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ADAPTNOW

A3.3 CLIMATE ADAPTATION AND RISK MITIGATION ALPINE POLICY ROUNDTABLE: POLICY RECOMMENDATIONS FOR IMPROVING THE RESILIENCE OF ALPINE HAET

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ADAPTNOW will work on strengthening the adaptive capacity of HAET by implementing and evaluating the available climate adaptation and risk mitigation management tools and practices, assessing the Climate Adaptation Plans and developing Climate Services to support the territories and their local public authorities. Ultimately, ADAPTNOW aims at making risk and adaptation planning more integrated, collaborative and inclusive. This will be reached through a more dynamic, agile and participatory planning process in which all local stakeholders need to be involved.

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A1. EXECUTIVE SUMMARY

Over the last few years, the effects of climate change have been showing themselves with all their ferocity in the Alpine territories, which are increasingly subject to environmental catastrophes and irreparable damages caused by the climate that has already changed. Moving from theoretical to practical actions, aiming to increase the resilience of the Alpine territories, it's now the right time to act.

Six Policy Recommendations have been developed in the context of the ADAPTNOW project, which will be described in this document. They have been identified as the crucial ones by the partnership, on the basis of the analytical findings emerged during the development of the pilot actions throughout the lifetime of the project.

Thus, the document intends to illustrate the content of the six **Policy Recommendations, which aim to promote specific actions to be implemented within and outside the Alpine Region to improve the resiliency of the territories to the effects of climate change.**

A2. INTRODUCTION

The Alpine region is one of the most vulnerable areas in Europe to climate change; heatwaves, floods, droughts, and biodiversity loss increasingly threaten people, ecosystems, and local economies. **Mountain areas face specific challenges, in particular Highly Affected and Exposed Territories (HAETs), where risks are even more concentrated.**

The ADAPTNOW project, co-financed by the Interreg Alpine Space programme, **supports local authorities in designing and implementing adaptation strategies and measures.** It helps municipalities to strengthen their risk prevention culture, build resilient services, and move from planning to action. The consortium gathers 12 partners from 5 Alpine countries, including local authorities, research centres, regional agencies, and NGOs. Together, they designed and **tested concrete solutions through pilot actions, exchanged knowledge, and provide recommendations to decision-makers** at all levels.

The next pages of this document describe the **six policy recommendations emerging from the project's work**, highlighting practical actions for stronger and more resilient Alpine communities. Policies developed in ADAPTNOW are **strongly focused on the pilot actions developed by project partners** throughout the project life in the different Alpine territories and characterised by a pragmatic approach.

Those six key actions are intended **to affect the mindset of the decision-makers** regarding climate adaptation strategies, to **suggest new solutions** to counteract the effects of climatic changes, to better **prepare all the different stakeholders to the cost of non-action**, to advise about **new financial mechanisms** to support climate adaptation and to **strengthen municipalities' capacity to act** in this area.

The development of the Policy Recommendations has been facilitated by a participative Workshop held in Kempten (DE), which was attended by the whole ADAPTNOW Consortium, and aimed to co-design proper actions for climate resilience in Alpine Regions. More information available in Annex 1.

ADAPTNOW Policy Recommendations will be presented at the EUSALP Annual Forum 2025 in Innsbruck (AT) on November 26th, during the Workshop Session II (*Workshop #8 Enhancing Alpine Climate Change Adaptation through Cross-Project Policy Recommendations and Tools*)

1. PROMOTE CLIMATE-RESILIENT SPATIAL PLANNING

Strengthening urban planning instruments through a climate-resilient approach, based on a participative and multilevel governance concept, to be able to design territories more adapted to climate risks, protecting public health.

1.1 PROBLEM STATEMENT AND TERRITORIAL RELEVANCE

Urban planning instruments are driving elements in making the Alpine territories, and beyond, **more resilient to the devastating effects caused by climate change** and, at the same time, preserving the health of the inhabitants. The **integration of climate risk assessment and climate adaptation analysis in urban planning instruments** would make a decisive change in designing resilient Alpine territories but, unfortunately, this approach remains largely underutilized.

Although their territorial relevance is very broad, **few urban planning instruments have integrated adaptation strategies based on climate risk analyses.**

This policy recommendation also supports the **European Green Deal** and the *EU Mission on Adaptation to Climate Change*, which are highlighting the importance of developing adaptation pathways and creating strategic plans to prepare European regions and communities towards climate resilience by 2030.

1.2 STAKEHOLDERS AFFECTED

Climate-resilient spatial planning can improve the safety of all the stakeholders, regardless of their working environment and role in society. Indeed, if urban planning instruments incorporate adaptation strategies to address the effects of climate change, the territory will be less vulnerable and more resilient; consequently, stakeholders within that area will be positively affected, particularly in terms of health risks reduction.

1.3 PROPOSED ACTION(S)

To integrate and promote a climate-resilient approach into urban planning instruments, the following actions are suggested:

- Promote the use of **urban planning as a strategic instrument for climate change adaptation** by integrating risk management measures into planning documents and Strategic Environmental Assessment (SEA) procedures.
- Encourage the **adoption of data-driven decision-making methodologies** to support planning processes and actively involve local stakeholders throughout the planning and implementation processes.
- Foster the **mainstreaming of climate adaptation into urban and territorial planning frameworks** to ensure coherent, resilient, and health-protective territorial development.
- **Raise awareness among the decision-makers** about the advantages of integrating climate analysis into urban planning instruments, which can make territories more adapted to climate risks, protecting public health.

1.4 EXPECTED OUTCOME(S) AND BENEFICIARIES

Climate-resilient spatial plans promote the **increase of resilience to climate risks in already urbanized territories and ensure that future planning is adapted to the effects of climate risks in areas undergoing transformation**. Specific implementing regulations may be introduced in individual cases, based on the specificities of territorial management and local peculiarities.

Policy makers, such as mayors, **will be equipped with urban planning instruments capable of promoting land management in line with the principles of climate resilience**, adapted to the impacts of climate change. The climate-resilient spatial plan will guarantee the **preservation of urban health**, generating more adapted and healthier urban environments.

1.5 IMPLEMENTATION AND MONITORING

The implementation of the policy depends on the recognition of the importance of spatial urban plans specifically designed to support climate resilience in cities by the EU government and, consequently by the national/regional authorities in charge of defining urban planning rules.

A harmonised European approach, to be followed by the Alpine Regions, capable of setting common lines to improve the resiliency of the territories and including adaptation measures in urban plan instruments, must be developed and locally implemented, in accordance with the regulations defined.

The multilevel governance approach is crucial for the proper uptake of this »climate-resilient spatial planning« approach because stakeholders involved in the decision-making process are diverse but interdepend among themselves. Based on that, **communication actions are fundamental** for raising awareness among the different target audiences, while participative activities are crucial to ensure a bottom-up approach throughout the harmonization process.

2. ESTABLISH CLIMATE ADAPTATION MONITORING TO TRACK UPTAKE AND IMPACT

Strengthen the monitoring of climate adaptation actions through the use of urban-scale climate risk assessment systems. Continuous data collection and analysis enable the evaluation of progress, the measurement of benefits over time, and the adjustment of adaptation strategies based on evolving local conditions.

2.1 PROBLEM STATEMENT AND TERRITORIAL RELEVANCE

To be effective, **climate adaptation strategies must be tailored to the specific needs of urban areas**, and their positive effects must be monitored over time to demonstrate their value. This is not always the case and performance-based monitoring is poorly adopted. **An efficiently integrated planning must also include an effective monitoring system**, which allows to **verify the appropriateness of the adaptation solutions** and to **track the (long term) benefits** generated by the implementation of climate strategies on the territory.

Monitoring the effectiveness means **optimizing resources, detecting possible issues, checking costs** and promoting the **continuous improvement of territorial resilience**.

2.2 STAKEHOLDERS AFFECTED

Through the implementation of the climate adaptation monitoring, **regional and municipal decision-makers are always aware about the validity - or the lack of thereof- of the resiliency solutions** they implement in the territory. The monitoring system can strengthen their choices or recalibrate the solutions, constantly tracking uptake and impact.

2.3 PROPOSED ACTION(S)

The **benefits** brought to urban contexts by the introduction of adaptation measures **must be quantifiable in order to be able to be effectively monitored over time**. This can be achieved through:

- The application of climate risk assessment frameworks that **use quantitative indicators** of hazard, exposure, and vulnerability, enabling the **identification of factors that contribute to increased climate risks**.
- **Specific adaptation strategies must therefore be built on actual local gaps and needs** and be measured through the application of quantitative indicators that are measurable and verifiable. The adaptation measures introduced will improve the parameters assessed by the indicators and their **effectiveness can therefore be monitored quantitatively over time**.
- In order to support the work of professionals and technicians within municipalities, **a monitoring framework should be made available to track the relevant indicators**. This would make it possible **to track and monitor the performance of the parameters over time** in a simple and immediate way, **being able, in case, to reshape the adaptation strategies** operated on the territory.

2.4 EXPECTED OUTCOME(S) AND BENEFICIARIES

The use of **quantitative indicators** for the identification of the climate risk aspects of an urban context **makes it possible to plan the specific adaptation strategies** to be implemented in that specific local area, **fitting the needs emerged and being**, consequently, **effective**. The **indicators make it possible to measure, in quantitative terms, the benefits** deriving from the introduction of adaptation measures.

In addition, **monitoring the effectiveness of adaptation strategies** over time makes it possible to verify, at any time, the progress in terms of resilience to climate change. Monitoring also allows **to reshape the adaptation measures** based on the numerical results obtained.

2.5 IMPLEMENTATION AND MONITORING

The implementation of the policy recommendation requires the **recognition of the importance of basing adaptation strategies on local needs**, assessed through the application of quantitative indicators for hazard, exposure and vulnerability. The monitoring of adaptation strategies over time makes it possible to verify, at any time, their effectiveness.

Concerning the framework conceived for decision makers, intended to track and monitor the evolution of the parameters affected by the adaptation measures introduced in the urban area, its implementation can be easy and rapid. **The framework, indeed, just requires the identification of the indicators useful to monitor the adaptation to the specific climate risks affecting the local area.**

3. EMPOWER COMMUNITIES AND STUDENTS THROUGH LIFELONG LEARNING FOR CLIMATE CHANGE

Education and awareness are key drivers of climate resilience. Empowering citizens, students, and educators across the Alpine region is essential to transform knowledge into action and strengthen local adaptation capacities

3.1 PROBLEM STATEMENT AND TERRITORIAL RELEVANCE

Climate change adaptation is not only a technical, but also a social challenge. In the Alpine region, many citizens, students, and local authorities still lack a clear understanding of local climate risks and adaptation needs. This gap between scientific knowledge and everyday awareness weakens resilience and slows down behavioural change. Education is a key enabler of effective adaptation, as recognised by the **EU Strategy on Adaptation to Climate Change**, the **European Green Deal**, and the **EU Mission on Adaptation**. These frameworks call for inclusive, knowledge-based and participatory approaches. Involving local communities and integrating climate education into schools helps to connect scientific knowledge to daily life, empowering citizens to act and strengthening long-term resilience in Alpine territories.

3.2 STAKEHOLDERS AFFECTED

- **Local communities and households:** need clear, practical information to understand risks and act proactively.
- **Students and schools:** must gain early exposure to local climate and risk education to build future capacity.
- **Teachers and educators:** are essential multipliers who need tailored resources and training.
- **NGOs and local associations:** can support participatory learning and awareness campaigns.
- **Policymakers and funding bodies:** face difficulties in implementing adaptation plans when local support is weak or absent.

3.3 PROPOSED ACTION(S)

1. **Integrate climate adaptation into school curricula**, using local examples from the Alpine region. Ministries of Education and regional authorities should promote this inclusion.
2. **Create “Climate Action Labs”** in partnership with municipalities, NGOs, and research institutes. These hubs can host interactive workshops, simulations, and field visits.
3. **Train educators and local facilitators** to communicate adaptation knowledge in engaging, age-appropriate ways.
4. **Develop multilingual, open-access educational materials**, tailored to local risks and contexts.
5. **Encourage school–community projects** (e.g. heat mitigation, flood preparedness, biodiversity monitoring) to translate learning into action.
6. Develop participatory approaches for defining and then implementing public policies aimed at adapting territories to climate change with **a desirable vision of the future**.

These actions can be coordinated through existing regional networks or dedicated Alpine education hubs.

3.4 EXPECTED OUTCOME(S) AND BENEFICIARIES

- **Higher climate literacy** and improved awareness among citizens and students.
- **Empowered youth** who actively participate in local adaptation processes.
- **Increased community preparedness** and stronger local ownership of adaptation strategies.
- **Better cooperation** between schools, municipalities, NGOs, and regional authorities.
- **More informed municipalities and civil protection services:** for effective adaptation and risk management.

These outcomes align closely with the EU Strategy on Adaptation to Climate Change, the European Green Deal, and the EU Mission on Adaptation, all of which call for inclusive, knowledge-based, and citizen-driven approaches. While tools like the Climate Adaptation Platform for the Alps (CAPA) provide excellent resources, they often lack local embedding, youth orientation, and educational pathways. This recommendation fills that gap by translating climate science into place-based learning and action.

3.5 IMPLEMENTATION AND MONITORING

Implementation should build on existing regional and European initiatives while reinforcing **cooperation within the Alpine area**.

The **Support, Advanced Learning and Training Opportunities (SALTO)** can act as a crucial platform to link education, research, and practice on **climate adaptation**.

Ultimately, the goal would be to:

- Coordinate **education and training activities** on climate adaptation across the Alpine space.
- Develop **cross-border learning formats** and innovative teaching resources.
- Support **teacher qualification** and lifelong learning initiatives.
- Conduct **applied research** to bridge the gap between scientific knowledge and local implementation.
- Ensure quality standards, monitor progress, and promote **knowledge exchange** among Alpine regions.

In order to attain these goals, we must involve: Ministries of Education, regional and local authorities, universities, research institutes, NGOs, and schools.

Monitoring indicators may include the **number of trained teachers and schools** involved, newly developed educational materials, and the extent of **cross-border cooperation and replication**.

4. FOSTER MUNICIPAL CLIMATE ACTION THROUGH PARTICIPATORY PLANNING AND CAPACITY BUILDING

Municipalities are the first responders to climate impacts, but acting alone, they often face a deficit of knowledge, financial resources, and institutional capacity. Community-based planning is essential, as without the active involvement of local stakeholders, municipalities risk inaction or implementing measures that are not socially accepted or sustained, leaving citizens and ecosystems exposed to increasing climate risks.

4.1 PROBLEM STATEMENT AND TERRITORIAL RELEVANCE

Municipalities are on the front lines of climate change, yet they often lack the specialized knowledge, funding, and staff to effectively plan and implement adaptation measures. Climate adaptation is a complex social and technical challenge that cannot be solved by administrations alone. This gap between responsibility and capability is a critical barrier to building resilience in Alpine territories. Strengthening municipal capacity and fostering inclusive, participatory approaches is essential for developing locally relevant and sustainable solutions that are supported by the community.

4.2 STAKEHOLDERS INVOLVEMENT

Effective adaptation requires active cooperation and engagement. Stakeholder involvement ensures that measures are relevant, accepted, feasible, and sustainable. Key actors contribute in the following ways:

- **Municipalities and local governments:** Provide leadership, coordinate planning processes, and manage public infrastructure and services.
- **Citizens and vulnerable groups:** Contribute local knowledge and lived experience, ensuring that adaptation measures are equitable and address real-world needs.
- **SMEs and local businesses:** Bring innovation, investment, and technical expertise for developing resilient infrastructure and services.
- **Farmers and forest managers:** Offer expertise in land management and the implementation of ecosystem-based solutions.
- **Civil society, academia, and NGOs:** Supply scientific knowledge, facilitate participatory processes, and build crucial local partnerships.

4.3 PROPOSED ACTION(S)

1. Deliver Targeted Capacity Building & Training:

- Develop systematic training programmes for municipal staff on climate risk assessment, adaptation planning, funding acquisition, and project development.

- Provide training in public participation and co-design methods to effectively involve citizens and stakeholders in decision-making.

2. **Establish One-Stop-Shop Climate Services:**

Create or align regional climate and energy agencies to act as hubs of expertise for municipalities. These one-stop-shops should offer:

- Technical support for risk and vulnerability assessments.
- Access to data, GIS-based mapping tools, and early warning systems.
- Legal and technical advice for adaptation planning.
- Support for developing funding applications and accessing EU programmes.
- Platforms for peer-learning and knowledge exchange between municipalities.

3. **Promote Participatory Adaptation Planning:**

Establish formal processes for the co-development of adaptation strategies and measures, ensuring comprehensive stakeholder involvement from initial planning through to implementation and monitoring. This builds local ownership and integrates diverse knowledge sources for more effective outcomes.

4.4 EXPECTED OUTCOME(S) AND BENEFICIARIES

- More resilient municipalities, with reduced damage costs from climate impacts like floods, heatwaves, and droughts.
- Safer and healthier communities, with targeted protection for vulnerable groups.
- Enhanced innovation and competitiveness of local economies through climate-resilient infrastructure.
- Stronger community cohesion and ownership of adaptation actions.
- Increased biodiversity co-benefits through well-designed, nature-based adaptation measures.

4.5 IMPLEMENTATION AND MONITORING

Monitoring for this recommendation should focus on tracking the enhancement of municipal adaptive capacity, rather than the outcomes of specific climate measures (which are covered in Recommendation 2). Implementation requires partnerships between municipalities, regional governments, and climate agencies, supported by EU and national funding.

Progress can be measured using indicators such as:

- Number of municipal staff trained in climate adaptation.
- Number of municipalities accessing one-stop-shop services.
- Number of adaptation plans and projects co-developed with community participation.
- Increase in dedicated municipal budgets or successful funding applications for adaptation.
- Level of citizen engagement and satisfaction reported in planning processes.

5. PROVIDING FINANCIAL INCENTIVES, FUNDING MECHANISMS AND ECONOMIC SUPPORT FOR CLIMATE ADAPTATION

Financing adaptation measures is the biggest challenge that regions, local governments and private sectors usually face. *What if you actually realized how much non-action costs?*

5.1 PROBLEM STATEMENT AND TERRITORIAL RELEVANCE

There is a **growing recognition of the need for financial incentives to effectively scale up adaptation efforts in the Alpine territory**. Robust funding support is necessary **to develop, implement and monitor climate-resilient actions**, which at the same time, reduce economic losses from extreme weather events. It is fair to say that economic support for climate adaptation economic has historically lagged mitigation finance. However, especially for developing countries, the situation has changed.

It is essential to **overcome the existing barriers** to accessing financial resources, which are primarily linked to the **complexity of procedures** required to activate funding, to address the **lack of accessible and transparent information**, and to **strengthen cooperation among stakeholders** to effectively implement adaptation strategies.

5.2 STAKEHOLDERS AFFECTED

Climatic changes affect, without distinction, the public and private sectors, producing significant economic losses and damages, increasing the financial risks, both, in the short and long term. Therefore, **stakeholders affected by economic support are both the private and the public sector**.

Concerning the latter, municipalities and local authorities rely heavily on regional, national or European incentives for climate adaptation. While private companies also consider such financing mechanisms, the majority of their adaptation actions are typically supported through internal funding sources.

5.3 PROPOSED ACTION(S)

Adapting to the impacts of climate change requires **mobilising significant resources**, making both private and public funding essential. **A new mindset is needed, rethinking about risk and responsibilities on climate adaption attempts**. Indeed, **the private sector** must be informed and, consequently, **prepared to take on its responsibility to invest much more actively in climate adaptation efforts**.

In same context, **financing can also be built on community-based mechanisms**, such as through the usage of **tourism taxes** to adapt the territory in relation to specific climate vulnerabilities. In other cases, it is possible to **leverage mitigation actions** such as carbon removals to meet long-term net-zero targets or CO₂ emissions reduction. Hereby, co-benefits can be generated meant to improve the resiliency of the municipality through, for example, the introduction of Nature-based Solutions.

In case of private financing, **insurance companies are the first to be involved in the process**. However, private companies need to be confident in financing something which can reduce disaster costs, improve the value of the environment and generate economic benefits across different time horizons. Of course, economic rationales must be tailored to the different climate risks and key community systems.

5.4 EXPECTED OUTCOME(S) AND BENEFICIARIES

Climate adaptation generally relies to a large extent on some kind of public support. **Beneficiaries of this policy are equally public and private entities, also citizens**, since climate change affects everything without distinction. Having access to financial incentives, funding mechanisms or economic support for climate adaptation could reduce disaster-induced costs for municipalities and private buildings and enhance resilience of the built environment.

Fostering collaboration and cooperation between public and private sectors can contribute to the overall climate resilience and establish the creation of a synergies between the two spheres, able to improve Alpine Space resiliency.

5.5 IMPLEMENTATION AND MONITORING

During the involvement of private sector, in particular the insurance companies, **barriers and reluctance may occur in financing climate adaption strategies**, due to the innovative approach behind the process.

In both cases, private and public funding mechanisms, **showing the cost of non-actions, better known as Cost of Inaction, could serve as the key driver for financing adaption processes and measures**. Not-acting reveals the potential financial losses, decreased productivity, missed revenue, damaged reputation, increased operational inefficiencies and negative health impacts. The mindset should be promoted among Alpine municipalities, to allow broad replication and increasing of climate resiliency strategies implemented and progress towards the established objectives.

In relation to the monitoring aspects, **tracking economic flows is essential to know the amount of funds**. This monitoring action could be also applied to the targeting assessing, **in order to evaluate if the allocated finances have properly impacted adaptation of the territory and met their expected effectiveness**.

6. MAKE HARMONISED AND RELIABLE DATA AVAILABLE TO SUPPORT EVIDENCE-DRIVEN DECISION-MAKING IN CLIMATE ADAPTATION

Ensure effective climate change analysis to support accurate decision-making for Alpine adaptation strategies through the harmonisation and availability of consistent data.

6.1 PROBLEM STATEMENT AND TERRITORIAL RELEVANCE

If the data needed to conduct climate analysis were immediately available and reliable, decision-making processes would be activated more quickly, and the resiliency of the Alpine territory would be more easily ensured. **The harmonisation of data is, in fact, an important problem** that, to varying degrees, **afflicts all territories and municipalities** since data are not collected and stored according to standardised rules.

Data harmonisation is the method of **unifying disparate data fields, formats and dimensions into a composite dataset**, channelling data from different sources into a consistent, comprehensive and standardized format for analysis.

6.2 STAKEHOLDERS AFFECTED

Any kind of stakeholders working in the field of climate adaptation can be positively affected by data harmonisation processes. Climate analyses, carried out by **professionals** or by **technicians working in public administration**, need some kind of data (like for example long-term weather data, climate indices, spatial data, etc.) to properly conduct an exhaustive evaluation.

On the other side, also from a **political perspective**, climate data are crucial to define structural governance strategies conceived for the territory. Harmonised data sets can be of interest to decision-makers and politicians.

In the context of establishing a **climate resilience dialogue with citizens**, they need to know more about climate vulnerabilities of the territory in which they live. Having a common repository of harmonised data on local climate information can therefore be of interest also for citizens.

6.3 PROPOSED ACTION(S)

In addition to the ongoing initiatives related to the EU Adaptation Strategy focused on creating standardized comparable climate data to support policy and analysis, a key input to be followed is the **creation of a common European Climate Adaptation database**, broken down for municipalities and fully intended as climate related data container, which includes all the necessary data to conduct climate analysis and understand respective climate vulnerabilities of the area. This **harmonised database can be fed starting from the already available municipal or regional datasets**, following key guidance set by the European Union on what to include and how to link municipal or regional existing portals with the common one.

Those harmonized databases could be **freely accessible by everyone but with different access rights**, based on the user role (professional, decision-maker, technician of a public administration, citizen, etc.); that way, some information can only be available for technical purposes.

6.4 EXPECTED OUTCOME(S) AND BENEFICIARIES

Data harmonisation is a crucial step to be able to produce effective climate adaptation analyses and to properly carry out an effective decision-making process at local level. Indeed, in the field of climate adaptation, this data organisation can **allow users to easily find the necessary information to perform climate analyses**. Unifying disparate data from various sources into a consistent, standardized format is fundamental to **eliminating inconsistencies, inaccuracies, and redundancies in data**.

Data harmonization could improve data quality, enhance data accessibility, allowing professionals to conduct more efficient climate analyses and facilitate decision-makers in defining governance strategies, conceived for the territory.

6.5 IMPLEMENTATION AND MONITORING

Along with the *EU Adaptation Strategy* focused on creating standardized comparable climate data and together with the “*Datahub*”¹ project, promoted by the European Environment Agency and aimed at collecting quality-assured data on climate, this policy recommendation needs to be built around them. Data harmonisation at local level **requires a European coordination action** for setting up a common European Climate Adaptation database and some guidance on what to include and how to link municipal or regional existing portals with the common one.

Strong synergies can be exploited with the existing portals about in-situ data and land cover maps, like for example European Union's Earth observation programme *Copernicus*², to capitalise on what is already well performing and known in relation to climate data collection.

¹ <https://www.eea.europa.eu/en/datahub>

² <https://www.copernicus.eu/en>

ANNEX 1 – POLICY RECOMMENDATIONS WORKSHOP OUTPUTS

The ADAPTNOW consortium has organised, in the context of the Activity 3.3 Policy Recommendations production, a participative Workshop in Kempten (DE), during the partner meeting event, aimed at co-design proper actions for Climate Resilience in Alpine Regions.



Picture taken during the participative Workshop on Policy Recommendations in Kempten.

All the consortium attended the Workshop with the intent to elaborate evidence-based proposal for action directed at decision-makers, aimed at solving or mitigating a specific problem through changes in policy, programs, or regulations. The Workshop has been prepared and managed by iiSBE Italia R&D, providing project partners with an effective time plan which for foreseen a first **brainstorming moment**, dividing the participants into 4 groups, to identify 5 potential policy themes in relation to 5 problem statements. After the brainstorming part, each group has elected a facilitator to present the results achieved during a **plenary session**. The second part of the Workshop has been conceived to deepen and co-develop the topics highlighted during the first session, providing:

- Problem statement: a concise description of the issue that needs to be addressed, including who is affected and why it matters.
- Proposed action: a specific, actionable suggestion that outlines what should be done, by whom, and how. It should be feasible and relevant to the decision-maker's scope of influence.
- Expected outcomes: a short explanation of the potential benefits or impacts of implementing the recommendation.
- Implementation considerations: resources, partnerships, or legislative changes required.

Relevant inputs collected during the Workshop in Kempten have been further investigated in the following months and have become the core set of the ADAPTNOW Policy Recommendations.



Working group on Policy Recommendations in Kempten.

To follow, a synthesis of the content elaborated by each of the fourth group, set out during the Workshop, on the specific topics allocated to each. Those inputs have been the basis for the drafting of the ADAPTNOW Policy Recommendations.

GROUP 4 – Fred

Evolution towards Spatial Climate Planning

Economic sustainability of climate adaption policies

Raising awareness and education on climate impacts and need for adaptation

Integrate spatial planning and management/implementation of strategies and policies

Top-down and bottom-up combination (protect yourself)

Territorial intelligence: management of climate risk through solidarity approach.

INTEGRATED PLANNING/APPROACH IN CA

- ✓ **Common target** option in all EU community. **Harmonisation** of the approach.
- ✓ Create **own solutions with local actors**.
- ✓ **Adapt the communication actions** in relation to the target audience.
- ✓ **Contextualise the solutions** to the local situations.
- ✓ The key implementation consideration: there is a **need of a catalogue of practices** both, the successful ones and the ones that are not.
- ✓ Set up **key monitoring indicators** in relation to the follow up of what has been proposed

CLIMATE RESILIENT SPATIAL PLANNING

- ✓ **Decision makers must be aware** about what could happen in their territory based on what happened in other territories that have not been adapted to CA, also to stress public acceptance about the risks you take
- ✓ Need to have a **set of solutions catalogued** in minimum (what they have to do at minimum), medium and optimal in relation to the actions to be set
- ✓ Push on **participative actions** to involve directly citizens and have them as key actors in the spatial planning and in their territory
- ✓ **Sensitise** the interested stakeholders on the risks related to the climate change
- ✓ Improve a better budget distribution and establish clearly how to get funds, **supporting eventually municipalities in getting subsidies** from the State or from the Bank
- ✓ Concerning the implementation considerations, it's always a matter of **finding compromises**

GROUP 2 - Rogelio

Improve awareness with all governance levels.

Breaking down silos, involve all municipal services/stakeholders in CC planning and actions

Include CC adaptation and risk mitigation action into municipal master plans. Ensure long term commitment (political + economical)

Nature Based Solutions entry point for actors.

Energy saving funds in climate adaptation

People influent to make adaptation stronger and cool

Tax reduction for climate actions.

Education (syllabus) changes to involve in climate adaptation.

GROUP 1 - Lucia

Common Governance Structure at all Territorial Levels

Raising Awareness of Key Stakeholders

Providing services to support municipalities

Short term measures targeted to specific groups

AWARNESS RAISING

- ✓ Propose a multi-step plan of making a **vulnerability assessment like a baseline** and turn it into the easiest and digestible information, to propose it as an **interdisciplinary approach** (municipal services, stakeholders, citizens, decision makers).
- ✓ Establish a **communication campaign at local level** to show how the investment in climate adaptation and risk mitigation actions (communicate with emotions, true stories,

EDUCATION PROGRAMS

- ✓ To **create an award for schools** which includes students and teachers (indicators calculations) to improve climate awareness. The objective is both, to learn and to teach to other students the award experience (to convince the Education Ministry in **including the climate change issue into school syllabus**)
- ✓ To have a tangible and interdisciplinary project at school level

ACTIVE ENGAGEMENT OF STAKEHOLDERS AND CITIZENS

- ✓ Identify effective adaptation measures for the territory through the **involvement of a representative panel of citizens**, with different job responsibilities, and propose them to the political level, asking for financing them (real experience happened in France)
- ✓ Work on common measures for the territory, **citizens must be aware** about the changes they have to adopt to fight climate change
- ✓ **Use interviews** to collect stakeholders and citizens suggestions

DATA AVAILABILITY AND HARMONISATION

- ✓ Centralise the storage of data to simplify their collection and, consequently, the availability. Central agency in charge of organise and collect data
- ✓ Partnership between research centre, university, NGOs for data collection
- ✓ Specify what data are available for citizens and at what level
- ✓ How can people produce useful data for other people? Produce a template to be shared among citizens that are interested/able in producing useful data. Raise engagement among stakeholders.

GROUP 3 - Julie

Raise the awareness of policy makers.

Support from regional administration/agencies (funds, best practices, tools, staff).

Availability of information tools adapted to local conditions and different target groups.

Mandatory inclusion of climate adaptation in urban planning

Raise the awareness of citizens.

Improve the cooperation among the municipal departmenrs.

PROVISION CLIMATE SERVICES TO SUPPORT MUNICIPALITIES IN CLIMATE ADAPTATION

- ✓ Provide **services like climate risk analysis** and workshop for municipalities.
- ✓ Built **platform to exchange experiences on CA** at local, regional, national and European level
- ✓ Improve knowledge on CA at school level
- ✓ Lack of money and lack of responsibilities can represent a limit in implementing the measures

FINANCIAL MECHANISMS AND ECONOMIC SUSTAINABILITY OF CA

- ✓ Different **levels of financial support**:
 - Country wide financial systems like the KLAR program in Austria
 - Involvement of **insurance companies** at country wide level
 - At regional level, **define some sustainability/climatic targets** (like CO2 emissions reduction), and provide money if those targets are reached
 - Use **tourism taxes** to adapt the territory in relation to their climate vulnerabilities
 - Show the **cost of non-action** to a municipality to raise awareness to what can happen if no adaptation measures are implemented