

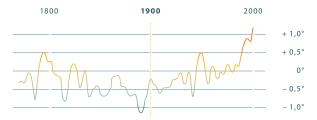
OBSERVE, UNDERSTAND, FORECAST, ACT

Network of European High Altitude Research Stations based in the Alps and similar mountain regions

MISSION

Addressing demanding scientific, interdisciplinary and social challenges in the fields of *climate change and economic* development in the Alpine region:

- How do ecosystems respond to the two basic trends:
 - a) climate change and
 - b) social and economic development?
- What are the scientific processes behind the observed changes?
- How to calibrate / optimize / standardize monitoring tools and methodological approaches in order to improve the prediction of changes?
- Which information need to be communicated in which way to society, economy and administrative bodies?



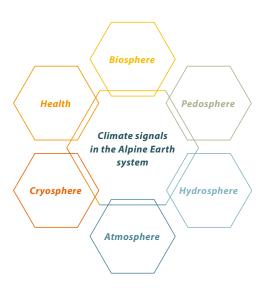
The Alps have warmed up by about +2° C since 1900: nearly twice as much as the global warming trend.



OBJECTIVE

Contributing to a better understanding of environmental processes in the Alpine region, VAO supports decision makers by balancing economic, social and environmental interests in a sustainable way. VAO is part of the European Alpine Convention as well as the Alpine Strategy of the EU.

The European Space Agency, ESA, and the Alpine Convention are official VAO observers.





VISION

- Setting new standards in terms of developing new instrumentation (open hardware) in cooperation with industries
- Providing information products and data analysis tools tailored to the scientists needs (computing on demand)
- Scheduling measurement procedures harmonised between various measurement sites and customised to a specific application (operating on demand)
- Archiving and delivering data (and meta data) as well as value added information adjusted to specific requirements (data on demand)
- Delivering services addressing especially but not exclusively public needs (service on demand)



Motto Scientific cooperation – joining forces and resources to avoid duplication of work

Goal

Establishment and **further development** of high altitude research institutions that address **pressing scientific and social issues**

Concepts
Data, computing, operating and service

on demand



VAO RESEARCH STATIONS

- Environmental Research Station Schneefernerhaus DE, 2 650 m
- Schauinsland Observatory DE, 1 284 m
- Hohenpeißenberg Observatory DE, 975 m
- Observatoire de Haute-Provence FR, 650 m
- Station Alpine Joseph Fourier FR, 2 058 m
- Vallot Observatory FR, 4 362 m
- Sentinel Alpine Observatory IT, 2 260 m
- Eurac LT(S)ER IT, 2 700 m
- Sonnblick Observatory AT, 3 106 m
- High Altitude Research Station Jungfraujoch CH, 3 580 m
- High Altitude Research Station Gornergrat CH, 3 135 m
- Otlica Observatory SI, 945 m

Associated stations

- Abastumani Astrophysical Observatory GE, 1700 m
- Alomar Observatory NO, 380 m
- *BEO Musala* BG, 2 925 m
- Observatory Panska Ves CZ, 315 m





CONTACT

VAO Coordinator and Chair of the VAO Board

Prof. Dr Michael Bittner (DLR): Michael.Bittner@dlr.de

VAO Office

Birgit Einhellinger, Bavarian State Ministry of the Environment and Consumer Protection, Rosenkavalierplatz 2, 81925 Munich, info@vao.bayern.de / www.vao.bayern.de

Credits

Bulgaria: C. Angelov BEO Moussala / France: F. Delbart / Georgia: G. Didebulidze Italy: Eurac / Norway: S. Jaax / Austria: L. Rasser ZAMG / Switzerland: N. Trauffer Slovenia: S. Stanic / Czech Republic: J. Simunek / Germany: M. Neumann

> Designed by Larissa Anaïs Lawor / Printed by StMUV © Copyright VAO Office July 2021

