Minutes – Kick-off meeting INTERACT III

Bäckaskog Slott, Sweden

3-4 February 2020

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1. Welcome and Introduction

Margareta Johansson and Terry Callaghan

Margareta and Terry welcomed everyone to the kick-off meeting for INTERACT III. They were delighted to see many old but also some new friends. The programme for the week was presented and the participants introduced themselves through a round table introduction.

2. Work Package presentations

INTERACT III consists of nine work packages. The aims of the work packages, the partners involved and the future work plan and deliverables were presented for each of the work packages by their work package leaders.

2.1 WP 1: General coordination and administration

Margareta Johansson, Lund University

The main aims of this work package are to facilitate and ensure the smooth operation of the consortium, the integration of various work packages to achieve synergy. In addition, this work package facilitates and ensures the successful and timely completion of the agreed tasks to yield the specified deliverables and reach the agreed milestones on time and also the achievement of significant advances in beyond state-of-the-art activities for ensuring innovation, data accessibility and education (through "watch dog" experts).

Partners involved in this work package are Lund University, the University of Sheffield, 4PM, the Norwegian Meteorological Institute, LINKPRO and inkode.

The work package involves eight tasks including general administration and coordination, science diplomacy, outreach and dissemination, networking networks and implementation of a road map for long term sustainability of INTERACT. Three tasks are dedicated to so called Watch dogs. The "Data Watch dog" ensures that data from INTERACT activities are made accessible following the FAIR principles. The "Educational Watch dog" identifies new topics that can be communicated as educational resources to add to the wide range of resources developed so far. Finally, the "Innovation Watch dog" ensure that INTERACT's innovation is monitored and measured throughout the project, both in terms of internal and external impacts.

Work package 1 will collaborate with all other WPs. Regarding external collaborations, INTERACT is in general open to all external collaboration that is contributing to the overall aims of INTERACT.

2.2 WP2: Station Managers' Forum

Morten Rasch, University of Copenhagen

The Station Managers' Forum was created to facilitate cooperation and best practice sharing between station managers at arctic northern boreal and alpine research stations to improve the services provided to users and other stakeholders. The aim of the work package is to foster a culture of cooperation among research stations and between the stations and scientific communities, local communities and infrastructures in other regions.

Most of the 64 partners (EU funded) are involved in this work package, and also 22 so called observer stations (without funding from the EU).

In total, 7 tasks will be accomplished within this work package: operating the Station Managers' Forum, making station data and publications widely available, and station outreach (educating local communities and decision makers). Moreover, there are tasks concerning transport and communication, increasing tourism, emerging pollutants, and extreme weather events.

A number of deliverables are planned for this work package: the INTERACT GIS with new features, and both digital and physical versions of various handbooks and pocket guides.

Internally, work package 2 will collaborate primarily with WP3 and the six joint research activities. WP2 is very open to external collaboration. Other EU infrastructure and research projects of relevance, the research community using the INTERACT stations, local communities in the vicinity of the INTERACT stations, stretching all the way to the general public in the Arctic and beyond.

2.3 WP3: Giving Access to the Arctic

Hannele Savela, University of Oulu

The aim of work package 3 is to provide free access (TA/RA/VA) to world class infrastructures in the Arctic and beyond for excellent science.

53 partners are involved in this work package. 53 INTERACT stations are providing Transnational Access (where the user visits the station and gets travel, subsistence and logistic costs reimbursed), 33 stations are offering Remote Access (where the station collects the samples and gets postal and freight costs reimbursed) and 32 stations are contributing to Virtual Access (which provides free access to the stations' metadata and data via INTERACT VA Single Entry point – here is no selection process, it is open for anyone).

The tasks in this work package involve management and operation, TA and VA, extension and improvement of INTERACCESS, extension and improvement of VA single-entry point, and also outreach.

This work package will produce a number of deliverables: a TA and VA Quality Assurance Programme, two VA assessment reports, a technical manual for metadata, a report for access delivery, and finally a Business plan for INTERACCESS commercial use.

Internally, WP3 will collaborate mainly with WP1 and WP2, but also with the joint research activities from the other work packages throughout the project. External collaboration includes mainly the management and operation of Trans National Access and Virtual Access involving the TA and VA boards and meetings and congresses relating to this work, but also outreach (TA user community activities such as meetings, webinars, TA ambassadors, synthesis papers and social media).

The TA/RA call for the summer season 2021 and autumn/winter 2021/2022 opens in August, but there will be an additional call for TA and RA for new stations already in March 2020. Upcoming meetings are a TA user community meeting at the Arctic Science Summit Week in March 2020 and webinar to new stations about TA/RA/VA practices the month after. For the quality assurance plan and the development of INTERACCESS, an online questionnaire about TA/RA/VA and INTERACCESS is also planned in March.

A couple of important messages were also pointed out for partners that are involved in INTERACT II regarding financial aspects of TA/RA: To be able to declare costs in PR 3, all travel imbursements must have left the partner's account by the end of September. It would also be wise to consider buying tickets for TA users in advance to speed up the process. Since the costs cannot be reimbursed after September, travel claims should be submitted by the TA users immediately after their visit.

2.4 WP4: Unpredictable Arctic – extreme weather events

Jonathan Day, European Centre for Medium-Range Weather Forecasts

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.

Partners involved in the work package are Aarhus University, Tomsk State University, Conservation of Arctic Flora and Fauna Secretariat, Swedish University of Agricultural Sciences, RIF Field Station, POLAR, Canadian High Arctic Research Station and ECMWF.

Four tasks regarding extreme weather events are included in this work package, and four deliverables (four reports and a design of a monitoring system for how to detect impacts of extreme events on biodiversity).

Internal collaboration is mainly linked to WP2 and the tasks "The unpredictable Arctic" (developing ways for research stations to help society to better cope with extreme events) and "Making station data and publications widely available" (to ensure that all forms of from research stations are captured and available).

Externally, prioritized collaboration is with observationalists across the three poles to produce merged observatory data files (MODFs) to facilitate fair comparison with models - mainly with YOPP (Year of Polar Prediction) and APPLICATE (Advanced prediction in polar regions and beyond).

2.5 WP5: Connecting the Arctic: Transport and Communication

Joseph Nolan, European Polar Board

The aim of work package 5 is to provide information to reduce barriers for exchange of people and scientific samples across national borders in the Arctic, and to improve communication for local communities and research stations.

Partners involved in this work package are the European Polar Board and Iridium.

Two tasks are included in this work package: To identify and help to reduce barriers of exchanging people and transporting scientific samples across national boundaries, and reducing barriers of communicating among stations, local communities and the outside world.

One deliverable report will be made on the significance of the "Agreement on Enhancing International Arctic Scientific Cooperation for Research in the Arctic".

Internal collaboration is mainly with WP1 and WP2 and external collaboration with the Agreement on Enhancing International Arctic Scientific Cooperation; Arctic Council SAO meeting; International Arctic Science Committee (IASC); Scientific Committee on Antarctic Research (SCAR); Antarctic Treaty; EPB Members and Action Group on Infrastructure; and also the EU Polar Cluster.

2.6 WP6: Climate Action: Making data widely available

Tomas Gustafsson & Maria Erman, AFRY

AFRY was involved in INTERACT II and the development of drones for Arctic conditions. The overall aims of work package 6 in INTERACT III are to demonstrate environmental change over long periods using breaking science technology, to combine old data and resources in text/images with recent data and to increase awareness of machine learning and artificial intelligence and how to use the technology. Partner in this work package is AFRY.

This work package has five tasks, including the identification of diverse data sources, the exploration of possible applications of machine learning for data mining, ensuring open data access to newly extracted information and to demonstrate the capacity of the technology.

Four deliverables are expected from this work package: a pre-study on inquires and needs from identified station managers and researchers to identify possible datasets and type of questions to be answered; a workshop with demonstration on technology available today and expected in the future in the area of ML and AI technology; the use of machine learning on some example data to make specific algorithms and methods available and demonstrate the outcome and finally a report on future strategy and planning for the area of AI and ML to be applied in Arctic research.

Internal collaboration will be between this and the other work packages, mainly through sharing data such as photos and paintings, logbooks, statistics, texts and reports.

Externally, potential collaboration is expected between this work package and industry partners and current customers, knowledge from other AI programs within AFRY, and academia/universities.

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

Terry Callaghan, The University of Sheffield

The main objectives of this work package are to develop and deliver educational resources at school and university level in response to needs identified by teachers across the world; to increase awareness of the general public to Arctic environmental change and its global implications, and to establish a new generation of researchers capable of making high level assessments of environmental change in the Arctic and its global implications.

Partners involved in this work package are the University of Sheffield, BBC Studio Productions Limited (subcontracted by the University of Sheffield), NIBIO, AMAP, and the Institute of Geophysics, Polish Academy of Sciences.

This work package has tasks involving increased public awareness of Arctic environmental change and its global implications, networking and communication activities with teachers and schools, promotion of polar issues by providing educational resources to schools, online lessons for secondary schools, and ensuring a new generation of international environmental assessors.

Six deliverables are expected from work package 7: Four outreach films, a report on educational toolkits and a list of conducted online lessons.

Internally, WP7 will collaborate with WP3 (the Transnational Access team) to convert TA projects into educational resources; with WP2 (the Station managers' forum) to identify future assessors for AMAP; with WP4 on extreme weather events, and on WP6 on artificial intelligence and how old material can be converted into educational resources.

Edu-Arctic is an innovative educational program designed to attract young people to natural sciences and polar research. It reaches more than 1250 teachers from 60 countries and is mainly providing 30 min webinars with experts in Arctic research and earth sciences. Edu-Arctic (through The Institute of Geophysics, Polish Academy of Sciences) manages the promotion of lessons among teachers connected to the network and also takes care of the technical aspects of the webinars.

When it comes to external collaboration, WP7 is seeking funding to be able to continue the production of animations.

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

Simon Wilson, AMAP Secretariat

The main objectives of the work package are to work with station managers to identify potential sources of emerging contaminants of concern and reduce their impacts. This will be conducted through two tasks: Identifying emerging pollutants, and developing protocols for screening monitoring at and close to INTERACT monitoring stations.

Partner in this work package is AMAP Secretariat.

This work package's five tasks are: to identify emerging pollutants; develop protocols for screening monitoring at and close to selected INTERACT monitoring stations; enhance screening monitoring applications at INTERACT stations; inform appropriate agencies of potential threats from emerging pollutants; and ensure a new generation of international environmental assessors.

Expected deliverables from work package 8 are a catalogue listing local and transboundary emerging pollutants selected for possible (targeted) screening at INTERACT Stations, protocols for screening of contaminants of emerging concern, a compilation of results of protocol testing, and a plan for the further development and implementation of screening monitoring.

Internally, WP8 seeks to collaborate with the station managers (and WP2), with student researchers (via WP7). Engagement with station managers to connect to WP 2.5 is a high priority and critical to the work envisaged under WP8. External collaboration will be pursued through connections via the AMAP community, local Arctic community representatives, and different screening programmes.

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

Niklas Labba, Labba siida

The main objective of WP9 is to work with the tourist industry and local and indigenous people to protect the relative pristine environment while also supporting the local and Indigenous communities to diversify their livelihoods by together developing the Arctic in a sustainable way.

Partners involved in this work package are Labba siida and AECO (the Association of Arctic Expedition Cruise Operators).

The work package has two tasks: To educate the tourists and tourist operators, and to review existing tourism policies and regulations from an indigenous and local people's perspective.

Two deliverables will be produced in this work package: Interfacing education for tourism with station management, surrounding communities to ensure sustainable development and minimum environmental impact, and draft recommendations for improving tourist policies and regulations.

Internally, WP 9 will collaborate with WP2, 4, 5 and 7. External collaboration will be with tourist operators and relevant authorities.

3. INTERACT non-profit organisation

Luisella Bianco, Morten Rasch and Margareta Johansson on behalf of daily management group

The ongoing work with establishing an INTERACT non-profit organization was presented. The aim of establishing a non-profit organization is to ensure long term sustainability of INTERACT as well as allowing INTERACT to participate in other projects as a legal entity rather than via our host institutions. The following parts of the legal documents required (the statutes) to start a non-profit organization were presented and discussed:

- the purpose of the organization

- the activities

- the members

- how to get started

The suggestions made by the general assembly and the actions taken by the daily management group are summarized in the table below.

Suggestions made by the general assembly on the statutes	**Actions taken by the Daily Management Group**
Ensure there is no overlap with your purpose and the purpose of IASC and ILTER and that we have a clear niche.	We have ensured there is no overlap and that we have a clear niche
Add infrastructure in the purpose "To support **infrastructure**, research and scientific development in the field of climate change, environment and social sciences…."	Has been added
Add "scientific" in the statutes in the description of members	Has been added
Maybe highlight that the non-profit organization should also be useful to support the recruitment of staff	We have added some words to include this.
Add "cooperation" in the main objective	This has been added
Clarify who CEO reports to	This will be declared in the minutes rather than the statutes (as they are very general) but it will be included in the minutes
Considering rephrasing "operation globally" as this can be misinterpreted.	This has been rephrased
Add "Indigenous communities" under activities	This has been added.

Remove “in particular” in the general aim as this can be interpreted as we then think policy makers are more important than the other stakeholders.	This has been removed.
Replace “Chairman” with “Chair”	This has been replaced
Allow the Board members to sit three years rather than two.	This has been altered
Ensure not to replace the whole board at once to ensure long term sustainability	We will seek advice from the lawyer how to incorporate this comment
Specify how long period in total a person can be a board member	We will seek advice from the lawyer how to incorporate this comment

4. Meetings among WPs to ensure interaction between WP

As all of the work packages are interlinked through six societal challenges it is of outmost important that the different WPs are discussing linkages and how to best utilize each other’s knowledge and work. The plan was to include cross-fertilisation meetings like this in the programme but due to lengthy discussions on the INTERACT non-profit organization there were in the end no time for this. It was however, concluded that this was something that can be done using online meeting space now when we have met. Meetings among the different WPs will be arranged during the coming months and invitations will be circulated to the whole consortium so that anyone interested in a specific topic can join the meeting.

- Katharina will send out an email to WP leaders to ask which WPs they need initial discussions with and then arrange the meeting dates and time and circulate it to the whole consortium.

5. Excursion

An excursion in the vicinity of the venue location was arranged to learn more about the area. Geomorphology, geology, endogenous and exogenous processes was the overall theme but the landscape and its processes, the overall scenery and land use, agricultural actions and other things that came across were also presented. The tour guide, Prof. Jonas Åkerman, provided geological cliffhangers between the stops, revealing exciting paradigm shifts in the glaciological history and dating of rock formation, and offering the group excellent opportunities for fossil hunting.

Appendix I: Programme

INTERACT III H2020 Kick-off Meeting
3-6 February 2020
The meeting will be held at Bäckaskog slott, Sweden. *http://backaskogslott.se/*

Monday 3 February 2020 **Arrival and first day of the Kick-off meeting**	
	Arrival at Copenhagen airport
10:00	***Bus departs from Copenhagen Airport***
12:00	*LUNCH at Bäckaskog Castle*
13:00	**Kick-off meeting** Welcome and Introduction *Margareta Johansson and Terry Callaghan*
13:15	*Round table introduction*
13:30	*Work Package presentations* WP 1: General coordination and administration *Margareta Johansson*
14:00	WP2: Station Managers' Forum *Morten Rasch*
14:30	WP3: Giving Access to the Arctic *Hannele Savela*
15:00	*Coffee break*
15:30	WP4: Unpredictable Arctic – extreme weather events *Jonathan Day*
15:50	WP5: Connecting the Arctic: Transport and Communication *Joseph Nolan*
16:10	WP6: Climate Action: Making data widely available *Tomas Gustafsson*
16:30	WP7: Preparing for a future world: improving education and awareness at all societal levels *Terry Callaghan*
16:50	WP8: Cleaner Arctic, cleaner world: documenting and reducing pollution

	Simon Wilson
17:10	WP9: The Arctic Resort: increasing benefits and reducing impacts from developing Arctic tourism *Niklas Labba*
17:30	Meeting adjourned
18:30	*Icebreaker (bring your coats)*
19:30	Dinner

Tuesday 4 February 2020 **Kick-off meeting and Excursion**

07:00 – 08:45	*Breakfast*
09:00	INTERACT non-profit organisation
09:30	Group discussion across WPs
10:30	*Coffee Break*
11:00	Group discussion across WPs (continued)
11:45	Meeting wrap-up and ways forward
12:00	*LUNCH at Bäckaskog Castle*
13:00	*EXCURSION - including geology and glacial history of the area, bird life etc. (coat and good walking shoes – February can be rather wet and cold in this area)*
17:30	*Back at Bäckaskog Castle*
19:00	*Conference Dinner*

Wednesday 5 February 2020 **Station Managers' Forum (INTERACT II & III)**

07:00 – 08:15	*Breakfast*
08:30	Welcome to SMF VI (INTERACT II) and I (INTERACT III) *Morten Rasch*
08:45	Status on SMF in INTERACT II *Elmer Topp-Jørgensen*

09:00	Presentation of tasks in INTERACT III (5 minutes each, plus questions). Task 2.0 Operate the Station Managers' Forum (Morten Rasch) Task 2.1 The unpredictable Arctic (Elmer Topp-Jørgensen) Task 2.2 Transport and communication (Gerlis Fugmann) Task 2.3 Making station data and publications widely available (Morten Rasch) Task 2.4 Station outreach: Educating local communities and decision makers (Morten Rasch) Task 2.5 Cleaner Arctic (Elmer Topp-Jørgensen) Task 2.6 The Arctic Resort (Jan Dick)
10:00	T-MOSAiC: how to best facilitate for INTERACT stations to join T-MOSAiC *Diogo Folhas*
10:20	*Coffee Break*
10:50	**SMF Seminar: best practices of organizing and financing research stations. Prospects and consequences of different administration and leadership models**
10:50	Introduction to seminar *Elmer Topp-Jørgensen*
11:00	Station examples: Mukhrino Field Station (Elena Lapshina), Arctic Station (Morten Rasch), Kluane Lake Research Station (Harry Penn), Oulanka Research Station (Riku Paavola)
11:30	Break-out groups (two on financing models and two on management structure) Identify best practices based on station examples and experiences from your own station
12:00	Reporting from break-out groups
12:30	*LUNCH at Bäckaskog Castle*
13:30	Task 2.6 – The Arctic Resort – developing a questionnaire on research stations and tourism *Jan Dick*
14:00	WP9 - The Arctic Resort, identifying stations of relevance to test of AECO guidelines on tourism - research station interference (plenum) *Melissa Nacke*
14:20	**Guide books: 'Reducing the Environmental Impact of Research Stations and 'Reducing the Environmental Impact of Arctic Research'**
14:20	Introduction *Laura Lønstrup*
14:30	Break-out groups (two on each guidebook) with the purpose of making a table of

	content for each book
15:10	Reporting from break-out groups and discussion
15:30	*Coffee break*
15:50	Breather presentation: China Iceland Arctic Research Observatory – CIAO *Halldór Johannsson*
16:10	INTERACT GIS Management Organisation *Morten Rasch*
17:00 17:00	The INTERACT Station Managers' Forum website – suggestions for improvement Introduction *Morten Rasch & Laura Lønstrup*
17:10	Plenum discussion
17:30	*End of day 1*
19:00	*Dinner at Bäckaskog Castle*
Thursday 6 February 2020 **Station Managers' Forum (INTERACT II & III)**	
07:00 – 08:30	*Breakfast*
08:35	Breather presentation: North East Science Station *Nikita Zimov*
08:55	**Open floor**
09:00	Oulanka research Station – video presentation *Riku Paavola*
09:10	Kluane Lake Research Station – Sustainable energy system and a containerised hydroponic growing system *Harry Penn*
09:20	The Arctic Research Station – station development and instrumentation *Aleksandr Sokolov*
09:30	Sonnblick Observatory – station development and instrumentation *Christian Maier*
09:40	SakhaFluxNet scientific and educational activity in Eastern Siberia *Trofim Maximov*

10:00	*Coffee break*
10:15	Safety Course: Means of communication and positioning systems *Sara Mollie Cohen*
11:00	Brainstorm on possible content for a pocket guide on proper field communication and positioning
11:00	Introduction *Gerlis Fugmann*
11:10	Break-out group discussion with the purpose of clarifying wishes in relation to content of a pocket guide (two groups on communication systems, two groups on positioning systems).
11:40	Reporting back from break-out groups
11:50	INTERACT Photo Contest and INTERACT Coffee Table Book *Morten Rasch*
11:55	Wrapping up *Morten Rasch and Elmer Topp-Jørgensen*
12:00	End of Station Managers' Forum VI (INTERACT II) and I (INTERACT III)
12:00	*Lunch at Bäckaskog Castle*
13:00	***Transfer bus leaves for Copenhagen Airport (arriving approx. 15:00)***

Appendix II: List of participants

Surname	Name	Partner	Institution
Sofia	Antonova	7	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POLAR- UND MEERESFORSCHUNG - AWI
Katharina	Beckmann	1	LUNDS UNIVERSITET
Alexandra	Bernardová	11	JIHOCESKA UNIVERZITA V CESKYCH BUDEJOVICICH - JU UNIVERSITY OF SOUTH BOHEMIA CESKE BUDEJOVICE
Luisella	Bianco	6	4PM
Alexander	Borodin	62	IRIDIUM SATELLITE LLC
Syndonia	Bret-Harte	32	University of Alaska
Martin	Breum	61	MARTIN ALLAN KONGSTAD BREUM – HAMACOM
Terry	Callaghan	2	THE UNIVERSITY OF SHEFFIELD - USFD
Sara	Cohen		THE UNIVERSITY CENTRE IN SVALBARD
Nick	Cox	9	UNITED KINGDOM RESEARCH AND INNOVATION - UKRI
Luigi Paolo	D'Acqui	31	CONSIGLIO NAZIONALE DELLE RICERCHE - CNR
Jonathan	Day	59	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS - ECMWF
Frej	Dichmann	63	STYRELSEN FOR FORSKNING OG UDDANNELSE - DANISH AGENCY FOR SCIENCE AND HIGHER EDUCATION
Jan	Dick	64	UK CENTRE FOR ECOLOGY & HYDROLOGY
Charlotta	Erefur	23	SVERIGES LANTBRUKSUNIVERSITET
Maria	Erman	40	AFRY
Giorgio	Falsaperna	49	FALSAPERNA GIORGIO - LINKPRO
Diogo	Folhas		T-MOSAiC
Marie	Frost Arndal	5	AARHUS UNIVERSITET – AU

Gerlis	Fugmann	7	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POLAR- UND MEERESFORSCHUNG - AWI
Andrea	Gierisch	51	DMI (DANISH METEOROLOGICAL INSTITUTE)
Piotr	Glowacki	17	Instytut Geofizyki Polskiej Akademii Nauk - IGF PAS
Øystein	Godøy	41	METEOROLOGISK INSTITUTT
Geir	Gotaas	8	NORSK POLARINSTITUTT
Agata	Goździk	17	Instytut Geofizyki Polskiej Akademii Nauk - IGF PAS
Hrönn G.	Guðmundsdóttir	28	RANNSOKNARSTODIN RIF - RIF FIELD STATION
Tomas	Gustafsson	40	AFRY
Susanne	Hanson		ARCTIC DTU, TECHNICAL UNIVERSITY OF DENMARK
Erika	Hille	37	AURORA COLLEGE
Halldor	Johannsson	48	NORDURSLODAGATTIN EHF - ARTIC PORTALAP
Margareta	Johansson	1	LUNDS UNIVERSITET
Mikko	Jokinen	20	LUKE - NATURAL RESOURCES INSTITUTE FINLAND
Cornelya	Klutsch	13	NORSK INSTITUTT FOR BIOOKONOMI - NIBIO
Hanna Maria	Kristjansdottir	33	SUDURNES SCIENCE AND LEARNING CENTER
Aart	Kroon	3	KOBENHAVNS UNIVERSITET – UCPH
Niklas	Labba	36	LABBA JOHN - NIKLAS
Elena	Lapshina	26	YUGRA STATE UNIVERSITY
Graziella	Le Bars	3	KOBENHAVNS UNIVERSITET – UCPH
Leena	Leppänen	34	ILMATIETEEN LAITOS – FMI
Britta	Löfvenberg	52	UMEA UNIVERSITET

Pernilla	Löfvenius	23	SVERIGES LANTBRUKSUNIVERSITET
Laura	Lønstrup Frendrup	3	KOBENHAVNS UNIVERSITET – UCPH
Christian	Maier	24	ZENTRALANSTALT FUR METEOROLOGIE UNDGEODYNAMIK – ZAMG
Steffen	Malskær Olsen	51	Danish Meteorological Institute (DMI)
Trofim	Maximov	21	INSITUTE FOR BIOLOGICAL PROBLEMS OF CRYOLITHOZONE SIBERIAN BRANCH RUSSIAN ACADEMY OF SCIENCES - IBPC SB RA
Michael	Moloney	38	THE ARTIC INSTITUTE OF NORTH AMERICA - AINA
Anne	Morgenstern	7	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POLAR- UND MEERESFORSCHUNG - AWI
Lis	Mortensen	27	JARDFEINGI
Melissa	Nacke	57	ASSOCIATION OF ARCTIC EXPEDITION CRUISE OPERATORS - AECO
Kimmo	Neitola	15	HELSINGIN YLIOPISTO
Heli	Niittynen	4	OULUN YLIOPISTO – UOULU
Joseph	Nolan	60	EUROPEAN POLAR BOARD
Riku	Paavola	4	OULUN YLIOPISTO – UOULU
Jan	Pechar	11	JIHOCESKA UNIVERZITA V CESKYCH BUDEJOVICICH - JU UNIVERSITY OF SOUTH BOHEMIA CESKE BUDEJOVICE
Harry	Penn	38	THE ARTIC INSTITUTE OF NORTH AMERICA - AINA
Rainer	Prinz	25	UNIVERSITAET INNSBRUCK – UIBK
Zofia	Rączkowska	30	INSTYTUT GEOGRAFII I PRZESTRZENNEGO ZAGOSPODAROWANIA IM STANISLAWA LESZCZYCKIEGO POLSKIEJ AKADEMII NAUK – IGIPZPAN
Morten	Rasch	3	KOBENHAVNS UNIVERSITET – UCPH
Katrine	Raundrup	16	GRONLANDS NATURINSTITUT

Giorgio	Resci	58	INKODE SOCIETA COOPERATIVA
Torben	Røjle Christensen	5	AARHUS UNIVERSITET – AU
Ninis	Rosqvist	14	STOCKHOLMS UNIVERSITET
Hannele	Savela	4	OULUN YLIOPISTO – UOULU
Olga	Shaduyko	10	TOMSK STATE UNIVERSITY
Jørgen	Skafte	5	AARHUS UNIVERSITET – AU
Henrik	Skov	5	AARHUS UNIVERSITET – AU
Aleksandr	Sokolov	47	FEDERAL STATE INSTITUTION OF SCIENCE INSTITUTE OF PLANT AND ANIMAL ECOLOGY, URAL BRANCH OF THE RUSSIAN ACADEMY OF SCIENCES - IPAE
Otso	Suominen	18	UNIVERSITY OF TURKU
Elmer	Topp Jørgensen	5	AARHUS UNIVERSITET – AU
Simon	Wilson	39	Arctic Monitoring and Assessment Programme Secretariat - AMAP
Nikita	Zimov	53	TRUST PARTNERSHIP SCIENTIFIC EXPERIMENTAL FARM PLEISTOCENE PARK