

## POLICY RECOMMENDATION PAPER - FRANCE

### 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](http://www.alpine-space.eu/projects/smart-altitude)

Smart Altitude Toolkit: <https://smartaltitude.eu/>

#### THE FRENCH LIVING LAB: LES ORRES

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**Aim:** Become a self-sufficient mountain area based on a smart grid model integrating major sources of energy consumption and local renewable energy production, creating a network among public and private power grid operators, the tourism sector and citizens.

#### Key actions and results

Les Orres has implemented a full diagnostic of the ski operations energy consumption and an integrated energy management system (IEMS) in 2012-2014, at the occasion of the ALPSTAR Alpine Space Project. In 2014, measures showed that the system had resulted in a 20% reduction of energy consumption, 100 t<sub>eq</sub>CO<sub>2</sub> reduction of GHG emissions, and 25% reduction of the energy costs. With the Smart Altitude, Les Orres worked on several directions towards a mountain smart grid:

1) The capacity of Les Orres EMS has been expanded by several means:

- ✓ Enhancing the ability of the EMS to interpret the snowmaking data that the system has been collecting since 2018, but which was not used by the EMS until now;
- ✓ Implementation of the calculation of the energy performance indexes by ski lifts (KWH per transported customer). This requires the completion of the installation of metering for each lift (ski and chairlift);
- ✓ Implementation of the calculation of energy performance indices per heated building and ice rink.

The results of these actions in terms of additional gains on energy consumption and GHG reduction will be measured in the years to come.

2) In the field of energy consumption reduction of the ski resort operations (Semlore), the improvements made are: making the data collection systems of the electrical transformers autonomous by adding photovoltaic systems so that these transformers can be disconnected from the grid during off-season periods. This limits iron losses and saves several MWh of annual consumption.

3) In the field of tourism housing: implementing an energy consumption piloting system for a pilot tourism housing building (UCPA). The energy gains expected are of 20% minimum and will be measured in coming years.

4) In the field of Public lighting and services:

- ✓ Implementation of a public lighting control system coupled with the switch to LED lighting. The expected energy gain from the switch to LEDs is 30%. The additional gain expected from the control system is 20%. These construction figures will be checked in the course of 2021;
- ✓ Implementation of a pilot control system of public building energy and air quality control.

5) In the field of smart grid implementation: study by the partner EDF on the integration of all the elements mentioned above in a global smart grid vision with regard to the integration of consumption (operations, housing, utilities) and production (hydro, solar) components. The conclusions are the following: the energy balance shows that the renewable production would theoretically cover the electrical consumption on average over a year (92%) but cannot cover the power needs in real time without any energy management system.



Tintin photo – Office de Tourisme des Orres (Credit: © Tintin Photo)

## Policy framework and governance recommendations

On the governance dimension, Smart Altitude partners recommend enhancing and strengthen coordination across sectors and levels: more dialogue and cooperation is needed across the stakeholders at all levels, starting from the mountain resort municipalities and key economic agents (e.g. resort operators and socio-economic actors influencing the policy and strategic processes), in order to set up multilevel and multistakeholder governance and collaboration in winter tourism regions.

Several efforts towards a low carbon and resilient mountain areas exist and should be in regular dialogue:

- at the EU/Alpine Space level the EUSALP working groups and initiatives, the Smart Altitude Network of Stakeholders;
- at a cross regional / European /international level: the OCOVA annual forum (with an OCOVA forum also in Asia / South Korea in the last 3 years); the French Alps commission and its initiatives and policy, the Alpine Convention (taking into account the Climate Action Plan 2.0 – Pathway to Climate Neutral and Climate Resilient Alps);
- at the regional level, working groups of the smart grid initiative, which facilitate the emergence of innovation projects in the environmental field, even if not specifically focused on mountain areas.

These dialogues dynamics could be completed by:

- ensuring a better coherence of the regulation and incentive systems between the different public policies which can contradict each other and create difficulties for local implementation (e.g. incentive for the development of renewable energy and corresponding infrastructures VS rigidity of the regulations concerning landscape protection);
- ensuring that the specific characteristics of mountain territories are taken into account in the national digital strategy. In particular, the rapid access to optical fibre and mobile networks (4G, 5G) are prerequisite for the optimal deployment of energy management tools.

## Operational recommendations

Based on Smart Altitude experience in Les Orres, French partners highlights 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;
- Definition, in all planification tools at national (National energy and climate plan, Programmes pluriannuelles de l'énergie, Stratégie nationale bas-carbone et budgets carbone) and regional levels (Schémas régionaux traitant du climat, de l'air et de l'énergie) mountains-territories specific objectives of reduction of greenhouse gases to articulate clearly local, regional, national and European objectives.

These would complete and enhance the several good practices already available to support the low carbon transition of winter tourism areas, such as the Energy innovation clusters at Regional level, world-class R&D centers dedicated to energy and ecological transition (INES/CEA-Liten/CEA-Tech in Auvergne-Rhône-Alpes & Provence, Alpes, INRAE; etc), national committees (commissariats de massif) in charge of the development policy of mountain spaces, professional and public organizations involved in mountain sustainable development (DSF - Domaine Skiable de France; ANEM - Association des élus de la montagne; ANMSM - Association des Maires de Stations de Montagne), as well as laws (mountain law) and regulations developed by inter-ministerial initiatives in consultation with professional and land organisations.

## Economic recommendations:

On the economic side, French partners highlights the need for:

- Specific national and regional funding such as tax return to the owners of tourism housing condominiums 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. This could in particular consist in the reinforcement of specific economic support tools that are longer term than subsidies for resorts committed to the energy transition (e.g. investment by public banks in the capital of local resort operating companies conditional on achieving energy performance objectives over time). As an example, the Caisse des Dépôts owns 20% of local exploitation company of Les Orres;
- Specific national/regional initiatives to foster the ecological transition in mountain territories;
- 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.

A comprehensive and coordinated set of economic instruments is needed for the sustainable transition of winter tourism areas, as at the moment support exists but is very fragmented. Examples include regional agencies in charge of applying the Smart Specialization Strategies and deploying them within the territories: for instance, in Provence Alpes Côte d'Azur, you may find the Air, Climate and Environment agency, the Flexgrid initiative conducted by Capenergies, the deployment of the public EV charging network, the digital agency in charge of deploying digital infrastructure (fibre optic, 4G, etc.).

It would be advisable to use the current window of opportunity offered by the simultaneous preparations of plans at different levels on touristic and energy transition in the Alps and the political cycle at regional level (upcoming elections in 2021) to articulate the different support (financial and non-financial) instruments to come (European programming period 2021 2027 and notably Alpine space program, the “plan d’investissement pour le tourisme de montagne” and “programme d’appui pour les territoires de montagne” of the “Agence nationale de la cohésion des territoires” at national level, “plan montagne” of the Région Rhone Alpes, “contrat stations” of the Région Sud). This would allow both targeted investments with a limited risk of overlap and the necessary expertise providing to resorts to launch the transformation dynamics.