



COST Action ES1404: A european network for a harmonised monitoring of snow for the benefit of climatology, hydrology and numerical weather prediction

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The COST Action ES1404 aims at building a better connection between snow measurements and models, between snow observers, researchers and forecasters, for the benefit of various stakeholders and the entire society.

The objective of the Action is to enhance the capability of the research community and operational services to provide and exploit quality-assured and comparable regional and global observation-based data on the variability of the state and extent of snow. Overall objectives and benefits of the Action can be listed below,

1. Establish a European-wide science network on snow measurements for their optimum use and applications benefiting on interactions across disciplines and expertise.
2. Assess and harmonise practices, standards and retrieval algorithms applied to ground, air- and space-borne snow measurements.
3. Develop a rationale and long term strategy for snow measurements, their dissemination and archiving.
4. Advance snow data assimilation in European NWP and hydrological models and show its benefit for relevant applications.
5. Establish a validation strategy for climate, NWP and hydrological models against snow observations and foster its implementation within the European modelling communities.
6. Training of a new generation of scientists on snow science and measuring techniques with a broader and more holistic perspective linked with the various applications. The Action consists of 3 working groups:

WG1: Physical characterization of snow properties

WG2: Instrument and method evaluation

WG3: Snow data assimilation and validation methods for NWP and hydrological models

In this paper, we will present the progresses and achievements from the Action.