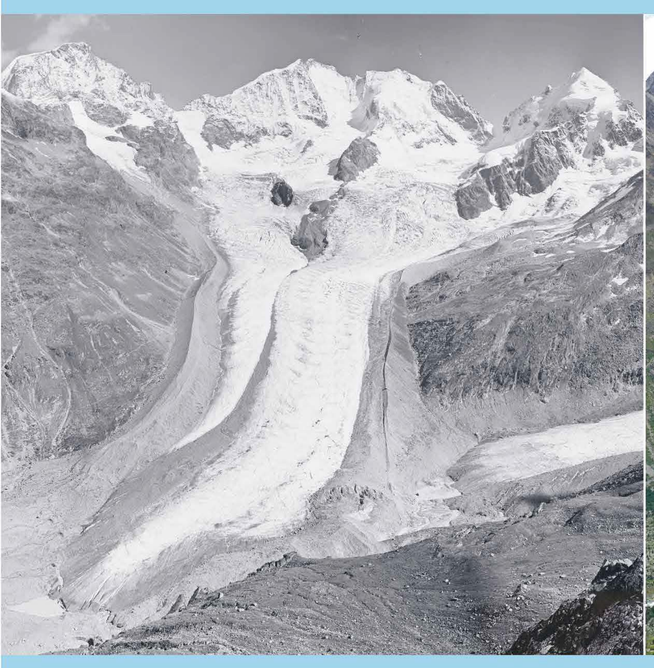
SWISS GLACIERS

State, projections and significance

The Swiss Alps are characterised by glaciers. Their retreat influences the landscape and tourism, harbours natural hazards, lowers the volume of water available in summer and even has an impact on the ocean. The extent to which the Alpine glaciers are retreating and whether they will eventually disappear depends on climate change and, consequently, global climate protection. The factsheet outlines the level of knowledge concerning glacial melting and its impact on society and, additionally, illustrates available options and courses of action.

Changes in glaciers have been documented in Switzerland through detailed measurements for almost 150 years. Series of measurements recorded over such a long period are unique on an international level and extremely valuable when it comes to research. Measurement data and photographic comparisons clearly illustrate the massive extent of this decline. An area og around 1,000 km2 has been cleared of ice since 1850. Simultaneously, over 1,000 small glaciers have disappeared.



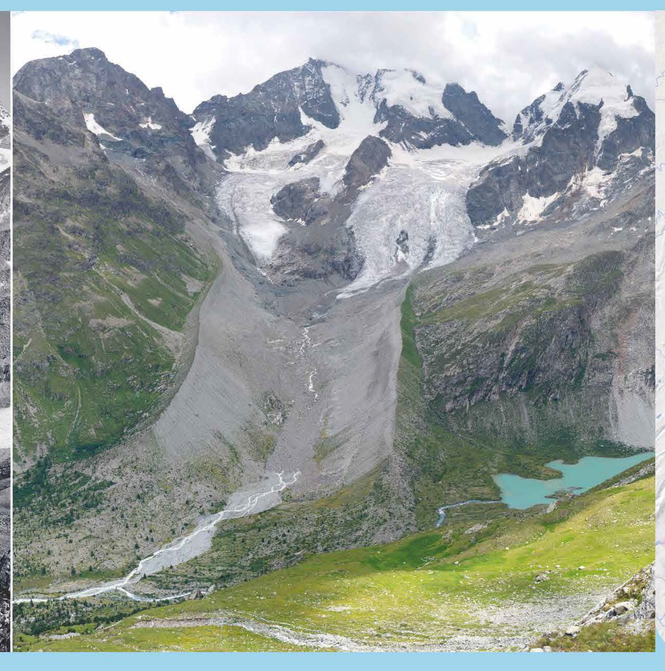


Fig. 1 : Reduction of the Tschierva Glacier in the Canton of the Grisons (Graubünden) between 1935 and 2022.
Source: swisstopo, VAW-ETH Zurich

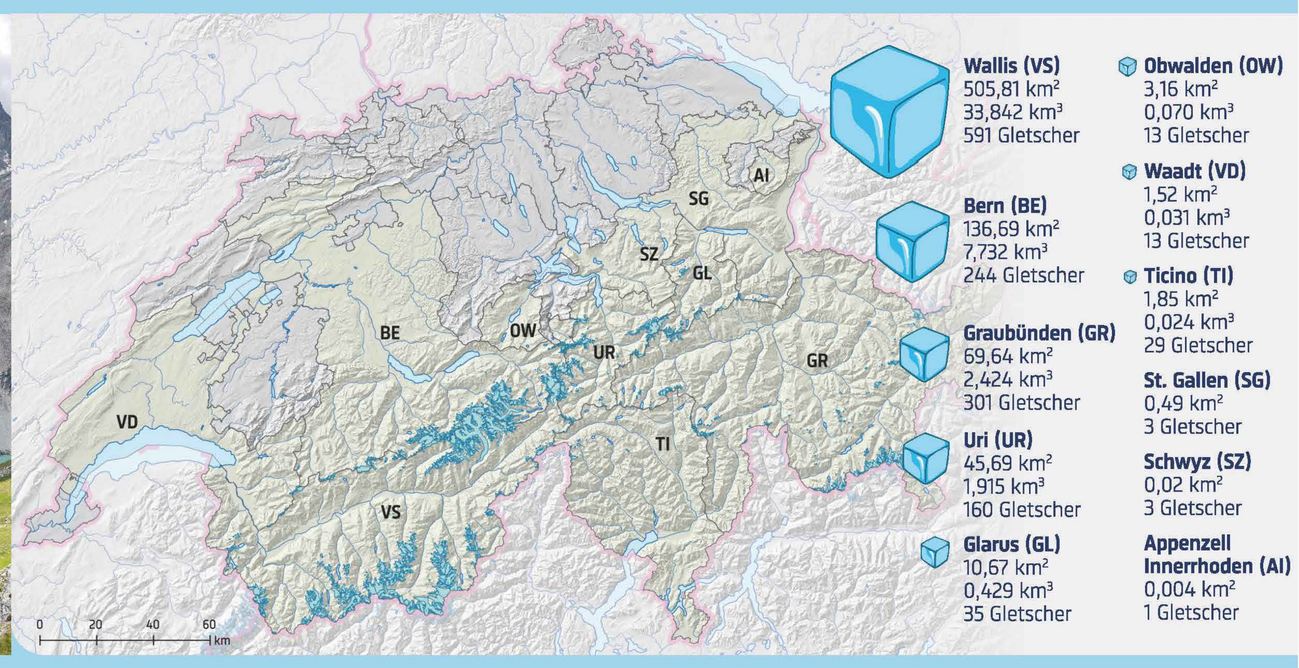


Fig. 2: Distribution of glaciers, their area and their volume (in 2024) across the Swiss cantons. The ice cubes illustrate the volume of glaciers divided across the Swiss cantons.
Source: swisstopo, GLAMOS

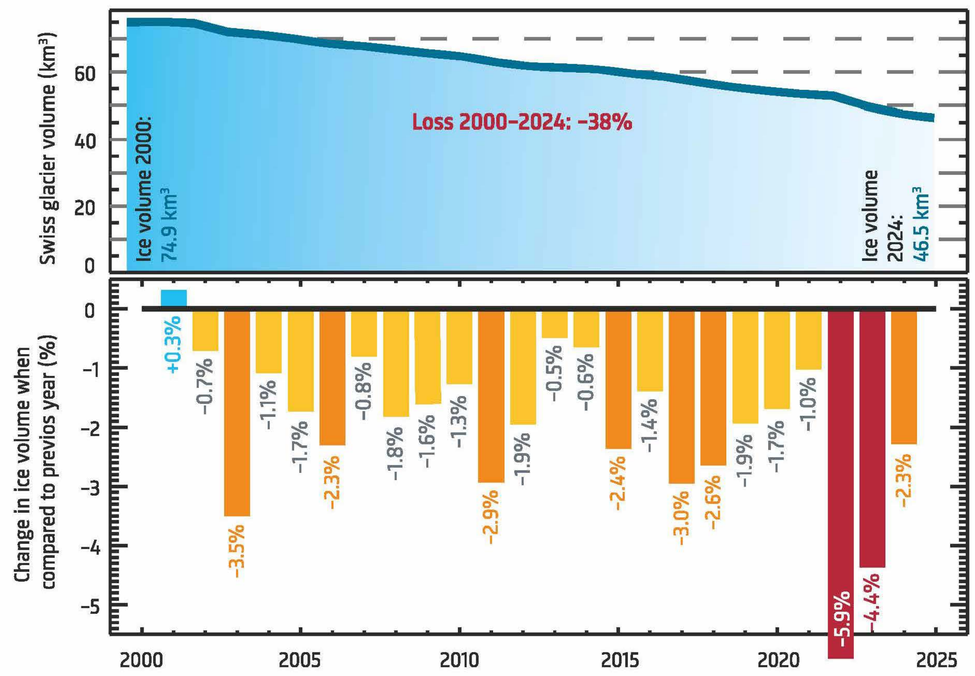


Fig. 3: Change of ice volume in all Swiss glaciers between 2000 and 2024 (above). Relative change in the volume of ice from year to year (below).
Source: GLAMOS

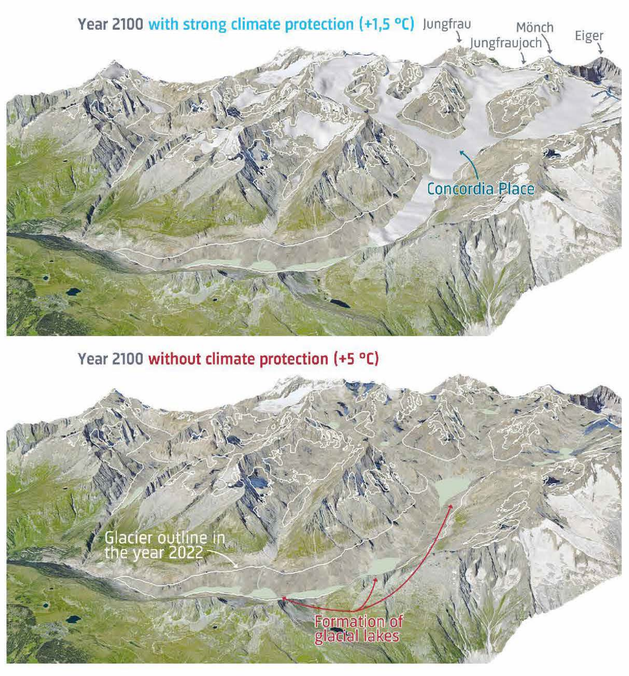


Fig. 4: Anticipated expansion of the Great Aletsch Glacier in 2100 in a scenario with strict global climate protection efforts (above) and a scenario without climate protection (below).
Source: Tages-Anzeiger Interaktiv, VAW-ETHZ, UNIFR.

Fig. 5: Measurement stake to determine the degree of melting on the Concordia Place (Aletsch Glacier). Six metres of ice melted here in 2022.
Source: M. Huss

Switzerland.

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2025
International
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