Combination of CP & CSA

D2.8 – Minutes – Station Managers' Forum 6

Project No.262693– INTERACT

FP7-INFRASTRUCTURES-2010-1

Start date of project: 2011/01/01 Duration: 48 months
Due date of deliverable: 2014/03/31 Actual Submission date: 2013/12/10

Lead partner for deliverable: NERI (partner 2)
Author: Elmer Topp-Jørgensen

Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the Consortium (including the Commission Services)	
CO	Confidential, only for members of the Consortium (including the Commission Services)	

Table of Contents

Publishable Executive Summary

The INTERACT Station Managers' Forum meeting 6 was held 25-28 September 2013 at the Abisko Scientific Research Station, Sweden. The meeting was preceded by a workshop arranged jointly between WP2, WP8 and Tarfala Research Station in the Sami community Nikkaluokta on "Engaging local communities at INTERACT stations". Minutes from the pre-workshop are available in a separate document.

Sessions focused on Work Package 2 tasks and deliverables, including:
- Revision of draft chapters of the report on best practises of station management and administration.
- Input to the report on research and monitoring at INTERACT stations.
- Status of the web-based station catalogue (Hanna Frykman, WP1).
- Local involvement to discuss climate change and adaptation. Presentation of the outcome of the pre-workshop on engaging local communities (Lis Mortensen, WP2 and 8).

The meeting also included news from the INTERACT Secretariat with a description of recent developments and a tentative process towards an application for a phase 2 of INTERACT. Luisella Bianco provided an overview of reporting activities and requirements related to the second reporting period ending 31 December 2013 (in the project management tool PROGECTA).

SMF 6 also included presentations from WP4 on the status and future prospects for Transnational Access, and presentations from participants on tagging of data/metadata to the GEOSS Data CORE (Hannele Savela, WP4), a suggestion to develop country specific information on permit needs and application procedures (Yulia Zaika, Khibiny Research Station, Russia), a Transnational Access Science Book (Terry Callaghan, WP1) and an example of remote access where stations help researchers collect samples (Metal Isotope Monitoring, Jaroslav Andrle, Krkonoše/ Czech University of Life Science Prague).

Station managers representing seven stations presented their stations during the meeting including information and photos of facilities, research programmes and surrounding environment (Samoylov, Sermilik, Aktru, Hanymei, Kluane Lake, Spasskaya Pad and Chokurdakh research stations).

Minutes of INTERACT

Station Managers' Forum 6

INTERACT – International Network for Terrestrial Research and Monitoring in the Arctic


Photo: P. Theuring

25-28 September 2013, Abisko Scientific Research Station, Sweden

Contents:

Appendices:

Executive summary

The INTERACT Station Managers' Forum meeting 6 was held 25-28 September 2013 at Abisko Scientific Research Station, Sweden. The meeting was preceded by a workshop arranged jointly between WP2, WP8 and Tarfala Research Station in the Sami community Nikkaluokta on "Engaging local communities at INTERACT stations". Minutes from the pre-workshop will be available in a separate document.

Sessions focused on Work Package 2 (WP2) tasks and deliverables, including:

- Revision of draft chapters of the report on best practises of station management and administration.
- Input to the report on research and monitoring at INTERACT stations.
- Status of the web-based station catalogue (Hanna Frykman, WP1).
- Local involvement to discuss climate change and adaptation. Presentation of the outcome of the pre-workshop on engaging local communities (Lis Mortensen, WP2 and 8).

The meeting also included news from the INTERACT Secretariat with a description of recent developments and a tentative process towards an application for a phase 2 of INTERACT. Luisella Bianco provided an overview of reporting activities and requirements related to the second reporting period ending 31 December 2013 (in the project management tool PROGECTA).

SMF 6 also included presentations from WP4 on the status and future prospects for Transnational Access, and presentations from participants on tagging of data/metadata to the GEOSS Data CORE (Hannele Savela, WP4), a suggestion to develop country specific information on permit needs and application procedures (Yulia Zaika, Khibiny Research Station, Russia), a Transnational Access Science Book (Terry Callaghan, WP1) and an example of remote access where stations help researchers collect samples (Metal Isotope Monitoring, Jaroslav Andrle, Krkonoše/ Czech University of Life Science Prague).

Station managers representing seven stations presented their stations during the meeting including information and photos of facilities, research programmes and surrounding environment (Samoylov, Sermilik, Aktru, Hanymei, Kluane Lake, Spasskaya Pad and Chokurdakh research stations).

36 participants representing 25 of the original 33 INTERACT stations, a number of stations with observer status and one proposed research station participated in the SMF6 meeting. Work package 1, 2, 3, 4 and 8 were also represented at the meeting.

All session presentations and Breather presentations can be seen on:
http://www.eu-interact.org/station-managers-forum/meetings/smf-meeting-6/

Next meeting, Station Managers' Forum 7 will be held at Oulanka Research Station 4-7 February 2014, Finland.

Key things to remember

Station Mangers' Forum 7 to be held together with 3rd Annual Meeting on 4 - 7 February 2013 at Oulanka Research Station, Finland.

Respond quickly to upcoming reporting requirements:
- Transnational Access
- 2nd Periodic Report

Respond quickly to requests from WP2 regarding contributions to the report on best practise of station management and administration.

Partner and observer stations should decide if they want to be partner stations in INTERACT II and if they want to offer Transnational Access.

Personal tasks:
Terry, Margareta, Morten, Kirsi, Hannele, Hanna and Elmer: Prepare for INTERACT II.
- Get number of researchers active at INTERACT stations/year (Hanna and Elmer).

Terry, Hannele, Kirsi, Margareta, Hanna, Morten and Elmer: Continue TA Science Book.
- Morten and Elmer to estimate layout costs for the budget.

Hanna and Elmer: Continue work on web-based station catalogue.

Lis Mortensen and Andy Sier to make survey of and categorise Citizen Science/Community-based monitoring and outreach initiatives (see Session 5.3 for details).

Always remember to:
Send news from your stations and information about upcoming events of relevance to INTERACT to the INTERACT secretariat att. Hanna Frykman, Hanna.Frykman@nateko.lu.se or WP8/Andy Sier, arjs@ceh.ac.uk.

Send news from your station, announcements of vacant positions, and information about conferences, events, developments and rare observations, etc. to the INTERACT website att. Hanna Frykman, Hanna.Frykman@nateko.lu.se.

Distribute INTERACT brochures at your station, meetings, conferences, etc. Brochures can be ordered from the INTERACT secretariat att. Hanna Frykman, Hanna.Frykman@nateko.lu.se.

Keep a list of international meetings at which you represent INTERACT (used to report INTERACT activities to the EU).

Promote upcoming TA calls on your website and through other outreach mechanisms if relevant.

Use PROGECTA to find deliverables and other documents relating to the INTERACT work packages.

Use the INTERACT Dialogue Forum and the INTERACT Equipment Marketplace.

Session 1 – Introduction to Station Managers' Forum 6

Opening of SMF 6
Morten Rasch, Chairman of the INTERACT Station Managers' Forum, opened the Station Managers' Forum 6, informed about the main achievements since the last meeting and set the scene for a constructive dialogue.

Agenda and participants
The SMF6 meeting included sessions on best practises of station management, research and monitoring at INTERACT stations, local involvement and new developments of the web-based version of the INTERACT station catalogue. In addition to this were sessions on Transnational Access, reporting, proposed projects and a number of station presentations. See full agenda in Appendix 1.

Figure 1. Participants at the INTERACT Station Managers' Forum meeting 6 in Abisko.

36 participants from 16 countries represented 35 research stations and five work packages at the INTERACT SMF6 meeting in Abisko. Twenty eight of the original 33 INTERACT Stations were represented together with ten participants from four INTERACT Observer Stations and one proposed station. See participant list in Appendix 2.

Session 2 – News from the INTERACT Secretariat

By Margareta Johansson, Terry Callaghan and Hanna Frykman

The secretariat informed about recent developments in INTERACT including the recognition of the network from international organisations, e.g. from high level meeting in Rome just prior to SMF6, European Polar Board who highlighted INTERACT as an infrastructure success story in a recent publication and the INTERACT Station Catalogue who has inspired a similar product to be developed for the antarctic.

Overall we are on time and progress is good. The first annual report has been approved and money soon ready for payment to partner stations and organisations. Second report is coming up soon and Luisella Bianco will later (session 5) inform about the process and expected contributions from partners, task leaders and work package responsible persons.

The network continues to grow, so today we are over 50 stations and more have Memorandum of Understandings (MoUs) in progress (Figure 2). It was highlighted at the meeting that we should carefully consider the size of the network as the money for activities, e.g. Transnational Access, will have to be distributed among more stations. However, it was also considered important to be inclusive and ensure a relevant geographical representation. It was suggested that we identify geographical gaps and actively approach relevant stations that could help close these.

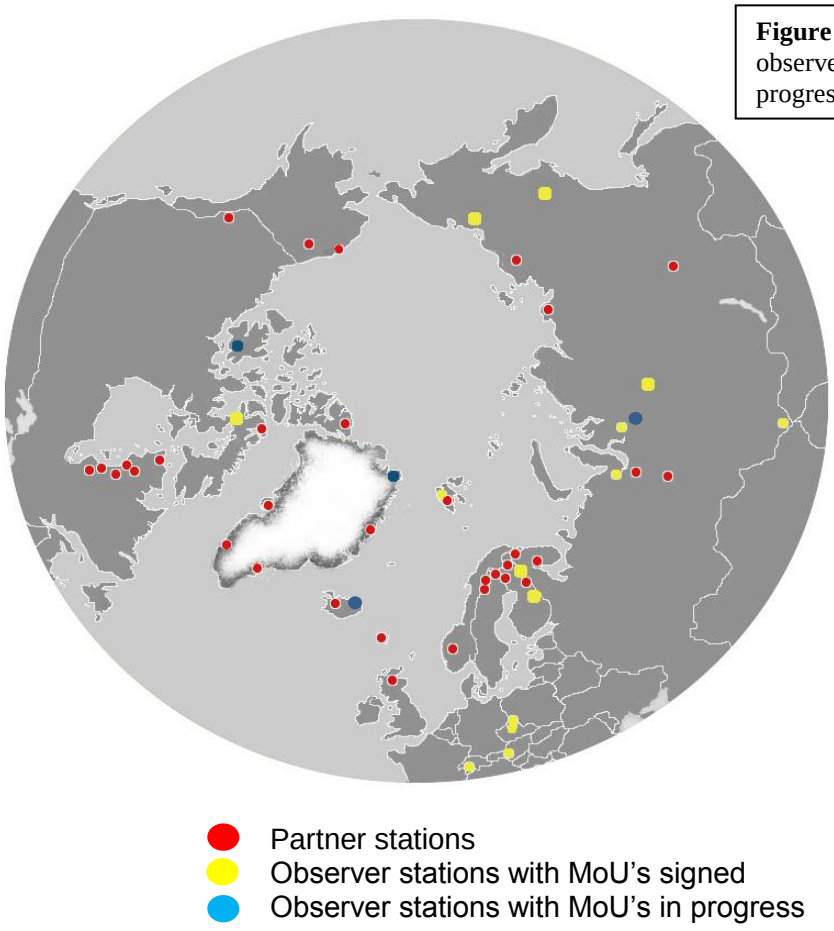


Figure 2. Map of INTERACT stations, observer stations and stations with MoU in progress.

At the second annual meeting in Nuuk (March 2013), the secretariat was given the mandate to start developing INTERACT II. A draft structure has been suggested:

- Coordination
- Station Managers' Forum
- Data Forum
- Transnational Access
  - Normal TA (as INTERACT I)
  - Virtual TA (data or information via web or electronic communication)
  - Remote TA (when scientists are requesting stations to collect data/samples, testing materials, etc.)
- Joint Research Activities – possible examples (but not determined):
  - Back to the Future (revisiting old research and monitoring plots)
  - Implementation of global and regional science agendas, e.g. GEO, CBMP, ISAC, GTN-P (money for station managers)
  - Technology WP – Research station drones? Greater geographical coverage and up-scaling.
  - The red phone! Rapid responses - identify what area we can cover, what are the risks, find labs that can process the samples.
  - Bring Mars to Earth – new moon landing. We need to think big and be innovative.
  - Land coastal interactions
- Outreach

Focus should be on consolidating INTERACT I and the key word is "Innovation"!

Following was proposed for partners and coordination of INTERACT II:

- Partners of INTERACT II could be partner stations, observer stations and relevant organisations. Partner and observer stations should decide if they want to be partner stations in INTERACT II and if they want to offer Transnational Access.
- Host institution: Lund University?
- Coordinator: Margareta Johansson.
- Scientific Coordinator: Terry Callaghan.

With this proposed setup, we manage to keep Terry Callaghan as part of the coordinating body as agreed during SMF5 in Krkonoše, Czech Republic. This will result in more responsibilities in relation to project management and coordination for Margareta Johansson, which she is ready for.

It is suggested that Lund University take over the hosting role in INTERACT II from the Royal Swedish Academy of Science.

Increased attention from others means that we need more resources for representing INTERACT.

Assuming a similar sized EU grant, INTERACT should also look for other funding sources. Meetings have been held with North American institutions, especially in relation to providing TA funding for American and Canadian stations.

The coordinating group will continue to work on INTERACT II which we will discuss again at the third annual meeting in Oulanka 4-7 February 2014.

Breather presentation – Samoylov Research Station, Russia

By Moritz Langer

Session 3 – Best practises of station management, themes 1-5

By Elmer Topp-Jørgensen

A brief introduction was given about the process that has led to the first draft of the report (selection of themes, contributions and station examples) and an outline of the remaining process was presented.

All participating partner stations had been given specific themes to read before the meeting (Figure 3). Participant were divided into theme-specific breakout groups (theme 1-5) and asked to:

- Identify best practices that should be adjusted and describe suggested changes.

- Identify and briefly describe missing sub-themes.

- Identify key actions for station management that are missing or should be adjusted – describe suggested changes.

Groups hereafter presented the outcome of their discussions (see below).

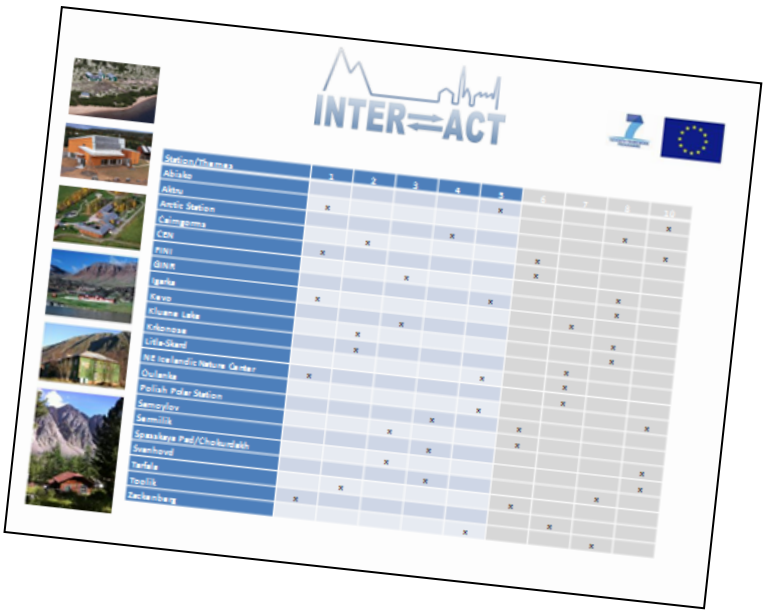


Figure 3. Themes assigned to stations for discussing best practises.

<u>Theme 1 - Plans and checklists</u>

CEN, Toolik, Aktru and Raufarhöfn Research Station.

<u>Plans</u>

As a station in development, this document will be extremely useful.

Plan development is not a strong point at many stations.

- It is important to note that this is not a requirement to produce all types of plans but should be used to guide station management in the development of relevant plans.

For some stations, these plans will be developed over time since they evolve over time as well.

At Aktru Station, summer schools and education themes are incorporated in planning documents.

- Should we develop an education statement? A separate statement also including the various vocations that can use research stations – tourists, musicians, writers, artists, etc.

Mission / Vision Statement

Is there some redundancy between vision and mission statements? Vision outlines the future and the mission is more about what you do and how you do it. Can we compare vision to the goal/aim of the station and the mission is how to accomplish that goal? If it is helpful to have them separate that is fine, but it is not necessary to distinguish.

Terms of reference

Information of ownership, organisational chart, and identification of roles and responsibilities.

- Recommend to post the information on the web and keep it updated. It is important in relation to staff turnover, and for having clear and agreed roles at the station. It is helpful for people developing their station, but the information need not be available to all.

Aktru Station does not only support research and monitoring, also attracts people for music and mountaineering. All the information should be available also for these activities and it is important to post all logos of relevant partners (funding, co-organized activities). This could be considered when signing Memorandum of Understandings (MoUs) or similar documents.

Land Use Plan

Add agreements and/or legislation with local authorities, leases and requirements for research (land type/category, where you are going, etc.), station regulations and necessity of communications (permits, communication of research, informal authorisation, etc.).

Highlight importance of communicating agreed land use plans to local communities.

Some stations have special status with developing parks and conservation areas around their stations….or obtaining park status.

Facilities Plan

Facility plans should show what there is currently and provide an idea of future developments planned (vision of facilities in the future).

INTERACT should have specific examples of Facilities Plan of stations available to all. This would be very useful to those who don't have one or to those who are in the development phase. Toolik has one online, http://toolik.alaska.edu/directory/facilities.php.

Business Plan:

Already straight forward at most stations. Stations already provide budgets and reporting systems.

- Add this issue to the Environmental Energy Plan in Environmental Impact Theme

Include marketing initiatives that make the station attractive for users. Describe initiatives which serve to create attractive publicity that will encourage new/more users to come to the station

- Fundraising/promotion plan should be part of the business plan

Policies

If you have different policies for different people (researcher vs. student; staff vs. visitor), make the distinctions clear.

International food themes, try to encourage indigenous food at stations.

.

Vehicle Use: Clear policies for vehicle use and rentals.

Coordination of transport according to increase efficiency (to/from station and within study area).

Theme 2 – Policies

Cairngorm, Kluane Lake, Krkonoše and Tarfala.

Main points

- Important to keep examples overarching and without too much detail as all sites have very different requirements. Include in Key Actions section.
- Policy is very important but must not conflict with governmental and local policies and laws.

Specific examples

- Ethics should include a line on how researches interact with local residents and stakeholders.
- There is some overlap in examples such as Health and safety and extreme weather.

Theme 3 – Staff

FINI, KEVO, Samoylov and Spasskaya Pad/Chokurdakh.

The group discussed important issues to include in the chapter and chose not to comment on the text. Important points must be covered in the chapter.

Capacity building, knowledge capture and responsibilities:

- Safety training of staff is important.
- Annual workshops and field courses (science training).
- Exchange and transfer of knowledge between stations and/or social forum/chat room for staff of different stations.
- Training especially of new/inexperienced staff is required and may take substantial time.
- Clear instructions are required.
- Overall and clear roles and responsibilities are required.

Recruiting good staff:

- The rules of the station can be signed by staff (consequences if breached).
- Problem: personal interviews are often not possible.
- Announce vacant positions through INTERACT would help to increase the number of potential applicants (INTERACT II).

- Establish (staff) exchange with other stations, possibly also with Antarctic stations (INTERACT II).

Staff at the station:

- Build-up of team spirit of staff (allow own space/forum/spare time for staff at the station).
- Transfer of knowledge between teams.
- Not overexert staff.
- Good relation between locals and staff / employ staff from the local community if possible. Staff recruited from local community brings in a lot of added value / local knowledge.
- Language (English) required however not always possible.

Theme 4 – Visitors

Arctic Station, Polish Polar Station, Sermilik and Svanhovd.

General:

- Overall very good and thorough.
- In order to get a better overview we would like some highlighted keywords in the specific sections.
- A better distinction between unmanned and manned stations would be good. E.g. write in the introduction that the procedure is based on manned stations, and if it is to be used for unmanned stations then the "Visit phase" must be incorporated in the "Pre-visit phase".

Introduction:

- The "contact" person is not necessarily the station manager, but the person in charge of visitors.
- Tone down station staff obligations.
  - Instead: It should be made clear what the visitors can expect from the station staff, and they cannot expect their full attention at all times.

Pre-visit phase:

- Combine the section starting with "Pre-visit information should…" with the bullet points
  - When reading the first sections you feel that some stuff is missing, but then it is spelled out in the bullet point section below, thus the first section is unnecessary
  - Specific additions to bullet points (in blue), see below.

Visit-phase:

- Very much focus on creating a "good atmosphere", almost seems like it is the most important thing and not the science
- Move the section about students to Chapter 10. One would not go to chapter 4 to read about how to do in relation to student groups.

Key actions:

- Again, a very and probably too large focus on good atmosphere. Should be clear that the first bullet point ("Handling") is the most important.

Station description information to be included in pre-visit (application phase) information documents (blue highlight new suggestions)

- Station facilities.
  - Storage.
  - Housing.
  - Laboratories.
  - Workshops, equipment and tools.
  - Kitchen and food.
  - Library.
  - Conference facilities.
  - Leisure time facilities.
- Logistics.
  - Means of transport to and from the station. Means of access can be different at different times of the year.
  - Means of transport to and from the field.
  - Means of communication in field/at station (e.g. phone, satellite phone, e-mails, web-access and radio).
  - Electricity (availability and type of plug).
  - Fuel.
  - Storage possibilities/facilities.
- Services and science support.
  - Workspace availability and conditions of use.
  - Existing science programmes and data access.
  - Field assistants and conditions of "use".
  - Equipment for data sampling or field experiments.
  - Safety equipment for fieldwork (e.g. radio, first aid kit, weapon, wildlife deterrents, etc.).
  - Laboratory equipment for tests or experiments.
- Natural environment and environmental concerns
  - Water consumption.
  - Energy consumption.
  - Environmental protection (see also Themes 2 and 7).
- Health and safety related concerns
  - Risks when working at the station and mitigation measures (see also Them 6).
  - Risks when working in the field and mitigation measures (see also Them 6).
  - Insurance and liability issues.
- Permit issues
  - Conditional requirements for access to the station (e.g. required health standard, compulsory equipment, documentation of specific expertise/skills, acknowledgement in publications, payment of access fee, etc.) (see also Themes 2, 5 and 6).
  - Station access application form and procedures (see also Theme 5).
  - Permits required by local, regional or national authorities (see also Theme 5).
  - Costs per day/night working at the station (and what these include).

Theme 5 – Permit issues

Abisko, GINR, Litla-Skard, Oulanka and Zackenberg.

Permit issues and application forms

Overall, very good and thorough chapter.

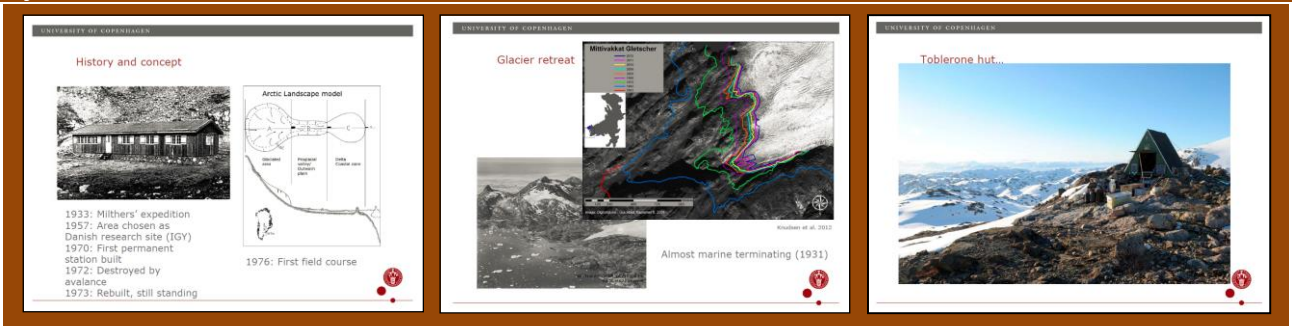
Section 5.4: PI (Primary Investigator) to inform the members of the project about relevant issues (not station manager).

Section 5.5: Time to process an application form can be long and non-flexible.

In addition there are several other local issues i.e. work on Norwegian Russian border.

Breather presentation – Sermilik Research Station, Greenland

By Thor Markussen



Session 4 – Research and monitoring at INTERACT Stations

By Morten Rasch

A summary of previous discussions about this deliverable was given before three breakout groups were formed; 1) project metadata template, 2) parameters sampled at INTERACT stations, and 3) recommended minimum monitoring programme. The latter being an extra task agreed upon at SMF4.

The task regarding description of best practises for monitoring selected parameters was discussed at SMF5, where a plan ahead was agreed. This task was therefore not discussed at the SMF6 meeting.

Outcomes of group discussions are presented below.

Group 1 – metadata template for research and monitoring projects at INTERACT stations

The group discussed templates based on Abisko GIS and the ENVINET database. Concern was raised over the amount of work needed at some stations to collate this information. The group therefore decided to use a reduced template for completed projects and a full template for new projects.

Stations should therefore aim to capture the full template information through their specific application procedures for future projects.

The groups also found a need to consult existing international databases before deciding on a final full template for new projects.

A database for all projects at INTERACT stations could be made part of INTERACT II.

Suggested templates for previous projects (completed projects) and new projects (final version awaits consultations with international databases):

Previous projects:

- Long title.
- Research period (start and end date/year or ongoing).
- Principal investigator (name).
- Contact information for project member/relevant person (name, e-mail, organization).
- Location (location of red listed species can be problematic, so maybe necessary with regulated access to some data. Identify international standards for geographical information).
- Discipline (choose from scroll-down menu).
- Database author.
- Station name.

New projects:

Mandatory:

- Long title.
- Research period (start and end date/year or ongoing).
- Principal investigator (name).
- Contact information for project member/relevant person (name, e-mail, organization).
- Location.
- Discipline (choose from scroll-down menu).
- Database author.
- Station name.

- Description/abstract.
- Key words.
- Funding source (EU-projects, other projects).
- Project members.
- Publications.

Optional:

- Project homepage.
- Environmental impact.
- Pictures.
- Research methodology (experiments, sampling, equipment).

Group 2 – Monitoring variables sampled at INTERACT stations

1. In-house and external projects?
   - Both types of projects, but in separate categories.

2. Definition of a monitoring project?
   - Anything that is measured/sampled over time at regular intervals.
   - Should also include new projects that aim to be long-term.
   - Let the interested researcher decide whether the time series is long enough, i.e. don't use arbitrary cut-off values.

3. Degree of detail (all variables or grouped)?
   - Grouped variables, e.g. use Zackenberg data where number of monitored variables is huge.

- For each variable include number of measuring stations, sampling frequency, sampling periods (start/stop), availability and if samples, where these are stored.

4. Variables
   - How many measurements/locations does the series include?
   - Roughly how much of the data series is readily usable (i.e. in electronic format). This could be expressed as percentages: 0, 25, 50, 75 or 100%. Often some of the data is not in electronic format and will require work before available. Especially biological samples may require much work when some of the time series data may still reside in sample jars etc.
   - Where are samples stored? It could be at the research station, mother institute, in another country, etc.

Other important points:
- How often should the database be updated? We thought that once or twice a year at the minimum! Possibly something for INTERACT II.
- There should be an electronic template (excel sheet or similar) that the station managers could use for feeding in the data – otherwise there will be a jungle of terminology and nomenclature with the same measurements being described in numerous different ways.
- Information on whether the time series is active (still being collected) or passive is important as is information on the data collection interval (daily, weekly, monthly, yearly, decadal, etc.).

Group 3 - Designing a minimum monitoring project for INTERACT stations

The group listed key monitoring parameters and came up with recommendations for a minimum set of variables that should be part of a basic monitoring programme (**minimum set in bold**). It was stressed that the equipment was less important as some stations that have used a specific type of equipment for long time may not be willing to change to another type for consistency concerns.

1. Climate
- Weather stations.
- **Air and soil temperature.**
- **Wind.**
- **Humidity.**
- Albedo.
- **Short wave, long wave radiation.**
- Snow a lot of variability in method.
- **Precipitation.**
- **Stream discharge.**
- Stream flow gauge.
- PH and conductivity.
- **Air pressure.**
- Active layer monitoring for permafrost stations desirable.
- Water temperature at lake locations or sea.
- Methods? Constant with local meteorological stations.
- Establish standards but not change what is currently being done at stations.
- **Time of snow/ice melt by automatic camera or observer.**
- Pheno-camera for greenness, desirable.

2. Vegetation
   - Maintain control plots.
   - ITEX.
   - GLORIA.
   - What is representative?
   - Phenology, desirable.
   - **Species list and cover.**
   - **Basic characterization of vegetation every 5 years invasive species watch.**
   - Basic map of the physical landscape.
   - **Repeat photographs daily.**
   - Time of different mosquitoes appearing, trigger for different biological processes.
   - High resolution satellite.
   - Evidence of grazing or browsing.
   - Dendrochronology trees and shrubs, not considered basic.

3. Digital elevation model or basic map of physical landscape (soil type, permafrost)

4. Observations of animals
   - First day migrating birds are observed, establish sentinel species or first ground squirrel.
   - Track transects for mammals, desirable.

6. Arthropods, not considered basic
   - Pollinators.
   - Midge populations, time consuming.

7. Biogeochemical, not basic
   - Nutrient levels desirable.
   - Carbon balance/flux.

8. Air quality
   - **Atmospheric deposition.**
   - Filters for air quality needs analysis at labs.
   - CO_2 emissions, instruments expensive, processing data, needs technician.

9: Land Use

Breather presentation – Aktru and Khanymei research stations, Russia

By Sergei Kirpotin

Session 5 – Open session, voluntary contributions

5.1 Next reporting period (2nd) – INTERACT reporting tool

By Luisella Bianco (CLU)

Luisella presented the upcoming reporting tasks and tools. Second reporting period covers 1 July 2012 to 31 December 2013 (months 19-36). The reporting includes:

- Periodic technical report (overview of progress).
- Explanation of the use of the resources.
- Financial Statement (Form C).
    - Certificates on the Financial Statements (CFS).

Please remind your administration of the upcoming reporting task.

It is important to claim costs. Otherwise the money will not be paid. If you cannot spend the money allocated for your organisation, you should inform the INTERACT Secretariat as soon as you become aware of this.

Below is a summary of tasks, responsible persons and deadlines.

Responsible	Reporting task	Deadline
Station management (of stations offering Transnational Access)	TA information to WP4 manager. Await e-mail from WP4.	31 December 2013
INTERACT Task leaders	Reach, release and approve milestones and deliverables in PROGECTA. Describe activities and summary of progress towards objectives (in the second reporting period M19-M36). Await e-mail from the INTERACT Secretariat.	31 December 2013
INTERACT WP leaders	Provide overview of WP achievements, present significant results and integrate task reports (PG) in work package reporting. If applicable explain the reasons for: - Deviations from Description of Work (if any). - Failing to achieve critical objectives. - Not being on schedule. - Explain the impact on other tasks as well as on available resources and planning. - Propose corrective actions. Await e-mail from the INTERACT Secretariat.	30 January 2014
INTERACT Partners	FSIGN nomination – register Financial Signatory for INTERACT to FSIGN on EU Participant portal. To allow electronic signatures to reports.	As soon as possible!

(Original 33 stations and partner organisations)	http://ec.europa.eu/research/participants/portal/page/home See frequently asked FSign questions under point 8 on below link: http://ec.europa.eu/research/participants/portal/page/faq	
	Report effort (person-months) in the period - explaining deviations between actual and planned person-months (if any).	31 December 2013
	Form C (Costs and Justification of resources) submitted on the EU Participant Portal (PP). 5 partners need also to submit a Certificate on the Financial Statements: KVA, NERI, UOULU, ULUND and POLAR.	30 January 2014
	Form C signed by FSIGN signatory on EU Participant Portal (PP).	28 February 2014
INTERACT Coordinating Office	Integration to WP reports and submission to European Commission.	28 February 2014

5.2 Transnational Access update and future prospects

By Hannele Savela and Kirsi Latola

Hannele provided an overview of the Transnational Access (TA) work package including achievements and ideas for the future (a potential INTERACT II).

Today INTERACT TA funding resulted in:

- 5600 person-days of access used/granted (equivalent to more than 25 years of work for one person). Final numbers available at the end of October 2013.
- 360 users from 143 user groups from 19 countries.
- Access granted to all 20 stations offering access.
- Large variety of research fields: Biodiversity, glaciology, permafrost, climate, hydrology, ecology, biogeochemistry, human dimension, etc.

- 6th TA call deadline 30 September2013.

TA output includes:

- 31 articles resulting from the TA visits published in peer-reviewed scientific journals
  - Number is increasing fast now, and lists of TA publications for 2013 will be requested in Nov/Dec 2013.
- 12 blogs kept during summer 2013 field season in INTERACT Arctic Research Blogs.
- New projects initiated with support from the stations in INTERACT network:
  - Stable isotope composition in rain/snow and testing of climate models (H.C. Steen-Larsen).
  - Metal isotope monitoring in snow and lichens (J. Andrle).
  - Global Dryas Project (T. Roslin).

TA Reporting (Post meeting note: below has been initiated)
After the SMF6 meeting, WP4 will send e-mail reminder and form requesting relevant TA information. TA information should be sent to Hannele 31st October 2013. Information will include:

- Days used in summer 2013.
- Travel reimbursements paid in summer 2013.
- List of Users from summer 2013.
- Total operational costs and real unit cost from 2011-2013.

Above information is extremely important for estimating available funds for summer 2014, especially concerning the Access Pool (redistribution of unused TA funds).

Schedule for and guidance for filling in Form C to claim costs will be sent this autumn.

Ideas for the future:

- A new ”Handbook” on the INTERACT web site containing practical help and advice for researchers travelling to INTERACT sites (see also presentation of this idea from Yulia Zaika under Session 6).

TA in INTERACT II
The Transnational Access programme in INTERACT is highly successful. The success of INTERACT also means that the number of stations in the network has grown. Assuming that similar funds are available for TA in a potential INTERACT II, the same amount of funds should be distributed among more stations and hence less money may be available for each station.

INTERACT should therefore be clever in trying to develop this area for a potential INTERACT II. In this process we should look into:

- Who will offer TA? The number of stations wanting to offer TA, geographical extent and how it should be distributed.
- North-American TA possibilities.
- Possibilities for offering remote TA (samples collected by the station staff).
- Possibilities for offering virtual TA (information or data via web or mail).
    - Possibilities for offering Interstation TA (Stations’ staff conducting research at other INTERACT stations).

Additional issues that could also be considered in a potential INTERACT II:

- Possibilities for Russian scientists to apply for TA as user group leaders.
- Support to researchers from emerging countries, e.g. Hungary, Romania, Czech, Poland…
- Additional possibilities for young scientists:
    - Specific TA funds for young researchers.
    - INTERACT mentor sub-group to APECS mentors.
    - Offering assitance to young applicants from the Russian Federation and eastern european countries.
- Open and strategic TA calls to reach the purposes in distributing TA (geographical or thematic).
- Focused TA calls to studies with aim to start long-term monitoring.

5.3 Outcome of the pre-workshop on Engaging local communities at INTERACT Stations

By Lis Mortensen

Workshop held in Nikkaluokta 24 – 25 September 2013.

The objective of the workshop was to:

1) Provide inspiration for INTERACT Stations in engaging local communities through:
   - Frank and open discussion about what INTERACT members are doing and can do in relation to involving the wider community around the stations.
   - Presenting different approaches to and examples of local involvement from the INTERACT community.
   - Thoughts and potential for local involvement initiatives for INTERACT Phase 2.
2) Explore possibilities for how INTERACT could contribute to Arctic Council initiatives related to outreach/ Citizen science/Community-based monitoring (SAON/CBMP).

Presentations were given on community based monitoring efforts in Arctic Council initiatives (SAON[1] and CAFF/CBMP[2]) followed by exchange of knowledge and experiences of working with local communities from a station perspective through community based monitoring, citizen science, outreach or education programmes.

An inspiring talk and discussion with Niila Inga (a local Sami representative) gave an insight into the life of a Sami reindeer herder in times of climate change. Potential synergies were evident in Niila Inga's and Tarfala Research Station's desire to document and understand the processes behind observed environmental and climatic changes. Tarfala Research Station and the local community will explore ways and potentials for working together on formulating research and monitoring questions, data collection, analysis and discuss the implications of climate change.

The discussions also identified important considerations when engaging local communities in monitoring initiatives:

1. Commit to expectations.
   - Keep your word when you engage local communities. If you tell them that the initiative is long-term, make sure that it will be. If you only have money for short-term, but would like long-term, it is important to be honest about this. If communities are targeted by initiatives that don't comply with expectations, the willingness to engage in new initiatives will decrease.

2. Involve community to drive questions and in the development of initiatives.
   - Discuss how they perceive the environment to be changing and what they want to monitor or learn about.
   - Involve stakeholders in the development of the research or monitoring project (e.g. methodology/data collection, analysis, decision making, outreach, etc.).

3. Information must go both ways.

[1] Sustained Arctic Observing Network.
[2] Conservation of Arctic Flora and Fauna / Circumpolar Biodiversity Monitoring Programme.

- There should be a free flow of information (both ways) between communities and research station. If there are elements where the local community is not involved, then it is important that the information is communicated back to the communities.

4. Adequate resources
   - Make sure that you have adequate staff time and money for CBM (development and running support) before making promises to the local communities.

5. Share and compare.
   - Local questions may drive the interest, but the question or the structure and processes of the project/programme may be relevant to other communities/stations. It is therefore important also to provide information and perspectives across the INTERACT network and possibly also in other relevant fora.

INTERACT stations (Greenland Institute of Natural resources, Cairngorms and WP8) presented examples of local involvement initiatives. It was agreed that INTERACT should try to categorize different approaches and provide examples of these to the network. In this process we should differentiate between outreach and monitoring initiatives.

Actions agreed at the workshop:

Survey of Community based monitoring/citizen science initiatives at INTERACT stations to;

a) Categorize and describe different approaches (including examples) as inspiration for INTERACT station management looking for ways to work with local communities.
b) Contribute to SAON and CBMP, who are both interested in information about existing CBM initiatives in the Arctic.

Survey of outreach activities conducted at INTERACT stations.
Given that some stations have numerous outreach activities, it was decided that stations could select fewer initiatives to be described (e.g. 5-10).

SAON and CBMP cooperation
Keep in touch with SAON and CBMP to explore potential for cooperating during INTERACT II.

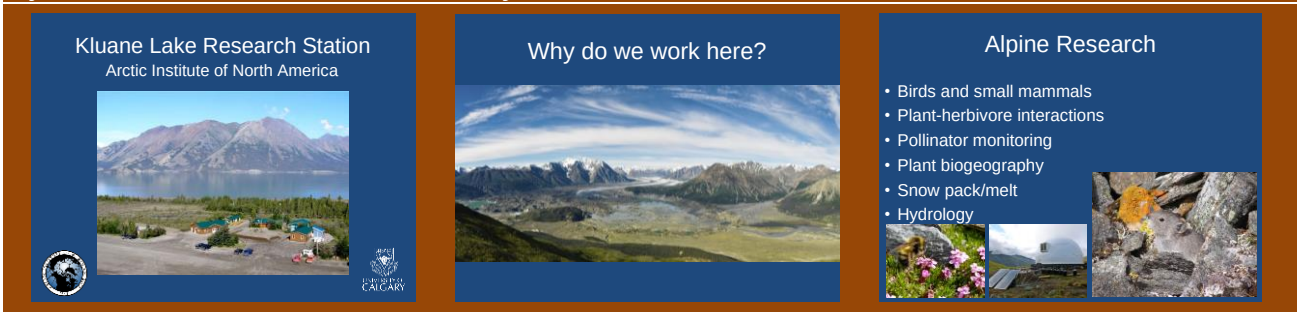
INTERACT II
Consider potential ideas for a community based monitoring initiative during INTERACT II. To be further discussed at the annual meeting in Oulanka, Finland (4-7 February 2013).

Responsible person	Task	Deadline
Andy Sier	To draft a table of information required from all station managers. Two tables: one for CBM and one for outreach. (Tick boxes to make it easy and quick for station managers).	End of September 2013
Andy Sier	Sent draft tables to the workshop group, SAON representatives (Noor Johnson and Eva Kruemmel)	1st week October 2013

	and CBMP (Tom Christensen) for comments.	
Andy Sier and Lis Mortensen	Send final tables (CBM and outreach) to INTERACT community 3rd week Oct with return date 1 December 2013. Lis Mortensen: CBM Andy Sier: Outreach	3rd week October 2013
Andy Sier and Lis Mortensen	Categorisation of approaches based on Community based monitoring (CBM) /Citizen science (CS) table with examples and links to best practise literature (Lis) and Outreach (Andy/Jan)	1st February 2014
WP2 and WP8	Final deliverable ready	Before annual meeting 4-7th Feb 2014

Breather presentation – Kluane Lake Research Station, Canada

By Sian Williams and Maribeth Murray



Session 6 – Open session, voluntary contributions

6.1 Tagging of data/metadata to GEOSS Data CORE (data/metadata access system operated by Group on Earth Observations)

By Hannele Savela

Hannele presented the GEOSS Data CORE system. The Group on Earth Observation (GEO) is coordinating efforts to build a Global Earth Observation System of Systems (GEOSS). This system was established in 2005 and has today 88 Members and 67 Participating Organizations.

INTERACT was invited to become a member and is now participating as one of several European projects. INTERACT recently became a co-lead of the Ecosystems and Cold Regions task.

The GEOSS Data CORE is a pool of documented datasets with full and open unrestricted access at no more than the cost of reproduction and distribution. The open access to data is perceived as one of the most important added values of GEOSS to the global community.

Hannele raised a few questions in her presentation:

- Could the web-edition of the Station Catalogue be tagged to Data-CORE?
- What about other metadata archives, for example Abisko GIS?
- If any station has metadata/data that could be tagged to Data-CORE (under the fore mentioned conditions), please let us know - but give good consideration to the idea of open access first (actual data can be used for publications by others).

It was agreed that the web-edition of the INTERACT station catalogue should be tagged to the GEOSS Data CORE. WP1, WP2 and Hannele Savela will coordinate this, when the web-edition is completed.

Stations were encouraged to tag data and metadata in local, national, regional and international data depositories.

6.2 Suggestion to develop country specific information on permit needs and application procedures

By Yulia Zaika and Hannele Savela

Permit systems may be complex with different authorities being responsible for different permits. It can therefore be difficult for researchers to know what permits are required and the exact procedures for obtaining these. Listening to fellow researchers and personal experiences made Yulia Zaika (Khibiny Research Station) propose an initiative to help guide researchers through the permit jungle. Since Yulia unfortunately was unable to make it to the SMF6 meeting, Hannele Savela (with support from Elmer) presented the initiative.

The idea presented by Yulia was to produce a handbook on import export permits for samples and equipment that would help researchers identify relevant permits and where these could be obtained.

The suggested contents of a document on export and import of samples/equipment included:

- Legal procedures (specified with the national control and custom services).
- Possible timelines and expenses.
- Tips and tricks.
- Examples of the successful import/export cases.

Example of information that could be provided for each permit:

- Type/name of permit?
- What it covers (e.g. export of radioactive measuring equipment, CITES, etc.)?
- Where it can be obtained?
- What are the initial steps to be taken?
- What kind of documentation should be submitted and prepared (e.g. descriptions and specifications of equipment, permission for the particular samples)?
- Where to submit all the documents (and/or what is the latest legislation to refer to)?
- What are the fees and taxes to be paid to import/export different equipment (e.g. equipment which price exceeds the specified values marked by the local bylaws)?

- What is the expected timeframe for obtaining the permit?
- Are there any simplified procedures to import/export particular equipment/samples (e.g. mentioned in any bilateral custom agreements)?

<u>Transport and customs issues:</u>

- What is the approximate timeline to submit and proceed all the documents (e.g. via border control services to get a permission and/or via custom services where the expensive equipment should be declared to)?
- What are the steps to be taken via delivery services (e.g. DHL, FedEx etc. and/or what are the roles of shipper and receiver)?
- What kind of samples should requires an import/export permit (including requirements for obligatory compliance with veterinary, phytosanitary and/or sanitary rules)?
- What kind of equipment requires an import/export permit (e.g. all the equipment that measures, for example, solar radiation should be processed through the Federal Security Service as it has a very suspicious title "radiation")?
- Other country-specific issues.

The suggested initiative was discussed in plenum. All found it to be a great initiative and it was agreed to expand the suggestion to an "INTERACT field work planning handbook" that would include more types of permits and text that would enable researchers to prepare adequately for field work in arctic and northern alpine areas.

This was, however, considered a substantial task and it was therefore agreed that we should include this in the INTERACT II application.

Concern was raised over inconsistent procedures in government agencies and that identified procedures may quickly be outdated. Instead of describing procedures in detail, it was considered important to link to relevant websites. In terms of inconsistencies, it was agreed that this should not be a hindrance and that we could also use this initiative to push for clarification where needed. A mechanism for updating the document should be developed.

This initiative is important for the Transnational Access work package as it can be used to guide TA applicants through national permit systems and provide practical advice for how to prepare for field work. During discussions it was mentioned that the initiative fitted well with existing national initiatives in some countries.

Conclusion: Great initiative that could be refined for a potential INTERACT II application.

6.3 Station Catalogue web-edition

By Hanna Frykman

Hanne presented the status of the web-based version of the catalogue including map-making element and station identification element for researchers (Figure 4). At present we will keep the original station map on our website. Hanne and Elmer are in the process of taking over after Kirsten Elger (who is no longer employed at AWI) and will finalise the tool together with Arctic Portal.

It was agreed that we should seek to tag web-based station catalogue data to the GEOSS data repository (see also 6.1).

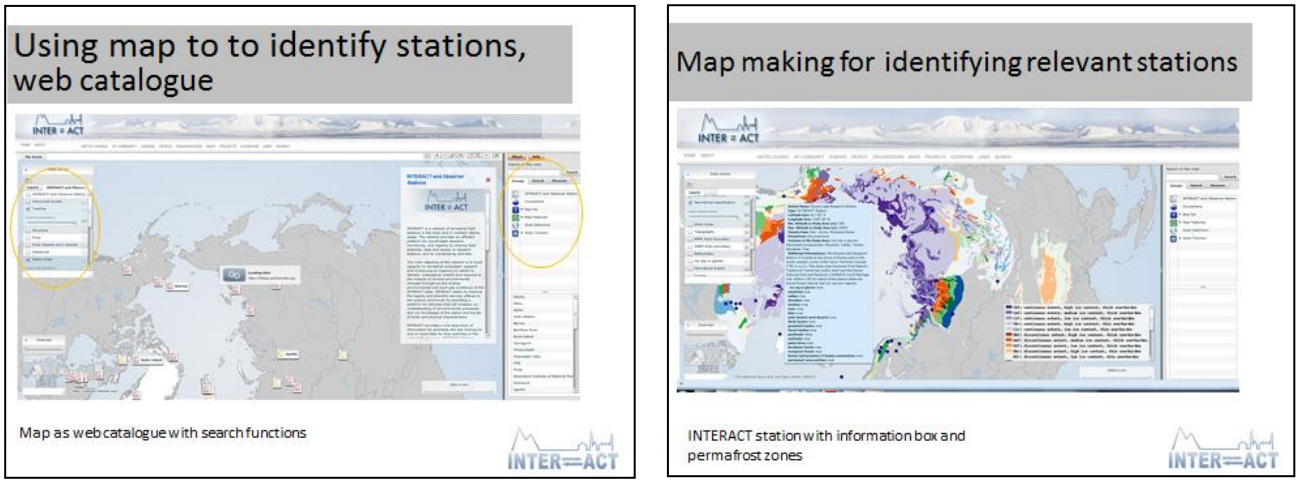


Figure 4. The two central functions of the web-based version of the INTERACT Station Catalogue; a) using map to identify stations relevant to specific research needs, and b) map making function to show station locations in relation to environmental or climatic parameters.

6.4 Transnational Access – popular science book

By Terry Callaghan

Terry presented the status of the proposed Transnational Access Science Book. The book will cover a number of scientific disciplines. For each discipline there will be an introduction of 3-4 pages, followed by a number (maybe up to 10) of TA projects, each described on two pages. The book should be highly illustrated with photos. Advisory board recommends that it should be distributed free of charge as the Station Catalogue.

The target groups are multiple audiences and the publication was considered attractive for amateur naturalists, the general public, researchers that want to familiarise themselves with the great variety of projects undertaken at INTERACT stations, and many others.

Remaining tasks includes (WP1, WP3 and WP4):

- Finalise selection of disciplines that we want to cover.
- Finalise selection of TA project examples.
- Think about how we can include non-TA stations.
- Finalise budget. Get estimated layout costs from Aarhus University (made layout of the INTERACT Station Catalogue). Funding source to be identified.

6.5 Feasibility Study – Implementation of CBMP Terrestrial Monitoring Protocols at Northern Canadian Research Facilities

By Sian Williams and Maribeth Murray

Environment Canada is conducting a feasibility study on the implementation of the Circumpolar Biodiversity Monitoring Programme's Terrestrial Monitoring Protocols at northern Canadian research facilities. Sian and Maribeth are leading this initiative.

The objective of the study is to:

1) Assess alignment between current station-based activities (research and monitoring) and proposed CBMP activities.
2) Determine opportunities for harmonization with the CBMP plan.
3) Identify necessary resources and capacity building requirements for enabling uptake of monitoring of Focal Ecosystem Components identified by CBMP.
4) Assess how implementation of CBMP recommendations might improve research (capacity and results), decision-making, and the exchange of data and information among Canadian stations, researchers, and agencies, and with the international terrestrial research and monitoring communities.

Sian asked if there was an interest in the INTERACT community to be part of the feasibility study. The estimated time to complete the survey is expected to be 20-30 minutes.

The initiative was discussed in plenum and there was consensus that INTERACT would like to be included. An online survey will be initiated later this year by Sian and Maribeth.

6.6 Remote Access example – Metal isotope sampling

By Jaroslav Andrle

At the SMF5 meeting in Nuuk, Jaroslav Andrle had put out a request for stations who wanted to participate in a metal isotope monitoring network. Ten INTERACT stations have offered to join the project (see Figure 5) and new stations can still join (contact Jaroslav Andrle: jandrle@krnap.cz).

Participating stations:
Kluane Lake (Canada), Sermilik (Greenland), Litla-Skard (Iceland), Cairngorms (UK), Petuniabukta (Svalbard), Finse (Norway), Svanhovd (Norway), Tarfala (Sweden), KEVO (Finland) and Kolari (Finland).

The project will collect samples of snow and/or lichens for analysis of metal isotope contents. Sampling will start in the winter 2013/2014.

Figure 5. Stations in the INTERACT metal isotope monitoring project. New stations can still join.

Stations are expected to:

- Sample snow and/or lichens.
- Send samples to the lab at Prague University (att.: Jaroslav Andrle).

Costs for participating stations only include sample collection and shipping of samples. Lab analysis is provided by the Czech University of Life Science Prague.

Expected output: primary data, analysis and scientific papers.

Session 7 – Best practises of station management, themes 6-11

By Elmer Topp-Jørgensen

The session was a continuation of session 3, but focussing on Themes 6-8 and 10. Themes 9 and 11 were not discussed at this meeting. Participants were again divided into groups (se Figure 6) and asked to discuss individual themes in relation to the points described in Session 3 and present outcomes in plenum (see below).

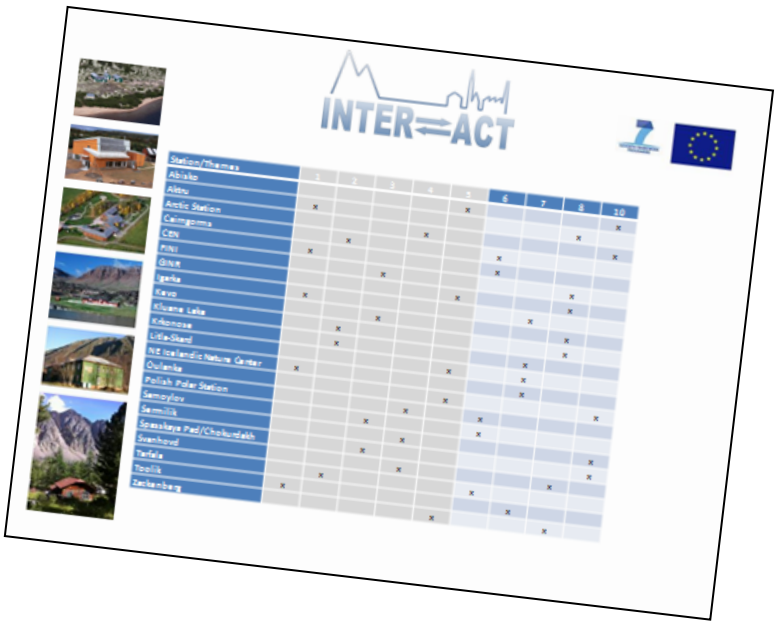


Figure 6. Themes assigned to stations for discussion of best practises.

<u>Theme 6 - Health and safety</u>
Cairngorms, CEN, Samoylov, Tarfala, NERC and Polish Polar Station.

Goal from a station management perspective: provide a tool to assess potential risks and to assess feasibility of science. There are often differences between expectations and abilities of applicants.

Issues that should be addressed in the chapter:

- Firearms.
- Fuel handling (power supply).
- Field hut/cabin issues (heating/warming CO).
- Medical facility: minimum kit at station and in the field.
- Communication (handling radios, satellite phones, etc.).

New organisation of Chapter 6?

a) Potential risks: provide a ”danger list” (not detailed).
b) Management tool: pre-visit assessment and on-site assessment (actions to minimize risks).
c) Examples of best practise (appendix).

<u>A danger list could include:</u>

- Remote location.
- Fire.

- Rifles/ammunition.
- Boat.
- Snow mobile.
- Fuel.
- Glacier fieldwork.
- Hypothermia, frost bite, etc.
- Camping/ hut visit.
- Medical.
- Station lab work.
- Polar bear, Musk ox (wildlife).
- Working below cliffs.
- Etc.

Theme 7 – Environmental impact of station operations
Toolik, Litla-Skard, Krkonoše and Raufarhöfn Research Station.

This theme is well-developed, thorough and thoughtful. Many of us were not aware of the resources available through the International Standard Organization (ISO).

Section on Environmental Impact Assessment (EIA) and standards for station infrastructure is only relevant to places that have infrastructure, but information on impacts to field sites is relevant to everyone.

Many stations will not have all of these policies, but it is good to be aware of all the possibilities.

Group did not identify any major gaps.

Section 7.4
Suggestion: include radioisotopes as a separate category (break out of "hazardous substances", because the rules for handling radioisotopes are often different and more strict than for other chemicals.

Possible additional impact: accidental fires.

Section 7.5
Add sentence that eco-policies should conform with relevant legislation (covered earlier in 7.2, but should be mentioned here also).

Section 7.6
"Monitoring" subheading is confusing; maybe "managing environmental impacts".

Under Resource Use and Waste Handling; add that the station must have protocols and procedures in place to clean up chemical spills if they occur. Most organisations, such as universities, will have regulations regarding clean-up of chemical or fuel spills.

Suggestion: overall introduction could be shorter.

Theme 8 – Marketing and outreach
Aktru, FINI, GINR, KEVO, Kluane Lake, Svanhovd and Zackenberg.

Overall very good and thorough chapter.

Definitions of outreach and marketing:

"Outreach: an initiative for engaging stakeholders in the activities of the station".

P. 109: Change sentence to "… avoiding conflicts, and enhancing the quality of research" (section 8.1).

Table 8.1 not intuitive, maybe needs examples and an example could be: private sector very important for fund raising.

Include a statement that someone has to be responsible for maintaining social media and that this person may need communication training (is mentioned in 8.5, but needs to be clearly stated). Also important to ensure adequate funding for continued updates on social media.

Add Tunnel Man for educational outreach in examples, http://www.youtube.com/watch?v=-l0JdVtmNus.

Section 8.4: Add locals as research design partners.

Theme 10 – Training and education
Abisko, Arctic Station, Oulanka, Sermilik and Spasskaya Pad/Chokurdakh.

Important training and education elements:

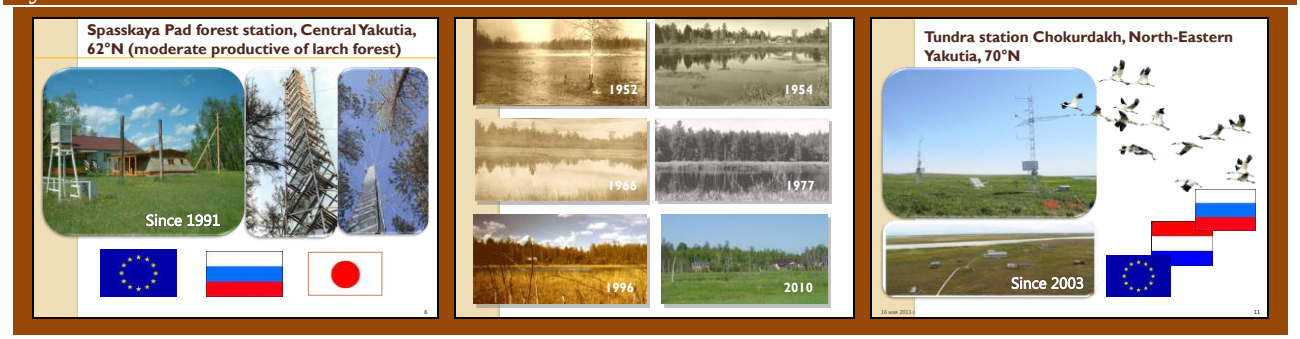
- Lab training and safety instructions protocol (working alone in the lab).
- Common training protocols (weapon handling).
- Training code of conduct (be a responsible scientist, don't litter, be representable for the station also in spare-time).
- Remote field teams should have at least 1 responsible person for safety and/or first aid.
- Field safety instructions (also for nearby field sites).
- Pass on knowledge from field expeditions (be prepared for unusual circumstances, stay calm, trust local experts).
- Preferably take training courses BEFORE fieldwork, many stations not equipped with sufficient resources.
- Professional training centers can offer more detailed, thorough training.
- Staff should always have multiple trained persons at the site (up-to-date).
- For unmanned stations research teams should be trained before allowed to depart.
- Education: who is responsible for safety?
- Try to attract, train and employ local people.
- Show appreciation for local staff.
- Hold education courses in collaboration with circumarctic networks.

Stretch a leg session
– Visit to and presentation of the ITEX experimental site in Abisko

Tour of Abisko Scientific Research Station and walk to the International Tundra Experiment (ITEX) site with presentation of project history and results.


Photo: Morten Rasch

Breather presentation – Spasskaya Pad and Chokurdakh research stations, Russia
By Trofim Maximov



Session 8 – The future of INTERACT Station Managers' Forum

By Morten Rasch and Elmer Topp-Jørgensen

The achievements of the Station Managers Forum were presented to spark discussions of the future of the forum. This included tasks, milestones and deliverables from the Description of work (DoW), as well as additional tasks agreed during SMF meetings.

Figure 7 and 8 presents information on participation at SMF meetings.

Figure 7 shows number of participants, original partner stations and countries that have been represented at the meetings. The peak in number of participants at SMF2 is caused by participation of all work packages and joint international workshop with IASC, CBMP and ISAC.

Figure 8 shows how many stations have participate in how many meetings. All stations have participated in at least one meeting and 22 stations have participated in all meetings.

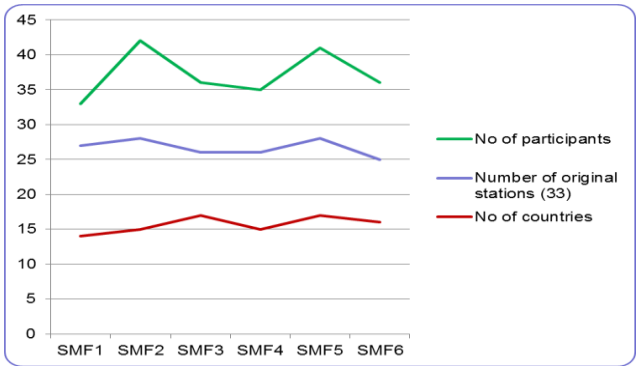


Figure 7. Number of participants (green), number of original partner stations (blue), and number of countries represented at SMF meetings.

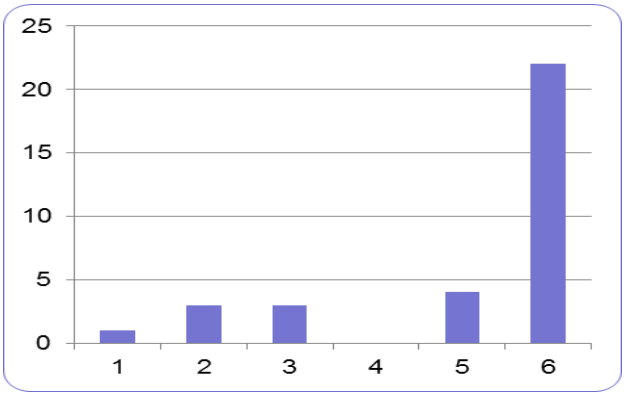


Figure 8. Number of stations (y-axis) that have participated in how many SMF meetings (x-axis). One station have participated in only one meeting, 22 stations have participated in all 6 meetings.

What we promised in the DoW (red text = late):

- Formation of the Station Managers' Forum.
- 7 Station Mangers' Forum meeting (6 completed).
- 7 SMF minutes produced (5 completed).
- INTERACT Station Catalogue (completed).
- Report on best practises (late, in draft).
- Report on research and monitoring (initiated)

What we didn't promise:

- Network expanded from 33 stations to >50.
- INTERACT Station Catalogue in print and web-based version.
- Equipment Market Place.
- Discussion Forum.
- Offering assistance for sample collection for a number of projects.
- Arranging workshops and symposium with other organisations (e.g. workshop on arctic biodiversity with IASC, CBMP, ISAC, etc. (lead to formation of the Arctic Biodiversity Coalition)).

Ideas that potentially could be developed for an INTERACT II application (from discussion):

Update of the INTERACT Station Catalogue (print and web-versions)

A database for all projects at INTERACT stations

- A continuation of the list of research and monitoring projects carried out at INTERACT stations (WP2 deliverable under INTERACT I).

An INTERACT field work planning handbook

A handbook that can guide researchers through the country and station specific permit systems and help them prepare for conducting field work in the arctic and northern alpine areas (see 6.2).

Best practises for instrumentation

- Forum to share experiences of using different instruments and to promote the use of standardised and well tested equipment.
- Establish protocols for minimum monitoring programme (see also session 4).

Implementation of experiments and long-term monitoring across INTERACT sites
- Select experiments and long-term monitoring issues/initiatives and identify best practises/standards for implementation, e.g. CBMP, ITEX, CALM, etc.

Joint Research Activities (JRA)
- JRA on data flow.
- Closer connection between Joint Research activities (JRA) and station managers.
- Mobile (nomadic) observatories.

Remote Access
- Need for money to pay field assistants

Community based monitoring component
- CBMP, SAON cooperation.
- Training of local communities to do science together with stations (citizen science or community based monitoring, e.g. ice study example Canada and Greenland).
- How can stations help community driven research and monitoring initiatives? Instrumentation (use of new technology)?

Courses for station managers on specific subjects

Development of common training protocols
It may confuse researchers if they are taught different things at different stations e.g. in relation to weapon handling.

Staff exchange
- With other stations, possibly also with Antarctic stations.

Announce vacant positions through INTERACT
- Would help increase the number of potential applicants.

INTERACT publications
- Ensure funds available for layout and print of deliverables, and marketing and outreach materials.

Outreach activity “Eye on the arctic”
- Setting up webcams to show “live” photos/film from arctic stations and their surroundings.

For a potential INTERACT II application, it would be good to know how many researchers use the INTERACT stations (in total and TA). Hanna and Elmer should work on this.

Session 9 – Closing of SMF 6

By Morten Rasch, Chair of Station Managers' Forum

Morten closed the SMF6 meeting and thanks everyone for again making it a very productive and useful meeting. Christer Jonasson (from Abisko Scientific Research Station) and Margareta were thanked for their preparations for the meeting and Tatiana Larina (Aktru) for a wonderful flute concert during one of the breather presentations.

Station Managers' Forum meeting number seven will be held together with the annual meeting in Oulanka 4-7 February 2014.

Appendix 1 – Agenda INTERACT Station Managers' Forum 6

INTERACT Station Managers' Forum 6

Abisko Scientific Research Station, Sweden
25-28 September 2013

Day 1 (Wednesday, 25 September 2013)

Arrival and check in

Day 2 (Thursday, 26 September 2013)

07.00 Breakfast

Session 1

08.30 Opening (Morten Rasch, SMF Chair) (15 min)
08.45 Introduction, agenda and practicalities (Christer Jonasson, Abisko Station Manager and Elmer Topp-Jørgensen, SMF coordinator) (15 min)
09.00 Introduction of participants (15 min)

Session 2

09.15 News from the INTERACT Secretariat (Terry Callaghan/Margareta Johansson/H. Frykman) (30 min)

Breather

09.45 Station Presentation – Samoylov Research Station, Moritz Langer (15 min)

10.00 - 10.30 Coffee

Session 3

10.30 Best Practises of Station Management – the report (90 min)
- Revision of themes 1-5

12.00 – 13.30 Lunch

Breather

13.30 Station Presentation - Sermilik Research Station, Thor Markussen (15 min)

Session 4

13.45 Research and Monitoring at INTERACT stations (90 min) – parameter list/project metadata

15.15 - 15.45 Coffee

Breather

15.45 Observer Station Presentation - Aktru and Hanymei Research Stations, Sergei Kirpotin (25 min)

Aktru musical experience Tatiana Larina (Flute) (10 min)

Session 5

16.20 INTERACT Reporting activities (Louisella Bianco) (20 min)
16.40 WP4 Transnational Access –update on the current situation and future prospects (Hannele Savela)(20 min)

17.00 End of Day 2

Appendix 1 – Agenda INTERACT Station Managers' Forum 6

Day 3 (Friday 27 September 2013)

Breather

08.30 Station Presentation –Kluane Lake Research Station, Sian Williams and Maribeth Murray (15 min)

Session 6

08.45 Open session (45 min)

- Tagging of data/metadata to GEOSS Data CORE (data/metadata access system operated by Group on Earth Observations)(Hannele Savela) (15 min)
- Suggestion to develop country specific information on permit needs and application procedures (Hannele Savela/Elmer Topp-Jørgensen on behalf of Yulia Zaika, WP2, WP4) (15 min)
- INTERACT Station Catalogue – Web edition (Elmer Topp-Jørgensen/Hanna Frykman) (15 min)
- INTERACT science book (Terry Callaghan)(15 min)

09.45 - 10.00 Coffee

- Presentation and discussion of outcomes of pre-workshop on engaging local communities (Lis Mortensen, Christer Jonasson, Ninis Rosqvist and Elmer Topp-Jørgensen) (20 min)

Session 7

10.20 Best Practises of Station Management – the report (90 min)

- Revision of themes 6-11

11.30 – 13.30 Lunch

Stretch a leg session

13.30 Explore the Abisko surroundings on a guided tour around the station infrastructure and research plots

Breather

15.15 Station presentation - Spasskaya Pad/Chokurdakh stations (Trofim Maximov and Roman Petrov)

15.30 - 15.50 Coffee

Session 8 – The future of the Station Managers' Forum

15.50 SMF History (tasks, accomplishments and failures) and the task ahead (10 min)
16.00 Plenum discussion – ideas for the future (45 min)

Session 9

16.45 Closing of SMF (Morten Rasch, Chair)

17.00 End of SMF6

Day 4 (Saturday 28 September 2013)

Departure from Abisko. Busses will depart for planes at 07.05 and 14.30.

Looking forward to INTERACT in Oulanka 4-7 February 2014 at the 3rd Annual Meeting and SMF7.

Appendix 2 – Participant list INTERACT Station Managers' Forum 6

Participant List

INTERACT Station Managers' Forum meeting 6
Abisko Scientific Research Station, Sweden
25-28 September 2013

Name	Station/organisation	Country	Phone	e-mail
Christer Jonasson	Abisko Scientific Research Station	SWE	+46 (0)84502500	office@polar.se
Christine Barnard	CEN stations	CAN	+ 4186563340	christine.barnard@cen.ulaval.ca
Christoffer Andrews	Cairngorm	UK	+44 (0)1314454343	chan@ceh.ac.uk
Daan Blok	Arctic Station	GL	+45 35322552	Daan.blok@geo.ku.dk
Elmer Topp-Jørgensen	Aarhus University	DK	+45 30183111	jetj@dmu.dk
Hanna Frykman	Royal Swedish Academy of Science	SWE	+ 46 462223622	hanna.frykman@nateko.lu.se
Hannele Savela	Thule Institute, University of Oulu	FIN	+358 294487554	hannele.savela@oulu.fi
Hlynur Oskarsson	Litla Skard	ICE	+354 8625047	hlynur@lbhi.is
Irina Temnikova	Aktru Research Station	RUS	+7 9539198971	irtem@sibmail.com
Jaroslav Andrle	Krkonoše Mountains National Park	CZE	+420 604350604	jandrle@krnap.cz; andrlej@fzp.czu.cz,
Katrine Raundrup	Greenland Institute of Natural Resources	GL	+299 270306	kara@natur.gl
Lillian Magelund Jensen	Zackenberg Research Station	GL	+45 30783161	limj@dmu.dk
Lis Mortensen	FINI	Faroe	+298 223244	lm@jf.fo
Louisella Bianco	CLU srl (WP1)	ITA		luisella@cluweb.it
Margareta Johansson	Royal Swedish Academy of Science	SWE	+46 462224480	margareta.johansson@nateko.lu.se
Maribeth Murray	Kluane Lake Research Station	CAN	+4032207516	murraym@ucalgary.ca
Moritz Langer	Samoylov Research Station	RUS	+49 3312882200	Moritz.Langer@awi.de
Morten Rasch	WP2/Station Nord	DK/GL	+45 23227109	mras@dmu.dk
Nick Cox	NERC Arctic Research Station	SVA	+44 1223221502	nc@bas.ac.uk

Appendix 2 – Participant list INTERACT Station Managers' Forum 6

Participant List

INTERACT Station Managers' Forum meeting 6
Abisko Scientific Research Station, Sweden
25-28 September 2013

Continued... Name	Station/organisation		Phone	e-mail
Ninis Rosqvist	Tarfala Research Station	SWE	+46 (0)702293404	Gunhild.rosqvist@natgeo.su.se
Otso Suominen	KEVO Subarctic Research Institute	FIN	+358 404860282	otso.suominen@utu.fi
Piotr Glowacki	Polish Polar Station	SVA	+48 226915890	glowacki@igf.edu.pl
Poul Eric Aspholm	Bioforsk Svanhovd Research Station	NOR	+47 93220452	paul.eric.aspholm@bioforsk.no
Riku Paavola	Oulanka Research Station	FIN	+358 401761224	riku.paavola@oulu.fi
Roman Petrov	Spasskaya Pad/Chokurdakh stations	RUS		pre2003@mail.ru
Sergei Astakhov	Aktru Research Station	RUS	+7 9138207724	astakhov009@gmail.com
Sergei Kirpotin	Aktru Research Station	RUS	+7 9138819145	kirp@mail.tsu.ru
Sergei Vorobiov	Aktru Research Station	RUS	+7 9095434575	soil@green.tsu.ru
Sian Williams	Kluane Lake Research Station	CAN	+8678414561	sian.williams@ucalgary.ca
Syndonia Bret-Harte	Toolik Field Station	USA	+907 474 5434	msbretharte@alaska.edu
Tatiana Larina	Aktru Research Station	RUS	+7 9262261131	Larinaflute@gmail.com
Terry Callaghan	Royal Swedish Academy of Science	UK/SWE	+44 7770542123	terry_callaghan@btinternet.com
Thor Markussen	Sermilik Research Station	GL	+45 35322545	thor.markussen@geo.ku.dk
Thorkell Lindberg Thorarinsson	Raufarhöfn Research Station	ICE	+354 4645110	lindi@nna.is
Torbjørn Karlin	Tarfala Research Station	SWE	+46 8164220	torbjorn.karlin@natgeo.su.se
Trofim Maximov	Spasskaya Pad/Chokurdakh stations	RUS	+7 4112335897	t.c.maximov@ibpc.ysn.ru
Wlodzimierz Sielski	Polish Polar Station	SVA	+48 501548555	sielski@igf.edu.pl