

Photo: Tommy Roenningen



THE **I**NTERNATIONAL **A**RCTIC **S**CIENCE **C**OMMITTEE

www.iasc.info



The International Arctic Science Committee (

is a **non-governmental, international scientific** organization.

The mission of IASC is to

encourage and facilitate cooperation in all aspects of Arctic research, in all countries engaged in Arctic research and in all areas of the Arctic region,

by

promoting and supporting leading-edge multi-disciplinary research to foster a greater scientific understanding of the Arctic region and its role in the Earth system.



- Established in August 1990
- First international organization focused on the Arctic
- Model for scientific collaboration in the North

TO ACHIEVE ITS MISSION, IASC:

- Initiates, coordinates and promotes scientific activities at a circumarctic or international level;
- Provides objective and independent scientific advice on issues of science in the Arctic; and
- Communicates scientific information to the public.

WHO IS



BY THE NUMBERS:

2

Active Action Groups:
Indigenous Involvement
Bylaws

23

Member Countries

25

IASC-Funded
Activities in FY2019

170

Scientific Working Group Members

5

Working Groups:
Atmosphere
Cryosphere
Marine
Social & Human
Terrestrial



MEMBERS & AFFILIATIONS



**International
Science Council**



PERSPECTIVES ON A POSSIBLE FUNDERS FORUM

- Research drives funding cooperation at the major project scale (e.g. MOSAiC)
- But a LOT of small/medium science follows \$ cooperation
- More cooperation of bilateral and multilateral funding opportunities would benefit the international Arctic research community
- Need to minimize bureaucracy
 - *E.g.*, Belmont Forum is a GREAT opportunity, but too big a lift for many Arctic researchers relative to the benefit.



PERSPECTIVES ON A POSSIBLE FUNDERS FORUM

- There is a lot of value in informal, unattributed/private conversations (pre-RFP) for coordination
- All those who really want to collaborate should be there
- Agenda-setting in research & related activities could be the metric for joining?
 - Open to national, international, private funders?
 - As agenda setters: IPOs, Local gov'ts, too!



Photo: Mana Tugend



PERSPECTIVES ON A POSSIBLE FUNDERS FORUM

Possible foci could be around:

- Alignment on Arctic Research Plans
 - Builds on / feeds into ICARP work
- Alignment on infrastructure funding (with FARO)
- Building bilateral / multilateral funding coordination mechanisms

Could consider convening (annually?) at ASSW.



Photo: Mario Hoppmann



ASSW 2016 in Fairbanks

The Arctic Science Summit Week (ASSW) was initiated by IASC in 1999 to provide opportunities for coordination, cooperation and collaboration between scientific organizations involved in Arctic research and to economize on travel and time.

Any organization engaged in supporting and facilitating Arctic research may participate!





- European and North American Arctic funders often attend already
- Many scientists, FARO, Indigenous participants, Science Agreement contacts, and more IASC / Arctic partners convene here.
- Benefit: could also drive more funder – scientist interactions within the Arctic research community
 - e.g. build on “Funder Meet & Greets” that ARCUS is running at AGU from nat’l to int’l


Arctic Science Summit Week 2019
 IASC 22-30 May | Arkhangelsk, Russia


Arctic Science Summit Week 2020
 IASC 27 Mar - 2 Apr | Akureyri, Iceland


Arctic Science Summit Week 2021
 IASC 19-26 March | Lisboa, Portugal



VISION FOR A POSSIBLE FUNDERS FORUM

- Productive & pragmatic,
not performative
- Informal & inclusive





www.iasc.info
Emails | Newsletter | Facebook Group
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Photo: Kári Fannar

Arctic Research Priorities for the Next Decade

Integrating
Arctic Research -
a Roadmap
for the Future

3rd International
Conference
on Arctic Research
Planning
ICARP III

- The Role of the Arctic in the Global System
- Observing and Predicting Future Climate Dynamics and Ecosystem Responses
- Understanding the Vulnerability and Resilience of Arctic Environments and Societies and Supporting Sustainable Development





SCIENTIFIC PRIORITIES

- Building off ICARP-III priorities
- Each Working Group (Atmosphere, Cryosphere, Marine, Social & Human, and Terrestrial) shares their Work Plans on the IASC website
- Goals are also shared in IASC's Strategic Plan (2018-2023)

<https://iasc.info/working-groups>



B. Scientific Foci of IASC Working Groups

IASC's scientific Working Groups provide scientific advice, guidance, and drive to IASC activities. Some examples of the priorities for the next 5 years from the Working Groups include:

- Long-term Arctic climate modelling capabilities via improved, coupled process understanding
- Arctic air pollution: trace gas and aerosol forcing, community & ecosystem impacts, and climate feedbacks
- Satellite and modelling activities for improving the predictability of Arctic change on daily to seasonal timescales, including extreme events
- Linkages: Role of the Arctic in the global climate system
- Atmosphere-glacier-ocean interaction and implications for Arctic glacier mass budget
- Formation, development, frequency/intensity, and impacts of extreme cryospheric events
- Improve interdisciplinary knowledge of snow-related processes
- Geological history of the Arctic Ocean basin
- Biological productivity under changing sea ice regimes
- Paleoclimate records and predicting future responses in Arctic systems
- Effect of diminishing ice cover on the carbon cycle in the Arctic and its impacts
- Consequences of variability in heat and momentum exchanges between ocean, land, ice, atmosphere and space in a changing climate
- Changes in the hydrological cycle and their impact on the Arctic system
- Histories, perceptions, and representations of the Arctic
- Natural resource and land use, exploitation, and development: past, present, future
- Long-term impacts, vulnerability and resilience in Arctic social-ecological systems
- Human health, well-being, and ecosystem change
- Ecosystem science focusing on species interactions and the biology of life in extreme environments
- Landscape dynamics and disturbance regimes
- Permafrost and infrastructure, including the deployment of engineering expertise for adapting to change

For further information and deliverables, see the full IASC Working Group Work Plans: <https://iasc.info/outreach/news-archive/396-new-iasc-science-work-plans>



The IASC Strategic Plan for the period 2018-2023 is based on the ICARP III roadmap and defines the directions in which IASC shall work for the next five years. The Plan is based on three pillars and you can read more at:

www.iasc.info/strategic-plan



Photo: Bruce Forbes



UPCOMING ACTIVITIES

The State of Glaciers and Ice Caps in the Arctic Region

When: 10-13 October 2019 | Where: Reykjavik (Iceland)

DBOD - Distributed Biological Observatory Data Meeting

When: 5-6 November 2019 | Where: TBD

Calotte Academy

When: 12 - 19 Nov. 2019 | Where: Finland, Norway and Russia

CATCH: the Cryosphere and ATmospheric CHemistry

When: 7-8 December 2019 | Where: Berkeley, CA (USA)

Glacier-Ocean Interactions and their Impact on Arctic Marine Ecosystems

When: 28-30 January 2020 | Where: Obergurgl (Austria)

6th Snow Science Winter School

When: 16-22 February 2020 | Where: Col du Lautaret (France)

Arctic Council Observer Activities

When: Ongoing | Where: Various

Freshwater in Polar Ocean Climate Change & Global Linkages

When: 28 April - 1 May 2020 | Where: Exeter (UK)

ISPA - International Symposium on Plastic in the Arctic

When: 21-23 April 2020 | Where: Reykjavik (Iceland)

Arctic Underground

When: 27 March - 2 April 2020 | Where: Akureyri (Iceland)

CoAST: Coastal Arctic Science Teams

When: 27-30 March 2020 | Where: Akureyri (Iceland)

Gender in Polar Research: Gendered field work conditions, epistemologies and legacies

When: 27-30 March 2020 | Where: Akureyri (Iceland)

Nunataryuk / T-MOSAIC Summer School

When: 21-30 April 2020 | Where: Abisko (Sweden)

Arctic Urbanization and Sustainable Development

When: TBD | Where: TBD