



Minutes of INTERACT

Station Managers' Forum IV

(second phase 2016-2020)



Photo: Elmer Topp-Jørgensen

27-28 September 2018, Salekhard, Russia

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INTERACT Station Managers’ Forum IV

Minutes

Publishable Executive summary

The INTERACT Station Managers’ Forum IV meeting under INTERACT II, was held in Salekhard, near the Arctic Research Station (formerly known as Labytnangi Research station) in Russia.

The meeting focused on all tasks within the forum to move forward on milestones and deliverables. One session had to be cancelled due to visa problems of the task leader. Instead, time was set aside for discussing future ideas for the SMF in a potential INTERACT III. Time was also spent on presentations of individual stations with subsequent questions and discussions on station management and scientific networks.

Managers of 31 research stations participated in the meeting.

1. Welcome and introduction

By Elmer Topp-Jørgensen, Aarhus University (on behalf of SMF Chair Morten Rasch, University of Copenhagen, who was unable to attend due to sudden illness).

Participants were welcomed to the INTERACT Station Managers' Forum meeting IV and the agenda was presented. Status of milestones and deliverables were not presented as this had been done at the Annual meeting held the days before the SMF. All participants were encouraged to speak up, share experiences and knowledge, and contribute constructively to discussions.

2. Task 3.2 - Awareness of the scene: Identification of network representatives within INTERACT

By Terry V. Callaghan, Sheffield University.

The Network Survey

The network survey table based on input of just over 40 station was presented. The importance of getting more stations to fill in the survey was stressed by Terry. The network list is seen as a tool for station managers to identify potential networks to which the station could contribute – adding more data to the common Arctic data pool enabling robust detection of climate change effects and predictions.

The survey has showed how difficult it is to find relevant information about specific scientific networks. We therefore would like to publish a report/paper including survey results and recommendations for what information should be easily available in network websites.

The survey will be send to station managers who have not yet answered to survey, in an attempt to get more stations included. Hereafter, the list will be sent to stations with recommendations of what networks could be relevant for each station.

Presentation of scientific networks:

Three scientific networks were presented:

- ITEX, Christine Barnard, CEN stations, Canada
- LTER, Jan Dick, Cairngorms, Scotland/UK
- Herbivory Network, Alexander Sokolov, The Arctic Research Station, Labytnangi, Russia.

Presentations are available on the INTERACT website and include information like:

- Purpose of network (discipline),
- Geographical distribution (gaps),
- What is required by members (e.g. methods/equipment, sampling, data handling)
- How to become a member
- If possible: Rough costs (time/money?) and
- Links to network website

Network ambassadors:

It was decided that we would seek network ambassadors among station managers in INTERACT. This should be stations that are already member of a scientific network who are willing to inform other stations about purpose, how to become a member, what is required by members and, if possible, rough costs and where to find further information.

Following voluntarily signed up to be ambassadors for specific scientific networks:

- ArcticWeb – (<http://arcticweb-project.org/>): The Arctic Research Station (RU), Alexander Sokolov.
- CAFF/CBMP – Circumpolar Biodiversity Monitoring Programme (<https://www.caff.is/monitoring>): CAFF Secretariat (IS), Kari Lárusson.
- eLTER – Long term ecological research (<http://www.lter-europe.net/elter>): Cairngorms (UK), Jan Dick.
- ERA PLANET - (<http://www.era-planet.eu/>): Villum Research Station (GL/DK), Henrik Skov
- Herbivory Network – (<https://herbivory.lbhi.is/>): The Arctic Research Station (RU), Alexander Sokolov.
- iCOS - Integrated Carbon Observatory System (<https://www.icos-ri.eu/>): Villum Research Station (GL/DK), Henrik Skov.
- iCUPE - (<https://www.atm.helsinki.fi/icupe/index.php>): Villum Research Station (GL/DK), Henrik Skov.
- ITEX – International Tundra Experiment (<https://www.gvsu.edu/itex/>): Toolik Field Station (US), Donie Bret-Harte.
- Permafrost networks; GTN-P, Calm, etc. (<https://gtnp.arcticportal.org/>, <https://ipa.arcticportal.org/activities/gtn-p/calm/16-calm>): Lund University (SE), Margareta Johansson.
- SIOS – Svalbard Integrated Observing System (<https://sios-svalbard.org/>): Hornsund (PL), Wlodec Sielski.
- UArctic – University of the Arctic (<https://www.uarctic.org/>): University of Oulu (FI), Kirsi Latola.

Elmer and Terry will contact station managers for more ambassadors and these will be posted on the INTERACT website.

Breather presentation – The Arctic Research Station (formerly Labytnangi Station) By Alexander Sokolov

The presentation is available on the INTERACT website <https://eu-interact.org/presentations-from-station-managers-forum-iv/>

3. Task 3.5 – 0-emission: Draft report for discussion and input from station managers to idea catalogue (examples of emission reduction initiatives)

By Gigi Nighat Johnson-Amin, International Polar Foundation.

Gigi presented different technologies and solutions for reducing emissions at INTERACT Stations. Alternative energy technology and control systems, heat systems and insulation, water treatment, etc., as well as an example of the process stations need to go through to develop such systems (e.g. mapping out the present and future needs of the station). Hereafter the report format and contents were discussed.

Format:

It was discussed whether the report should be printed or available as thematic pages on the INTERACT website. It was stressed, that the technology used in creating zero-emission solutions is a fast moving field. A printed report will thus be out-of-date really quickly. So, it was decided to move forward with the website version.

Themes to cover:

- Alternative energy solutions (Solar-, wind-, hydropower and geothermal).
- Insulation.
- Water cleansing methods.
- Waste management.
- Transport.

When describing the different themes, it is important to:

- Provide solutions for stations of different levels of complexity (e.g. small, medium and large).
- Provide links to manufacturers.
- Consider implementation and running costs.
- Include examples from INTERACT stations.

Important messages from the discussion:

The huge differences and geographical distribution of stations mean different demands and possibilities regarding zero-emission solutions. Information on the website should be relevant for all types of stations:

- High-Arctic to boreal and alpine.
- Large, medium, small.
- Manned/unmanned.
- On grid/off grid.

A survey will be conducted (Gigi/SMF) in the near future where an excel sheet will be circulated to station managers. Stations will be asked to assess current energy use and to provide information on what type of zero-emission techniques they would like to implement in the future or if they wish to upgrade their current techniques/procedures.

Generally, it is recommended that stations simply start up the process. Maybe beginning with hybrid systems and continue developing the system towards full zero-emission.

4. Task 3.3 - First Class Science Support: Station Manager Course II

(cancelled due to visa problems for Task leader Ann Christin Auestad)

New item 4: Input to the Station Managers' Forum in a potential INTERACT III

By Elmer Topp-Jørgensen, Aarhus University.

Potential contents from break out groups and following discussion:

Group 1 (Rapporteur: Donie Bret-Harte, Toolik Field Station)

- Development of relevant courses and workshops
 - o Working with tourists/tourism. Guidelines based on experiences from station managers. How can we be proactive / plan ahead before tourism becomes an issue. This could be a report or presented on the website.
 - o Develop course on funding opportunities/diversity and application writing.
- Information on permits. Minimum set of information with contact info to relevant people, institutions, governments, etc.
- Better collaboration with WP5 – Remote Access. What can actually be done at the individual stations, e.g. scientific and technical capacity – This could maybe be discussed at future SMF meetings.
- Station manager exchange between stations either physically or virtually.
- Searchable station catalogue (already available in INTERACT GIS).
- “Tinder app” including scientific research fields and experts to ask (contact information) or develop research projects with.
- More focus on science, standards, new technology and how to bridge across disciplines.
- Use station data to show variability/stability, trends and extremes.

Group 2 (Rapporteur: Alexander Kehl, Hintereisferner Research Station)

- INTERACCESS data should automatically be transferred to INTERACT GIS. Potential to develop INTERACT GIS further.
- Permissions – information should be made more easily available for applicants.
- Important to keep having face-to-face SMF's – also in the future. Between SMF meetings, groups working on specific subjects should meet via teleconferences/skype or the like and then present progress on the annual SMF.

Group 3 (Rapporteur: Alex Bernardova, Czech Arctic Research Station)

- More time to present stations in the network during SMF meetings.
- Videos of stations are a good way of presenting the individual stations. Money should be provided for (a) hiring a person to go to different stations to make the videos or (b) for buying equipment to do the filming.
- Knowledge exchange / experience from other stations regarding science and data management. Data handling should be included in future SMF meetings.

- Book/report on best practice on how to reduce plastic – also relevant for local communities (can be used as outreach for all stations).
- Help stations secure funding through sharing of experiences and a course. Possible lobbying in countries with INTERACT stations (e.g. support letter).
- Forum to share experiences with TA and RA. Important that RA protocols are simple and visitors take time to visit station websites and information documents before e-mailing stations (also group questions in few e-mails rather than many questions in many e-mails).
- Plastics (Consumption, how to reduce, promotion of problems, involve locals, public cleaning events, etc.).
- Light pollution.

During the general discussion participants suggested that SMF meetings should be held prior to annual consortium meeting to allow time for follow up and thematic group discussions during the annual meeting.

5. Task 3.6 - INTERACT GIS: INTERACT GIS status and use for INTERACT Station Catalogue 2019

By Elmer Topp-Jørgensen, Aarhus University, on behalf of Tomas Thierfelder, Swedish Agricultural University.

Elmer presented updates on the system (slides provided by Tomas Thierfelder and showed the system in an online test version).

Important notes from the discussion regarding the system itself and the “user-friendly-ness” of it:

- List of disciplines offered at the station should be available early in the application process.
- Needs to include a third option in the “Gender” selection for those who do not refer themselves to either male or female.
- Next of kin emergency contact telephone numbers/e-mails to be added for members going into the field (next of kin information).
- Possibility to include insurance policies/documents (e.g. as uploads).
- Possibility for specifying required services and equipment by the visiting scientist.
- Information on medical condition to be included but needs to be classified in some way.
- Possibility of having a person-based account within the system that is saved to be used at a later application (already exists).

The costs of implementing INTERACT GIS relates to the number of stations implementing the system and the chosen server solution. Using the recommended solution (by SLU), the costs of operating the system would be 233 euros per year per station if 30 stations use the system. This would establish a project metadata capture and sharing mechanism from implementation and onwards.

A test version of INTERACT GIS will be circulated to station managers who would like to try it out and provide feedback to the GIS-group at Umeå University. After meeting note: This has been

delayed due to new data handling regulations in the EU (GDPR), but still expected to be launched in the beginning of 2019.

6. Task 3.4 - Fieldwork planning handbook and practical field guide: Feedback on draft report

By Fiona Tummon, APECS.

A draft of the INTERACT Fieldwork Planning handbook was circulated among station managers prior to the SMF meeting. Participants were divided into break out groups to provide specific comments to the Handbook and provide recommendations for what information should be included in the INTERACT Practical Field Guide that will also be developed.

Important notes for the Handbook included:

- Important with clear recommendations for visitors to check the station website for information before asking the station manager.
- Include glossary allowing users of the handbook to easily find relevant sections.

Important notes for the Practical Field guide:

- The Practical Field Guide cannot replace safety training.
- Recommended equipment should come early in the guide.
- Recommend group to stay together and describe what to do if getting lost.
- Describe risk management before and after a hazard has occurred.
- Include notes on dangerous activities (work on glaciers, sea or lake ice, river crossings, dangerous activities/terrain).

7. Open Floor

Participants were asked prior and at the start of the meeting if they would like to present during the Open Floor session.

Presentations: Two presentations were given (available on the INTERACT website):

1) Atmospheric networks, Henrik Skov, Villum Research Station

Networks to which Villum Research Station submit data:

- AMAP; Arctic Monitoring and Assessment program
- EMEP; European Monitoring and Evaluation Program
- WMO- GAW; global atmospheric watch
- ICOS; International carbon observatory system
- ACTRIS; Aerosols, Clouds and Trace gases (Observatory status)
- ERA PLANET (IGOSP - Integrated Global Observing Systems for Persistent Pollutants and ICUPE - Integrative and Comprehensive Understanding on Polar Environments)
- COPERNICUS CAMS 84
- INTERACT

Other scientific network where Villum Research Station staff/scientists are involved:

- UARCTIC, IASOA, IASC, PEEEX, GMOS; SMEAR, VRS user group and MOSAiC (Project)

"Internal" networks through centers at Aarhus University:

- ARC, iCLIMATE, ASP

The presentation is available on the INTERACT website.

- 2) Film: building an Italian hut at Arctic Station, Greenland, 'The Ariston Comfort Challenge', provided by Morten Rasch, University of Copenhagen.

<https://www.aristoncomfortchallenge.com/en/>

Mapillary – INTERACT Street View

The system was shown online by Elmer and cameras distributed to stations, so we can start adding more street view photos from INTERACT station facilities and surroundings on the Mapillary platform.

Currently cameras are with following stations:

- Aktru, Kajbasovo, and Khanymey Tomsk State University (Terry Callaghan/Olga Morozova).
- CEN stations (Christine Barnard).
- Czech Arctic Station (Alex Bernardova).
- Hinterisferner station (Alexander Kehl).
- Litla-Skard (Hlynur Oskarsson)
- Toolik Field Station (Donie Bret-Harte)
- Zackenberg Research Station (Niels Martin Schmidt).

When a station has completed the capture and upload of photos to Mapillary, they should contact the Station Managers' Forum to identify which station the INTERACT Street View Kit (camera, cables and selfie stick) should be forwarded to.

8. End of meeting

The INTERACT SMF IV was closed and participants thanked for constructive dialogue and valuable contribution to present and upcoming INTERACT activities and products.