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## COMMISSION STAFF WORKING DOCUMENT Accompanying the document

# COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

on the revised action plan of the EU macro-regional strategy for the Alpine region

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# **Revised Action Plan 2026**

# Final, 20/10/2025

# Table of Contents

Executive summary	3
Strategic context	5
Governance and institutional capacity	7
Structure of governance	7
The implementation instruments of the Strategy	10
Policy pillars and actions under the Strategy	12
Pillar 1: Economic growth and innovation	13
Action 1: Strengthening an effective research and innovation ecosystem	
Action 2: Increasing the economic potential of strategic sectors	14
Action 3: Improving the relevance of labour market policies, education and training for	
strategic sectors	16
Pillar 2: Mobility and connectivity	18
Action 4: Promoting intermodality and interoperability in passenger and freight transport	19
Action 5: Connecting people digitally and promoting accessibility to public services	20
Pillar 3: Environment and energy	23
Action 6: Preserving and capturing the value of natural and cultural resources	23
Action 7: Developing ecological connectivity across the Alpine region	
Action 8: Improving risk management and better managing climate change	27
Action 9: Making the Alpine region a model for energy efficiency and renewable energy	29
Implementation	31
Financing	31
Monitoring and evaluation	32
Synergies and cooperation	33
Cooperation with other governance structures and entities in the Alpine region	33
Synergies with other macro-regional strategies	
Literature	35

# List of figures

Figure 1:	Organisation of the action plan	12
•	Map showing the areas of the strategy, the Alpine Space programme and the	
	Alpine Convention	35

# List of abbreviations

EU European Union

SME Small- and medium-sized enterprises

# **Executive summary**

The EU Macro-regional Strategy for the Alpine region¹ was launched in January 2016. It is the fourth macro-regional strategy requested by the participating countries and accepted by the European Union. Although it provides a structured framework for cooperation, the Strategy is legally non-binding, relying on the voluntary engagement of the countries and regions concerned. The Strategy covers around 80 million inhabitants (about 15% of the EU population) across 48 regions from five EU Member States (Germany, France, Italy, Austria and Slovenia) and two non-EU countries (Switzerland and Liechtenstein). The Alpine region is a major economic and productive area in Europe, spanning nearly 10% of the EU's territory and generating over 20% of the gross domestic product of the EU27 and European Free Trade Association countries combined. Furthermore, it is one of the largest natural areas in Europe. The region is particularly vulnerable to climate change and biodiversity loss, which, together with other challenges, threaten its territory and rich natural resources.

Ten years after the launch of the Strategy, the world has changed significantly. Altered precipitation patterns, rising temperatures and other climate-related changes are resulting in snowless winters, glacial melting and heavy rainfall. These changes are leading to more frequent natural disasters, such as floods, storms, landslides, wildfires and heatwaves in urban areas. This makes the impacts of climate change increasingly visible. Consequently, the region is facing an increasing risk of damage to ecosystems, people, private and public property and infrastructure. The geopolitical situation is becoming more unstable, and supply chains increasingly fragile. These new external conditions and the European Commission's subsequent priorities have called for an update and revision of the action plan. Moreover, after 10 years of implementation, internal processes and structures have matured, and new bodies and governance mechanisms have emerged within the macro-region. Despite of these evolving conditions, the action groups are still the backbone of the implementation of the Strategy. Accordingly, the current action plan follows the structure of policy pillars and actions as set up in the previous one ensuring continuity.

It is a revised and updated version of the original plan adopted in 2015. Building on the work done over the last 10 years and on the established structure, the new plan focuses on issues of political and strategic importance, where there is an overarching need and interest across the Alpine region, and where implementation can be best and most realistically achieved in the context of the Strategy. The revised action plan guides the Strategy in tackling upcoming challenges. It promotes cross-border exchanges and solutions to foster a sustainable and prosperous Alpine region.

The action plan presents the instruments and institutions developed over the last 10 years, along with updates to its governance structure. In addition to the existing bodies and instruments, the revised plan introduces the trio presidency, the Board of Action Group Leaders, a technical support structure, the Youth Council and work plans, as well as a new instrument: missions. Defined politically through a decision of the General Assembly, missions are designed to tackle significant Alpine-wide challenges by clustering projects and interventions around one ambitious yet realistic goal. They strengthen the political steering and relevance of the Strategy by consolidating and supplementing actions and identifying common cross-cutting solutions. Actions are now given a clearer focus and prioritisation based on their relevance to the Strategy, evaluated against the following criteria: political and strategic interest, transnational scope, Alpine-wide relevance, and transalpine cooperation as a prerequisite for addressing the topic effectively.

#### The action plan comprises:

 a concise overview of the Strategy's governance system outlining the cooperation mechanisms, the various governance bodies involved and the main instruments for implementing the Strategy, including the new mission-driven approach aimed at strengthening political steering by the General Assembly;

<sup>&</sup>lt;sup>1</sup> https://alpine-region.eu/

- a detailed presentation of the three thematic policy pillars, each linked to an objective of the Strategy and together providing the framework for the nine actions. The actions cover strategic topics and provide answers to current challenges in the Alpine region;
- a chapter on implementation, listing funding opportunities for projects implemented under the Strategy and setting out the monitoring and evaluation methods to maintain an overview of the various activities;
- two final chapters highlighting the importance of synergies and cooperation with other governance structures and entities in the Alpine region and with other macro-regional strategies and beyond.

This new action plan provides a forward-looking framework to promote sustainable growth, environmental protection and enhanced cooperation in the Alpine region.

# Strategic context

The Alpine region is home to 80 million inhabitants. Located at the heart of Europe, the area boasts a strong network of major European metropolises, Alpine cities and villages, making it one of the continent's wealthiest, most attractive, competitive, innovative and productive regions. With its unique geographical and natural features, it is Europe's most important 'water tower' and one of its main biodiversity sanctuaries.

In July 2015, at the request of the participating countries and regions and in consultation with them, the European Commission prepared the EU Macro-regional Strategy for the Alpine region, which the European Council endorsed on 28 June 2016. As a European macro-regional strategy, the Alpine Strategy was set up to enable more effective use of existing financial resources, better coordination among institutions and policies, and improved coordination of existing legislation.

High-level political support is therefore essential to shaping the Strategy and increasing its visibility at local, regional, national and transnational level.

As the competencies and responsibilities required to address the challenges of the Strategy are often spread across different levels of government in the participating states and regions, a multi-level governance approach is crucial for its success. All stakeholders who have the capacity to make the desired changes to policies must be involved on an equal footing, regardless of whether they come from the national or regional level, the private sector, academia or civil society. A similar principle applies to the thematic dimension of cooperation: necessary policy changes often require thinking and acting beyond thematic boundaries and responsibilities. Macro-regional cooperation therefore needs to be organised in a multi-sectoral way to overcome legal and thematic boundaries and open new ways of thinking and acting.

The Strategy aims to foster sustainable economic and social prosperity in the Alpine region by supporting growth and job creation and improving its attractiveness, competitiveness and connectivity. This must be achieved while preserving the environment and ensuring healthy and balanced ecosystems, with a focus on mitigating further climate change through decarbonisation strategies and adapting to already visible climate impacts. The Strategy serves as a cooperation platform that brings together a wide range of stakeholders, including states and regions, cities and municipalities, civil society and various cross-border, transnational and international institutions.

The action plan adopted in 2015 set the course for a new relationship between metropolitan, perimountain, mountain areas and remote areas. It focused on three closely interconnected thematic priorities:

- (1) Competitiveness and innovation
- (2) Environmentally friendly mobility and connectivity
- (3) Sustainable management of energy, natural and cultural resources.

Since the Strategy was created and the first version of the action plan was adopted, Europe and the Alpine region have been confronted with fundamental changes: the green and digital transitions, an energy transition, and profound shifts in our economy and working environment, all in the context of new challenges and transformations.

New geopolitical contexts pose new threats to the area, especially with regard to food and energy dependencies. In addition, environmental aspects, including the effects of climate change, glacial melting, changes to the water cycle and the loss of biodiversity, are becoming increasingly evident, affecting the lives of millions of people. These developments underscore the need for cooperation beyond borders.

The Grenoble Resolution of 2013, which launched the Strategy politically, and the cross-cutting challenges of the new strategy era – namely adaptation to climate change and the corresponding green and digital transitions –guides the Strategy's current and future work. This work is anchored in the

vision for the Alpine region: strengthening solidarity among Alpine regions to enhance the region's attractiveness and competitiveness, reducing social and territorial inequalities, and ensuring the preservation and sustainable management of its unique natural environment, thereby making the Alpine region a model for all of Europe.

To achieve this vision, the overarching **goal of the Strategy** is to develop a framework for governmental and non-governmental cooperation that fosters cross-border strategic approaches, projects, networking and cooperation in key strategic areas for the benefit of the Alpine region as a whole. The shared objective is to show ambition and focus on opportunities and challenges through cooperation, involving the entire Alpine region in the process.

# Governance and institutional capacity

The governance of the Strategy promotes capacity building with a clear-cut and result-oriented approach that fosters Alpine cooperation. It enables the effective involvement of national, regional and local stakeholders, alongside representatives from the economic sector, academia, the general public and civil society, particularly young people, in the implementation of the Strategy. It empowers key implementers and provides them with a clear mandate to fulfil their tasks continuously, while ensuring clear and comprehensive communication at all levels about the Strategy's results and added value.

## Structure of governance

The governance system of the Strategy consists of several bodies and instruments that oversee and guide its activities. Over the last 10 years, the governance system has evolved, reflecting a strong commitment from the stakeholders implementing the Strategy and underscoring the need to further improve coordination within and between actions, and strengthen the political guidance provided to the Strategy's coordinating levels.

The Brdo Declaration adopted by the General Assembly in November 2024 set out guidelines and called for the Strategy's governance to be strengthened at all levels. The following paragraphs provide an overview of the roles and relationships in the governance system.

#### **Bodies of the Strategy**

#### **General Assembly**

The General Assembly is the highest political decision-making body of the Strategy. It is responsible for laying down the overall political goals and priorities and plays a decisive role in steering the Strategy. It meets at least once a year in person, bringing together high-level political representatives from the states and regions involved in the Strategy, along with observers from the Youth Council, the Alpine Convention and the Alpine Space programme. The Commission acts as facilitator, coordinator and cochair of the meetings, but does not have voting rights. It also ensures that decisions taken by the General Assembly comply with EU legislation.

The General Assembly exercises its mandate by setting annual and multiannual political priorities, including by endorsing the action plan and the work plans of the action groups and by defining and adopting missions and other joint actions that focus and guide the work and cooperation of the Strategy's implementing bodies. The General Assembly reviews the progress made in implementing priorities by regularly monitoring the work of the action groups and monitors the advancement of the missions to foster accountability and improve the overall efficiency of the Strategy. The assembly's work is supported by the recommendations of the incumbent presidency.

#### The presidency

The presidency is established on an annual basis, following a rotation mechanism and with the endorsement of the General Assembly and in agreement with the Commission. The rotation is allocated at country level and is agreed in advance. Presidencies can be led by national or regional authorities or in partnership between the two levels, reflecting the Strategy's multi-level approach. In exceptional cases, a co-presidency involving two countries can also be arranged. In consultation with the past and future presidencies (the trio presidency), the incumbent presidency prepares the annual work programme for the Strategy. The presidency chairs the work of the General Assembly and the Executive Board, and, as a rule, organises and hosts the meetings of the General Assembly and the Executive Board and the annual forum. To provide the necessary legitimacy and momentum for specific topics, the incumbent presidency may organise sectoral ministerial meetings if deemed useful.

#### The trio presidency

The trio presidency is designed to ensure continuity and efficiency in implementing priorities during the rotation of presidencies. It supports the incumbent presidency by securing regular exchanges on strategic steering and coordination.

#### **Executive Board**

The Executive Board oversees the implementation of the action plan. It is made up of seven country delegations, each of which is composed of representatives of the states and regions, including the national coordinator(s). The Commission acts as facilitator and coordinator and co-chairs the meeting but does not have voting rights. The Commission's role is to ensure that decisions taken by the Executive Board comply with EU legislation. Representatives of the Youth Council, the Alpine Convention and the Alpine Space programme participate in the Executive Board as observers. For coherence, the rotating chair of the Executive Board coincides with the presidency of the General Assembly.

The Executive Board is responsible for ensuring coordinated implementation of the action plan across sectors and across all levels of governance. It collects the reports of the action groups, monitors their implementation of the work plans and prepares the General Assembly meetings, thereby ensuring close consultation with the political level and all stakeholders. The Executive Board regularly invites the Board of Action Group Leaders to joint meetings to discuss strategic issues and the progress of the Strategy's implementation.

#### *National coordinators*

National coordinators play a major role in coordinating and supporting the design and implementation of the Strategy and encouraging stakeholder involvement. They are members of the Executive Board and coordinate the national delegations. They are the focal points at the national level, responsible for the strategic coordination of the Strategy within their country. They are appointed by their government or institution and may represent either the national or the regional level.

#### **Action groups**

Action groups are the implementing bodies of the Strategy, bringing together experts from participating states and regions responsible for the day-to-day implementation of the Strategy's thematic fields (actions and projects). Given the Strategy's cross-border and transnational dimension, their work is transnational, intersectoral and interinstitutional and aims to effectively embed the Strategy in various national contexts. Their task is to coordinate policies and stakeholders involved in their respective actions across borders, create favourable modalities in their policy areas in line with the Strategy's objectives and – if necessary – design and implement their own projects or activities. With their work the action groups contribute to implementation of the missions assigned by General Assembly.

Action groups include stakeholders relevant to their mandate (e.g. representatives of national or regional authorities (such as line ministries), local authorities (cities and metropolises), non-governmental organisations, trade unions, chambers of commerce, universities, the Alpine Convention, and the Alpine Space programme), bringing the Strategy closer to people. Members are nominated by their respective national coordinator based on their expertise in their relevant field. They analyse the results of projects and activities implemented in the area and work to integrate or translate these into policies and governance instruments (e.g. norms, regulations and political agreements).

To facilitate coordination and communication, each action group is represented and coordinated by one or more action group leaders, who are appointed by the General Assembly, based on merit and geographic balance. Action group leaders act as thematic and strategic coordinators and gatekeepers,

encouraging and supporting a wide range of stakeholders in developing activities and projects in line with the action plan and the action groups' work plans.

#### **Board of Action Group Leaders**

The Board of Action Group Leaders is composed of the leaders of all action groups and is responsible for ensuring consistency and alignment across all action groups. It ensures smooth coordination between the action groups and prevents potential overlaps. It is the coordination interface between the Executive Board, which coordinates the Strategy, and the action groups implementing it. The Board of Action Group Leaders meets at least twice a year, whenever possible back-to-back with the Executive Board to allow for joint meetings and exchanges. It is chaired by one or two action group leaders, designated by the board itself.

#### Joint meetings of the Executive Board and the Board of Action Group Leaders

The joint meetings of the Executive Board and the Board of Action Group Leaders aim to improve coordination of implementation in line with the mandate of the General Assembly. They are also designed to improve the reporting of information and needs from implementing authorities and stakeholders. During these meetings, potential projects of the action group are assessed on the basis of their political and strategic relevance, consistency with and contribution to the missions, transnational and Alpine-wide relevance, and inclusion of transalpine cooperation.

#### Mission rapporteur

A mission rapporteur acts as head of a mission, ensuring its political direction and visibility within the Strategy. The mission rapporteur is a member of, and is appointed by, the General Assembly. They work in close cooperation with the mission coordinator.

#### Mission coordinator

The mission coordinator is responsible for technically coordinating all activities necessary to successfully implement a mission. This includes facilitating communication between different action groups and projects involved in the mission's activities. The coordinator works in close collaboration with the mission rapporteur.

#### Youth Council

The Strategy's Youth Council is nominated once a year. It serves as a platform for the institutional involvement of young people in all strategy bodies, ensuring their ideas and viewpoints are heard and duly considered. The council contributes to the implementation of the Strategy and helps to build a bridge between young people in different Alpine regions and the governance structures. The Youth Council participates in General Assembly and Executive Board meetings as an observer. The Youth Council also develops proposals for concrete actions and projects, which it presents to the Strategy's implementing bodies, alongside its own activities aimed at young people in the Alpine region.

#### Support structure

#### Technical support structure and strategy secretariat

The strategy secretariat provides technical and content-related support for implementing the action plan, facilitating communication and cooperation among the governance bodies, particularly the General Assembly, the presidency, the Executive Board, the Board of Action Group Leaders, and the Youth Council. Its role is to facilitate implementation of the Strategy, assist the action groups, promote collaboration and cross-sectoral cooperation across action groups, encourage the involvement of young people, and support project development. The secretariat also helps build the capacity of action groups in terms of funding opportunities and facilitates financial dialogue between the Strategy and

funding institutions. Moreover, it coordinates collaboration with other relevant Alpine-wide stakeholders and macro-regional strategies.

To ensure the visibility and the effectiveness of the Strategy, the secretariat coordinates internal and external communication to maintain consistency and engages in dissemination and awareness-raising activities. The secretariat is also committed to assisting the Executive Board in monitoring the operability and progress of the Strategy.

#### Key meetings and events

#### Meetings of the General Assembly

Meetings of the General Assembly take place at least once a year. They are the main occasion for the assembly to carry out its tasks and responsibilities, as described above.

#### **Annual forum**

Together with the General Assembly, the annual forum is the main event of the Strategy every year. It brings together relevant stakeholders to discuss the full range of topics covered by the Strategy through various events and workshops. The forum raises the Strategy's profile, facilitates discussion on specific thematic initiatives, and fosters a multidisciplinary and integrated approach to the Strategy and its effective implementation.

This event is hosted and organised by the presidency, which is responsible for its thematic focus and overall logistics.

## The implementation instruments of the Strategy

#### The action plan

The implementation of Strategy activities is guided by the action plan. The plan is structured across three levels of strategic orientation and action:

- policy pillars and objectives (which provide strategic direction for the policy pillars)
- actions (which break down the policy pillars into specific thematic operational areas)
- projects, coordination initiatives and other activities (which constitute concrete interventions).

This document serves as the basic reference framework for the General Assembly, the Executive Board and action groups. Together with the General Assembly's guidelines and based on the missions discussed and approved by the assembly, the action plan supports the action groups in developing their work plans.

#### Missions

Discussed and defined at the political level through decisions of the General Assembly, missions tackle challenges of Alpine-wide relevance by setting ambitious yet realistic objectives. They provide the political steering and visibility needed to implement the Strategy. Missions are prepared and detailed thoroughly in close cooperation with the Executive Board and the action groups. In pursuing crosscutting aims, they enable projects and initiatives to be clustered around one goal, thereby increasing cooperation among action groups and ultimately strengthening coherence between the political and technical levels.

Based on the action plan, missions bring together stakeholders from different sectors, action groups, states and regions and other relevant parties. To meet the coordination needs required to implement missions successfully, a mission coordinator is appointed for each mission. The coordinator works

closely with the mission rapporteur, who acts as the head of the mission and is appointed from among the members of the General Assembly, thus ensuring political leadership and visibility.

#### **Actions**

In response to current challenges in the Alpine region and in line with the most recent policy documents, the policy pillars contain nine **actions**. Each action is broken down into two to seven **topics**, which form the basis for the concrete work of action groups. Action groups foster a strong sense of ownership among participants across the region by operating within a broad network and by ensuring that cooperation is in line with the political aims.

#### Work plans

The action groups' work plans are three-year programmes designed to translate the objectives stated in the action plan, its actions and the missions defined by the General Assembly into tangible projects and initiatives to achieve the desired impact in each policy field. Both the work plans and the missions play a decisive role in ensuring policy coherence between the action plan and the projects and initiatives implemented by the action groups.

To ensure that action groups are result-oriented, work plans reflect the ambition of the Strategy while remaining realistic in terms of timing and resources, focused, and macro-regional in scope. In drafting their work plans, action groups take into account the priorities and guidance provided by the General Assembly and/or the Executive Board for the implementation of the action plan.

# Policy pillars and actions under the Strategy

Although the challenges of cooperation in the Alpine region have not changed fundamentally in recent years, the Strategy has laid the groundwork for responding to the urgent need to adapt to diverse transformation processes by clearly prioritising actions. This prioritisation is based on the following criteria:

- a) political and strategic interest, responding to shared challenges;
- b) coherence with and contributions to missions (where relevant);
- c) transnational, Alpine-wide relevance;
- d) transalpine cooperation as a prerequisite for addressing the topic effectively.

#### Policy pillars and objectives

The revised action plan focuses on three policy pillars, each linked to one objective of the Strategy:

- Pillar 1: Economic growth and innovation
  - Objective: A competitive, innovative, circular and climate-neutral economy in the Alpine region.
- Pillar 2: Mobility and connectivity
  - Objective: A more accessible and interconnected Alpine region that fosters sustainable transport and mobility solutions and makes the most of digitalisation and new technologies.
- Pillar 3: Environment and energy
  - Objective: An ecologically connected and environmentally sustainable Alpine region that fosters climate change adaptation and mitigation.

Figure 1: Organisation of the action plan

# PILLAR 1 ECONOMIC GROWTH AND INNOVATION Objective: A competitive, innovative, circular and climate neutral economy in the Alpine region. Action 1: Research and innovation Action 2: Economic Development Action 3: Labour Market, Education and Training Action 5: Connectivity and Accessibility Action 6: Resources Action 7: Green Infrastructure Action 9: Energy PILLAR 2 MOBILITY AND CONNECTIVITY Objective: A more accessibility PILLAR 3 ENVIRONMENT AND ENERGY Objective: An ecologically connected, environmentally sustainable Alpine Region that fosters climate adaptation and mitigation. Action 6: Resources Action 7: Green Infrastructure Action 8: Risk Governance Action 9: Energy

## Pillar 1: Economic growth and innovation

#### OBJECTIVE: A competitive, innovative, circular and climate-neutral economy in the Alpine region

The overall objective of this pillar is to address the most significant challenges and opportunities for the competitiveness and sustainability of the region's economic development. The actions under this pillar focus on strengthening research and innovation (Action 1), enhancing the economic potential of sectors of strategic importance for the region (Action 2), and improving labour market, education and training opportunities (Action 3) with the aim of improving the social and economic environment of the region. These actions should be pursued with an understanding of their close interdependence to maximise their impact, particularly in strategic economic sectors.

In the main strategic sectors (mountain agriculture and forestry, energy, industry and tourism), the framework of the Alpine Convention is particularly relevant in the Alpine mountain area. A sound and sustainable economic environment is essential for supporting human activities in the region and protecting the well-being of its people and its natural ecosystem.

#### Action 1: Strengthening an effective research and innovation ecosystem

#### Regional characteristics and challenges

The Alpine region is home to a large number of internationally renowned research and innovation centres, which form the foundation for further development in this field. High levels of research and development expenditure, world-class, high-capacity universities and research centres, and the presence of international and private research centres of global relevance make the Alpine region one of the most innovative places in Europe. Many of these centres are organised in clusters, creating a regional economy that provides a solid basis for innovation based on smart specialisation strategies. This allows companies to become more competitive in sectors of particular relevance for the region (such as energy, green technologies, mechatronics and engineering, chemistry and new materials, and information and communications technology).

However, significant disparities in innovation, access to funding, and the adoption oof the information and communication technologies exist both within and between the regions. Innovation facilities are mainly concentrated in urban centres, with fewer hubs in rural areas.

The Strategy addresses these disparities by promoting smart, sustainable and inclusive growth and competitiveness, helping to identify competitive research and innovation priorities, and encouraging the right policy mix that enables these priorities to be achieved in line with the vision, strategic positioning and the innovation strategies of the Alpine countries and regions. This should facilitate the implementation of well-defined, competitive innovation policies in the macro-region.

#### Strategic relevance

A range of other EU and national policies can complement this action on research and innovation. The action builds on existing policies relevant to Alpine innovation, including the ongoing twin transition, and measures to strengthen competitiveness, forest management and innovation cooperation. For 2024-2029, the Commission is focusing on sustainable prosperity and competitiveness, with research and innovation playing a pivotal role in driving the necessary transformations<sup>2</sup>.

#### **Focus**

Action 1 focuses on developing an effective research and innovation ecosystem in the Alpine region, particularly in the strategic sectors of energy, industry and tourism. It provides guidance for research and innovation activities in these sectors to help them adapt to climate change and facilitate their

<sup>&</sup>lt;sup>2</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648\_en\_

systemic green and circular transition, thereby promoting economic diversification and the effective use of digital technologies.

#### Main topics

- Alpine-wide coordination of research and/or innovation policies
  - Coordinating research and/or innovation policy approaches across the Alps could help maintain a competitive edge against emerging global competitors. It could also help align diverse governance systems and administrations, which currently limit the potential for transnational exploitation of the Alpine region's strengths and opportunities. Action 1 could therefore contribute to the development and implementation of targeted policy recommendations to enhance regional cooperation and strategic coordination.
- Fostering exchanges between research institutions, businesses and public authorities
  To maximise the impact of research results, knowledge and capacity sharing between companies
  and research institutions across the Alpine countries should be strengthened to create a solid basis
  for innovation in sectors relevant to the region. Other actors, such as multidisciplinary universities
  and departments, secondary schools, firms, associations, public institutions and civil society, should
  be encouraged to adopt and apply research results by enhanced interactions between science,
  policy and society. Activities could include setting up cross-border innovation hubs, supporting joint
  pilot projects, and mapping regional knowledge assets to encourage synergies and resource
  pooling. Strengthening transnational platforms and networks can help identify existing innovation
  resources and potential obstacles, enabling closer coordination of research activities. This should
  intensify discussions on the current research landscape in the Alpine regions, contribute to pooling
  resources, and promote a more circular and sustainable approach in the research and innovation
  sector.
- Supporting a more geographically balanced development of innovation and research Although research and development expenditure in the Alpine region is relatively high compared with the European average, much of this funding is concentrated in a few locations, primarily major urban areas. This concentration results in discrepancies and uneven development both across and within Alpine regions. A territorial analysis of the innovation landscape could help raise awareness of these imbalances. Leveraging existing structures and good practice, like the knowledge and technology transfer offices to transfer research and innovation to rural and more remote areas would contribute to reducing the territorial innovation gap.

#### Synergies with other actions

Action 1 is intended to serve as a resource for stakeholders throughout the Alpine region, enabling them to identify research results and ongoing innovation processes in their area of interest. In particular, it facilitates synergies in highly specialised transition processes. For example, opportunities could be explored in the digital and ecological transitions of niche production sectors, or in the development of health and well-being sectors in connection with new forms of work and living.

#### Action 2: Increasing the economic potential of strategic sectors

#### Regional characteristics and challenges

The Alpine region is characterised by the presence of relatively strong economic actors, including large enterprises and small and medium-sized enterprises (SMEs) of global, regional and local relevance. Given the size of the area, geographic fragmentation and differences between regions in terms of socio-economic context and specialisation create considerable inner-Alpine diversity. Enterprises draw on varied productive traditions of the Alps, with different Alpine regions specialising in different economic sectors, such as innovation, tourism, agri-food, forestry, and services. The ability of enterprises to

invest in the region and to create and maintain jobs is crucial. Because of this inner-Alpine diversity, a place-based approach that considers the specific context of each region is important.

Increasing economic potential relies on using potential synergies. These synergies can be explored throughout the value chains within the region's strategic sectors (e.g. agriculture, forestry, energy, industry and tourism). Moving further up the value chain creates opportunities for rural and urban areas of the region to work together.

Activities within the Strategy strengthen opportunities for developing synergies between different actors and fields in the use of Alpine-specific resources. This should support adaptation to climate change, drive the systemic green and circular transition, strengthen resilience, and promote the effective use of digital technologies.

#### Strategic relevance

A range of EU and national policies can accompany the Strategy's action on economic development. In its 2024-2029 programme for upcoming EU policies<sup>3</sup>, the Commission prioritises sustainable prosperity and competitiveness, linked to the Clean Industrial Deal and greater circularity and resilience in the economy. Furthermore, the circular economy concept was approved as a cross-cutting theme within the Strategy in 2023. These aspects are rooted in existing policies relevant to Alpine SMEs and industries, including the ongoing twin transition, the net-zero industry act, the European competitiveness compass and the sustainable tourism strategy.

#### **Focus**

Action 2 focuses on the economic potential of sectors of particular importance for agriculture, forestry, energy, industry and tourism and their changing economic and social environment, placing particular emphasis on supporting industries and SMEs.

#### Main topics

- Agricultural and sustainable forestry products and services throughout the full value chain The Alpine region hosts a wide range of economic operators in the agriculture and forestry sectors, deeply rooted in their locations. Opportunities in the agricultural sector include organic, climate and water resilient and regenerative farming and the use of geographical indications, which promote the production of high-quality, region-specific products throughout the value chain and effective branding of Alpine products. Strengthening the logistics and efficiency of local supply chains is particularly important, as this enhances local value creation, fosters closer relationships between producers and consumers, and contributes to the resilience of regional food systems. Timber harvesting provides sustainable material for the construction sector and can contribute to the decarbonisation along value chains, especially in the building sector. Furthermore, the forestry sector can provide ecosystem services (provided forests are planted and managed according to certain criteria) and generate additional revenue for forest owners.
- Innovative sustainable tourism
  - Tourism is an important economic factor in much of the Alpine region for both economic development and employment. A particular feature of Alpine tourism is its high seasonality and strong SME-based structure. The aim of this action is to further strengthen Alpine tourism to ensure that the sector is equipped to meet future challenges (e.g. those arising from climate change, water scarcity, flood risk and air quality). Tourism needs to shift increasingly towards environmentally sustainable practices, leveraging the region's natural and cultural heritage.
- Improving the industrial sector, including renewable energy
   The Alpine region is also an area of industrial production. In light of challenges in global chains and the need to strengthen economic resilience, re-industrialisation with a focus on the circular

<sup>&</sup>lt;sup>3</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648\_en\_

economy is a top priority. Efficient energy use and reuse of materials and renewable energy production and storage play a key role at European level. This presents significant opportunities for developing products related to energy production, storage, efficiency and saving compatible with the Alpine environments. Furthermore, the region's unique topography may also hold potential for product development. Creating favourable framework modalities that support specialised enterprises and products can extend and enhance the value chains for these regionally based products.

Fostering the green and digital 'twin transition', with a focus on smart industries

The transition to a more sustainable and digital industrial model is essential for economic growth in the Alpine region. The twin transition—green and digital—drives innovation, boosting competitiveness while addressing environmental challenges. With its rich industrial heritage, strong innovation ecosystem and leadership in sustainability and digital transformation, the Alpine region is well-placed to lead in smart, resource-efficient and circular economy-based industrial production. By leveraging cutting-edge technologies such as artificial intelligence, the internet of things, blockchain and additive manufacturing (3D printing), the region can foster a resilient and competitive manufacturing sector, ensuring long-term economic and environmental sustainability.

#### Synergies with other actions

The objective of Action 2 – to increase the economic potential of strategic sectors – cannot be pursued in isolation. Both innovation and smart specialisation are crucial for economic development. Therefore, aligning the themes and needs of Action 1 and Action 2 seems necessary to transform successful research and development projects and innovative approaches into added value through effective technology transfer. Action 2 is also closely linked to Action 3, as skilled human capital is needed to develop and expand existing economic potential, and to Action 5, which focuses on digital connectivity and skills, a cornerstone of economic development. Additionally, there is a link to Action 9, which addresses energy sources and efficiency, while Action 2 aims to generate economic benefits through energy technology and energy services.

# Action 3: Improving the relevance of labour market policies, education and training for strategic sectors

#### Regional characteristics and challenges

The Alpine labour market offers a wide range of employment opportunities, from traditional craftsmanship and artisanal professions to advanced industrial and energy-related jobs, highly qualified services, and seasonal jobs in agriculture and tourism. Compared with the European average, employment rates in the Alpine region are generally high. The labour markets are well-integrated, often extending beyond national borders. Workers in the Alpine region come from both within the region and other countries, particularly in sectors dependent on seasonal activities, such as tourism. This cross-border integration plays a crucial role in the region's economic development by enhancing labour mobility and economic cooperation.

Nonetheless, the Alpine region faces significant internal disparities. These are linked to topographic and demographic challenges, such as the abandonment of some mountain areas and difficulties in retaining and attracting skilled labour. While accessibility and access to employment remain key issues in these areas (see Pillar 2: Mobility and connectivity), a shortage of highly skilled labour is also a relevant concern, particularly in the fields of science, technology, engineering, mathematics and agrifood, which are essential for maintaining competitiveness, preparedness and technological leadership. Securing skilled workers with the right competencies is a major concern in many parts of the region, aggravated by brain drain and limited opportunities for professional skill development. This is particularly true for peripheral areas already experiencing depopulation. Information and communication technologies that enhance connectivity can expand opportunities for

entrepreneurship and teleworking in remote regions. These advancements may also help address the brain drain phenomenon and population ageing.

#### Strategic relevance

A range of other EU and national policies have an impact on the Strategy's actions on labour market, education and training. For example, the Commission's 2024-2029 programme for future EU policies<sup>4</sup> highlights the need to tackle labour and skills shortages by creating a Union of Skills initiative, developing a European strategy for vocational education and training, and drawing up a strategic plan for science, technology, engineering, and mathematics education. These priorities build upon existing efforts, including the EU action plan on labour and skills shortages, which continues to shape the EU's approach to workforce challenges. These initiatives are closely aligned with the principles of the European Pillar of Social Rights, which promotes equal opportunities, access to quality education and training, and fair working conditions, and with funding programmes such as the European Social Fund Plus.

#### **Focus**

Action 3 focuses on creating an Alpine-wide education and training space and labour market. It targets strategic sectors (mountain agriculture, forestry, energy, industry and tourism) with the aim of increasing employment levels in the region. Action 3 also focuses on adapting skills and professions to climate change and technological transitions, with a particular emphasis on young people.

#### Main topics

- Improving conditions to increase access to jobs and attract highly qualified labour to counter brain drain, loss of labour force and depopulation in peripheral areas
  - Increasing access to jobs and attracting highly qualified workers is crucial for addressing depopulation in mountain areas and meeting the demand for skilled labour. Raising awareness of professional opportunities in mountain areas is key to combating brain drain, loss of labour force and depopulation in rural, and in particular peripheral, areas. Initiatives such as providing young people with field experience can encourage them to settle in mountain areas, preserving traditional mountain professions and strengthening socio-economic sustainability. The Strategy facilitates the exchange of good practices and lessons learned, fostering regional cooperation. Developing tools to acquire, observe and validate soft skills is essential for improving job performance and supporting career transitions, both from school to work and between jobs. These measures improve cohesion across Alpine areas, fostering balanced development and stronger regional ties.
- Developing joint training initiatives to improve upskilling and reskilling in line with market needs, transformations and crises
  - Within the strategy framework, training programmes can be tailored to meet the specific needs of Alpine strategic sectors, leveraging regional knowledge and addressing local particularities. Developing joint training programmes and upskilling and reskilling courses is crucial for the Alpine area. Strengthening skills in response to evolving market needs contributes directly to maintaining the competitiveness of the Alpine labour market, while ensuring equal and inclusive access to jobs. Equal attention must be given to soft skills and professional skills in science, technology, engineering, mathematics and agri-food to strengthen the region's competitiveness, ability to innovate and strategic autonomy in key industrial sectors.
- Supporting the development of Alpine value chains that prioritise local products based on traditional knowledge and production practices
  - Supporting the development of Alpine value chains is key to fostering sustainable economic growth and circular economy practices. Preserving traditional knowledge and cultural heritage strengthens the identity of Alpine regions and ensures the continuity of sustainable practices passed down through generations. Adopting a regional approach within the Alpine region through transnational

<sup>4</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648\_en\_

cooperation can further enhance the sustainability of these value chains by integrating local competencies, business networks, research infrastructure and markets.

Raising awareness of remote working and learning to support skilled/intellectual/entrepreneurial
jobs in decentralised and rural areas

Raising awareness of the potential of remote working methods is crucial for expanding skilled, intellectual, and entrepreneurial job opportunities in peripheral and rural areas. Leveraging digital and innovative working and learning methods can help combat depopulation, diversify local economies, and create more professional opportunities outside urban centres. Promoting remote working and learning also fosters greater cohesion across Alpine regions by ensuring more inclusive and equitable access to employment and learning opportunities, regardless of location. Regional cooperation under the Strategy can facilitate sharing experiences, best practices, and lessons learned from mountain areas facing similar challenges, promoting tailored solutions for local needs.

#### Synergies with other actions

A well-educated and professional workforce is an important asset across most themes covered by the other actions. Workers with skills aligned to market needs are relevant to Actions 1 and 2. Those capable of managing transformation and crises are particularly relevant in the context of Actions 5 to 9.

## Pillar 2: Mobility and connectivity

OBJECTIVE: A more accessible and interconnected Alpine region that fosters sustainable transport and mobility solutions and makes the most of digitalisation and new technologies.

The overall objective of this policy area is to address the most important challenges and opportunities on mobility (Action 4) and connectivity (Action 5) in the Alpine region. The issue of accessibility and interconnection of traffic and goods remains highly relevant, as interlinkage has steadily increased over the past decades. Mobility remains crucial due to the special geographic conditions in the Alpine region. As an economically dynamic area and a tourism hotspot, it generates high levels of mobility, both as a point of departure and as a destination. Additionally, the Alpine region is crossed by some of the most important European transport corridors, connecting central and southern Europe.

However, increasing congestion, combined with physical constraints and limited space for transport infrastructure, underscores the need to carefully balance the interests of various stakeholders. This involves reducing air and noise emissions, shifting passenger and freight traffic to rail, making better use of existing infrastructure and using digital tools to manage traffic more effectively.

Closely related to this topic is accessibility, which must be addressed in an integrated manner. While this includes traditional transport access, digital accessibility is becoming increasingly important. From a broader perspective, ensuring digital connectivity and access to public services and supplies is crucial for the sustainable development of the Alpine region and the welfare of its communities. Digitisation and connectivity play a particularly important role in tackling challenges related to remoteness, limited services and regional vulnerabilities while enabling fair and inclusive access to new technologies for people living in mountainous and rural areas. Enhancing digital infrastructure, including high-speed internet access and digital platforms, in coordination with an Alpine-wide data strategy, can foster regional resilience and competitiveness. This should create better economic opportunities, improve service provision, encourage innovation, and support the development of frontier technologies, such as artificial intelligence, which can be deployed in key sectors to address specific needs of Alpine communities. These challenges and objectives are also reflected in the Alpine Convention.

# Action 4: Promoting intermodality and interoperability in passenger and freight transport

#### Regional characteristics and challenges

The Alpine region, with its mountainous landscape, shapes both the opportunities and challenges for mobility and transport. Geophysical constraints limit options for constructing and maintaining transport infrastructure. Yet demand for transport and mobility remains high, as commuters, the regional economy and the tourism sector all depend on it. Furthermore, the region is a major European crossroads and transit area for pan-European transport, combining a variety of transport modes, including road, rail and maritime ports, which act as gateways for logistics chains.

Traffic in the Alpine region is overall increasing. However, the pressure and impact of transport is unevenly distributed throughout the region. Traffic in the Alps and the peri-Alpine lowlands is generally increasing due to globalised logistics chains, increased leisure time, more flexible working arrangements and the wider adoption of remote work. Whereas urban areas in the macro-region are often established as high-quality transport nodes, in some peripheral areas the quality of transport, especially public transport availability, is much poorer. This imbalance creates conflicts between preserving the unique landscape and biodiversity, ensuring a high quality of life and maintaining accessibility in remote areas. While tourism remains an important economic sector for the Alpine region, the mobility it generates puts significant pressure on existing infrastructure. The uneven pressure caused by tourism traffic is not only geographic, but also temporal, due to its seasonal nature.

Given limited space and financial resources for maintaining and developing transport infrastructure and the need to minimise the environmental impact, it is crucial to prioritise investments in sustainable modes of transport while making efficient use of the existing network and improving its resilience. Additionally, the transition to decarbonised transport is becoming a necessity and poses further challenges. Due to the wide-reaching and interconnected nature of the impact of passenger and freight transport, cross-border cooperation is essential in tackling these issues. Looking ahead, the principle that should guide the further development of the Alpine transport and mobility system should be to foster stronger links between all modes of transport, ensuring effective intermodality.

#### Strategic relevance

Transport and mobility are key topics in several strategic documents of the EU, Switzerland and Liechtenstein. Intermodality and interoperability are included in the Commission's priorities for 2024–2029<sup>5</sup> under the heading 'A new plan for Europe's sustainable prosperity and competitiveness'. Mobility topics also align with other activities under the Strategy intended to achieve rapid climate neutrality and develop high-quality transport infrastructure across the continent. Given its specific challenges, the Alpine region should be further developed as a model for shifting from road to sustainable modes of transport. Developing transalpine rail infrastructure in line with the Trans-European Network plays a crucial role in achieving modal shift, especially in freight transport.

#### **Focus**

Action 4 focuses on promoting intermodality and interoperability in passenger and freight transport by coordinating and harmonising efforts towards a sustainable transport and mobility system.

#### Main topics

Facilitating the development of links between the Alpine regions and the Trans-European Network

Transport transit across the Alps is growing. While the Alpine metropolitan areas are often linked to the main transport routes, more peripheral regions benefit less from the Trans-European

<sup>&</sup>lt;sup>5</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648\_en\_

Network. Links from these regions to the nodes are often missing. The quality of transport, especially public transport, is usually much poorer in these areas. Therefore, it is important to develop integrated transport systems linking the Trans-European Network nodes to these regions and to improve sustainable transport connections between valleys and across passes, especially across regional and state borders.

- Smart and sustainable passenger and freight transport (local, regional and cross-border mobility) In the Alpine context, this includes long-distance transport and requires innovative last-mile solutions, such as mobility as a service, and promoting walking and cycling. There is also untapped potential to improve mobility in tourism, which is often seasonal and concentrated. Integrated mobility concepts addressing the needs of various target groups such as commuters, tourists and last-mile service users can help tackle this challenge. For freight, the shift from road to rail is still ongoing and needs to integrate seaports, as these often act as entry points to the Alpine region. Improving logistics for sustainable value chains is essential, as these chains depend on efficient, low-carbon delivery solutions. In addition, Information and communications technology solutions can support modal shift by making multimodal freight transport operations and the real-time management of cargo flows more efficient.
- Adapting transport infrastructure to climate change, natural hazards and maintenance works As the Alpine region is particularly vulnerable to climate change and natural hazards, climateproofing and the resilience of transport infrastructure deserve particular attention. Measures such as the construction and maintenance of Alpine transport infrastructure require coordinated approaches, including designing resilient civil engineering projects and providing sufficient redundancy to allow for bypass routes during disruptions. The Strategy provides a platform for sharing knowledge and information on resilience and adaptation measures and promoting investment in improving transport resilience.
- Energy transition and decarbonisation of road and rail transport
  Decarbonising road transport has gained significant importance and is supported by recent EU legislation, including requirements for charging and refuelling infrastructure along the Trans-European Network<sup>6</sup>. An integrated perspective, covering energy generation, transfer and storage, may create synergies with other sectors. The Alpine topography and its physical bottlenecks make the region particularly susceptible to air pollution and noise emissions. Appropriate economic measures are needed to encourage the shift from road to rail. Besides this modal shift, new propulsion technologies offer promising solutions to this problem. Considering the environmental impact of fossil-fuelled freight transport, a cross-cutting approach to accelerate the ongoing electrification of road transport fleets and coordinate the rollout of alternative fuel infrastructure (including for river ports, seaports and multimodal hubs) is essential.

#### *Synergies with other actions*

Thematic synergies can be expected with Action 5 on the optimisation of freight and passenger transport through digitalisation. Activities linked to new propulsion technologies and the decarbonisation of transport are also closely related to Action 9. Thematic synergies can be expected with Action 8 on the adaptation of infrastructure to climate change and associated risks.

# Action 5: Connecting people digitally and promoting accessibility to public services

Digitalisation and connectivity are global developments that bring both opportunities and challenges to the Alpine region. While some areas are well-connected and expansive, others remain remote. One of the challenges lies in the traditionally complex task of setting up digital and transport infrastructure in difficult geophysical conditions. As a result, access to some public services and services of general

<sup>&</sup>lt;sup>6</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L1161

interest remains difficult in certain areas. Improved digitalisation and connectivity can help overcome these challenges, for example through technologies such as satellite network connections. However, new possibilities and tools in this fast-moving sector are developing at a rapid pace and require a dynamic approach.

Digitalisation and improved connectivity can help unlock and expand economic potential and, when paired with social innovation, can drive sustainable and lasting economic growth. Information and communication technologies allowing for an enhanced connectivity can also increase the opportunities for entrepreneurship in remote areas and teleworking. These could contribute to retaining young and skilled workers in more isolated areas.

Given its macro-regional scope, the Strategy provides an optimal framework for disseminating, future-proofing and guiding the digital transition in specific Alpine areas. In addition, developing common frameworks for the use of data and artificial intelligence can strengthen cooperation between Alpine stakeholders and give the region a competitive edge in this sector.

#### Strategic relevance

The digital transition and the green transition are two of the EU's main priorities for building a Europe fit for the digital age. The further development of artificial intelligence solutions and wider access to high-speed internet are reflected in several strategic documents of the Alpine states. At EU level, the Commission priority<sup>7</sup> 'A new plan for Europe's sustainable prosperity and competitiveness' aims to boost productivity by promoting the adoption of digital technologies to strengthen the EU's competitiveness and secure leadership in artificial intelligence innovation. Implementation measures such as expanding access to secure, fast and reliable internet and improving public services with artificial intelligence play a major role. This shared effort is also reflected in various relevant policies and initiatives across the Alpine region. Moreover, data sovereignty is essential for the development of independent artificial intelligence solutions and for the preparedness of society and the economy in times of hybrid warfare.

#### **Focus**

Action 5 focuses on promoting digital transformation, especially in mountainous and rural areas, future-proofing digital infrastructure, and increasing the use and relevance of data and artificial intelligence in the Alpine region, all in line with the goal of achieving carbon neutrality.

#### Main topics

Digital transformation of (mountainous) areas

Digital transformation in the Alpine region is crucial for tackling shared regional challenges such as remoteness, limited services and vulnerability. Activities under this action are transversal and have the potential to improve accessibility, modernise the economy, strengthen sustainability and build resilience. An important aspect of this topic is therefore the implementation and uptake of eservices (e.g. e-health, e-government and e-learning) and the wider adoption of smart villages and smart communities approaches to strengthen bottom-up solutions for the most remote territories. Alpine-wide cooperation in this field improves efficiency and competitiveness. Ultimately, the Strategy's common approach should support a fair, inclusive and human-centred digital transition for regions and communities.

Future-proof digital infrastructure

The importance of digital infrastructure in improving connectivity and promoting data and digital innovation continues to grow, especially in mountain and rural territories. Future-proofing digital infrastructure is increasingly relevant both in general and across the Alpine region. There is a long-

<sup>&</sup>lt;sup>7</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648\_en\_

term interest throughout the Alpine region in developing digital infrastructure and networks across various regions to enhance competitiveness, resilience and overall prospects as a cohesive entity.

• Relevance of data and artificial intelligence in the Alpine region
Data and artificial intelligence are strategically vital for the Alpine region's future, driving economic innovation, sovereignty and prosperity. Issues such as the ownership and quality of Alpine-related data, common open platforms and data spaces, and the use of artificial intelligence systems and other relevant future technologies must be addressed. Shared Alpine challenges such as climate change and lack of accessibility require data-driven solutions on a regional scale. Specific issues such as water management, climate change and mobility across valleys and regions could benefit from an Alpine-wide data strategy. A harmonised approach to data control across the Alps has the potential to foster regional influence, resilience and sustainable development by enabling artificial intelligence solutions and other promising technologies such as autonomous driving and the internet of things.

#### Synergies with other actions

Action 5 has transversal characteristics, as connectivity enables access to services, resources and underlying data while tackling common issues around data sharing and protection. The fast-moving digital economy is closely tied to innovation, linking Actions 1, 2 and 5. Action 5 can serve as a point of reference for Action 3 in relation to digital skills and training. Synergies with Actions 4, 6, 7, 8 and 9 can help to reach specific sustainability, green transition and energy efficiency goals through digital technologies.

## Pillar 3: Environment and energy

OBJECTIVE: An ecologically connected, environmentally sustainable Alpine region that fosters climate change adaptation and mitigation.

The overall objective of this pillar is to address the main environmental challenges and opportunities in the Alpine region, including those arising from climate change. A sound environment is essential for supporting human activities in the region and ensuring the economic and social well-being of the population. The loss of biodiversity and the fragmentation of landscape and wildlife habitats due to competing land uses and climate change pose a challenge for the Alpine environment. Climate change also causes changes to the water cycle, including glacial melting with consequences not only for the Alpine region but also for downstream countries.

The focus of this pillar is on natural and cultural resources (Action 6), ecological connectivity (Action 7) and risk management (Action 8) with the goal of ensuring the protection of biodiversity and the restoration of nature. Action 9 addresses energy efficiency and renewable energy as core aspects of climate change mitigation. All three actions are particularly relevant for the mountainous core of the region, in line with the Alpine Framework Convention, which promotes the protection and sustainable development of the Alps in all relevant areas. The environment, energy and mobility have significant regional impacts. Spatial planning instruments can be important tools for addressing regional challenges and mitigating land-use conflicts. A common spatial strategic vision for the Alpine region could help action groups to contribute to shared sustainable regional development goals. Actions 6, 7, 8 and 9 (together with Action 4) play a key role in this respect.

#### Action 6: Preserving and capturing the value of natural and cultural resources

#### Regional characteristics and challenges

The Alpine region boasts an outstanding natural and cultural heritage encompassing a wide array of mountain habitats with extremely high biodiversity. Its abundance of water resources, including rivers, lakes and glaciers, have led to the region being referred to as the 'water tower' of Europe. However, the environment of the Alpine region is extremely vulnerable. Over the last 100 years, temperatures have risen twice as fast as the global average, leading to glacier and permafrost melt, water scarcity, and changes to biodiversity. These effects of climate change threaten ecosystems, food and water security, cultural heritage, and winter tourism. Conflicting interests in land use, particularly between the protection of natural resources and their economic use, are a further challenge for the Alpine regions, especially as the space for permanent settlement in the Alpine valleys is limited.

Sustainable resource use, biodiversity protection and cultural heritage safeguarding not only have an intrinsic value but have also proven to be highly beneficial to local economies. The ways in which these resources have been transformed into economic assets have varied throughout history. People benefit in many ways from all these ecosystems and the services they provide. Addressing these issues at a macro-regional level could facilitate coordination across sectors, political levels and regions. In this context, a circular and nature-based approach to natural resources in the Alpine production value chain is key.

In addition, cultural aspects such as language diversity, Alpine textile and craft production and food systems are closely linked to the 'regional identity' of the Alps and represent a particular asset of the region in the European context. The Alps' unique natural and cultural characteristics have also resulted in several UNESCO Intangible Cultural Heritage inscriptions and World Heritage sites being designated.

#### Strategic relevance

Action 6 is expected to contribute to ensuring the sustainability of Alpine resources. It strongly aligns with the current Commission priority<sup>8</sup> of 'Sustaining our quality of life: Food security, water and nature'. It supports the EU's goal of 'no net land take by 2050' and addresses key policies on safeguarding biodiversity, water and soil and reversing ecosystem degradation. Targets and objectives related to the sustainability, safety and security of feed and Alpine food and non-food production, enhancing biodiversity and protecting natural and cultural resources are included in several EU and non-EU strategies covering the Alpine region, as well as in the framework of the Alpine Convention.

In addition to the focus of Pillar 1 (competitiveness and sustainability of the Alpine region's economic development), Action 6 focuses on developing, safeguarding and maximising the value of the region's inherent territorial potential and resources based on its natural and cultural heritage. In this way, it also provides a platform for implementing the strategic objectives of the EU Territorial Agenda 2030 within the Alpine region, ensuring 'a future for all regions'.

#### **Focus**

Action 6 focuses on balancing the preservation of the Alpine natural and cultural resources as assets of a high-quality living environment with their sustainable economic use and enhancement.

#### Main topics

Strengthening the integrated management of water and soil resources

The sustainable and integrated management of the Alpine region's resources is of the utmost importance. Building on large and small water cycles and a sound landscape water balance, sustainable water management, e.g. through transnational river basin management plans/schemes (including river restoration and sediment management), is essential to secure an integrated protection, enhancement and restoration of water resources and their ecosystems, and key for Europe's water resilience and water security. Adapting water management practices to new meteorological and hydrological conditions and improving water efficiency across economic sectors is also crucial. The increased use of nature-based solutions can contribute to restoring the water cycle and improving climate adaptation, including better protection against floods and water scarcity, thus enhancing the resilience of the whole region.

As water systems do not end at national borders, the work of the International River Basin Management Commissions is very important. For instance, climate change induced changes to the water cycle, including glacial melting, with consequences not only for the Alpine region but also for downstream countries. This is one example of why, exchanges of knowledge with neighbouring regions and other macro-regions could be beneficial for the Alpine region.

Soil is a scarce resource, especially in the Alps, where soil formation processes are particularly slow due to geological and climatic conditions. Pressure on fertile valley soils is further increased by the limited space available for permanent settlement. Nature-based solutions can support a wide variety of policies, including those on water management, food security, climate change adaptation and mitigation, disaster risk reduction, sustainable development, and agriculture practices.

 Utilising and restoring natural and cultural resources in a sustainable way throughout the value chain

The Alpine region boasts a wealth of natural and cultural heritage, which is a core asset for its economic development. The natural heritage includes protected areas like Natura 2000 and the Emerald Network, as well as areas dedicated to the conservation of nature, landscape and cultural heritage. The cultural heritage includes tangible and intangible assets, such as traditional Alpine settlements, buildings and monuments, and the craft skills of past generations, including traditional techniques for using natural resources. Making the most of these assets is a key feature for the

<sup>8</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648\_en\_

economic development of Alpine regions, especially in sectors such as tourism, craft, agriculture and forestry.

Building on innovative and successful initiatives that embrace circular and nature-based approaches to the production, promotion and marketing of local food and forest-based products can strengthen cooperation among producers, processors and consumers, fostering robust local value chains and contributing to both cultural preservation and environmental sustainability. Exchanging experience and best practices or setting up an Alpine strategic framework for sustainable and balanced models for resource management and protection could support stakeholders across the Alpine region.

#### Synergies with other actions

Preserving and making the most of the Alpine region's natural and cultural resources is closely interconnected with the activities carried out under various other actions. Nature-based solutions are extremely important not only for areas such as water, forestry and agriculture, but also for disaster risk reduction and climate change mitigation and adaptation (Action 8). Furthermore, strengthening ecological connectivity and green and blue infrastructure is key for nature restoration measures (Action 7). In this context, cooperation between Action 6 and Action 7 could produce useful results.

## Action 7: Developing ecological connectivity across the Alpine region

#### Regional characteristics and challenges

The Alpine region has many protected areas, covering up to 25 per cent of its territory. The coexistence of protected areas and intensively used territories (e.g. for transport, settlement and tourism) increases fragmentation and poses a threat to Alpine biodiversity by preventing essential ecological processes. This creates the risk of a sharp divide between protected and heavily used unprotected areas, a problem particularly evident in small and narrow Alpine valleys. Within the territory covered by the Strategy, there are a number of ecological corridors that connect the Alpine region with other mountain areas in Europe. These traditional migration routes for wildlife are currently at least partly disrupted due to the large number of roads and motorways and ongoing urban development. The integrity and functioning of ecosystems, including biodiversity conservation and the provision of ecosystem services, largely depend on effective ecological connectivity.

Against this background, the main objective of this action is to improve ecological connectivity between the Alpine core and the peri-Alpine area on a wider geographical scale between rural and urban areas on a regional scale, thereby bridging areas of high natural value. It should also consolidate ecological links to other mountain regions, establishing a strategically planned network of natural and semi-natural areas. By functionally interconnecting these areas, the action should provide environmental, social, and economic benefits while strengthening landscape connectivity across the Alpine region. Furthermore, this action is linked to the goal of nature restoration.

#### Strategic relevance

The importance of ecological connectivity is reflected in the Commission priority<sup>9</sup> 'Sustaining our quality of life: Food security, water and nature', which aims to reward farmers who work with nature, preserve biodiversity and natural ecosystems and help to decarbonise the economy. Ecological connectivity is also indirectly covered by several European and national strategies working towards improving the ecological situation. The action is also consistent with the activities of the Alpine Convention, and close cooperation and synergies can be fostered with the Alpine Convention's Alpine Biodiversity Board.

<sup>9</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648 en

#### **Focus**

Action 7 focuses on developing ecological connectivity to conserve, improve and restore biodiversity, strengthening ecosystem services, and setting up a comprehensive macro-regional scheme by developing blue and green infrastructure at both macro-regional and cross-border level.

#### Main topics

- Promoting ecological connectivity and avoiding further fragmentation at different geographical levels across the Alpine region
  - The promotion of ecological corridors and blue and green infrastructure in unprotected areas is currently underdeveloped. Against this background, the main objective of this topic is to improve connectivity between the Alpine core and peri-Alpine areas on a wider geographical scale and between rural and urban areas on a regional scale, thereby bridging areas of high natural value. In this context, it is essential to identify Alpine blue and green infrastructure elements of cross-border significance to improve governance approaches and explore solutions and funding opportunities.
  - The concept of connectivity requires a broad, cross-sectoral territorial approach. Activities to improve connectivity therefore also involves policy areas other than nature protection, such as spatial planning, and cover unprotected areas. In this regard, better coordination is needed between national policies, sectors and regions, which add value to this strategy action.
- Restoration of natural resources
  - Unsustainable economic activities, such as excessive resource consumption, land use and construction, continue to degrade ecosystems. Although current efforts focus on preserving and making the most of natural resources, the need for restoration has not yet been fully addressed but is becoming increasingly important. Nature restoration strengthens existing nature conservation and protection areas, consolidating ecological networks. Beyond the EU perspective, nature restoration is embedded within the Alpine Convention. The Strategy can serve as a key platform for knowledge sharing and collaboration.
- Strengthening the coordination of networks/protected areas (e.g. Natura 2000) and initiatives within and outside the Alps
  - Alpine species are not isolated from surrounding areas. For instance, there are long corridors for large species to move between the Alps and other large habitats. This topic aims to build on existing international plans and/or programmes, creating links between different protected areas such as Natura 2000 and the Emerald Network, while fostering exchanges between different land use and nature conservation sectors. Through this activity, it should facilitate and encourage the expansion of existing solutions and highlight the need for closer cooperation at governance level on a broader geographical scale.
- Common development of a trans-sectoral strategic landscape vision
  - A trans-sectoral landscape vision for the Alpine region can contribute to a shared understanding of the relevant ecological connectivity within and beyond protected areas and the surrounding regions. The joint development of such a transnational approach could support the national and regional authorities in setting Alpine-wide relevant standards for blue and green infrastructure and ecological connectivity. It can guide concrete actions to enhance the network of corridors on the ground. To improve implementation, coordination and communication, it is essential to involve stakeholders from all relevant sectors, including the private sector, in nature restoration. Moreover, a trans-sectoral landscape vision would make a significant contribution to an Alpine spatial development perspective.

#### Synergies with other actions

Habitat loss and fragmentation due to the expansion of settlements and transport infrastructure is a major threat to biodiversity. Ecological connectivity is therefore closely linked with other actions (e.g.

Actions 2 and 4). At the same time, ecological connectivity provides benefits for ecosystems and society by increasing resilience to threats such as climate change (Action 8). It provides sustainable solutions to mitigate biodiversity loss and address challenges such as the lack of connectivity between natural areas and homogeneous, ecologically degraded lowland areas (Action 6). Furthermore, strengthening ecological connectivity is a key aspect of nature restoration measures (see Action 6).

#### Action 8: Improving risk management and better managing climate change

#### Regional characteristics and challenges

Due to its geomorphology, the Alpine region is extremely vulnerable to disasters related to natural hazards, which can cause severe damage to ecosystems, people and infrastructure. Limited settlement space and climate change are increasing the risk of damage to private and public property and infrastructure. The disproportionate rise in temperature in the Alps is causing not only glaciers to melt, but also permafrost to thaw. More intense and frequent heavy rainfall lead to increased landslides and rockfalls. As a result, a significant proportion of climate-sensitive sectors and systems are further increasing the region's economic vulnerability. This requires risk management tools and processes to achieve the optimal balance between risk reduction and risk management and economic development, social welfare, mobility and tourism. Nature-based solutions play a key role as an integral part of comprehensive climate change and disaster risk management and adaptation strategies.

#### Strategic relevance

In addition to policies addressing climate change mitigation, measures are required to help regions adapt to challenges and risks posed by climate change in all states covered by the Strategy. The Commission priority<sup>10</sup> 'Sustaining our quality of life: Food security, water and nature', for example, aims to strengthen climate adaptation measures by supporting Member States with preparedness and planning and to ensure regular science-based risk assessments. Other commitments relating to biodiversity and environmental preservation and restoration also contribute to preventing and reducing the impact of natural disasters and natural hazard events. Overall, the Commission's objective of achieving climate neutrality calls for Member States to continuously enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change. Similar policies and strategies are in place in Switzerland and Liechtenstein.

#### **Focus**

Action 8 focuses on further developing and implementing risk management measures on natural hazards and upcoming challenges caused by climate change. It supports the development of climate change adaptation policies for relevant sectors, based on vulnerability and impact assessments.

#### Main topics

 Strengthening transnational cooperation in developing hazard and risk assessment methodologies and building on existing cooperation

The Alpine region is particularly vulnerable to natural hazards of varying magnitude, ranging from single events such as avalanches, heavy rain, floods (including flash floods), and landslides to major multi-hazard events. Particular attention must be given to permafrost areas and the potential risks of permafrost instability and large-scale floods affecting entire river basins. Disaster risk reduction is therefore of great importance not only for mountainous regions, but also for lowland and cross-border regions, due to their potential for large-scale impact.

Given the magnitude of the impact of climate change and natural hazards, comprehensive adaptation measures are needed. This can best be achieved through cooperation and synergy with relevant organisations. In this respect, it is important to develop and implement appropriate hazard

<sup>10</sup> https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648\_en

and risk assessment methods, with a particular focus on extreme events, multi-hazard risks, and cascading disasters, in line with existing EU guidelines and frameworks. Cooperation with the Natural Hazards Working Group of the Alpine Convention should be continued and further developed.

 Pooling research activities on disaster risk management and climate change adaptation and mitigation across the Alpine region

The Alpine region is especially exposed to the adverse effects of climate change. These impacts are closely linked to natural hazards such as landslides, terrain movement, floods, heavy rain and glacier dynamics, which can cause damage and create additional pressures and challenges in terms of resource availability, infrastructure and threats to the Alpine biodiversity. To address these impacts, many institutions within and beyond the Alpine region, including research centres, are analysing the consequences of climate change and natural hazards and possible mitigation and adaptation measures. To systematically capture this specific knowledge and experience, it is necessary to pool research initiatives, technology transfer, knowledge exchange and the application of research in disaster risk management and climate change adaptation and mitigation across the Alps. An important way to support the Alpine region is to integrate nature-based solutions into comprehensive climate change and disaster risk management measures. This theme pays particular attention to the proactive role of forests, rivers with their floodplains, wetlands, wetlands, blue and green corridors and the wildland-urban interface in mitigating and adapting to climate change-related risks in the Alpine region. The Alpine region could become a model region to demonstrate the effectiveness and economic viability of nature-based solutions, leading by example.

 Analysing the socio-economic consequences of climate-related natural disasters and establishing good risk governance

Climate change poses a serious challenge to the social and economic development of the Alpine region. Sustainable and effective protection against natural hazards is therefore an essential prerequisite for settlement and socio-economic development. Limited settlement space and climate change lead to an increased risk of damage to property and infrastructure. The situation is further exacerbated by the expansion of human settlements in hazard-prone areas and the occurrence of extreme events caused by climate change.

This requires new risk governance instruments and processes to identify the ideal approach for multiple land-use demands. Analysing the social, economic and political consequences of climate-related hazards and natural disasters and establishing good risk governance in the Alpine region is essential for sustainable mutual development. This should support measures such as raising risk awareness, balancing conflicting interests in climate change adaptation and mitigation, compensating for regional and local disparities in risk exposure, and resolving related conflicts while ensuring protection. It also calls for strengthened societal resilience, local knowledge of disaster risks, community risk perception and improved risk preparedness measures.

#### Synergies with other actions

Action 8 is closely linked to other actions. The serious impact on biodiversity and Alps' role as Europe's 'water tower' show how closely Actions 6 and 8 are connected. The importance of nature-based solutions, in particular blue and green corridors, highlights the synergies between Actions 7 and 8. In addition, these three actions are connected by a joint need for improved spatial planning. The socioeconomic interests reflected in Actions 2 and 4, such as economic development, social welfare, mobility and tourism, must also be reconciled with risk reduction and safety management.

# Action 9: Making the Alpine region a model for energy efficiency and renewable energy

#### Regional characteristics and challenges

The Alpine region plays an important role in the production of renewable energy from hydropower, solar, biomass, wind and geothermal sources. Energy efficiency and renewable energy contribute to competitiveness and jobs in both remote and densely populated areas. Currently, the major energy resource available in the Alpine region is hydropower, which is one of the most important economic components of the energy sector. This presents advantages in terms of energy security and blackout prevention, as hydropower can provide system services which are key in process of energy transition towards renewable energies Nevertheless, there is an increasing demand for electricity production from other renewable sources such as wind and solar energy and for smart energy management and storage technologies, such as green hydrogen, to support the flexibility of the energy system. Balancing the need for renewable energy production with nature conservation, landscape protection, land use and societal trade-offs is crucial for the region's continued prosperous development, also considering the different needs of mountain regions and plains. Public acceptance of the expansion of renewable energy across the entire region is essential for a successful energy transition and can be fostered through participatory approaches.

Countries in the Alpine region have strong potential for improving energy efficiency. Therefore, further action to promote energy efficiency is needed in all sectors, including in particular construction and housing, production, services and transport and mobility.

Better governance and cross-border cooperation can improve the development of renewable energy and energy efficiency. The urgency is heightened by the combined pressures of rising energy prices and, above all, climate change, one of the region's greatest challenges.

#### Strategic relevance

Climate change is a major challenge for the Alpine region, and efficient energy consumption and energy production are key to its mitigation. The European Union is committed to becoming the first climate-neutral continent and a world leader in renewable energy - a global hub for the next generation of advanced, competitive renewable energy technologies. However, in democratic societies, energy transition cannot be accomplished successfully without integrating the social dimension. Social acceptance is imperative to ensure a long-term perspective for an undisputed energy transition process. The necessary changes must therefore be implemented without causing economic or social imbalances. The European Green Deal and numerous directives aim to facilitate an economic transition that enables all sectors of the EU economy to meet the challenge of climate change, targeting a reduction in greenhouse gas emissions of at least 55% by the end of this decade and achieving climate neutrality by 2050. Policies and strategies on energy efficiency and renewable energy are also in place in Switzerland and Liechtenstein.

#### **Focus**

Action 9 focuses on promoting energy efficiency in all sectors, expanding the production and use of renewable energy, and balancing renewable energy production with nature and landscape protection, land use and social acceptance.

#### Main topics

 Fostering cooperation and participation to improve renewable energy production in the Alpine region

The Alpine region has high potential for the use of renewable energy sources, especially hydroelectric ,wind, solar and geothermal power as well as biomass. However, the transition to renewable energies often conflicts with nature conservation and landscape protection interests.

Due to limited space available for settlement in Alpine valleys, land-use conflicts can arise. Solutions can only be found by negotiating and mediating the different interests and broadening perspectives from supply-driven approaches to integrated solutions that also consider quality of life. Transnational cooperation can help explore cross-border synergies and facilitate the exchange of knowledge and practices across the Alps.

- Cross-border cooperation in planning energy infrastructure

  Reliable and robust energy infrastructure is crucial for the functioning of the Alpine region and
  - Europe as a whole. The increased use of wind and solar power requires more energy transmission capacities to transfer surplus production to storage power stations. Furthermore, smart grid solutions, which are essential for local energy supply, face specific challenges in Alpine valleys due to the mountainous topography. The Strategy can produce policy recommendations and organise knowledge exchange events to further encourage dialogue and support innovation in this field.
- Decarbonisation and energy efficiency in building, production and services Improving energy efficiency and moving towards climate neutrality in production, services and construction without compromising competitiveness is essential for achieving energy neutrality. While improving energy efficiency is necessary in all sectors in the Alpine region, it is especially crucial in the building sector. There is a strong need to refurbish existing buildings for energy efficiency. This includes cost-optimal efficiency standards and decarbonisation strategies for renovating existing buildings with economically sustainable support mechanisms and a socially just transformation. Sustainable and low-carbon buildings, such as passive solar designs, and the circular management of construction materials (especially timber, a relevant Alpine resource) are particularly important for new constructions. Another key area of activity for the Strategy is the exchange of knowledge and experience with instruments (e.g. technical tools and incentive structures) implementing energy efficiency measures.
- Regional and local initiatives for the decarbonisation of municipalities and regions Regional and local activities based on integrated spatial and energy planning concepts are key to the energy transition. Initiatives like positive energy districts, smart districts, energy model regions, smart villages, energy communities, regional circular economy concepts, sustainable regional transport solutions and waste-to-energy solutions can make a significant contribution to energy goals. It is essential to develop, promote and implement instruments to help local and regional authorities to plan and achieve carbon neutrality by 2050. To successfully achieve this transition, it is imperative to involve people in developing a common mindset and understanding. Communication strategies on energy transition targeted at different groups are key for meeting their needs and securing their support. Participation processes and the establishment of energy communities are essential to ensure a just transition.
- Linking technologies and innovation to drive the energy transition at regional and local level
   Various new and innovative technologies are under development, such as energy storage systems,
   green hydrogen production, circular economy solutions, carbon dioxide innovation and the energy
   transition in the mobility sector and more general technologies for the electrification of sectors
   reliant on fossil fuels. The Strategy can support the collection and sharing of knowledge and good
   practices with policymakers, paving the way for implementation.

#### Synergies with other actions

The energy transition requires innovation and offers opportunities for technology and consulting/engineering investments in green technologies, linking it with Actions 1 and 2. Work on common sectoral elements (e.g. water management and landscape protection) also links this action closely to Actions 6, 7 and 8. Additionally, the necessary transition in the mobility sector, such as the electrification of transport and the use of alternative fuels, create links with Action 4.

# **Implementation**

### **Financing**

In line with the Council conclusions of 27 June 2023 on the Commission's fourth report on the implementation of the four EU macro-regional strategies, these strategies should be adapted to reflect new needs and challenges across the regions, particularly by integrating them into existing funding sources and adapting their action plans.

A key principle of macro-regional strategies is that they do not have their own financing.

Therefore, the Strategy can implement actions without additional financial resources, for example by coordinating legal adjustments across all states and regions or strengthening cooperation among administrative staff. These measures do not create new activities but involve carrying out existing ones in a different way. As a result, strategy activities do not require additional financing.

However, most interventions generate additional activities and thus require funding. One way in which the Strategy is implemented is by mobilising and adapting existing EU, non-EU and national funding that align with the Strategy's thematic objectives and actions. The Strategy is expected to use available funding mechanisms to finance projects that contribute to its strategic objectives. As the Strategy is a regional strategy, all funding instruments with a clear regional dimension should be considered to support implementation, along with thematic instruments that could be used more effectively when coordinated across the whole region.

The main partners for stakeholders in this task are the managing authorities and intermediate bodies of EU programmes. Therefore, a financial dialogue between strategy implementers and programme/fund administrators is crucial for mutual understanding and alignment. In this context, the Strategy's Financial Dialogue Platform connects the Strategy to available funding by promoting dialogue and improving the exchange of information between the Executive Board, action groups and the bodies responsible for managing funding opportunities. During the programming of future funding periods, stakeholders at all governance levels, with the support of the Commission, are expected to ensure that the programming and allocation of resources are as consistent as possible with the Strategy. Throughout the programme implementation cycle, additional measures can still be adopted at various stages, to be jointly developed and coordinated by the Financial Dialogue Platform.

#### Overview of possible funding sources

A broad range of financing sources is available to support projects aligned with the Strategy's goals and actions, in particular:

- the European Regional Development Fund (including Interreg)
- the European Social Fund Plus
- the Cohesion Fund (applicable in Slovenia)
- EU-managed programmes and partnership on environment, climate change, transport and mobility, research, and human resources development
- the European Agricultural Fund for Rural Development of the common agricultural policy, with programmes such as LEADER
- Erasmus+
- InvestEU
- the Life programme
- the Single EU Debt Financial Instrument
- Innovation Fund
- Climate and Social Fund
- the European Investment Bank.

Additionally, various **national and regional funding sources** can be used to implement the objectives of the Strategy. The **private sector** also plays a significant role in complementing and leveraging public funding and is therefore also taken into account. New sources to cover the funding gap between the demand and the supply side, such as nature credits, could also be considered and would merit further development.

## Monitoring and evaluation

Monitoring and evaluation help assess the implementation of the action plan and analyse its effectiveness. As the Strategy, like all other macro-regional strategies, does not have its own financing, it cannot be implemented through directly funded projects. Its impact depends on cooperation with other stakeholders and funding sources, knowledge sharing, raising awareness of relevant topics, and policy development.

To maintain an overview of the different activities of all action groups, a project monitoring system should be put in place to track the different activities of each group and provide an overall picture of the status of all ongoing and completed activities and projects under the Strategy's umbrella. Monitoring information should be updated regularly, in principle once a year. This information should include:

- the name of the project or activity;
- the implementation status, in a standardised format for all projects and activities;
- the strategy areas covered (possibly supplemented by an indication of their relevance to a specific mission).

This monitoring should be used to compile an annual implementation report showcasing the progress of activities within the Strategy.

Given the variety of activities and projects within each action group and past experiences with ongoing monitoring, an in-depth indicator-based monitoring system requiring extensive data collection from largely incomparable projects, is not considered appropriate. Furthermore, the limited scope of the Strategy's activities relative to the broader spectrum of activities and funding sources outside the Strategy's remit does not warrant output- or result-oriented monitoring.

Instead, to assess the influence of strategy activities in specific areas on cooperation in the Alpine region, evaluations should be conducted at different stages. One important subject for evaluation should be the status of implementation of strategy activities. Another important aspect should be their contribution to the further development of the Strategy, to be assessed ideally before the next update of the action plan. The evaluation should also focus on the impact of strategy activities on governance. In addition, the evaluation should assess the implementation mechanisms of the Strategy within the different action groups, using a partnership approach that enables mutual learning and strengthens implementation and coordination processes.

It is recommended that the evaluation follows a learning-oriented approach focusing on questions such as 'How?' and 'Why?', in order to gain insights into how the Strategy could be implemented more effectively.

# Synergies and cooperation

# Cooperation with other governance structures and entities in the Alpine region

The Interreg Alpine Space programme and the Alpine Convention play an important role in implementing the Strategy. Their relationships and cooperation between them reflect the importance of building synergies, shared visions and added value for the Alpine region.

#### Cooperation with the Interreg Alpine Space programme

The **Interreg Alpine Space programme** has always been a strategically important instrument for implementing the Strategy. The programme and the Strategy share similar objectives and cover a similar geographical area. The Alpine Space programme supports the vision and objectives for the Alpine region developed by the Strategy within the EU regulatory framework for transnational Interreg programmes. Although not a governance body in the strict sense, the Alpine Space programme plays a key role in Alpine governance by supporting the development and financing of fundamental projects and activities of the Strategy underpinning its thematic and governance aims. Close coordination and collaboration between the Strategy and the programme are therefore crucial to ensure the success of both by facilitating strategically meaningful, high-quality projects that align with their shared goals.

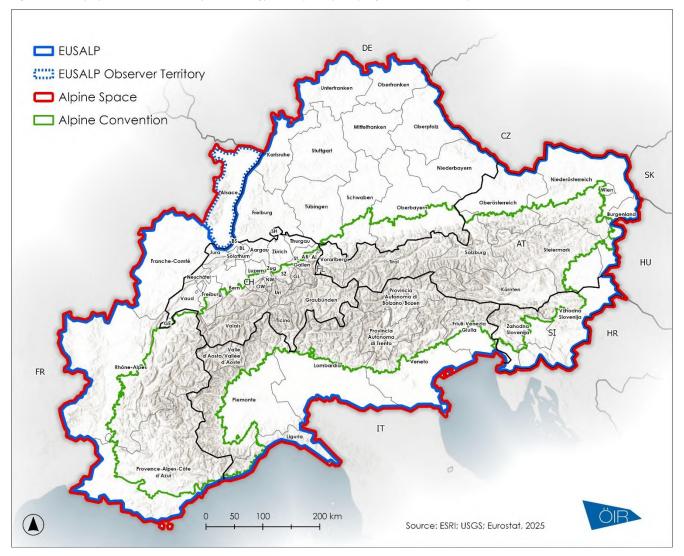
#### Cooperation with the Alpine Convention

The **Alpine Convention** and the Strategy are complementary and synergetic in many ways, with strong overlaps in the themes they address. However, they differ in their role and legal nature. While the Strategy is a macro-regional strategy, the Alpine Convention is a legally binding treaty. Furthermore, their geographical scope differs significantly, as the Alpine Convention is limited to the Alpine mountain areas.

The Alpine Convention's framework convention has been ratified by all the Strategy's member states and the EU, meaning it is also part of EU environmental legislation. The eight thematic protocols have been ratified by most contracting parties, except Switzerland and, for some protocols, the EU.

The Strategy strives to strengthen exchange and cooperation with the Alpine Convention, to ensure legal compliance, foster synergies and avoid duplication of work processes, e.g. those of their respective bodies.

Figure 2: Map of the areas covered by the Strategy, the Alpine Space programme and the Alpine Convention



## Synergies with other macro-regional strategies

Macro-regional strategies provide a framework for cooperation and better coordination of shared strategic objectives in functional and cross-border areas. Their task is to encourage relevant institutions and stakeholders in the region to work together and to pool and coordinate available resources more effectively to achieve common goals. Macro-regional strategies pursue objectives that can only be achieved through cross-border and transnational cooperation and therefore require the cooperative involvement of stakeholders across different sectors and levels.

Cooperation with other macro-regional strategies is important for the Strategy. It enables the exchange of experiences and good practices with different stakeholders, providing an opportunity to identify and create synergies and develop a common macro-regional vision. Possible modes of cooperation with other strategies include events organised by the Commission, high-level group meetings<sup>11</sup>, meetings of all four trio presidencies, and macro-regional and sea-basin events and conferences.

These events offer opportunities to discuss common macro-regional topics such as governance, monitoring, funding, and forthcoming political and strategic challenges. The use of these cooperation frameworks should be further encouraged to ensure thematic synergies across the macro-regions.

The Interact programme also plays a central role in ensuring coherence and synergy among the macroregional strategies through regular coordination meetings between stakeholders on subjects of common interest.

# Literature

Some parts of the action plan are derived from existing papers, such as:

The Brdo Declaration (14.11.2024)

The White Paper on the revision of the Alpine Strategy action plan (1.10.2024)

Alpine Strategy Vademecum (5.11.2021)

Alpine Space programme 2021-2027

Alpine Convention (1991) Framework Convention

<sup>&</sup>lt;sup>11</sup> This group brings together official representatives from all States participating in macro-regional policy orientation and strategic guidance, and the Commission. They meet once a year.

# Annex I: Project examples for the EU Macro-regional Strategy for the Alpine Region Action Plan

#### **ACTION 1**

A territorial antenna for the ecological and digital transition of the Alpine space in a prospect of decreasing territorial disparities

The pilot project for the Valtellina mountain region in Lombardy – funded by the Competence Centre on Territorial Anti-Fragility of the Politecnico di Milano through the Excellence Department track of the Italian Ministry of University and Research – aims to combine territorial ecosystems of research and innovation with projects of social and spatial regeneration. Within a trans-scalar and cross-border territorial vision connected to surrounding Alpine valleys in South Tyrol and Canton of Grisons, the pilot project promotes the concept of flexible 'off campuses'.

#### **ACTION 2**

#### Supporting green transformation of the Alpine manufacturing sector in a holistic way

RECENTRE (Interreg Alpine Space programme): supporting the green transformation of the Alpine manufacturing sector and the uptake of advanced technologies for the well-being of workers.

#### Promoting circular building and renovation in the Alpine region

BAUHALPS — Building circular in the Alpine Space (Interreg Alpine Space programme): supporting greener and more inclusive building practices in the Alpine region by combining modern technology with local culture and community input to create sustainable, climate-friendly construction standards.

#### **ACTION 3**

#### Promoting mountain jobs amongst young people in the Alpine region

"Discover Mountain Jobs" Youth Experience (annual event): supporting young people to explore job opportunities in the Alpine region by connecting them with professionals and inspiring local initiatives, encouraging them to build their careers in mountain areas;

#### Assessment, development and validation of soft skills

Developing tools and guidelines for the identification and assessment of a set of soft skills in work-based learning contexts to facilitate access and mobility in the Alpine labour market;

#### New job opportunities with digital workplaces for remote mountain areas

AlpSatellites (Interreg Alpine Space programme): managing the transition to hybrid work and satellite offices to revitalise remote mountain areas.

#### **ACTION 4**

#### Alpine Strategy Rail Declaration

A political commitment by 15 Alpine regions to join forces for a sustainable transport and mobility system, calling on EU decision makers for action to improve conditions for rail transport.

#### Project labelling for prioritising investments in sustainable mobility

Promoting sustainable transport in the Alpine region by identifying and supporting impactful mobility initiatives with macro-regional relevance, helping them gain recognition and access to funding at national and EU levels.

#### Alpine platform of knowledge for mobility and transport

Establishing an Alpine knowledge hub for mobility and transport, as an easy-to-use online tool that brings together key data and project results to support better decisions and communication about transport in the Alpine region.

#### Improving cross-border mobility in the Alpine region

An Alpine Region Preparatory Action Fund project which analyses cross-border commuting in the Alpine region to develop practical solutions and political recommendations to improve sustainable mobility solutions and cooperation across borders.

#### Linking sustainable mobility services

LinkingAlps (Interreg Alpine Space programme): improving sustainable travel in the Alpine region through easier access to travel information across borders, transport modes, and operators for smoother, low-carbon journeys.

#### Alpine Strategy Mobility Conference

An annual conference, gathering mobility stakeholders and political representatives of the Alpine region to present and discuss solutions for a more sustainable mobility and transport system in the Alps.

#### **ACTION 5**

#### Smart digital transformation of villages in the Alpine Space

SmartVillages and SmartCommUnity (Interreg Alpine Space programme): helping Alpine rural communities use digital tools and stronger local partnerships to create better living and working conditions and improve support for digital innovation in policies for sustainable growth.

#### Territorial corporate welfare through digitalisation and cooperation

APOLLO (Interreg Alpine Space programme): tackling depopulation in the Alpine region by improving work-life balance and remote work options to boost well-being and support local economic growth.

#### **ACTION 6**

#### Political Declaration on Sustainable Land Use and Soil Protection

Following public consultation and coordination with Strategy states and regions, the declaration gained the support of 20 regions and 6 Alpine countries. Its endorsement by the General Assembly marked a strong collective commitment to safeguarding this vital natural resource.

#### **Territorial Brands**

The Action Group 6 Territorial Brands conference series began in 2019, continued in 2021 with a second international workshop on small-scale brands, sustainability and circularity, and culminated in the 2023 Val Poschiavo conference "Towards Circular Territorial Brands". It impacted new collaborations and pilots, higher SME visibility, stronger links to culture and tourism, as well as generating an uptake in procurement and regional policy.

#### <u>Safeguarding Alpine Food Heritage</u>

The Alpine Food Heritage theme – supported by the Interreg Alpine Space Project AlpFoodway (2016-2018) and reinforced by earlier Interreg Italy–Switzerland collaborations – has evolved into a multi-level, cross-regional stakeholder effort whose shared narrative and tools now drive a UNESCO multinational nomination (Switzerland, France, Slovenia, Italy) for the inclusion of Alpine Food Heritage in the Register of Good Safeguarding Practices for Intangible Cultural Heritage.

#### Task Force on multifunctional forests and sustainable use of timber

A task force to help different actors in sharing information, integrating different perspectives, and working together on shared goals that can influence political decisions on forestry and timber production. The Task Force initiated the Alpine Region Preparation Action Fund project REDIAFOR, which mapped conflicts around the multifunctional use of Alpine forests and designed and tested dialogue processes to ease them.

#### **ACTION 7**

#### **Green Infrastructure Goes Business Award**

Establishing an award to encourage innovative and sustainable ideas supporting a greener economy in the Alpine region, with a special focus on smart water management.

#### Monitoring and managing Alpine biodiversity by nature-based solutions

ALPSLIFE (Interreg Alpine Space programme): helping protect nature and wildlife in the Alpine region by promoting cross-border teamwork and nature-based solutions that support local planning and EU environmental goals.

#### **ACTION 8**

#### Interactive communication of natural hazards and risk management

Natural hazard model (AlpGov 2): Empowering people to better understand natural hazard processes as well as protective and preventive measures through a physical, interactive and mobile landscape model that can be replicated and modified by other actors.

#### Improve Adaptive capacity for highly affected and exposed territories

ADAPTNOW (Interreg Alpine Space programme): Strengthening Alpine regions to better prepare for and respond to climate-related disasters by implementing and evaluating the available tools and practices and improving cooperation among local stakeholders.

#### Better management of weather extremes

X-RISK-CC (Interreg Alpine Space programme): Supporting risk managers and policy makers in addressing the compound and cascading risks of weather extremes under climate change by developing new knowledge, local risk management actions and transnational policy options.

#### <u>Transnational knowledge portal</u>

Climate Adaptation Platform for the Alps: Supporting climate change adaptation in the Alps by providing a shared online platform where decision makers, public administrations, municipalities, entrepreneurs, researchers and experts from different countries can exchange knowledge, experiences, and solutions.

#### **ACTION 9**

#### Promoting green hydrogen deployment in the Alps

Green Hydrogen Mobility for Alpine Region Transportation (H2MA) and A Multipurpose and Transectorial Hydrogen Support for decarbonised Alpine Territories (AMETHyST) (Interreg Alpine Space programme): supporting the growth of a green hydrogen economy in the Alpine region by connecting projects and promoting policies that help industry and transport shift to clean hydrogen solutions.

#### Alpine Strategy Energy Conference

The conference gathers experts, decision makers and stakeholders to discuss the challenges of the energy transition in the Alps, to ease the transfer of good practices and to connect relevant stakeholders that are vital to implement further measures towards carbon sensitive Alps.

#### <u>Alpine Strategy Energy Award</u>

The Award recognises best practices that are contributing to the implementation of the energy transition in the Alpine area through the roll-out of renewable energy and energy efficiency measures. The award is organised under changing annual topics to cover the many facets of the energy transition and to engage with the various implementation stakeholders.

#### **GOVERNANCE**

#### Youth Participation

The Alpine Strategy actively involves young people in its work through the Youth Council, competitions, and events like summer camps, giving them a real voice and support to shape a sustainable future for the Alpine region. The Alpine Strategy was the first of the four macro-regional strategies to do so, setting an EU-wide example.