Alps2050

Common spatial perspectives for the Alpine area. Towards a common vision

Targeted Analysis

Executive Summary “Territorial Analyses”

21.11.2018
This targeted analysis activity is conducted within the framework of the ESPON 2020 Cooperation Programme, partly financed by the European Regional Development Fund.

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.

This delivery does not necessarily reflect the opinion of the members of the ESPON 2020 Monitoring Committee.

Authors
Tobias Chilla, Anna Heugel – University of Erlangen (Germany), Leadpartner
Thomas Streifeneder, Elisa Ravazzoli, Peter Laner, Francesca Teston, Ulrike Tappeiner, Lukas Egarter – EURAC Research Bolzano (Italy)
Thomas Dax, Ingrid Machold – Federal Institute for Less Favoured and Mountainous Areas BABF Vienna (Austria)
Marco Pütz – WSL Birmensdorf / Zürich (Switzerland)
Naja Marot – University of Ljubljana (Slovenia)
Jean-François Ruault – IRSTEA Genoble (France)

Advisory Group
Katharina Erdmenger, Romana Mynarikova, Jens Staats - Federal Ministry of Transport and Digital Infrastructure (Germany)
Vera Bornemann, Permanent Secretariat of the Alpine Convention, Innsbruck, Austria
Silvia Jost, Federal Office for Spatial Development, Switzerland;
Michael Roth, Federal Chancellery, Department IV/4 Coordination, Spatial Planning and Regional Policy, Austria;
Lenča Humerca-Šolar, Ministry of the Environment and Spatial Planning, Directorate for Spatial Planning, Construction and Housing, Slovenia;
Nicolas Gouvernel, General Commission for Territorial Equality, Unit Building Territorial Development Capacities, France;
Henrik Caduff, Office of Construction and Infrastructure, Liechtenstein;
Francesco Tulipano, Ministry for Infrastructure and Transport, Division Territorial Development, Planning and International Projects, Italy.

Technical Support
Manuela Burkert (survey implementation), Dominik Bertram, Cornelia Müller, Anja Sperr, Maren Teufel (data management and cartography) – University of Erlangen (Germany)

ESPON EGTC: Michaela Gensheimer (Senior Project Expert), Johannes Kiersch (Financial Expert)
Piera Petruzzi (Senior Project Expert - Outreach), Laurent Friederes (Head of Unit Evidence & Outreach), Ilona Raugze (Director)
Information on ESPON and its projects can be found on www.espon.eu.

The web site provides the possibility to download and examine the most recent documents produced by finalised and ongoing ESPON projects.

This delivery exists only in an electronic version.

© ESPON, 2018

Printing, reproduction or quotation is authorised provided the source is acknowledged and a copy is forwarded to the ESPON EGTC in Luxembourg.

Contact: info@espon.eu

1 Background

The comprehensive territorial analyses of the Alps 2050 project reveal the complex patterns of spatial dynamics and interrelations of mountain and lowland areas. Depending on the sectors and the different scales involved, the analytical picture is very mixed. Still, our summary of the findings points to the following rather general aspects:

On the one hand, spatial development in the Alpine region shows many positive trends. The Alpine region is a space with above average socio-economic performance in most of its parts. Moreover, the diversity and density of territorial cooperation is impressive. The region is attractive in a literal sense, attracting tourists and migrants on the national, European and global scale. Maintaining these positive aspects implies to work for a competitive economy also in the future, while focusing simultaneously on the maintenance of the cultural landscapes, and addressing rising challenges of environmental and demographic change.

On the other hand, there are considerable challenges of spatial development – which differ depending on the region concerned. Outmigration from peripheral spaces, severe structural change in rural labour markets, threats of climate change implications not only in high mountain regions, and shortage of skilled labour in metropolitan areas are major on-going trends that underpin the variety and scope of the challenges. These aspects also indicate that political responses have to be designed in a really tailor made way.

In a transnational context, the common challenges are in the forefront of strategic spatial development. These common challenges can be formulated in the following way:

- The Alpine region is a space of multifaceted diversity that often lacks coherence, linkages and strategic orientation between its different types of territories: The relations between urban and rural spaces, between mountainous and pre-Alpine territories, and along the manifold national borders are not yet elaborated. Addressing these challenges means to better understand spatial divergences and better link the different categories. Reflecting the interlinkages requires to bridge functional gaps and define institutional roles throughout the multi-level governance system. Defining relations between territories can impact on the organisation of transnational transport regimes, the financial schemes with regard to eco-system services, labour market mobility programmes etc.

- The Alpine region is facing considerable challenges of sustainable development. This is true with regard to the environmental dimension (climate change, biodiversity, water and soil quality, land use and urban sprawl, energy production etc.), the social (services of general interest, disparities) and economic dimension (structural change in agriculture and tourism, labour markets, competetivity). Addressing these challenges means to avoid trade-offs between all these dimensions and, at the same time, to pursue a long-term perspective. In addressing sustainable development it is crucial to aim at innovation in a comprehensive sense. This includes very different aspects (leaving ample opportunity and scope for political implementation): investment in technical R&D, development of transnational protection regimes, drawing benefits from digitalisation of SGI in peripheral mountain areas, enhancing social cooperatives, e.g. in the field of tourism or renewable energies, etc.
2 The people and their territories

When we talk about the situation of the Alps 2050 region and their territories, we see a complex structure with many facets. The **demographic development** within the Alps 2050 perimeter is as diverse as for the whole European territory. The morphology plays a less important role than in the current settlement system. Map 1 shows the demographic trend for the period 2010-15: The overall picture clearly underpins the core influence of the degree of urbanisation: Metropolises and larger cities are almost always the centre of growth trends, whereas the patterns in the rural areas are much more diverse. For example, the South Tyrol area is demographically developing more positively than the Belluno province. The observed trends are significantly different between the Alpine countries, e.g. along the French-Italian and the German-Swiss borders. The importance of transport corridors is clearly perceptible – the Inn Valley, the High Rhine Valley and most of all the Brenner corridor are clearly visible.
The diversity of rural areas and the large scale influence of metropolitan ‘growth poles’ lead to a complex picture. This complexity is even increased by the combination of diverse and overlapping in- and out-flows of migrants which produce a highly diversified situation for all parts of the Alpine space. Many demographic indicators refer to these patterns, highlighting the increase of bi-directional (and circuit) migratory flows, negative natural trends, significance of specific age groups and gender differences in migration movements, length and frequency of movements etc.: Still, metropolitan places tend to show, in general, positive values whereas rural patterns are more diverse in their demographic development.

Map 2: Services of public interest

Map 2 shows the accessibility to so-called services of general interests (SGI), namely to doctors, primary schools and train stations. The indicator was developed in the ESPON project PROFECY. This indicator represents different aspects: It shows both the density of the services and at the same time the accessibility of the services through the road network. To a large extent, both aspects are the result of population density and linked to economic development.
of the regions. The overall picture shows that the morphology matters: the inner-Alpine perimeter (Alpine Convention) shows clearly lower values of accessibility than the pre-Alpine and more urbanized areas.

Also with regard to transport services, the contrast between inner- and pre-Alpine areas plays a substantial role – with the determining topic of transit traffic and its unequal consequences: corridors of pan-European importance play a major role on all political levels whilst environmental damage is mainly experienced in the transit areas. In parallel to freight transport, passenger transport is a challenge for sustainable management: (intra-)regional accessibility and transit flows demand for smart strategies, including in particular multi-modal transport regimes.

### 3 The economy

From a more general European perspective, the economic performance of the Alpine region is rather strong. Most indicators, including GDP per capita, are above European average. Map 3 shows the spatial patterns and trends for different economic sectors.
This compilation of Map 3 illustrates the diversity of spatial patterns and trends across Alpine regions:

- On the left hand side, we see two maps with spatial patterns of a North-South divide: the trends in employment and in GDP (economic strength) have developed much more positive on the Northern side of the Alps 2050 space than on the Southern side. Innovation patterns are not displayed here, but show a similar North-South divide.

- The map on tourism intensity based on overnight stays (upper right hand side) shows a ‘central-peripheral pattern’: the gradient goes from the (inner-Alpine) centre to the (pre-Alpine) ‘periphery’ of the Alps 2050 space. This shows the role of the Alpine massif as a touristic hot spot with much economic potential and also the incumbent threat for sustainable development pathways on the local level.

- The map on the lower right hand side shows an East-West gradient of an economic feature: The share of labour in the agricultural sector is the highest in the Eastern Austrian and in the Slovenian regions (in both cases relevant for all regions except capital regions).

Moreover, Fig. 1 underscores the high relevance of national differences in economic development. The NUTS3 regions of each country make up a kind of ‘cloud’ that can be differentiated from other countries. The high variability within the ‘clouds’ of Switzerland and Germany can be interpreted as implication of the small size of the NUTS3 regions in these countries. However, the overall picture is clear: Belonging to a specific nation-state determines the economic level and path to a high extent. In comparison, the situation of a region in the inner-Alpine or pre-Alpine area seems much less decisive.
4 The environment

Responding to the multiple challenges and threats of the Alpine environment is not trivial. It particularly refers to respect the societal demand for well-being and development and, simultaneously, to safeguard an ecologically functioning system. The overarching importance of climate change in particular is broadly debated. Dealing with the large scale origin of climate change impacts, expressed through rising temperatures, increase of natural hazards, precipitation changes etc., calls for transnational policies and measures.

Map 4  Protected areas in the Alps 2050 perimeter

In recent years, the question of ecological connectivity came high on the political agenda. The key idea is to ensure sufficiently large functional ecological systems by – ideally – connecting
protected areas in a way that flora and fauna can interact. Against this background, ecological connectivity is concerned about continued big-scale construction activities and settlement dynamics that cut across ecological networks and extend to hitherto unaffected areas. One classical instrument in order to safeguard and improve the situation is the protection of areas. Map 4 provides an overview of the existing protected areas in the Alps 2050 space as example for the concrete instruments of environmental policies. Obviously, many famous mountain massifs are object to national park regimes and/or UNESCO protection (e.g. Dolomites, Triglav). However, the share of protected spaces is not necessarily higher in the inner-Alpine area than in lowlands. In the map, we see clear differences between national protection regimes.

Generally speaking, the ecological functions of the Alpine region have an importance that goes far beyond its perimeters. Questions of biodiversity change, as addressed with the protection and connectivity policies, are just one example. This leads to the question of ‘services’ of diverse kinds that the Alpine region provides for other regions beyond. The concept of ecosystem services reflects on the ecological systems that humans gain in daily life. They are built on functioning eco-systems like forest, grassland, or aquatic eco-systems, and they are important in terms of drinking water or leisure areas supply. Map 5 illustrates the drastic difference in the supply-and-demand-relation through the example of drinking water.

Map 5  

Ecosystem services: drinking water demand and supply

Drinking water demand is very much linked to urbanized and metropolitan areas. The spatial structure of settlement areas shows a very punctual structure surrounding the core mountainous area of the Alps. The demand for drinking water linked to Alpine sources is not limited to the Alps 2050 perimeter but goes far beyond. Contrary to that, the supply structure is heavily linked to the morphological structure. This is a typical picture for ecosystem-services
regimes – supply and demand show contrary spatial structures (see a similar spatial distribution for the example of leisure supply and demand in the Atlas).

5 The governance

From the governance perspective, the Alpine region is remarkable as it is the ‘contact zone’ of several nation states and, at the same time, of different administrative and political systems. Despite this political fragmentation (or maybe because of it?), territorial cooperation looks back on a remarkable tradition and diversity. Map 6 shows most of the cooperation formats on the cross-border level (for the transnational tools, see Atlas).

The high number of cooperation formats might be due to the low correlation of national borders with cultural differences like language, regional belonging, historic relationships etc. There are few regions in Europe that show a comparable institutional diversity, and density of cooperation frameworks, perhaps with the exception of the Baltic Sea region.

This situation can be summarised by the following characteristics.

- **The institutional diversity** enhances the relevance of multi-level governance, including EU and domestic instruments as well as the use of cross-border programmes for many issues of regional policy and spatial development.

- Generally speaking, there is a long-standing experience in territorial cooperation. Many of these cooperation formats have the roots or depend on forerunners in the 1970s (e.g. ARGE ALP, Lake Constance). This broad experience has led to stable and large networks between the involved institutions and persons that might even be understood as ‘epistemic community’, i.e. a group of experts from different institutional backgrounds that know each other pretty well and that work together along the different phases of the policy cycle; INTERREG committees, Alpine Convention and EUSALP groups, scientific networks like ISCAR etc. are just some examples.

- The large number of institutional formats certainly comes along with forms of competition, in particular with regard to funding and political priorities. In particular, the current relations between Alpine Convention and the EUSALP might be seen as co-opetition.

- **Instrumental softness**: The density of cooperation tools must not be misunderstood with regard to the instrumental vigour. It is true that the Alpine Convention constitutes a legally binding intergovernmental regime to balance development and protection through innovative approaches. The Alpine Convention protocols formulate important objectives and principles and it is up to the Alpine states to implement them properly. It is also true that the ASP and other European programs provide a substantial amount of funding. At the same time, infrastructure and other investments rely to a major extent on domestic implementation policies and co-funding arrangements.

- **European policies matter**: As mentioned above, the institutional complexity induces a particular role to European policies. This applies even for Switzerland and Liechtenstein who are not EU member states but have adopted a series of important regulations and follow common rules to participate in a number of programs. This is most visible for the Schengen regulations, the provision of tools for cross-border cooperation and the transnational scale (since the 1990s in form of INTERREG B cooperation, and nowadays also by cooperation for the macro-regional strategy; see the respective map in the Atlas on the perimeters).
• **The domestic scale**: The complexity on the domestic level is due to a) the differences of the involved countries with regard to country size and the share of the mountainous areas and b) the politico-administrative contexts (‘planning cultures’) that comprise more centralist and more federalist countries as well as the two small states of Liechtenstein and Monaco.

![Map of Cross-border and international cooperation in the Alpine area](image)

**Map 6**  Cross-border and international cooperation in the Alpine area
ESPON 2020 – More information

ESPON EGTC
4 rue Erasme, L-1468 Luxembourg - Grand Duchy of Luxembourg
Phone: +352 20 600 280
Email: info@espon.eu
www.espon.eu, Twitter, LinkedIn, YouTube

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.