

Solar cadastre of Morgex

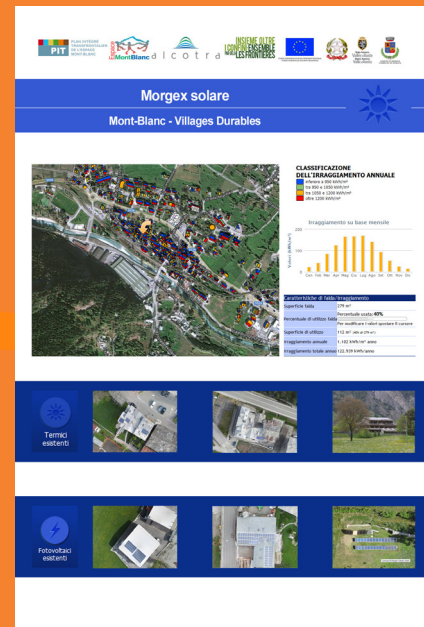
KEYWORDS:

- Building culture
- Construction
- Closed loops
- Governance
- Planning Tools
- Ecology
- Energy efficiency
- Indicators
- Mobility
- Technology transfer

TARGET GROUP:

- Architects
- Builders
- Citizens
- Craftsmen
- Home Owners
- Planners
- Politicians
- Policy Makers

Knowledge Base



Results and outcomes (use cases):

The solar cadastre of the Municipality of Morgex is composed by a map identifying the pitches of all the roofs of the Municipality with different colours. The different colours of the roof specify the solar annual radiation:

- blue: lower than 950 kWh/m²;
- green: between 950 and 1050 kWh/m²;
- orange: between 1050 and 1200 kWh/m²;
- red: more than 1200 kWh/m².

Clicking on a single pitch the cadastre will show:

- a graph on the monthly solar radiation;
- data related to the characteristics of the pitch and to the radiation;
- production, CO₂ emissions avoided and peak power for different PV technologies;
- production, CO₂ emissions avoided and diesel saved for different solar thermal technologies.

The calculation of the potential production takes into account the inclination of the roof and the obstacles on the horizon.

Moreover, the map shows the PV and the solar thermal plants already installed in the Municipality. For each plant, clicking on an icon it's possible to visualize the related picture taken from above.

Description:

The solar cadastre of the Municipality of Morgex has been realized thanks to the European co-financing of the project "Villages durables" integrated in the "Piano Integrato Transfrontaliero Espace Mont-Blanc", within the Cross-border Programme Alcotra Italy-France 2007/2013.

The increasing use of renewable energy

sources to replace fossil fuels is a priority objective of the energy policy at European level. For this reason the Municipality of Morgex provides citizens with a new tool able to identify the suitability of the roof for the installation of solar panels, mapping the exposure of the pitch of all the roofs of the municipal area to solar radiation.

Relevance for inter-municipal planning (AlpBC):

The solar cadastre is an important tool, a good example drawn up from the Municipality of Morgex, which methodology could be adopted by other Municipalities of the Aosta Valley and of other Regions. The tool gives in an effective way, easy to manage, an overview on all the solar and PV plants installed in the Municipality. Moreover, it allows to the professionals and to the

citizens to simply evaluate the potential of energy production installing a solar or PV plant. Through the mapping of the pitches of all the roofs of the Municipality and with the related collection of data every owner of a specific building has the possibility to make an analysis both on PV and solar thermal panels, evaluating differences of production within the different technologies.

Relevance for policy goals (Alpine Space, Europe and the region):

The solar cadastre would be useful to sensitise the local authorities in the topics of use of renewable energy sources.

In particular, this experience would be helpful for the administrators to achieve policy goals:

- knowing the potential of solar energy production on the local territory;
- sensitising citizens to the installation of solar and PV plants giving them a simple and clear tool;

- mapping the plants using renewable energy sources and keeping the maps up to date (as important data base of reference also for the elaboration of planning instruments).