

Minutes

1st Annual meeting INTERACT III & Station Managers' Forum II

Online meeting

24 September 2020



Table of contents

1. Introduction	3
2. Work Package progress and SMF interactions	3
2.1 WP1 Project Coordination	3
2.2 WP2 Station Managers' Forum (SMF).....	3
2.3 WP3 Giving access to the Arctic.....	4
2.4 WP4 Unpredictable Arctic – extreme weather events	4
2.5 WP5 Connecting the Arctic: Transport and Communication.....	5
2.6 WP6 Climate Action: Making data widely available	5
2.7 WP7 Preparing for a future world: improving education and awareness at all societal levels....	5
2.8 WP8 Cleaner Arctic, cleaner world: documenting and reducing pollution	6
2.9 WP9 The Arctic Resort: increasing benefits and reducing impacts from developing Arctic tourism.....	6
3. Station Managers' Forum II.....	7
3.1 Introduction and opening of SMF II in INTERACT III	7
3.2 SMF seminar series – Risk management.....	7
3.3 Upcoming tasks in SMF under INTERACT III.....	7
Appendix 1: Programme	9
Appendix 2. List of participants	11

1. Introduction

Due to the ongoing covid-19 pandemic, this year's annual General Assembly and Station Managers' Forum meeting was held online. Instead of meeting in person, the online meeting platform Zoom was used. Zoom was used both for plenary sessions but also for break-out sessions. For immediate survey responses, the interactive presentation software Mentimeter was used. Working on a pan-arctic scale provides a challenge for online meetings as the participants come from 20 time zones. To find the best meeting times "timeanddate.com" was used, and despite the many time zones, the meeting was well attended by 93 participants from 16 countries.

2. Work Package progress and SMF interactions

2.1 WP1 Project Coordination

Margareta Johansson

Margareta gave an overview of the overall aims of the work package, which are to operate the consortium smoothly, integrate various work packages to achieve synergy, to deliver agreed tasks on time. So far 8 deliverables have been submitted and 6 milestones have been reached. 6 more deliverables are expected from this work package. She also presented the INTERACT Project Handbook ([available on the INTERACT website](#)) which contains an overview of the project, with names of work package leaders, a list of milestones and deliverables and other useful information about the project. Margareta also mentioned the automatic e-mails that are generated by the EU participant portal. She informed the audience that there will always be a personal request via e-mail from the INTERACT Secretariat if anything has to be done regarding the project. The next EU reporting starts on 1st of July 2021.

2.2 WP2 Station Managers' Forum (SMF)

Elmer Topp-Jørgensen

Elmer presented the aims of this work package, which mainly are to foster a culture of cooperation between stations and scientific communities, industries, local communities and infrastructures in other regions. Several of this work package's tasks are organised in cooperation with other work packages in the project: the identification of types of extreme events (with WP4, The Unpredictable Arctic); a pocket guide draft is in the making (with WP5, Transport and Communication); making station data and publications widely available is in its start-up phase (together with WP6). The collaboration with WP7 on educating local communities and decision makers is also in its start-up phase. A survey is under development to explore ways to reduce pollution (with WP8, Cleaner Arctic). Another survey regarding the Arctic Resort (with WP9) is ready to be sent out. This work package will submit 13 deliverables during its lifetime, among those several pocket guides, and INTERACT-GIS integrated features. The outline and first draft of the pocket guide on fieldwork communication and navigation will soon be ready (Nov-20). 21 milestones will be reached at the end of this project, among these are meetings, courses and seminars that either will be held online or are postponed until the situation with the pandemic is under control. Based on what the station managers feel a need for, there will be online Station Manager Forum meetings every 2nd to 3rd month, preferably held twice due to the wide array of time zones in the community.

2.3 WP3 Giving access to the Arctic

Hannele Savela

The aim of this work package is free access (through Transnational/Remote/Virtual Access) to world-class infrastructures in the Arctic and beyond for excellent science. Hannele gave an overview of the planned work:

TA: 53 stations, 5827 days (90%)

RA: 33 stations, 668 days (10%)

TOTAL: 6495 days, 4 037 416 EUR incl. ACCESS + ODC

VA: 32 stations, 1 050 451 EUR incl. PERSONNEL + ODC

All tasks and the first deliverable (of seven in total) in this work package are in progress, and three of the five milestones have been reached and one is in progress.

Since the beginning of the year (and the beginning of INTERACT III) one first TA/RA call was out for the nine new stations offering access. Out of 18 applications, 10 were granted access for 290 days. All the granted projects for summer 2020 have been postponed until summer 2021. The second call is ongoing and open until the 15th October 2020. Due to covid-19 and the restrictions it imposes on transnational access, focus has been on developing Virtual Access and INTERACCESS. INTERACT VA single-entry point version 2 is expected to be launched before the end of the year. Hannele demonstrated the new functionalities in INTERACCES (can be seen at [INTERACT YouTube channel](#)). In addition, two webinars are planned: one about the INTERACCESS station administrator user interface and one for data managers about the INTERACT VA single-entry point.

This work package also aims to have completed two milestones “Key indicator statistics” and the “TinderAct tool” along with TA Ambassadors, and having the TA and VA Quality Assurance Programme in operation (deliverable 3.1) in the coming year. Hannele highlighted that blog posts for “Tales from the INTERACT stations” has been presented by station managers in summer 2020 and are highly appreciated.

2.4 WP4 Unpredictable Arctic – extreme weather events

Jonathan Day

The objective of this work package is to document and improve awareness of the many consequences of extreme weather events in the Arctic that are of importance to ecosystem services, local and global communities, so that appropriate timely responses can be made. Jonathan presented an overview and timeline of the four tasks within this work package. The first one being a study that will be used to design a monitoring system to detect impacts of extreme events on biodiversity and ecosystems, and identify how this could be incorporated within existing CBMP monitoring plans. To get immediate feedback from the audience, an online tool was used, but input from stations is also appreciated and can be communicated via e-mail. The second task, which is a report on monitoring by indigenous and local residents of monitoring by Indigenous and local residents of extreme weather events and other unpredictable environmental challenges and their consequences, is in progress: 500 respondents in Yamal-Nenets Autonomous okrug have already been contacted. The third task focuses on evaluation of extreme event forecasts and progress from evaluations of performance were presented. Finally, the fourth task focus on using INTERACT station data to understand errors in forecasts and preliminary results from INTERACT stations were presented.

2.5 WP5 Connecting the Arctic: Transport and Communication

Joseph Nolan

Given that scientists are relying on cross-border cooperation in order to transport themselves and their samples and data, this work package's main aims are to provide information for the exchange of people and scientific samples across national arctic borders and to identify bottlenecks relating to this and also how to implement the Agreement on Enhancing International Arctic Scientific Cooperation and develop it further. The ambition is to improve communication for local communities as well as for research stations while introducing new smart instrumentation. The first task is to identify and help to reduce barriers of exchanging people and transporting scientific samples across national boundaries. The basis for this will be a survey which will result in two milestones – policy briefings for the Arctic and the Antarctic. This work package will also produce a deliverable report on the significance of the Agreement on Enhancing International Scientific Cooperation for Research in the Arctic, based on another survey, but not until well into the project (month 38). The second task of this work package is more technical, seeking to identify state of the art communication systems for researchers, stations and local and Indigenous communities. A questionnaire related to this task will soon be distributed within the INTERACT community. This work package will work together with WP1 (on outreach and dissemination) and WP2 (survey results from task 2.2).

2.6 WP6 Climate Action: Making data widely available

Maria Erman & Tomas Gustafsson

The aim of this work package is to open up for the use of artificial intelligence and machine learning, especially when it comes to topics related to land use, icescapes, landscapes and ecosystems. All milestones and deliverables of this work package are on time: a mini-workshop on machine learning and AI was held in June; a workshop with demonstration on technology available today and expected in the future in the area of ML and AI technology was held during this annual meeting (D6.2). The pre-study and compilation of notes from discussions during the above-mentioned mini-workshop are in the making for deliverable D6.1, yet there is still some input wanted from identified station managers and researchers to pinpoint possible datasets. Three master theses are in their final stages for yet another milestone to be reached (on recognizing icebergs in satellite images; object recognition, and searching and recommending texts about climate change). Finally, a pilot study will be conducted as a basis for the last deliverable in this work package (D6.3) that is to “Use machine learning on some example data to make specific algorithms and methods available and demonstrate the outcome.”

2.7 WP7 Preparing for a future world: improving education and awareness at all societal levels

Terry Callaghan

Mainly, this work package aims 1) to produce educational resources for students at university and school level and to identify what teachers across the world actually need 2) to increase the awareness of the general public about environmental change and finally 3) establish a generation of capable researchers when it comes to making high level assessments of environmental change in the Arctic. This work package develops animations showing records of past climates in plants and explaining feedback effects to the climate. A second version of the successful “Stories of Arctic Science” is almost

ready. This edition will also come in a digital version. A sub-contract with BBC is in its negotiation phase together with the University of Sheffield, and a draft contract with BBC will be discussed soon. What this work package requests from others is input for ideas, story-lines and material for animations that are yet to be developed.

2.8 WP8 Cleaner Arctic, cleaner world: documenting and reducing pollution

Simon Wilson

Pollution is an increasing societal challenge, and new concerning chemicals are being found in the Arctic. Also, terrestrial monitoring is still insufficient. The aim of this work package is to work together with INTERACT station managers in order to improve monitoring protocols and also to mitigate pollution at/from the stations. The first steps (contacting experts) are being taken in task 8.2 (Development of protocols for screening monitoring at and close to selected INTERACT monitoring stations). Task 8.2, regarding the identification of emerging pollutants in the proximity of INTERACT stations, is well in progress. This work package seeks input from station managers, especially the ones that are specifically selected, to identify emerging contaminants. Simon presented a draft of a survey covering this. The survey is being drafted together with WP2 and input is welcome. Ways forward for this work package are to continue contacts with external experts, finalize and circulate the survey (for all stations but also specifically for the selected 4 stations: Oulanka Research Station, Arctic Station, The Arctic Research Station, and CEN).

2.9 WP9 The Arctic Resort: increasing benefits and reducing impacts from developing Arctic tourism

Niklas Labba & Melissa Nacke

The aim of this work package is to work together with the tourist industry in order to find a balance between protecting the relatively unexploited areas of the Arctic, while at the same time find opportunities for local and Indigenous communities to broaden their possibilities to make a livelihood through sustainable tourism. Task 9.2 aims to develop guidelines that come from the communities by reviewing existing tourism policies and regulations from an Indigenous and local Peoples' perspective. Attempts to develop guidelines (to make the tourism industry respect the locals) were already made in 2010 (under the name "Visit Sápmi"), but it was a business-oriented top-down process, initiated and financed by the government, which might explain why it never became a success. This task doesn't have any official milestones, but progress has already been made by actually cooperating with the local and Indigenous people, instead of guessing the needs. 2 villages are already involved. A workshop is planned for January or February 2021 (depending on the covid-19 situation) in order to find out the needs and identify positive and negative factors.

AECO works to ensure environmentally friendly, responsible and safe cruise tourism in the Arctic which is knowledge that can also be applied on land. Deliverable 9.1 is to develop a template for field station-specific tourism guidelines. Melissa presented a rough timeline for the work ahead. So far a survey is being sent out in order to identify the major challenges of tourism, followed by a drafting of pilot templates at two stations and have workshops together with these. The goal is to have a final template and handbook ready in the autumn of 2022.

3. Station Managers' Forum II

3.1 Introduction and opening of SMF II in INTERACT III

Morten Rasch & Elmer Topp-Jørgensen

51 station managers participated in this second SMF online meeting in INTERACT III representing 43 stations. Morten Rasch (Chair of the Station Managers' Forum) welcomed everyone to the meeting and introduced the first interactive seminar by Jacob Taarup-Esbensen, Copenhagen Business School, who held a seminar on a new model for risk assessment.

3.2 SMF seminar series – Risk management

Jacob Taarup-Esbensen

The seminar started with a presentation, see <https://eu-interact.org/app/uploads/2020/09/SMF-seminar-Risk-Management-Jacob-Taarup-Esbensen.pdf>. This included descriptions of conventional risk assessments and a new resilience-based model.

After the presentation people were assigned to break-out groups to discuss the following statements:

- a. Our work environment has become safer in recent years.
- b. My stations current risk assessment is accurate.
- c. I have the resources needed to ensure a safe work environment for current visitors.
- d. With an increase in visitors, I will need the following competences and support systems to ensure that our work environment is safe (prioritise three).

A final discussion in plenum gave input from station managers about risk assessment. Some points raised:

- Young people tend to respects rules and guidelines better than the older generation.
- Having policies is a good thing.
- As safety is very important, the resources were for most stations adequate, but several also reported decrease in financial resources and therefore also challenges for safety related issues.
- It is important to update the risk assessment continuously.
- The role of experience is important when handling visitors (from both staff and visitor perspectives).

It was suggested that the four questions should be distributed to the people that did not participate in this seminar to get more answers.

3.3 Upcoming tasks in SMF under INTERACT III

Morten Rasch & Elmer Topp-Jørgensen

Elmer gave an overview of status and tasks ahead. There are few SMF deadlines for the next year. As SMF meeting agenda for online meetings are greatly reduced, there will be a number of surveys and seminars conducted in the coming months to gather input to SMF milestones and deliverables, and SMF input to Joint Research Activity work packages. Station managers should therefore be ready to

comment on draft publications, provide input for the different surveys (currently planned for tourism, pollution and permit systems) and provide input specific to the requests by JRA work packages (currently on artificial intelligence and machine learning for WP6). It is very important that station managers respond to these surveys and information requests as SMF and JRA work packages depend on input from the station managers to achieve deliverables and develop products of relevance to stations and other stakeholders.

Surveys coming up:

1. WP 5 Communication and navigation (ongoing but more responses welcome).
2. WP 8 Contaminants, pollution, waste, garbage, plastics, etc. (coming soon).
3. WP 9 Tourism at/near research stations (coming soon).

Other work packages where station managers' input is requested soon:

1. WP2 (SMF): Comment on draft guidebook "Reducing the Environmental impact of Arctic Fieldwork" (soon distributed for comments). This guidebook will complement the guidebook on "Reducing the Environmental Impact of Arctic Research Stations" distributed for comments this summer.
2. WP 2/5 (SMF and Transport and Communication): Provide input/comment on 'Guide on research permit systems for all Arctic countries'. Input will be needed when this task starts looking into the different research permit systems (deadline Feb 2021).
3. WP2/5 (SMF and Transport and Communication): Provide comments to "Pocket Guide on Communication and Positioning Systems" (soon distributed for comments).
4. WP 6 (Making data widely available): Please respond to any requests coming from WP6 related to contributions of photos and other material needed by WP6 (as discussed at the seminar on September 23). (Deadline December 2020).

Everyone are encouraged to stay alert and respond to any email requests, such as surveys or providing comments to draft reports or books. Input is very much needed and highly appreciated, so we can continue to produce products of high quality for INTERACT stations, partners and other stakeholders.

For her work in WP 9/Task 2.6 'The Arctic Resort', Jan Dick would like to learn any good or bad experience with tourists – and if you have a story to share, both with positive or negative effects of tourism, please contact Jan (jand@ceh.ac.uk).

Future SMF meetings will be held online for the next year - or as long as COVID-19 is preventing physical meetings. SMF seminars will be scheduled every 2-3 months and include seminars on different topics (e.g. presentations from different networks and stations), sessions to provide input to JRA work packages and 'Open floor' sessions. The meetings will last c. 1-2 hours and two identical meetings will be arranged to cover all time zones. The platforms will be ZOOM and Mentimeter.

Morten Rasch hereafter closed the second SMF meeting in INTERACT III.

Appendix 1: Programme

INTERACT H2020 Annual Meeting & Station Managers' Forum

24 September 2020

The meeting will be held online at Zoom

Thursday 24 September 2020 **General Assembly INTERACT III and Station Managers' Forum II**
(Zoom, the Internet, CEST)

<https://us02web.zoom.us/j/82574619573>

13:00	WP 1 Project Coordination <i>Margareta Johansson</i>
13:10	WP 2 Station Managers Forum (SMF) <i>Elmer Topp-Jørgensen</i>
13:20	WP 3 Giving Access to the Arctic <i>Hannele Savela</i>
13:50	WP 4 Unpredictable Arctic – extreme weather events <i>Jonathan Day</i>
14:20	WP 5 Connecting the Arctic: Transport and Communication <i>Joseph Nolan</i>
14:50	WP 6 Climate Action: Making data widely available <i>Maria Erman & Tomas Gustafsson</i>
15:00	BREAK
15:30	WP 7 Preparing for a future world: improving education and awareness at all societal levels <i>Terry Callaghan</i>
15:40	WP 8 Cleaner Arctic, cleaner world: documenting and reducing pollution <i>Simon Wilson</i>
16:10	WP 9 The Arctic Resort: increasing benefits and reducing impacts from developing Arctic tourism <i>Niklas Labba & Melissa Nacke</i>
16:40	Station Managers' Forum II

16.40 Introduction and opening of SMF II in INTERACT III

Morten Rasch & Elmer Topp-Jørgensen

16.50 SMF seminar series – Risk management

Jacob Taarup-Esbensen

Break-out groups, Plenum discussion

18.20 Upcoming tasks in SMF under INTERACT III

Morten Rasch & Elmer Topp-Jørgensen

18.30 Closing of SMF II in INTERACT III

18:30 END OF MEETING

Appendix 2. List of participants

Name	Family name	Organisation
Michael	Abels	University of Alaska Fairbanks
Christopher	Andrews	UK Centre for Ecology and Hydrology
Marie Frost	Arndal	Aarhus University
Renuka	Badhe	European Polar Board
Ariuna	Badmaeva	Baikal Institute of Nature Management of the Siberian Branch of the Russian Academy of Sciences
Katharina	Beckmann	Lund University
Luisella	Bianco	4PM
Nicole	Biebow	Alfred Wegener Institute for Polar and Marine Research
Alexander	Borodin	Iridium Communications Inc
Sydonia	Bret-Harte	University of Alaska Fairbanks
Martin	Breum	Martin Breum
Marek	Brož	University of South Bohemia, Czech Arctic Research Station
Terry	Callaghan	University of Sheffield
Tom	Christensen	Aarhus University
Torben R.	Christensen	Aarhus University
Nick	Cox	UKRI (British Antarctic Survey)
Ruben	Cubo	AFRY
Luigi Paolo	D'Acqui	The Consiglio Nazionale delle Ricerche (CNR)
Jonny	Day	ECMWF
Frej	Dichmann	DASHE
Jan	Dick	UK Centre for Ecology and Hydrology
Josef	Elster	University of South Bohemia in Ceske Budejovice, Faculty of Science, Centre for Polar Ecology
Maria	Erman	AFRY
Giorgio	Falsaperna	LINKPRO
Nina	Filippova	Yugra State University

Name	Family name	Organisation
LeeAnn	Fishback	Churchill Northern Studies Centre
Hrönn G.	Guðmundsdóttir	Rif Field Station
Piotr	Glowacki	"Institute of Geophysics, Polish Academy of Sciences"
Øystein	Godøy	Norwegian Metereological Institute
Agata	Goździk	"Institute of Geophysics, Polish Academy of Sciences"
Håkan	Grudd	Swedish Polar Research Secretariat
Tomas	Gustafsson	AFRY
Laura	Härkönen	Natural Resources Institute Finland
Jouni	Heiskanen	University of Helsinki
Erika	Hille	The Western Arctic Research Centre
Adam	Houben	Canadian High Arctic Research Station
Margareta	Johansson	Lund University
Cornelya	Klutsch	NIBIO
Hanna Maria	Kristjansdottir	Sudurnes Science and Learning Center
Niklas	Labba	JNL
Kári Fannar	Lárusson	CAFF secretariat
Kirsi	Latola	University of Oulu
Mickaël	Lemay	UNIVERSITE LAVAL
Leena	Leppänen	Finland Meteorological Institute
Kim	Lindgren	Swedish University of Agricultural Sciences
Britta	Löfvenberg	Umea University
Maarten	Loonen	University of Groningen
Elke	Ludewig	Zentralanstalt für Meteorologie und Geodynamik
Trofim	Maximov	Institute for Biological Problems of Cryolithozone of Siberian Branch of Russian Academy of Sciences
Mauro	Mazzola	The Consiglio Nazionale delle Ricerche (CNR)
Dan	Mercer	Iridium Communications Inc
Anne	Morgenstern	Alfred Wegener Institute for Polar and Marine Research
Nicola	Munro	UKRI (British Antarctic Survey)
Maribeth	Murray	The Artic Institute of North America

Name	Family name	Organisation
Melissa	Nacke	AECO
Heli	Niittynen	University of Oulu
Joseph	Nolan	European Polar Board
Marco	Nuccetelli	INKODE
Raoul	Nuccetelli	INKODE
Steffen	Olsen	The DMI Geophysical Observatory Qaanaaq
Anders	Oskal	ICR
Hlynur	Oskarsson	Agricultural University of Iceland
Christina A.	Pedersen	Norwegian Polar Institute
Harry	Penn	The Artic Institute of North America
Rainer	Prinz	University of Innsbruck
Guillaume	Proulx	Uapishka Station
Grzegorz	Rachlewicz	Adam Mickiewicz University in Poznan
Zofia	Rączkowska	Polish Academy of Sciences - geography Dept
Morten	Rasch	University of Copenhagen
Katrine	Raundrup	Greenland Institute of Natural Resources
Giorgio	Resci	INKODE
Ninis	Rosqvist	Stockholm University
Krzysztof	Rymer	AMU
Hannele	Savela	University of Oulu
Alanna	Schenk	DASHE
Andrea	Schneider	APECS
Olga	Shaduyko (Morozova)	Tomsk State University
Wlodek	Sielski	Institute of Geophysics, Polish Academy of Sciences
Jørgen	Skaftø	Aarhus University
Vera	Sklet	Norwegian Polar Institute
Markus	Skogsmo	AFRY
Tatiana	Skorospekhova	Lammin-Suo peatland station
Ireneusz	Sobota	Nicolaus Copernicus University Polar Station
Otso	Suominen	University of Turku

Name	Family name	Organisation
Johan	Tenstam	AFRY
Elmer	Topp-Jørgensen	Aarhus University
Anna	Wielgopalan	"Institute of Geophysics, Polish Academy of Sciences"
Simon	Wilson	Arctic Monitoring and Assessment Programme Secretariat
Amanda	Young	University of Alaska Fairbanks
Yulia	Zaika	M V Lomonosov Moscow State GDMSU Khibiny educational and scientific station
Evgeny	Zarov	Yugra State University
Sergei	Zhuravlev	Lammin-Suo peatland station
Nikita	Zimov	North-East Science Station (NESS) Pleistocene Park