

Request for Input

from Organizations with Arctic Research and Education Interests

Japan and Iceland are pleased to be hosting the 3rd Arctic Science Ministerial. To evaluate progress on international collaboration in Arctic science, we are asking for a variety of inputs from Countries, Indigenous Peoples Organizations, and Research/education organizations.

In the <u>Joint Statement from ASM2</u> parties agreed on a number of important issues needing stronger collaboration. To map the progress since ASM2 the signatory parties, participating Indigenous Peoples and International Science Organizations, are asked to document their major international activities that have contributed to the goals identified from ASM2.

Building on deliverables and discussions from the previous ASMs, Arctic Research and/or Education organizations are asked to provide a tailored summary of their work (formerly the Arctic Research Overview); updates on project deliverables (if previously submitted); and new initiatives to address requirements for stronger international and interdisciplinary collaboration.

The information submitted in response to this request will show where significant activity has occurred, achievements have been accomplished, and what areas may require additional resources for progress. The information will contribute to the ASM3 discussions and report. The resulting report will be a summary indicating project progress and highlighting opportunities for increased collaboration and support. The report will be provided to ASM3 participants in addition to being accessible on the ASM3 website. The information will also be used as a foundation for a database outlining international Arctic research efforts which will provide a tool for scientists, Indigenous Peoples, regional governments and other stakeholders to monitor progress and identify potential collaborators.

This will streamline the previous process while building on efforts to ensure transparency and open access, in creating a legacy product of Arctic research activities. All information submitted to the ASM3 organizers should be considered as open access, to be freely shared. If specific points are only meant for the Ministerial and not to be shared publicly, indicate clearly when submitting materials.

Arctic Organization Overviews

As in prior ministerial meetings, we are asking for a short summary from participating entities. For ASM3, a new template has been created for organizations. See Appendix 1 for Guidelines.

Project Deliverable Updates and New Initiatives

To help better capture the diversity and breadth of international research and education activities in the Arctic, we are asking for updates on projects submitted as deliverables to ASM2, as well as new initiatives proposed to help support the goals and themes of AMS3. Please see Appendix 2 for Guidelines.

To streamline the submission of updates and contribute to a legacy database of project deliverables, each organization will receive an electronic folder with their respective ASM2 submissions. This folder will contain the project deliverable information previously submitted (if any). Information to update will include: selected keywords describing the project; countries involved; size and duration of project; themes addressed in the project; and other 'check-box' type questions to help in the organization and analysis of international collaboration progress moving forward.

For new project deliverables, each organization should determine what projects they would like to put forward as contributions to the goals and themes for ASM3. The ASM3 organizers are not asking for organizations to submit every Arctic research and/or education project, but to select project deliverables that have strong international partnerships, strengthen international research collaboration efforts, or projects where international collaboration opportunities exist and are encouraged. For new project deliverables, a blank form will be included in the folder. Please make copies of this form for each new project deliverable you are submitting.

International Collaboration and Cooperation

As one goal of the ASM is to enhance international collaboration and cooperation, for ASM3 we are requesting additional information on how international researchers can get involved in your organization's projects, participation in ongoing larger international initiatives, Arctic research priority documents and references, and additional links to more information. The purpose of this section is to get another perspective on international collaboration that can be used directly by scientists and Indigenous Peoples to engage with national/international efforts. Appendix 3 lays out the questions we are asking and the form will be included in your electronic folder.

Important Dates

May 25 – Requests for information go out to Organizations June 30 – Information due back to ASM3 Secretariat

Appendix 1 – Arctic Organization Overviews

Guidelines for submitting Arctic Organization Overviews to the ASM3

In an effort to help provide an overview of the various (international) organizations with Arctic research and/or educational interests to the Arctic Science Ministerial meeting, we are asking interested parties to submit a short overview of their organization for consideration for publication.

When preparing these overviews, please use the form included in your folder which follows the format below. Please use American English. Once submitted, overviews will go through editorial/grammar review and revisions may be necessary. All information submitted should be considered open access and available for ASM3 related publications as needed.

With this form, please send your logo as a .jpg with 300 dpi resolution. You may also wish to send a photo of an organizational activity to be used if space allows. The photo should have a descriptive file name, short caption (5 to 10 words), photo credit, and have 300 dpi resolution.

Name of Organization	
Acronym (if any ©)	
Year Established (YYYY)	
Website	
General Email Address	
Post/Physical Address	
Mission Statement (max 50 words)	
Major Activities (max 250 words)	- include regular Meetings/Conferences, working groups, projects, focus on Arctic related activities
Upcoming Arctic related activities/new initiatives (max 100 words)	
Organization Structure (max 100 words)	- include membership information, major sources of funding, etc.
Main Type/Focus of Organization (choose all that apply)	Science Education Stakeholder Business Policy/Governance
Does your organization's interest(s) include: (choose all that apply)	□ Natural sciences □ Indigenous knowledge □ Social sciences □ Community-driven research/monitoring □ Arts & Humanities □ Education/Capacity Building Outreach

Appendix 2 – Project Deliverables Contributing to the ASM Themes/Goals

Guidelines for submitting project deliverables, updates and new initiatives for ASM3

In the Joint Statement from ASM2, parties agreed on a number of important issues needing stronger collaboration. To map the progress since ASM2, we ask the signatory parties, participating Indigenous Peoples and International Science Organizations, to document their major international activities that have contributed to the goals identified from ASM2.

The information submitted will show where significant activity has occurred, achievements have been accomplished, and what areas may require additional resources for progress. The information will contribute to the ASM3 discussions and research summary report indicating project progress and highlighting opportunities for increased collaboration and support. The report will be provided to ASM3 participants in addition to being accessible on the ASM3 website. The information will also be used as a foundation for a database outlining international Arctic research efforts which will provide a tool for scientists, Indigenous Peoples, regional governments and other stakeholders to monitor progress and identify potential collaborators.

To help focus and simplify input so it can be more efficiently synthesized, information on previously submitted projects (referred to as deliverables for past ASMs) will be sent back to submitting parties in standardized forms. What is mainly required for updates is to verify information is still current, include a short statement on progress since AMS2, and help to categorize (via check boxes) project efforts. The following is an example of the questions that will be asked.

Up	odate on Deliverables/Projects Submitted to ASM2
1.	Project Title
2.	Funding Program(s) and/or Organization(s)
3.	Coordinating organization(s)
4.	Name of main contact person
5.	Contact email address
6.	Summary of Project/Project Goal (300 character limit)
7.	Description of the deliverable/project (3000 character limit)
8.	Website
9.	Duration of Deliverable/Project (YYYY to YYYY)
10.	 Personnel/Staff Involved Note: The purpose of this question is to try to understand the size of the project. In comparing across countries and currencies, the number of people can be more reflective of this than comparing budgets. Please include researchers, technicians, and project managers. □ 1 - 10 □ 50 + □ 11 - 20 □ Unknown □ 20 - 50
11.	. What is the diversity of project personnel/staff (E.g. gender, career stage, Indigenous representation) (1500 character limit):

	ge of Project Development Proposed Early Planning On going			Final Stages Finished	
13. Ne	xt steps for the project if in the pr	oposed, early pla	nning,	or ongoing stages	s (1500 character limit).
No	ajor progress/development(s) sinc te: For national projects contributin ase describe your countries direct c	g to major interna	itional p		ON, MOSAiC, and YOPP,
15. Are	e there opportunities for new colla	aborators to join?	If so, p	olease describe th	em.
	llaborating Countries/Governmen Austria Belgium Canada China Czech Republic Denmark Faroe Islands Finland France Germany	ts. (Choose all the Greenland Iceland India Italy Japan Netherlands Norway Poland Portugal Republic of Ke			Russia Singapore Spain Sweden Switzerland UK USA EU Other(s)
000000000000000000000000000000000000000	Cation of Project (Choose all that all Global Polar in General Arctic in General Sub-Arctic in General Alaska in General Alaska Arctic Canadian Arctic in General Yukon Northwest Territories Nunavut Nunavik Labrador Greenland Iceland in General Icelandic Arctic Faroe Islands Norway in General Norwegian Arctic Svalbard Sweden in General Swedish Arctic Finland in General Finish Arctic Russian Arctic in General	oply)	000000000000000000000	Eastern Siberia Western Siberia Arctic Ocean in Ger Central Arctic Ocea Bering Sea Chukchi Sea Beaufort Sea Hudson Bay Labrador Sea Davis Strait Baffin Bay Denmark Strait Norwegian Sea Greenland Sea Barents Sea Kara Sea Laptev Sea East Siberian Sea Sea of Okhotsk North Pacific Ocear North Atlantic Ocea No Geographic Orie Other Regions	n n an

18.	Key	words describing the Deliverable	/Pro	ject (Choose all that apply)		
		adaptation		freshwater		oceanography
		art		geological sciences		permafrost
		atmosphere		geophysics		policy
		atmospheric sciences		geopolitics		pollution
		biodiversity		glaciers		-
		biology		global		remote sensing/GIS
		capacity building		greenhouse gases		resilience
		carbon		history		resources
		change		human and health Sciences		satellites
		climate		ice Sheets		sea ice
		collaboration		Indigenous Knowledge		snow
		communication		Indigenous Peoples		social sciences
		community		industry		society
		community driven		infrastructure		space physics
		coordination		instrument development		stakeholders
		cryosphere		knowledge		standardize
		culture		land		subsistence (activities)
		data management		languages		sustainability
		disease		law		technology
		ecology		mapping		tourism
		economic development		marine		vulnerability
		ecosystems		mitigation		water security
		education		modelling		weather
		fisheries		monitoring		well-being
		food security		observation		wildlife
		forecasts		outreach		Other:
19.		es the project include: Natural sciences Social sciences Arts & Humanities		Indigenous knowledge Community-driven research/monitoring		Education/Capacity Building Outreach
20.	 If this Deliverable/Project was submitted for ASM1, which theme does it most closely relate to? (Choose one) Identifying Arctic-Science Challenges and Their Regional and Global Implications 					closely relate to?
		Strengthening and Integrating Arctic Applying Expanded Scientific Unders		servations and Data Sharing ding of the Arctic to Build Regional Re	esilie	nce and to Shape Global
	_	Responses	_			/
		Arctic Science	ce Te	echnology, Engineering, and Mathema	atics	(STEM) Education Leveraging
		Not submitted to ASM1 / Do not known	ow			
21.		•		d as a contribution to support the	goa	ls of the ASM2 Joint
	Sta	tement, which areas does it speci	fical	ly address? (Choose up to 3)		
				nd Sustaining Arctic Observations, F	acili	tating Access to Arctic Data,
		and Sharing Arctic Research Infras ☐ Move from design to deployme		ture hase of an integrated Arctic observing	ם כווכ	tem
		☐ Sustained Arctic Obser	-		5 3 9 3	tem
		☐ Copernicus	•ь	Treeworks (5/1011)		
			ctic I	Earth Observing System (SIOS)		
		☐ Distributed Biological (
		☐ Other observing system		/ (/		
		☐ Enhance cooperation among sp		agencies		
				al access to Arctic Research Infrastru	cture	2
				g datasets available, discoverable an		
				nned observing systems and remote s		

		The	eme 2: Un	derstanding Regional	and Global Dynamics of Arctic Change
			Enhance	international cooperati	on
				Year of Polar Prediction	(YOPP)
				Multidisciplinary Driftir	g Observatory for the Study of Arctic Change (MOSAiC)
				Increase predictive cap	abilities for Arctic weather and climate
					predications for future Arctic changes
				voluntary internationa	=
				Predicting sea-ice chan	•
				_	act of changes on freshwater, terrestrial and marine ecosystems
				Assessing the stability of	
					n permanost namics of ice sheets, glaciers and ice caps and their ocean connections
					nd economic drivers of Arctic change
			ш	Officer staffulling social a	id economic drivers of Arctic change
	П	Tho		sossing Vulnorahility a	nd Duilding Deciliones of Arctic Environments and Societies
					nd Building Resilience of Arctic Environments and Societies
					poperation between Arctic and non-Arctic States, Indigenous Peoples,
					and economic stakeholders
					nimizing the impacts of climate and global changes on the Arctic
					and resilience-building strategies
					at address the sustainability of new Arctic opportunities
			Develop	and integrate in the Arc	tic region services making use of climate information
			Develop	and disseminate best p	ractices for coping with impacts of Arctic change
			Develop	research and education	al programs to support Indigenous languages, cultural and economic
			practices	, sustainable ways of liv	ring, and heritage resource preservation
22.	que the	estio se p what	on above) oints ide was dor Striving f talent an innovativ Acknowle national tradition Including Involving	, several additional p ntified in the statement ie in the project to accordiversity - also of gen d promoting excellence we solutions to Arctic solutions to Arctic solutions to Arctic solutions and j and sovereignties and j s of Arctic Indigenous P	ropriate, research in the Arctic has to be carried out - in compliance with urisdictions - respecting the values, interests, priorities, culture and eoples and local communities the assessment and definition of Arctic research priorities
23.				le/Project also being ate. (Choose one)	submitted toward the goals of ASM3? If so, which theme¹ does it
			me 1: Ob		
		Obs	serving ne	tworks, Data sharing –	towards implementation
			me 2: Un		·
		Enh	ance und	erstanding and predicti	on capability on Arctic environmental and social systems and its global
		imp			
			me 3: Res	nond	
	_				of vulnerability and resiliency, Application of knowledge
			me 4: Stre		
	_			_	king, Resilience – prepare future generations
		Jup	Juni		
24.	Wa	s thi	is proiect	/deliverable created	specifically for / or as direct result of Arctic Science Ministerial
	ivie	etin	gsr	• Yes • No	

 $^{^{1}}$ Draft themes as of 10 April. The specific wording of subtitles may change but the overall concepts of Observe, Understand, Respond and Strengthen will remain.

New Project Deliverables in support of ASM3

Each country/organization should determine what projects should be put forward as contributions to the goals and themes for ASM3. The ASM3 organizers are not asking for countries/organizations to submit every project you have, but to select project deliverables that have strong international partnerships, strengthen international research collaboration efforts, or projects where international collaboration opportunities exist and are encouraged.

To standardize and streamline the information collected, new project deliverables are to be submitted using a standardized form included in your folder. One file per new Project Deliverable. Information requested is listed below.

1.	Project Title		
2.	Funding Program(s) and/or Organization(s)		
3.	Coordinating organization(s)		
4.	Name of main contact person		
5.	Contact email address		
ŝ.	Summary of Project/Project Goal (300 character limit)		
7.	Description of the project (3000 character limit)		
3.	Website		
€.	Duration of Project (YYYY to YYYY)		
10.	Personnel/Staff Involved Note: The purpose of this question is to try to understand the and currencies, the number of people can be more reflective researchers, technicians, and project managers. □ 1-10 □ 11-20 □ 20-50	of th □	
11.	What is the diversity of project personnel/staff (E.g. gende (1500 character limit):	er, c	areer stage, Indigenous representation)
12.	Stage of Project Development ☐ Proposed ☐ Early Planning ☐ On going		Final Stages Finished
13.	Next steps for the project if in the proposed, early planning	ig or	ongoing stages (1500 character limit)

14. Are there opportunities for new collaborators to join? If so, please describe them (1500 character limit)

15 Co	llaborating Countries/Government	c ICk	poose all that apply)		
15. 60	Austria		Greenland		Russia
	Belgium		Iceland		Singapore
	Canada		India		
					Spain
	China		Italy		Sweden
	Czech Republic		Japan		Switzerland
	Denmark		Netherlands		UK
	Faroe Islands		Norway		USA
	Finland		Poland		EU
	France		Portugal		Other(s)
	Germany		Republic of Korea		
16. Lo	cation of Project <i>(Choose all that ap</i>	ply)			
	Global		Norway in General		☐ Labrador Sea
	Polar in General		Norwegian Arctic		□ Davis Strait
	Arctic in General		Svalbard		☐ Baffin Bay
	Sub-Arctic in General		Sweden in General		☐ Denmark Strait
	Alaska in General		Swedish Arctic		☐ Norwegian Sea
	Alaskan Arctic		Finland in General		☐ Greenland Sea
	Canadian Arctic in General		Finish Arctic		☐ Barents Sea
	Yukon		Russian Arctic in General		☐ Kara Sea
	Northwest Territories		Eastern Siberia		☐ Laptev Sea
	Nunavut		Western Siberia		☐ East Siberian Sea
	Nunavik		Arctic Ocean in General		☐ Sea of Okhotsk
	Labrador	_	Central Arctic Ocean		☐ North Pacific Ocean
	Greenland		Bering Sea		□ North Atlantic Ocean
	Iceland in General		Chukchi Sea		
	Icelandic Arctic		Beaufort Sea		☐ No Geographic Orientation
	Faroe Islands		Hudson Bay		☐ Other Regions
17. Ke	ywords describing the Deliverable,	/Proj	ect (Choose all that apply)		
17. Ke	ywords describing the Deliverable, adaptation	/Proj □	ect <i>(Choose all that apply)</i> geological sciences		permafrost
		_			
	adaptation		geological sciences	_	-
	adaptation art		geological sciences geophysics		policy
	adaptation art atmosphere		geological sciences geophysics geopolitics glaciers		policy pollution prediction
_ _ _ _	adaptation art atmosphere atmospheric sciences biodiversity		geological sciences geophysics geopolitics glaciers global		policy pollution prediction remote sensing/GIS
_ _ _ _	adaptation art atmosphere atmospheric sciences biodiversity biology		geological sciences geophysics geopolitics glaciers global greenhouse gases		policy pollution prediction remote sensing/GIS
	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building		geological sciences geophysics geopolitics glaciers global greenhouse gases history		policy pollution prediction remote sensing/GIS resilience resources
	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences		policy pollution prediction remote sensing/GIS resilience resources satellites
	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice
	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow
	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences
	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society
	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics
0000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders
00000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere	000000000000000000000000000000000000000	geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities)
00000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture	000000000000000000000000000000000000000	geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease ecology		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law mapping		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism vulnerability
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease ecology economic development		geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law mapping marine		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism vulnerability water security
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease ecology economic development ecosystems		geological sciences geophysics geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law mapping marine mitigation		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism vulnerability water security weather
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease ecology economic development ecosystems education	000000000000000000000000000000000000000	geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law mapping marine mitigation modelling		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism vulnerability water security weather well-being
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease ecology economic development ecosystems education fisheries	000000000000000000000000000000000000000	geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law mapping marine mitigation modelling monitoring		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism vulnerability water security weather well-being wildlife
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease ecology economic development ecosystems education fisheries food security	000000000000000000000000000000000000000	geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law mapping marine mitigation modelling monitoring observation		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism vulnerability water security weather well-being wildlife
000000000000000000000000000000000000000	adaptation art atmosphere atmospheric sciences biodiversity biology capacity building carbon change climate collaboration communication community community driven coordination cryosphere culture data management disease ecology economic development ecosystems education fisheries	000000000000000000000000000000000000000	geological sciences geophysics geopolitics glaciers global greenhouse gases history human and health sciences humanities and arts ice Sheets Indigenous Knowledge Indigenous Peoples industry infrastructure instrument development knowledge land languages law mapping marine mitigation modelling monitoring		policy pollution prediction remote sensing/GIS resilience resources satellites sea ice snow social sciences society space physics stakeholders standardize subsistence (activities) sustainability technology tourism vulnerability water security weather well-being wildlife

18.	Doe	s tł	ne project include <i>(Choose all th</i>	at a	pply):		
		Nat	tural sciences		Indigenous Knowledge		Education/Capacity
		Soc	cial sciences		Community-driven		Building
		Art	s & Humanities		research/monitoring		Outreach
19.	Whi	ch	ASM3 theme ² does this delivera	able	/project most closely relate. (Choos	se on	e)
			Theme 1: Observe		, , ,		•
			Observing networks, Data sharing	g – to	owards implementation		
			Theme 2: Understand				
			Enhance understanding and pred impact.	lictio	n capability on Arctic environmental a	nd sc	ocial systems and its global
			Theme 3: Respond				
Sustainable development, Evaluation of vulnerability and resiliency, A		of vulnerability and resiliency, Applica	application of knowledge				
			Theme 4: Strengthen				
			Capacity building, Education, Net	worl	king, Resilience – prepare future gener	atior	15
20.	Was	s th	is deliverable/project created s	peci	ifically for / or as direct result of Arc	ctic S	Science Ministerial
	Mee	etin	ngs?	•	,		
			Yes				
			No				

 $^{^2}$ Draft themes as of 10 April. The specific wording of subtitles may change but the overall concepts of Observe, Understand, Respond and Strengthen will remain.

Appendix 3 – International Collaboration and Cooperation

As one goal of the ASM3 is to increase opportunities for cooperation, coordination, and collaboration in international Arctic research, we ask for information that can assist researchers from other countries, international organizations, Indigenous Peoples and community members in getting involved with your projects. The information collected (outlined here in Appendix 3) will inform the Joint Statement signed by Ministers and be made available to the international research community through the ASM3 final report. **As we seek key points from these questions, short answers and bullet points are encouraged.** Please use the form in your electronic folder to supply this information.

10	Thin your electronic rolder to supply this information.
1.	Does your country/organization provide specific opportunities for international collaborators to participate in activities? If so, briefly describe how (less than 500 words). E.g.: Does your country/organization provide international fellowships? Are there berths on research ships for international participants? Does your country/organization have joint funding/exchange programs with various countries/organizations? Are there specific links or resources for international participants to learn more about opportunities within your country/organization?
2.	Does your country/organization provide specific opportunities or support for Indigenous Peoples and/or community involvement in Arctic research activities? If so, briefly describe how (less than 500 words).
3.	In what area(s) of research would your country/organization like to see greater international collaboration occurring?
4.	What does your country/organization think are the barriers to international collaboration? Do you have any suggestions on how those barriers could be lowered or removed?
5.	The ASM2 Joint Statement also encouraged the involvement and participation in several international efforts dealing with Arctic science. Does your country/organization contribute to any of the following initiatives? (Choose all that apply) Agreement on Enhancing International Arctic Scientific Cooperation by the Arctic States (Arctic Council) Joint Program of Scientific Research and Monitoring of the Central Arctic Ocean (Agreement to Prevent Unregulated High Seas Fisheries in the Arctic Ocean) 2030 Agenda for Sustainable Development The Paris Agreement Other:

- 6. A goal of ASM3 is to develop concrete actions from our discussions. To facilitate this process, please indicate what the most important outcomes your country/organization would like to result from each of the ASM3 Themes³ (limit 50 words per theme):
 - Theme 1: Observe
 Observing networks, Data sharing towards implementation
 E.g. With the help of the Arctic Funders Forum, develop a mechanism to co-mingle funds internationally in support of coordinated observing

³ Draft themes as of 10 April. The specific wording of subtitles may change but the overall concepts of Observe, Understand, Respond and Strengthen will remain.

Theme 2: Understand
 Enhance understanding and prediction capability on Arctic environmental and social systems and its global impact.

Theme 3: Respond
Sustainable development, Evaluation of vulnerability and resiliency, Application of knowledge

Theme 4: Strengthen
 Capacity building, Education, Networking, Resilience – prepare future generations

7. Does your country/organization participate in ongoing international projects/activities such as Sustaining Arctic Observing Networks (SAON), Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAiC), Svalbard Integrated Arctic Earth Observing System (SIOS), Pacific Action Group (PAG), Distributed Biological Observatory (DBO), etc.? If so, please list which ones and a short description on your involvement in each (less than 20 words each)

E.g. The SAON Secretariat is financially supported by Norway through a grant from the Ministry of Climate and Environment.

- 8. Would your country/organization be interested in supporting the coordination/administration of international Arctic research and education efforts such as SAON, Polar Educators International, APECS, IASC, an ASM Secretariat, Arctic Funders Forum, IASSA, UArctic, etc.⁴? If so, who would be the contact agency and/or person?
- 9. Does your country/organization have formally established Arctic science or research priorities? Arctic science or research strategy documents? Guidelines, diversity requirements, principles or codes of conduct for researchers? If so, please provide the references and links to the documents.
- 10. The Forum of Arctic Science Funders is a multi-lateral discussion platform to initiate new and enhanced collaborative scientific activities in the Arctic. This Forum is a direct result of the Arctic Science Ministerial. Does your country/organization participate in the Forum of Arctic Science Funders? If so, please describe what you see is the utility of the Funders Forum to the Arctic Science Ministerial going forward.
- 11. Please list any additional resources/links providing an overview of Arctic research/education in your country/organization.

Association of Polar Early Career Scientists (APECS): https://www.apecs.is
International Arctic Science Committee (IASC): https://iasc.info
Arctic Science Ministerial (ASM) Secretariat: https://asm3.org

Arctic Funders Forum

International Arctic Social Sciences Association (IASSA): https://iassa.org

University of the Arctic (UArctic): https://www.uarctic.org

⁴ Sustaining Arctic Observing Networks (SAON): https://www.arcticobserving.org Polar Educators International (PEI): https://polareducator.org