



EUSALP EU STRATEGY FOR THE ALPINE REGION

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TERRITORIAL ECOSYSTEMS OF RESEARCH AND INNOVATION

AG1 – Research and Innovation

Shaping future together

The following Policy Recommendations have been elaborated by the members of the Actions Groups of EUSALP, reflect the expertise of the AGs members and are meant for voluntary implementation by the decision makers when it comes to the Alpine Region.

EXECUTIVE SUMMARY

Situated within the broader framework of EUSALP, Action Group 1 aims to stimulate research and innovation while promoting an integrated policy approach to address the profound socio-economic and territorial transformations currently underway. Such transformations are generated by the ongoing digital and ecological transitions, both of which are driven by technological innovations and specific European and national policies. AG1 fosters this integrated policy approach by adopting a specific spatial perspective in order to promote the development of territorial ecosystems of research and innovation – dynamic environments where physical and digital infrastructures interact with networks of public institutions, private enterprises, research centers, schools, and civil society. These territorial ecosystems should be rooted in integrated projects of socio-economic and spatial regeneration, framed by trans-scalar and cross-border territorial visions, and aimed at decreasing the growing socio-economic and territorial disparities within the Alpine space. In this perspective, by leveraging collaborative governance models and place-based planning and design methods, Action Group 1 contributes to building a future-proof Alpine macro-region, where innovation becomes a driver of socio-economic and territorial equity, shared prosperity, and anti-fragility.

Here follows an outline of Policy Recommendations, which can be categorized in three groups

1. Territorial diagnostics, planning and design

- Identify demands, opportunities and requests for research and innovation at the intersection between supralocal policies and local initiatives
- Accordingly, select topics for the development of “territorial” ecosystems of research and innovation
- With this approach, integrate the physical hardware and the scientific software
- Define the territorial frameworks through the development of spatial figures and visions
- Articulate them into spatial scenarios for “territorial” ecosystems of research and innovation
- Identify hubs in accessible sites through the reuse of abandoned spaces along existing networks of transport and green and blue infrastructures
- Promote hubs as flexible spaces in relation to their locations, vocations, functional mix, and coalition of actors
- When involving universities, develop such hubs according to the off-campus model, shared by multiple academic institutions around place-based teaching and research activities, and open to the local communities

2. EUSALP Governance

- Support coalitions of interest between universities, schools, research institutions, firms, public institutions, and local communities
- Target efforts towards the development of “territorial” ecosystems of research and innovation by integrating the diversification and reactivation of production landscapes with the social inclusion and territorial re-naturalization
- Enhance the potential transversality of the AG1 by selecting the topics for the ‘territorial’ ecosystems of research and innovation in interaction with the thematic focus of the other Eusalp AGs
- Promote an integrated policy governance to drive research and innovation in the prospect of territorial cohesion in order to break down sectoral silos and prevent fragmentation

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- According to the Joint Paper of Spatial Planning for the Eusalp Strategy, target the spatial planning and design approach to foster the cross-sectoral integration between multiple policies of innovation
- Establish a framework for monitoring and for impact assessment, including key performance indicators (KPIs)

3. Social Innovation

- Promote laboratories of participation and co-creation to develop territorial figures, spatial visions, and related scenario framing the territorial ecosystems of research and innovation
- Enhance the role of universities as drivers for the interaction between institutional, economic and social actors, as well as for the promotion of the above-mentioned laboratories of participation and co-creation
- Support alliances of different interests in relation to both supralocal trajectories and local needs for the development of 'territorial' ecosystems of research and innovation by strengthening cooperations among different regions of the Alpine space
- Enhance the role of education as a driver for interaction between young generations, and multiple economic and social stakeholders
- Promote laboratories of participation and co-creation to develop such interaction in relation to long-term thematic visions and scenarios
- Develop facilities and activities of research and innovation able to intersect economic diversification and reactivations with social inclusion and territorial re-naturalization

INTRODUCTION

Within the broader framework of the EUSALP strategy for the Alpine macro-region, the Action Group 1 “Research and Innovation” promotes an integrated policy approach aimed at **addressing the profound socio-economic and territorial transformations**, which are generated by the ongoing **digital and ecological transition**, in its turn driven by technological innovations as well as by specific European and national policies. In particular, the Action Group 1 promotes such integrated policy approach in the specific prospect of **decreasing the growing socio-economic and territorial disparities** within the Alpine space.

By adopting a spatial approach, the main policy’s objective is to foster the development of **‘territorial’ ecosystems of research and innovation**: that is, dynamic environments where **physical and digital infrastructures** (the so-called ‘hardware’) interact with **networks of public institutions, private enterprises, research centers, schools, and civil society** (the so-called ‘software’). Based on projects of **socio-economic and spatial regeneration**, these ‘territorial’ ecosystems are intended to generate **tangible outcomes for a wide range of target groups** – including local communities, private firms, public institutions, as well as research and educational institutions – by enabling the creation of innovative services and strengthening sustainable local production in relation to the improvement of physical and digital connectivity.

The challenges to be tackled in the Alpine macro-region are multiple and interconnected: from **the shift from traditional economic sectors** such as agriculture and manufacturing, to **the diversification of tourism models** beyond winter sports; from **the increasing fragility of environmental and landscape resources**, also due to climate change, to **the socio-economic, environmental and spatial imbalances**, caused by both the polarization of services and activities in valley-floor conurbations and high-mountain tourist areas, and the abandonment and depopulation of intermediate territories. These dynamics reveal **significant territorial disparities** – both within the Alpine macro-region and in relation to its surrounding areas – **which risk being exacerbated** in the absence of targeted and place-sensitive policy interventions.

In this context, **the territorial dimension plays a crucial role**. The Alpine macro-region is not only a physical barrier, but also a historical and contemporary space of connection – for goods, people, knowledge, and innovation. **Strengthening cross-border collaboration and promoting trans-scalar strategies** becomes essential **in addressing the spatial fragmentation and institutional complexity** that characterizes the area. Effective interventions must consider the overlapping of local, regional, national, and European policy levels, especially when aiming to improve interoperability across borders and ensure that smaller, more remote communities are not left behind in the ongoing transformations.

Although aligned with existing policy frameworks – such as regional and supralocal strategies on transport and mobility, environment and landscape, social and economic innovation, and sustainable development – **this approach seeks to fill critical gaps** by focusing on the **integration of economic, social, environmental, and spatial dimensions**. Through this lens, **the digital and ecological transition** is not seen only as a **technological shift**, but as an opportunity to promote **broader socio-economic, environmental, and spatial regeneration** in the prospect of **long-term resilience, and territorial cohesion**. By leveraging collaborative governance models and place-based planning and design methods, Action Group 1 contributes to building a future-proof Alpine macro-region, where innovation becomes a driver for **equity, shared prosperity, and anti-fragility**.

POLICY RECOMMENDATIONS (LIST)

TERRITORIAL DIAGNOSTICS, PLANNING AND DESIGN

- **Identify demands, opportunities and requests** for the development of 'territorial' ecosystems of research and innovation, through: i) the **mapping** of existing socio-economic dynamics, and educational and research activities; ii) the **identification** of available spaces at the crossing point of productive landscapes and territorial corridors; iii) the **interaction** with policy-makers and stakeholders, including public institutions, research institutions, universities, high schools, private companies, and local communities.
- In relation to the above-mentioned analysis, mapping, and collection of needs and demands, **select the topics** for the development of 'territorial' ecosystems of research and innovation **by considering local resources and excellences to strengthen**, as well as **local fragilities to reduce** in relation to broader goals of socio-economic transition and territorial-environmental adaptation.
- **Integrate the physical hardware, and the governance and scientific software** of the 'territorial' ecosystems of research and innovation, **by identifying places and activities to regenerate in relation to wide territorial frameworks**, able to connect the local environment with other regions of the Alpine space.
- **Define such wide territorial frameworks through** the collaborative development of **trans-scalar and cross-border territorial figures**, related **long-term spatial visions**, and specific incremental **spatial scenarios**, able to intersect the European, national, and regional policies and plans, with urban and regional spatial plans and projects, in order to frame the implementation of 'territorial' ecosystems of research and innovation by overcoming sectoral approaches, as well as obsolete administrative and political borders.
- **Articulate** the specific incremental **spatial scenarios for 'territorial' ecosystems of research and innovation** in relation to **a plurality of potential hubs**, which could vary in relation to their location, their accessibility, their typology of intervention and connected spatial configuration, their vocation, their functional mix, and their coalition of actors.
- In particular, **identify the hubs** of 'territorial' ecosystems of research and innovation **in already accessible sites** (e.g., in nodes of existing productive, transport, technological, environmental, and landscape networks), **and in already available sites** (such as, in abandoned or vacant buildings or areas), by articulating their implementation according to different typologies of intervention (including **the reuse of, transformation of, and new addition to existing spaces**).
- In parallel, **promote the hubs** of the 'territorial' ecosystems of research and innovation **as flexible spaces according to**: (i) **their vocation**, among advanced education, applied research, advanced production, and social inclusion; (ii) **their functional mix** (permanent or temporary), among spaces for schools, universities, associations, companies, freelancers, and local communities (integrating spaces for teaching and research with spaces for coworking, new manufacturing, green energy, green mobility, last-mile logistics, and datacenters, as well as with facilities for different kinds of users: local communities and visitors, young and elderly); (iii) **their coalitions of actors**, among public institutions, economic and social associations, private companies, research institutions, universities, and high schools.
- **Develop the hub typology driven by universities** according to the model of **flexible Alpine off-campus** – located in regeneration areas, at the intersection of key infrastructural and territorial networks, and **shared among multiple academic institutions** in collaboration with local schools, authorities, associations, and businesses – aimed **to host seasonal initiatives** (e.g. summer/winter schools, and inter-university experimental degree programmes), **as well as specialized teaching and research centers** linked to local transition priorities. Such off-campus should build upon existing academic, institutional, and community networks to enhance knowledge transfer, cross-sector collaboration, and territorial capacity-building in fragile mountain areas.

EUSALP GOVERNANCE

- **Support coalitions of interests** in relation to both **supralocal trajectories and local needs** for the development of 'territorial' ecosystems of research and innovation, by **avoiding competition but strengthening cooperations** with other regions of the Alpine space.
- **Target the efforts** for the development of 'territorial' ecosystems of research and innovation in relation to the **integration among the diversification and reactivation of production landscapes** in the Alpine macro-region **with the social inclusion and the territorial re-naturalization**.
- **Enhance the potential transversality of the AG1** in relation to the other AGs of the Eusalp strategy by **selecting the topics** for the 'territorial' ecosystems of research and innovation through the interpretation of local challenges **within the intersection between the focus of the AG1 and the focus of other AGs**, such as for instance: the transition of activities and spaces connected to niches of productive excellences, with possible interactions with **AG2**; the transition of logistics activities and spaces in valleys not directly connected to the main European infrastructures, with possible interactions with **AG4**; the transition of activities and plants for hydroelectric energy production and distribution in relation to the preservation and enhancement of landscape and environmental resources, with possible interactions with **AG7 and AG9**; (4) the diversification of tourist activities and facilities in relation to the preservation and enhancement of landscape and environmental resources, with possible interactions with **AG6 and AG8**; (5) the development of the health and well-being supply chain in relation to the spread of new forms of work and housing, with possible interactions with **AG3 and AG5**.
- **Promote an integrated policy governance for cohesion**. The success of 'territorial' ecosystems of research and innovation depends on a supportive and coherent policy environment. It is recommended to **establish mechanisms for integrated governance that formally align innovation strategies** (as promoted by AG1) **with policies in adjacent domains**, including education, economic development, social inclusion, community involvement, and social welfare **to break down sectoral silos and prevent fragmentation**.
- At this purpose, according to the *Joint Paper of Spatial Planning for the Eusalp Strategy*, **target the spatial planning and design approach to foster the cross-sectoral integration between multiple policies of innovation**.
- **Establish a framework for monitoring and impact assessment**. To ensure accountability and guide the long-term evolution of 'territorial' ecosystem of research and innovation, it is essential to define a clear framework for monitoring and evaluation. This should include **a balanced set of Key Performance Indicators (KPIs)** to measure the success of both the territorial "hardware" (e.g., number of revitalized spaces, new enterprises hosted...) and the relational "software" (e.g., youth presence rates, number of start-ups created, network density measurement).

SOCIAL INNOVATION

- **Promote laboratories of participation and co-creation to develop, validate, and implement** trans-scalar and cross-border **territorial figure**, long-term **spatial vision**, and specific incremental **spatial scenarios framing the 'territorial' ecosystems** of research and innovation.
- **Enhance the role of universities**, not only as attractors of extraordinary fundings, but also as drivers: (i) **for the interaction between** institutional, economic and social **actors**; (ii) **for the definition and implementation of** trans-scalar and cross-border **territorial figures, spatial visions, and spatial scenarios framing the 'territorial' ecosystems** of research and innovation; (iii) **for the definition and implementation of** flexible and shared **Alpine off-campus**es focused on place-based teaching and research activities, but also **open to local community**.
- **Support alliances of different interests** in relation to both **supralocal trajectories and local needs** for the development of 'territorial' ecosystems of research and innovation by **strengthening cooperations**

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among different regions of the Alpine space in order **to build a resilient "community of futures"**.

- **Enhance the role of education/school systems as drivers for the interaction between young people** (with their future oriented visions) **and multiple economic and social stakeholders**, in order to overcome any self-referential approach.
- **Promote laboratories of participation and co-creation also to develop, validate, and implement long-term thematic visions and scenarios.** In this prospect, policies should promote a new framework for integrating young people into the business world, moving beyond traditional internships to more future oriented approaches (also looking at "slash workers" and new emerging professions).
- **Develop facilities for and activities of research and innovation able to intersect goals of economic diversification and reactivations with goals of social inclusion and territorial re-naturalization.**

IMPLEMENTATION

Identification of Responsible Actors

- **European and macro-regional level:**
 - EUSALP Executive Board and Action Groups
 - European Commission
 - Alpine Convention bodies
- **National level:**
 - Italian Ministries (e.g. Università e Ricerca, Ambiente e Sicurezza energetica)
- **Regional and local level:**
 - Regional governments
 - Mountain Provinces
 - Mountain Communities and municipalities
 - Universities, research institutions, high schools
 - Civil society organisations, associations, private companies

Potential Enablers

The following public programmes, strategies, and mechanisms can enable and support implementation:

- **EU-level**
 - Interreg Programs: Interreg Cross-Border - A (e.g. Italy-Switzerland), Interreg Transnational – B (e.g. Alpine Space), Interreg Inter-regional – C (e.g. URBACT, ESPON)
 - Horizon Europe
- **National-level**
 - National Recovery and Resilience Plans (e.g. PNRR in Italy)
 - Cohesion policies (e.g. National Strategy for Inner Areas – SNAI)
- **Regional and local-level**
 - Regional Operational Programmes – ROPs (European Funds ERDF, ESF+)

TIMELINE AND NEXT STEPS

- 1 year **to share and improve this approach** with members of AG1 and other AGs of the Eusalp Strategy;
- 2 years **to aggregate local coalitions of interests and to develop related territorial visions and scenarios;**
- 3 years **to identify the spatial location and the functional vocation for the hubs** of 'territorial' ecosystem of research and innovation;
- 4 years **to activate the single local off-campus;**
- 5 years **to network the different local off-campus.**

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For all these phases, **difficulties to manage regards**: (i) the coordination between different stakeholders, (ii) the collection of funds, (iii) the availability of places, (iv) the quality of venues, and (v) the quality of teaching and research programs.

For each one of these phases, **a specific workshop** must be organized **to transform drafted strategies and actions into shared operative tools**.

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