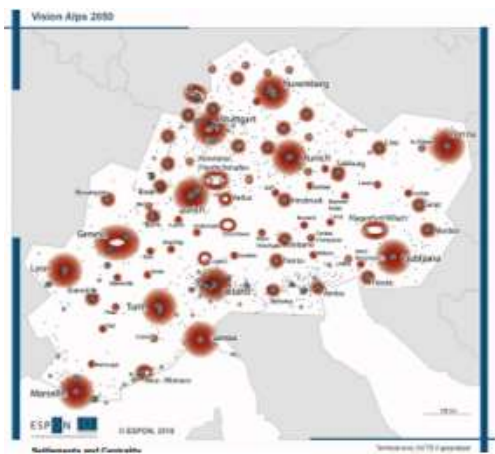
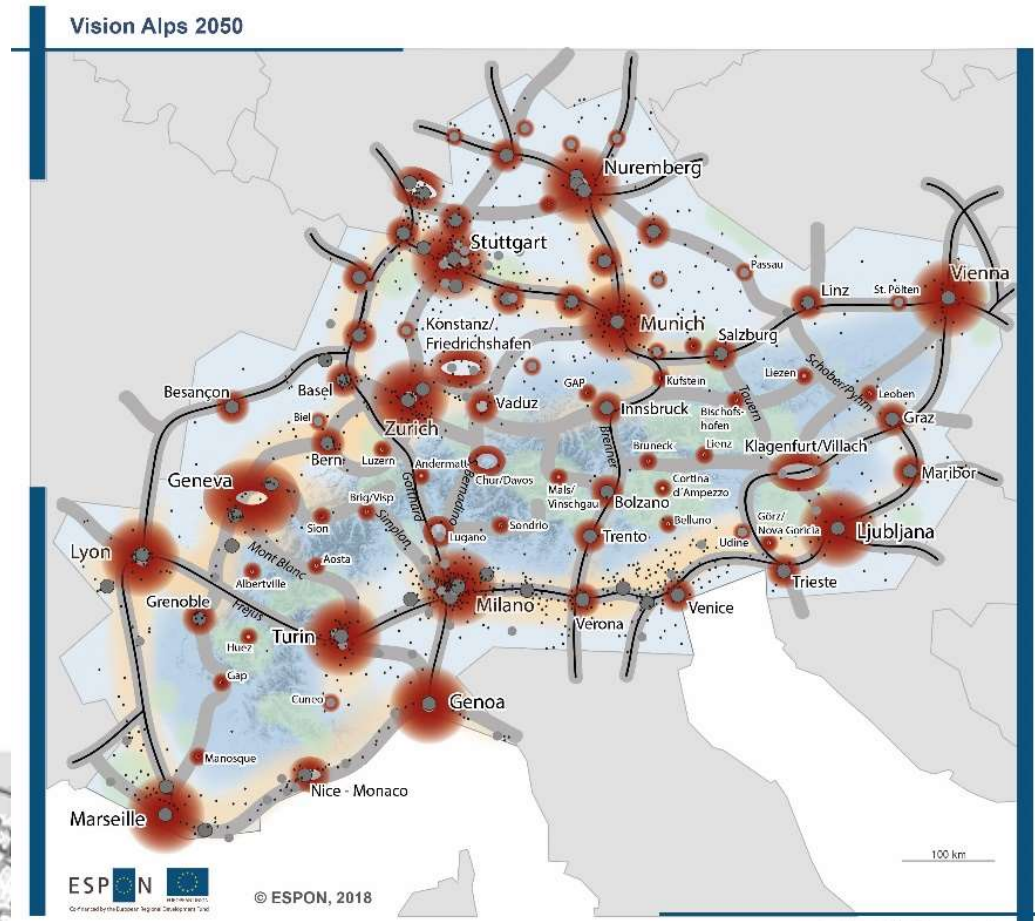
Economy



Environment



Towards a common vision



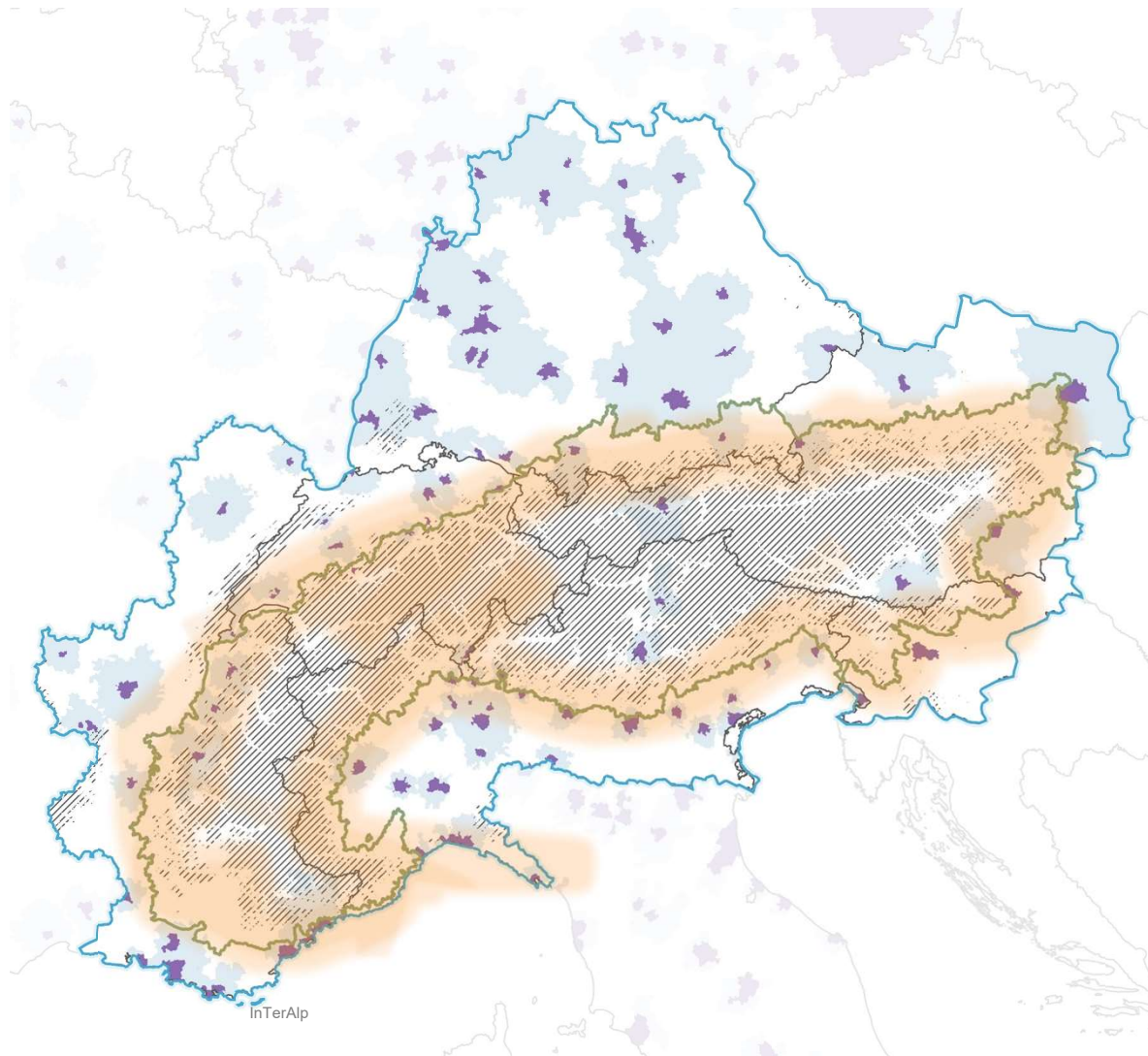


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Inspire Policy Making with Territorial Evidence

InTerAlp

// Interface Territories across the Alpine region



The Alpine region

Geographical context

Topography

/// areas higher than 1000 meters above sea level

Perimeters

- National borders
- ▭ Alpine Convention
- ▭ EUSALP

Functional Urban Areas

- densely inhabited city (core area)
- surrounding areas (commuting zone)

Concept and cartography: D. Bertram, M. Lambracht and T. Chilla, 2023.
 Data: EuroGeographics for the administrative boundaries, Alpine Convention and EUSALP for the perimeters, OECD for the functional urban areas by country, own topography calculation for the areas higher than 1000 m a.s.l. based on EDM raster data.

FAU Friedrich-Alexander-Universität
 Erlangen-Nürnberg

Interface Territories across the Alpine region (InTerAlp)

Interface territories?

■ Günther 2024



■ Klein 2024



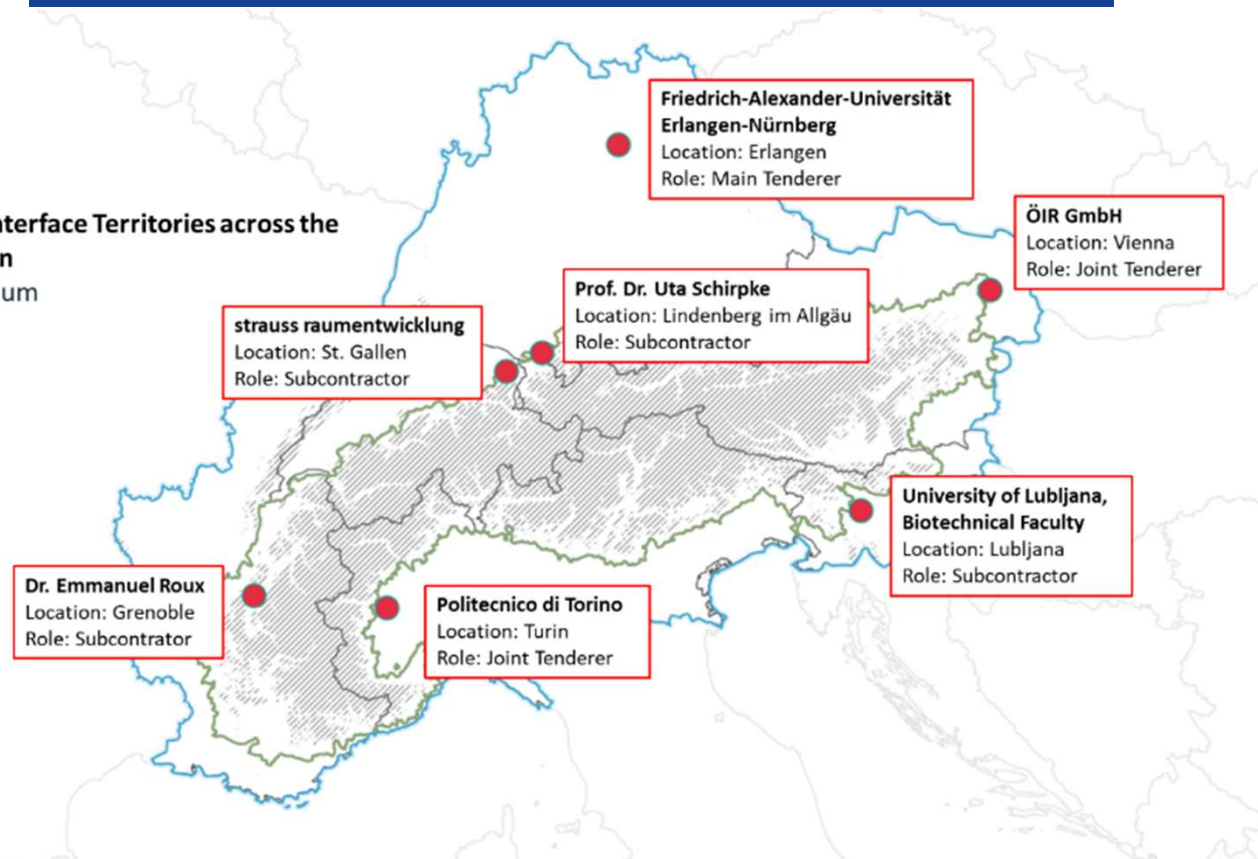
Institutional background

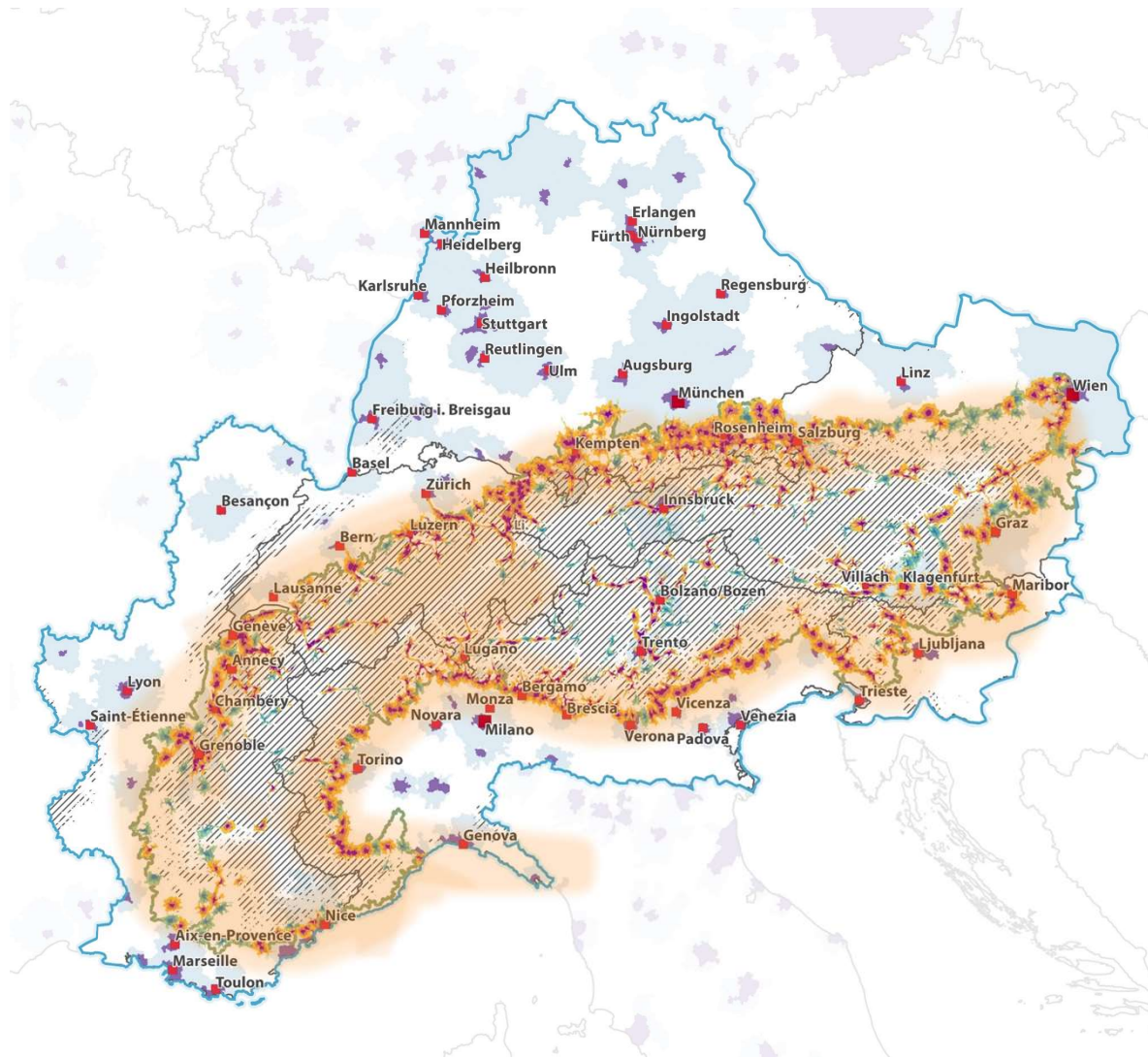
Alpine Convention
WG Spatial Planning and
Sustainable
Development

ESPON EGTC

Project consortium

**InTerAlp – Interface Territories across the
Alpine region**
The consortium





The Alpine region

Functional areas

Topography

/// areas higher than 1000 meters above sea level

Political information

□ Alpine Convention

□ EUSALP

— National borders

Cities (inhabitants)

- more than 1 mio.
- more than 100.000
- 50.000 to 100.000

Functional Urban Areas (OECD)

- densely inhabited city (core area)
- surrounding areas (commuting)

Alpine settlement system (RSA9)

Traveltime by car to Alpine center (> 5.000 inhabitants)

- 5 mins
- 10 mins
- 15 mins

Traveltime by car to Alpine center (≤ 5.000 inhabitants)

- 5 mins
- 10 mins
- 15 mins

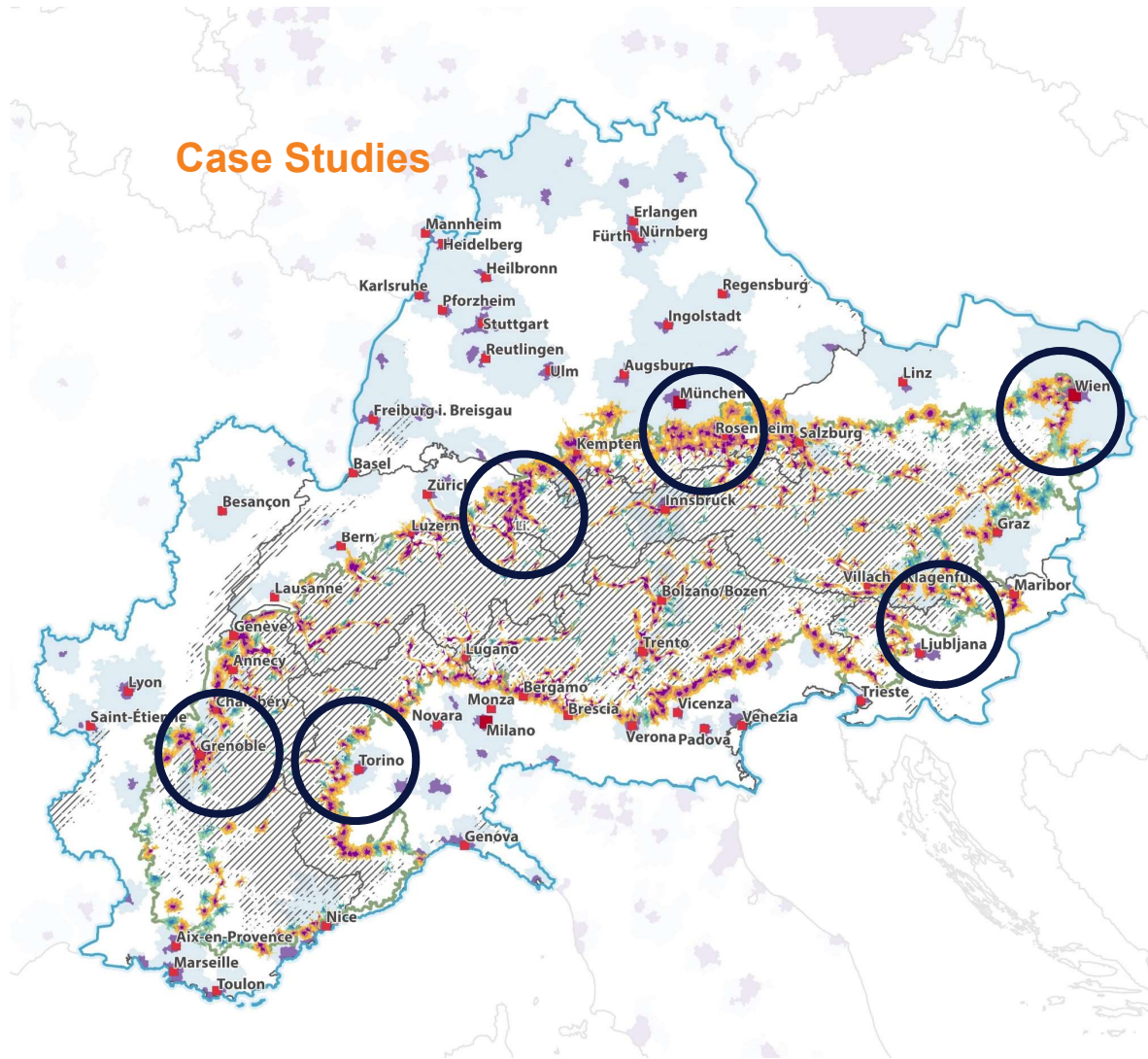
Concept and cartography: D. Bertram, M. Lambracht, H. Paul and T. Chilia, 2023.
 Data: EuroGeographics for the administrative boundaries, Alpine Convention and EUSALP for the perimeters, OECD for the functional urban areas by country, own topography calculation for the areas higher than 1000 m a.s.l. based on EDM raster data, 9th Report on the State of the Alps on Alpine Towns for the Alpine settlement system (2022).

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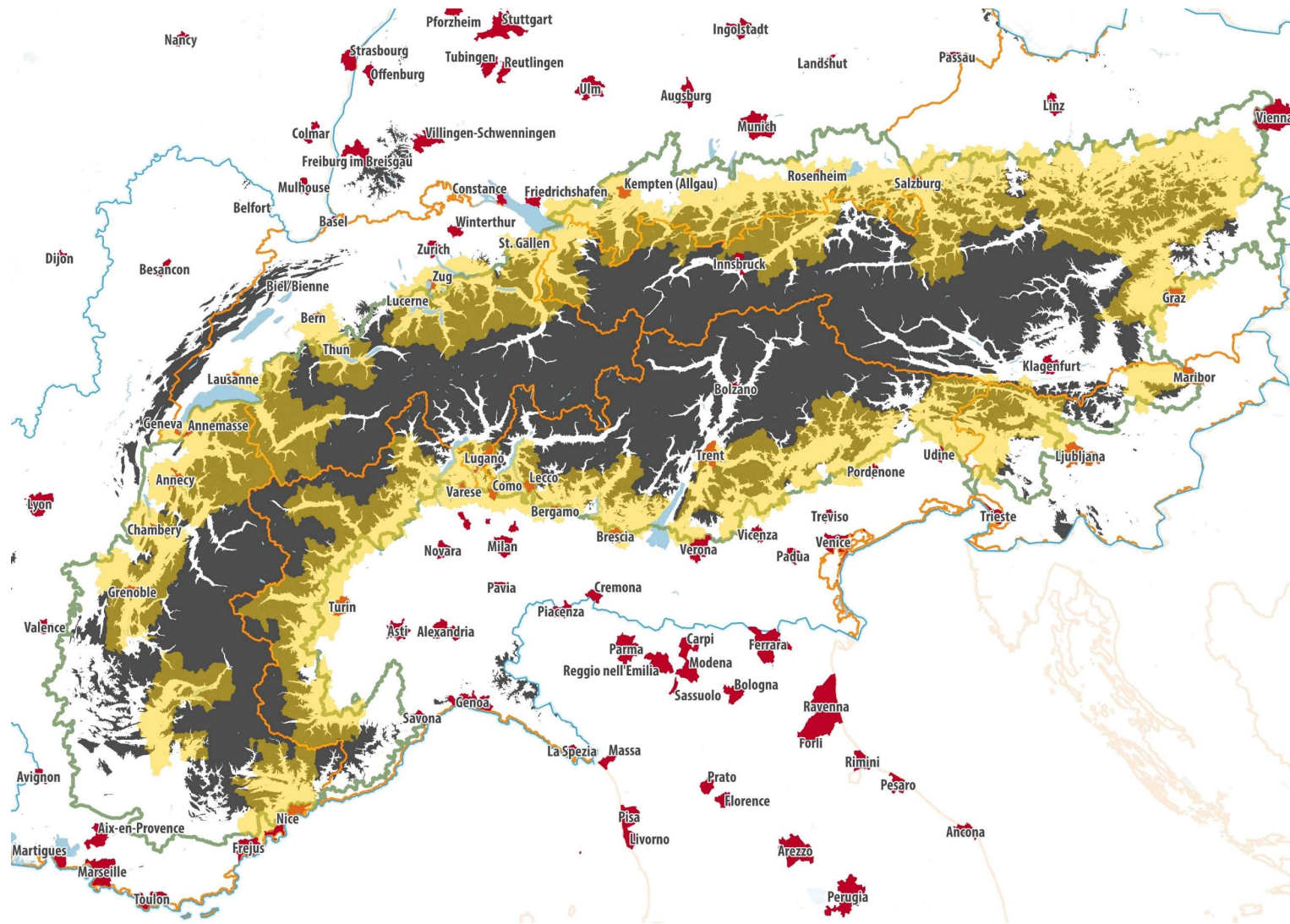
Interface territories?

- Alpine settlement system as starting point

Case Studies



- Turin Metropolitan City (POLITO)
- Munich-Tyrol (FAU)
- Ljubljana-Julian Alps (FAU/Naja Marot)
- Vienna-Lower Austrian Alps (ÖIR)
- Grenoble/Rhône Alpes region (FAU/Emmanuel Roux)
- St. Gallen-Alpine Rhine Valley (FAU/Ueli Strauss)





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