



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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Swiss Confederation

Federal Department of Home Affairs FDHA
Federal Office of Meteorology and Climatology MeteoSwiss

MeteoSwiss

25th to 26th March 2026, Haus des Sports, Ittigen bei Bern

Swiss National GAW/GCOS Symposium

Reviewing Progress and Setting Priorities



Aims



...to **showcase achievements** of the national GAW and GCOS programmes and their associated communities



...to **set priorities** for the implementation of the GAW and GCOS programmes at national level



...to **spark ideas for innovative approaches** across the broader Swiss GAW and GCOS communities

About

GAW-CH

Launched in 1989, the Global Atmosphere Watch programme (GAW) is a partnership of about 100 countries to monitor the composition of the atmosphere. The programme supports a global network of high-quality monitoring stations measuring greenhouse gases, ozone, UV radiation, aerosols, reactive gases and precipitation chemistry with high accuracy and worldwide comparability. GAW Switzerland includes around a dozen institutions involved in national GAW activities, including long-term monitoring, research, and the operation of central calibration and quality-assurance facilities for the global network.

More information [GAW International](#)



GCOS-CH

The Global Climate Observing System (GCOS) was established in 1992 to coordinate global climate observation and to ensure that users have access to the data and information needed to address climate-related challenges. Within the framework of GCOS Switzerland, high quality data on 34 Essential Climate Variables (ECVs) are continuously collected, processed and made publicly available. GCOS Switzerland also includes seven international calibration and data centers. The systematic observation of ECVs and the operation of these centres in Switzerland are enabled through the collaborative efforts of numerous national partner institutions.

More information [GCOS International](#)



Day 1 – Wednesday, 25th March 2026

9:00 Arrival and Welcome Coffee

9:45 **Opening Session**

Welcome

Petra Zimmermann, MeteoSwiss
Stefan Brönnimann, Chair Swiss GAW/GCOS Scientific Steering Committee

Housekeeping

Update from the GAW Secretariat

Poalo Laj, WMO

Update from the GCOS Secretariat

Antonio Bombelli, WMO

Keynote: AI/ML – from NWP to atmospheric composition forecasting, a game changer

Laurence Rouil, Director of CAMS, ECMWF

11:25 **Recent Progress Based on the White Paper 2022**

The Swiss H2O Hub: High-quality water vapor measurements from ground to space

Gunter Stober, University of Bern

The rapid decline of Swiss glaciers: Monitoring needs and potential

Matthias Huss, ETH Zurich

SwissPhenocam: Country-scale automated phenology tracking

Jan Dirk Wegner, University of Zurich

Feedbacks between vegetation, carbon, energy, and water cycles in the urban environment: recent advancements from the UrbaNature project

Stavros Stagakis, University of Basel – Dominik Brunner, Empa

13:15 Lunch Break / Poster Session

15:00 **Increasing Importance of Earth System Data**

Monitoring anthropogenic emissions of air pollutants and greenhouse gases from space

Gerrit Kuhlmann, Empa

High-resolution lake ECV monitoring for the Alpine region

Michael Brechbühler, Eawag

Some reflections on glacier dynamics observations in remote sensing datasets based on studies of one of the WGMS reference glaciers

Martin Hoelzle, University of Fribourg

From the Swiss data cube to living Switzerland: Developing a digital twin of the environment

Gregory Giuliani, University of Geneva

16:40 Wrap-Up and Main Findings Day 1

17:00 Ice Breaker



Day 2 – Thursday, 26th March 2026

8:45 Arrival and Welcome Coffee

9:30 **Opening Day 2** | **Keynote: ETH Swiss GeoLab – Transforming earth observation into action**
Felix Seidel, Managing Director, ETH Swiss GeoLab

10:05 **New Generation of Scientific Leadership in GAW-CH/GCOS-CH** | **Relevance of long-term observations and controlled lab studies for insights into air quality, weather and climate effects of aerosols and precursor gases**
Claudia Mohr, PSI

Greenhouse gas and isotope measurements at the Jungfrauoch research station
Eliza Harris, University of Bern

Likely but unpleasant scenarios of the future atmosphere: geoengineering, rockets, and volcanic eruptions
Timofei Sukhodolov, PMOD

Anomaly detection for drought impact monitoring of Swiss forests
Benjamin Stocker, University of Bern

11:45 Lunch Break / Poster Session

13:15 **Earth System Data for Impactful Applications** | **From atmospheric observations to validation of greenhouse gas emission inventories**
Stephan Henne, Empa

How observations support the development of climate scenarios
Regula Mülchi, MeteoSwiss

The importance of high-mountain cryospheric data for evidence-based decisions – and how to fill the current data gaps: Examples from the Swiss Alps and Bhutan
Nadine Salzmann, SLF

From data to decision support: The Swiss drought early warning and monitoring system
Fabia Hüsler, FOEN

14:35 Break

15:10 Wrap-Up and Main Findings Day 2

15:30 **Synthesis** | **Recap of the main points of the Symposium**

Reviewing progress, setting priorities – High-level panel discussion
Moderation: Stefan Brönnimann, Chair Swiss GAW/GCOS Scientific Steering Committee
Martin Ackermann, Eawag – Brigitte Buchmann, Empa – Thomas Frölicher, University of Bern – Ulrike Lohmann, ETH Zurich – Laurence Rouil, ECMWF – Felix Seidel, GeoLab – Stefan Uhlenbrook, MeteoSwiss

16:25 Closing of the Symposium



Practical Information

Location

Haus des Sports, Ittigen bei Bern
Talgut-Zentrum 27, 3063 Ittigen bei Bern

Venue by Public Transport: From Bern-RBS station,
take the S7 (Worb Dorf) to Papiermühle station or Ittigen.
Travel time from Bern Station: 7–9 minutes.

Poster Session

Posters will be displayed in the main hall, with Wednesday
focusing on the topic *Increasing Importance of Earth System Data*
and Thursday on *Earth System Data for Impactful Application*.

Website

You can find the latest updates on our [website](#).

Committee & Organisation

Scientific Programme Committee

Iris Feigenwinter, ETH Zurich
Isabelle Gärtner-Roer, University of Zurich
Martin Gysel-Beer, PSI
Stelios Kazadzis, PMOD/WRC
Martin Steinbacher, Empa

Organisation

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