

Initiative for a uniform avalanche forecast across the Alps

Borders exist only in our heads

We are three of us on the Dreiländerspitze in the Silvretta region. One of us in Tyrol, one in Vorarlberg, one in Graubünden. We are in two different states and in three different administrative zones. Depending on the direction in which we descend, a different avalanche forecast applies. The SLF in Switzerland assigned a danger level one, the avalanche warning service Vorarlberg a two and the Tyroleans even defined a three. There is no apparent reason for these differences, as the meteorological conditions in the region around this border mountain were almost identical throughout the winter.

Nature is limitless

The mountains know no administrative borders. The same applies to the snow and avalanche situation. However, 17 avalanche warning services publish different avalanche forecasts for the Alps. The first challenge is to find the right websites. Since the avalanche forecasts are presented differently, each website requires a familiarization and adaptation phase.

Standardized but subjectively interpreted differently

The European avalanche warning services rely on the standardized European Avalanche Danger Scale. However, the scale is applied more or less inconsistently. In practice, there are always striking differences. The presentation of the forecasts with respect to the information pyramid is also not handled uniformly. In the end, winter sports enthusiasts are often confronted with contradictory information under the same conditions.

Future vision

That is why we have a vision. We **would like** to have a consistent, as far as possible homogeneous and multilingual avalanche forecast for the entire Alpine region. Identical presentation, no major differences in the use of danger levels, no man-made but only natural limits.

And this could look as follows:

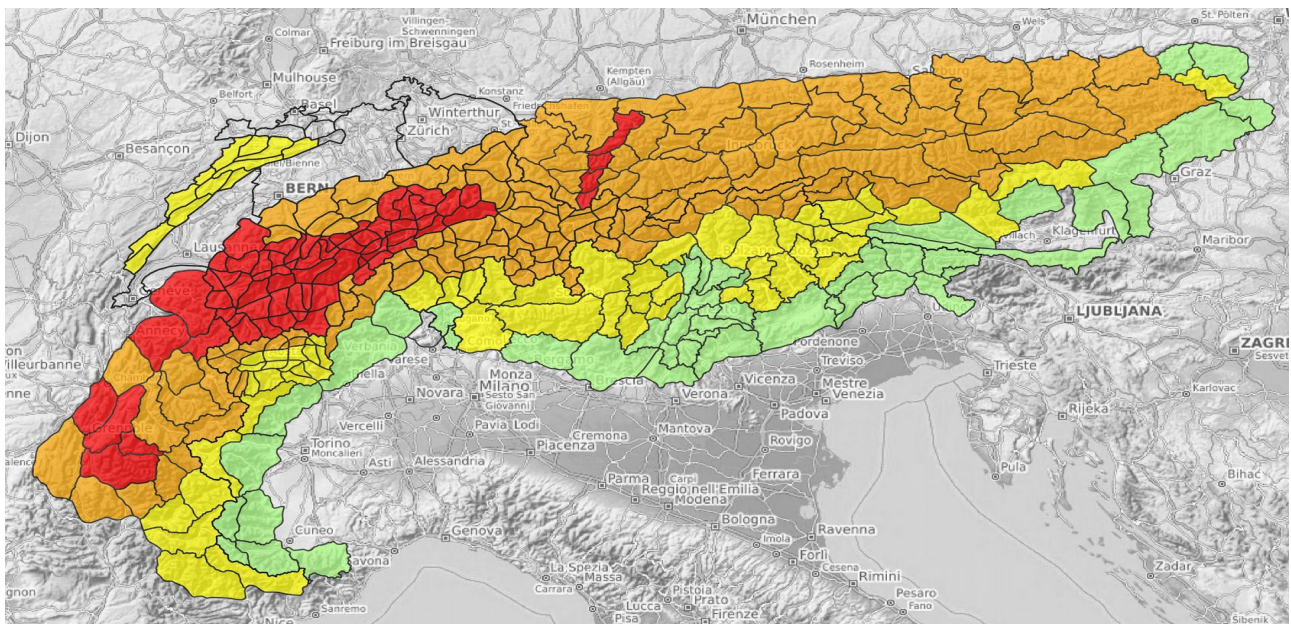


Fig. 1: Avalanche forecast of 14 March 2019 for the entire Alpine region

- Best possible orientation of the avalanche forecast to the needs of snow sports enthusiasts, since they make up the vast majority of avalanche victims.
- Consistent use of the danger level. A work by Techel et al. (2018) shows that there is a need for action here, since different warning services often assign different danger levels for similar situations.
- Consistent and complete use of all elements from the information pyramid (Fig. 2).
- Multilingualism: At least one local language plus English.
- Same edition time in the evening (17h) with optional update in the morning. The evening report is crucial for snow sports enthusiasts.

- Uniform presentation on a dynamic map covering the entire Alpine arc.
- Similar size of the warning regions, which can then be flexibly aggregated into warning areas (see major differences in the map of Fig. 1).
- Similar processes in the generation of the avalanche forecast. Only comparable processes can produce comparable results.

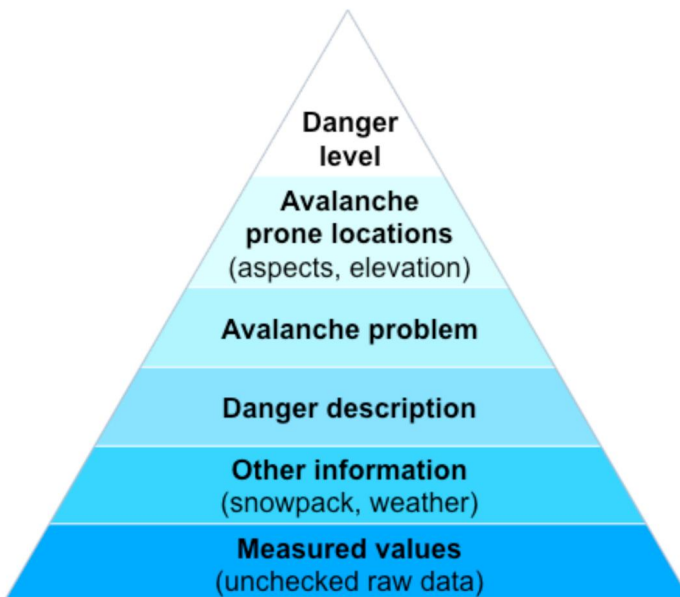


Fig. 2: *Information pyramid: The most important things come first.* (© EAWS)

If it were easy, it would not be a challenge

We are very appreciative to the avalanche warning services for their meticulous work they do every day. We are also aware that in the past enormous efforts have been made to harmonize the avalanche forecasts. We also know how difficult cross-border cooperation is. But we also believe that there is still a major need for action.

Where a will, there a way

These are not illusions. This is shown by the [Euregio Avalanche Report](#) project in Tyrol (Austria), South Tyrol and Trentino (both Italy). This joint avalanche forecast is published daily in three languages and represents a major step forward. It is proof that cross-border cooperation works - provided that all players from politics to avalanche warners pull together.

Hence the initiative for an alpine-wide uniform avalanche forecast. We would like to point out how important cooperation in the field of avalanche warning is. After all, even a single human life saved in this way is worth more than all the resources invested.

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