

White House Arctic Science Ministerial (WHASM) Side-Event: Science Priorities For A Changing Arctic

By Kim Morris, Member of the CSPC Content Generation and Editorial Committee

On September 29th, 2016, The [Polar Research Board](#) of the National Academies of Sciences, Engineering, and Medicine, hosted a forum for people to learn about the agreements and deliverables that emerged from the White House Arctic Science Ministerial held the day before.

Dr. [Julie Brigham-Grette](#), Chair of the Academies' Polar Research Board, opened the meeting by noting that September is usually the time of lowest CO₂ levels in North America. This year, the levels were well above normal at >400ppm. She wondered if, in our lifetimes, we would ever see a <400ppm CO₂ level again.

Ambassador [Mark Brzezinski](#), Executive Director of the Arctic Executive Steering Committee, offered this summary of the WHASM:

Arctic as Part of President Obama's Legacy

- First US President to go to the Arctic, where the international community faces unique challenges but could pursue numerous opportunities for collaboration

Arctic Science Ministerial: What do we want to accomplish?

- Host international gathering of the Science Ministers to launch a new collective approach in Arctic science to inform national policies concerning climate change mitigation and resilience, Arctic development, stewardship, and needs of the region

Pre-Ministerial Briefing of Alaska Native/Arctic Indigenous Stakeholders

- Who: Over 40 indigenous representatives; Alaska Lt. Governor; 30+ federal government employees involved in Arctic
- Goal: Brief on Ministerial goals; listen and learn about indigenous science needs/priorities

Reception (Sept. 27, Smithsonian National Museum of Natural History)

- Gather 32+ Arctic stakeholders (including public, private and philanthropic sectors) around clarion call for joint action

Arctic Science Ministerial: Participating countries, themes, likely outcomes (Sept. 28, Indian Treaty Room)

- Participants: Science Ministers from 24 Arctic/non-Arctic governments; 10 Arctic indigenous and Alaska Native observers, including Alaska's Lt. Governor. Leading scientists as keynote speakers.
- Four themes driving deliverables: (i) Regional/global implications of science challenges; (ii) Observing/monitoring; (iii) Resilience; and (iv) Citizen empowerment and STEM education leveraging Arctic science
- Outcomes: (i) Joint Statement with commitments across all four themes; (ii) Fact Sheet (including new EU projects for a new integrated Arctic observing system, new UK research program on the Arctic Ocean, and US release of first-ever Arctic wide digital elevation model); and (iii) ongoing, inclusive process driving forward collaboration

Ms. [Fran Ulmer](#), Chair of the U.S. Arctic Research Commission, added remarks:

- Supporting Arctic Science – a document that provides a two page summary of Arctic science projects of the WHASM participating governments (soon to be available online)

- Importance of the co-production of western and native knowledge and science
- Most important challenge – creating a more robust observing system (long term financing and governance) that keeps pace with the rate of Arctic change
- Need to understand the changes in order to inform policy

International representatives from the Ministerial were invited to comment on the WHASM:

- **Dr. Nikolai Toivonen**, Director for International Cooperation, Ministry of Education and Science of Russia
 - Create a structure for mutual understanding and cooperation
 - Create a pool of funding for institutions involved in Arctic science
 - Combine basic research with socio-economic development/balance global and local needs
 - Include indigenous science
 - Determine concrete goals and create networks for data sharing
 - Support education and training (STEM) for specialists and indigenous people so that they can stay in their communities and be involved in sustainable development
- **Dr. Hyoung Chul Shin**, Head of Intl. Cooperation, Korean Polar Research Institute
 - Arctic has been raised as a concern to the Ministerial level
 - Korea is involved because it wants to be part of the solution to this problem and provide leadership and cooperation
 - Proximity to the Arctic does not dictate level of interest/involvement
 - Changes in the Arctic are a natural experiment; meeting the challenges of these changes is a human experiment
- **Ms. Satu Paasilehto**, Senior Advisor, Ministry of Education, Science and Culture, Finland
 - Amazed by the organization and the results
 - Next steps are in the hands of the participating governments
 - Need to show leadership in pursuing the WHASM goals
 - Finland will host a STEM Summit during its chairmanship of the Arctic Council (2017-2019)
- **Dr. Andrea Tilche**, Head of the Climate Action and Earth Observation Unit, Directorate General for Research & Innovation, European Commission
 - Need an observation system to make global decisions
 - Focus on reaching the critical mass of information to create solutions
 - Science and policy have a joint responsibility to plot a course for solutions
 - Key priorities need to be identified with political/ethical targets ~ consider outcomes in relation to local populations

Update on the Arctic Council Task Force on International Scientific Cooperation by Dr. **Kelly Falkner**, Director of the National Science Foundation Division of Polar Programs:

- After three years and nine meetings a draft agreement has been reached
- Now undergoing internal review by all the participating countries
- Anticipated that it will be signed at Arctic Council meeting in Fairbanks, AK in May 2017
- Agreement will be legally binding: covers - access to the Arctic by scientists (including ocean and air), promotion of education, inclusion of traditional knowledge, inclusion of non-Arctic nations, and intellectual property rights

Audience Comments:

- Make Arctic solutions a model for global solutions: sustainability, new opportunities and technologies, Arctic standards become global standards
- The need for comprehensive mapping of the Arctic as a source (baseline information) useful to science and as an operational tool – should be available to everyone
- How new information is put into the hands of policy makers varies from nation-to-nation and the Arctic as a policy priority also varies