

AASCO Summit in Monaco Advances International Collaboration on Critical Arctic Research and Data Sharing

With climate change accelerating, the Arctic is a focal point of international scientific inquiry. Leading scientists convened at the Arena for the Gap Analysis of Existing Arctic Science Co-Operations (AASCO) to address critical climate change challenges and pressing Arctic research questions.



Leading scientists convened at the Arena for the Gap Analysis of Existing Arctic Science Co-Operations (AASCO) to address critical climate change challenges and pressing Arctic research questions. (Image: Michael Alesi / Palais Princier de Monaco)

Leading scientists convened at the Arena for the Gap Analysis of Existing Arctic Science Co-Operations (AASCO) to address critical climate change challenges and pressing Arctic research questions.

The two-day event, supported by the Foundation Prince Albert II de Monaco, was opened by HSH Prince Albert II of Monaco on the 4th February. The aim of the AASCO event was to build stronger links between research groups and to contribute to Strategic Arctic Research Planning and support initiatives like International Conference on Arctic Research Planning (ICARP) IV's Arctic Research Planning process, the Sustaining Arctic Observing Networks (SAON)-ROADS framework and preparations for the 5th International Polar Year (2032–33).

With climate change accelerating, the Arctic is a focal point of international scientific inquiry. Research in the region is particularly challenging due to extreme conditions, making long-term, comprehensive measurements indispensable. One of the key messages from the AASCO meeting emphasized the critical need for advancing Arctic research infrastructure to support cross-disciplinary studies.

“Comprehensive and long-term atmospheric and environmental measurements are mandatory for quantifying the impacts of climate change and human activities in the Arctic”, states [Tuukka Petäjä](#), Professor at the University of Helsinki's Institute for Atmospheric and Earth System Research (INAR).

"Future Arctic research must prioritize understanding of land-atmosphere-ocean feedbacks and their global and regional impacts. This includes addressing how Arctic research infrastructure can be developed to meet the complex data needs of such cross-disciplinary work", says [Hanna Lappalainen](#), Adjunct professor at the University of Helsinki's Institute for Atmospheric and Earth System Research (INAR).

The AASCO discussions and the follow-up work will provide recommendations for several research priority areas such as Arctic Sea Ice and Greenland Ice Sheet dynamics, Short-Lived Climate Forcers (SLCFs), interactions between Arctic processes and the coupled climate system, climate interventions and their implications, Arctic air pollution, pan-Arctic science collaboration including co-production with local and indigenous Arctic communities and data-sharing in Arctic research. AASCO is publishing a White Paper in spring 2025, outlining future research gaps and recommendations based on the discussion in Monaco.

"By fostering interdisciplinary dialogue, strengthening cooperation, and embracing innovative research approaches, we can drive forward the solutions needed to safeguard the Arctic and, ultimately, our shared future. For these ambitions to succeed, faced with the forces opposing us, we need unwavering commitment", says **HSH Prince Albert II** of Monaco.

"Collaboration is everything. Science alone cannot change the world. We need governments, philanthropies, businesses, and communities working together - because the challenges we face are bigger than any one institution or nation. The upcoming International Polar Year and Decade of Action for Cryospheric Sciences will be a turning point. Let's make sure we rise to the occasion", says **Olivier Wenden**, Vice President & CEO of the Prince Albert II of Monaco Foundation.

AASCO Key Collaborators and Partnerships

Coordinated by the University of Helsinki. AASCO collaborates with institutions and organizations including: University of the Arctic (UArctic), Sustainable Arctic Observing Networks (SAON), Svalbard Integrated Arctic Earth Observing System (SIOS), World Meteorological Organization (WMO), International Research Center of Big Data for Sustainable Development Goals (CBAS), Aerospace Information Research Institute Chinese Academy of Sciences(AIR-CAS) and Science Diplomacy Center, Inc. (SDCI) USA.