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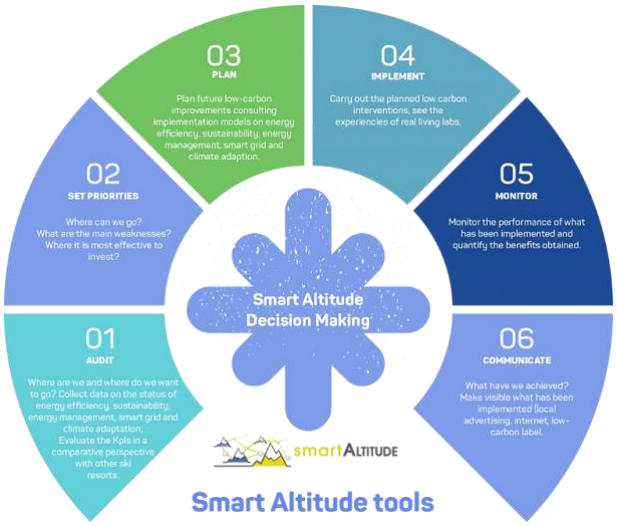
POLICY RECOMMENDATION PAPER - GERMANY

FOR A SUSTAINABLE ENERGY TRANSITION IN WINTER TOURISM AREAS



WHAT IS SMART ALTITUDE?

Smart Altitude is an Interreg funded project demonstrating an integrated framework for a low-carbon and resilient future in Alpine winter tourism regions.
The project developed a decision support toolkit providing a step-by-step approach to energy transition of ski resorts, tested in four Living Labs across France, Italy, Slovenia and Switzerland and now used across other replicating ski resorts.
Smart Altitude will close in May 2021, leaving behind:

- ✓ the online Toolkit and a platform supporting ski resorts willing to adopt its approach,
- ✓ a series of implementation models providing guidance and examples for mitigation and adaptation in ski areas,
- ✓ a replication roadmap,
- ✓ a network of low-carbon winter tourism regions committed to support the transition towards sustainable and resilient winter tourism destinations across the Alpine Space.

Useful Links:
www.alpine-space.eu/projects/smart-altitude
Smart Altitude Toolkit: https://smartaltitude.eu/

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SMART ALTITUDE LIVING LABS

Four ski resorts across four countries implemented several solutions to reduce energy and water consumption or increase integrated monitoring and management across their operations:

Krvavec (SI) implemented a multi-energy reduction approach on snow-making processes and hotel building, achieving 30% less water and 30% electrical power reduction for snow making and 20% lower heating oil/gas consumption at the hotel.

Verbier (CH) worked across four different fields of intervention, including ski lifts, snow making, snow grooming and buildings, in order to reduce energy consumption and emissions. Results show an 8% decrease in fuel used for snow grooming and an average of 10% reduction of energy from the regulation of lifts speeds.

Madonna di Campiglio (IT) installed an Integrated Energy Management System (EMS), monitoring and integrating data coming from ten different sources, including snow production, grooming, electric grid, operational buildings, weather forecasting, reservoir for snow production and ski infrastructures.

Le Orres (FR) worked towards an integrated mountain smart grid, by including renewable energy production in the existing EMS, monitoring and controlling tourism housing energy consumption, setting up supervision systems for public buildings and infrastructures.

Policy framework and governance recommendations

On the governance dimension, Smart Altitude partners recommend enhancing and strengthening coordination across sectors and levels: there is currently no control room capable of mastering the whole process of transition towards attractive and sustainable winter tourism mountain areas. Dialogue and cooperation need to be enhanced across the stakeholders at all levels (figure), starting from the mountain resort municipalities, public authorities at higher levels and key economic agents (e.g. economic and tourism operators, resort infrastructure operators and socio-economic actors influencing the policy and strategic processes), in order to set up multilevel and multistakeholder governance and collaboration for winter tourism regions. Several efforts towards a governance for low carbon and resilient mountain areas exist, these should be joint by creating alliances and cooperation structures, examples include:

- EU/Alpine Space level initiatives, such as the EUSALP working groups and activities;
- the Smart Altitude Network of Stakeholders and any other relevant network from other projects;
- cross regional / European /international level initiatives such as CIPRA, the Alpine Convention (taking into account the Climate Action Plan 2.0 – Pathway to Climate Neutral and Climate Resilient Alps), ISCAR, etc.[1]
- national policies/plan that are not specific for mountain territories but in which mountain territories are included, such as the National Sustainability Strategy of the Federal Government, Climate Action Plan 2050, German Resource Efficiency Program.

Operational recommendations

Based on Smart Altitude experience, for accelerating the transition towards sustainable and resilient winter tourism regions, partners highlight the need for:

- Financial levers at all levels (EU/country/Region) to facilitate investment by mountain resorts in efficient structural equipment for the ecological transition;
- Regulatory levers to remove barriers to deployment, e.g. with regard to the deployment of local energy communities, in particular concerning economic models for peer-to-peer energy exchanges;
- Development of a common policy promoting low carbon mobility at all levels of mountain territories: conurbations/stations, valley/stations, intra-stations, etc;
- Effective support for the creation of a network of mountain resorts and territories committed to ecological transition and the generation of models for the sustainable and high-performance mountain of tomorrow;
- Promoting a sustainability culture, training and opportunities for investments in sustainability. Partners and replicators in the project highlight the need to invest in a culture of transition that embraces all sectors and stakeholders, in operational training and financing of sustainable initiatives and programs. Best practices exist across ski resorts, but are often implemented in isolation, when resources arise and often not sufficiently communicated to the public and tourists. The introduction of renewable energy sources, GPS systems for monitoring snow grooming, reforestation of slope margins, integrated monitoring systems and more efficient technologies are only some examples of measures that are more and more implemented by ski resorts, but these are not often carried out in a systematic way due to lack of political and economic support, especially in more marginal winter tourism areas. Creating a culture of sustainability across users, operators and investors is much needed to enhance both the demand and the support for sustainable and resilient winter tourism areas;
- Some measures, such as energy audit, monitoring and Integrated Energy Management Systems, have already short return of investment, due to the high energy costs of ski resorts, and thus represent a priority to consider in ski areas.

Economic recommendations:

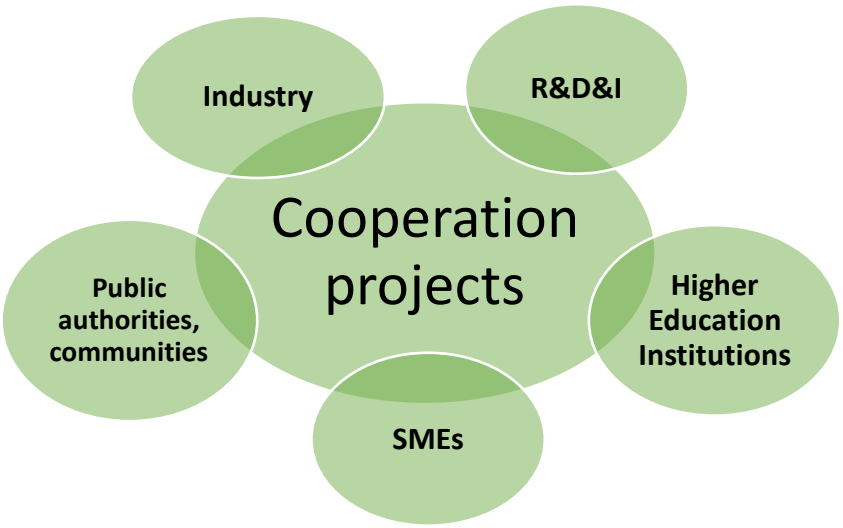
On the economic side, Smart Altitude partners highlight the need for a comprehensive and coordinated set of economic instruments directed at the sustainable transition of winter tourism areas, as at the moment support exist but is very fragmented and sometimes not dedicated to mountain regions. Specific interventions could include:

- Specific national and regional funding such as tax return to the owners of tourism housing when they engage into actions to reduce energy consumption;
- Investment co-financing and/or financial incentives directed to ski resorts to develop renewable energy, smart mobility, and energy consumption reduction systems such as IEMs, microgrid, etc;
- Specific national/regional initiatives to foster the ecological transition in mountain territories;

[1] The CIPRA network: https://www.cipra.org/en/about/networks

- Cross sector /cross technology initiatives to facilitate the emergence of Smart Territories, not just smart cities, where advanced digital technologies, combined with ecotechnologies, are at the service of territorial management, the development of services to people, territorial attractiveness and environmental efficiency.

Besides incentives and financial supporting mechanism, the diversification of business and revenue models should be a priority for winter tourism regions. Again a culture of sustainability across all dimensions (economic, environmental and social) should be promoted and funded, across all stakeholders and sectors engaged in the economic development of winter tourism regions: due to the increasing impacts of climate change winter tourism areas can no longer depend only on the ski industry, thus while decarbonising this sector as much as possible, the whole economic resilience of these territories across seasons should be carefully planned and supported in a long term vision.



Cross-sectoral cooperation approach