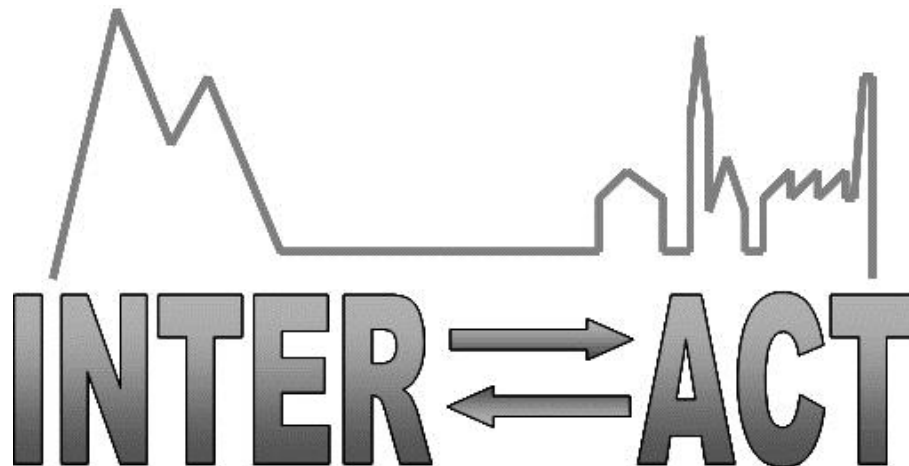# Combination of CP & CSA

D2.7 – Minutes – Station Managers' Forum 5

Project No.262693– INTERACT

FP7-INFRASTRUCTURES-2010-1

Start date of project: 2011/01/01   Duration: 48 months
Due date of deliverable: 2013/07/31 (M20)   Actual Submission date: 2013/05/24

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)	

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Publishable Executive Summary

The INTERACT Station Managers' Forum meeting 5 was successfully held before time back to back with the second INTERACT Annual Meeting on 4-7 March 2013 at the Greenland Institute of Natural Resources, Greenland.

Sessions focused on the Work Package 2 (WP2) tasks and deliverables, including the report on best practises of station management and administration, the report on research and monitoring at INTERACT stations, local involvement, and a web-based INTERACT station catalogue.

28 of the original 33 INTERACT stations and a number of stations with observer status participated in the meeting together with the INTERACT partner organisation and INTERACT Advisory Board members.

The Local Involvement Session included presentations from a local hunter and a scientist from the Greenland Institute of Natural Resources who provided their view on sustainable use and the challenges of climate change.

The development of the web-based version of the INTERACT station catalogue was also presented and a set of questions that needs to be addressed to improve the functionality of the system was identified.

INTER ⇌ ACT

Minutes of INTERACT

Station Managers' Forum 5

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

7 march 2013, Greenland Institute of Natural Resources, Greenland

Contents:

Appendices:

Executive summary

The INTERACT Station Managers' Forum meeting 5 was held back to back with the second INTERACT Annual Meeting on 4-7 March 2013 at the Greenland Institute of Natural Resources, Greenland.

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28 of the original 33 INTERACT stations and a number of stations with observer status participated in the meeting together with the INTERACT partner organisation and INTERACT Advisory Board members.

The sessions related to the report on best practices was a combination of plenum presentations/discussions and break out groups aiming at identifying key issues to be addressed by station managers for selected themes identified during previous Station Managers' Forum meetings. Break out groups reviewed draft elements and provided new input to the report on best practises of station management on themes relating to health and safety, permit issues and outreach and marketing. The outcome of the discussions will be used for the report deliverable.

In relation to research and monitoring carried out at INTERACT sites it was agreed that WP2, WP 7 and SAON should continue discussions on the possibilities of agreeing on the use of a common template for project meta-data. This is to be used for a database on all research and monitoring projects carried out at INTERACT stations since year 2000. It was also agreed that WP2 and WP7 should work together on identifying parameters sampled at INTERACT stations (a task under WP2) as this is relevant for the development of the ScanDB database under WP7.

The Local Involvement Session included presentations from a local hunter and a scientist from the Greenland Institute of Natural Resources who provided their view on sustainable use and the challenges of climate change.

Kirsten Elger presented the development of the web-based version of the INTERACT station catalogue and identified a set of questions that needs to be addressed to improve the functionality of the system.

Next meeting, Station Managers' Forum 6 will be held at Abisko Scientific Research Station 26-27 September 2013, Sweden.

Key things to remember

Station Mangers' Forum 6 to be held on 26-27 September 2013 at Abisko Scientific Research Station, Sweden.

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

Think about what the Station Managers' Forum should be like in a possible phase two of INTERACT (to be discussed at SMF6).

Person specific tasks agreed on at SMF 5

Best practices of station management (see session 2)
- Break out group 1 members will provide the following information to Elmer Topp-Jørgensen:
  - **Hlynur Oskarsson**- will provide text about outreach when you have a field site and not a field station.
  - **Antero** - will provide information on local school involvement and long-distance education related to field stations.
  - **Warwick Vincent** - will provide information on how to integrate station activities into the school curriculum.
  - **Andy Sier** - will provide template of a communication plan for a station, including: key messages, target audience, purpose, risks and obstacles, etc.

- Break out group 2 members will provide the following information to Elmer Topp-Jørgensen:
  - **Nick Cox, Henrik Spanggård and Thor Markussen** – will draft text about increased risks for people to end up in dangerous situations (increased risk associated with coming back, tiredness, being close to base).
  - **Nick Cox** will send NERC Arctic Risk Assessment to Elmer (post meeting note: done).

Web based version of INTERACT Station catalogue (see Session 3)
- **Kirsten Elger and Elmer Topp-Jørgensen** will finalise the web based catalogue with input from WP1.

Local Involvement (see Session 4)
- WP2 (**Elmer**), WP8 (**Jan Dick, Andy Sier, Christer Johansson and Lis Mortensen**) and Tarfala (**Ninis Rosqvist**) will explore possibilities for a one day workshop on local involvement to be held back to back with SMF6 (24-25 September 2013).

Best practices of research and monitoring (see Session 5)
WP2 (**Elmer Topp-Jørgensen**), WP7 (**Tomas Thierfelder and Yannis Ioannidis**), SAON (**Jan Rene Larsen**) and WP4 (**Hannele Savela**) will continue working together to explore possibilities for developing a common template for gathering project meta data at INTERACT stations.

SMF 5, 7 March 2013, Greenland Institute of Natural Resources, Greenland.

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.

Use the INTERACT Equipment Marketplace.

Session 1 – Introduction to Station Managers' Forum 4

Opening of SMF 5

Morten Rasch, Chairman of the INTERACT Station Managers' Forum, opened the Station Managers' Forum 5, informed about the main achievements since the last meeting and set the scene for a constructive dialogue.

Agenda and participants

The SMF5 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. See agenda in Appendix 1.

Figure 1. 28 of the original 33 INTERACT stations participated in the meeting, as did a number of observer stations, partner organisations and INTERACT Advisory Board members. See participant list in Appendix 2.

Session 2 – Station management and administration

By Elmer Topp-Jørgensen

This session was used to revise three central elements of the report on best practices of station management and provide information to gaps identified in the write-up process. A short introduction of the four break out group themes was given and participants volunteered to participate in the group they found most interesting (except for WP8 participants who were asked to join a specific group on outreach and local involvement). Following the break out group discussions, a rapporteur presented the results of the group in plenum.

The four break out group themes were:
1) Outreach and local involvement.
2) Health and safety considerations.
3) Application form.
4) Emergency operation check lists.

Group 1: Outreach and local involvement

Task: Discuss below issues and present outputs in plenum (5 min).

A. Outreach - What are key points to consider when developing an outreach strategy?
   ▪ How to identify stakeholders.
   ▪ Means of reaching the different types of stakeholders.
   ▪ Other issues?

B. Local involvement
   ▪ Characterisation of approaches (what types of local involvement exists?).
   ▪ Important considerations for station managers wanting to implement local based monitoring/citizen science.
      - Purpose.
      - Accuracy.
      - Sustainability/incentives.
      - Other issues?

Results of breakout group 1 - local involvement and outreach.
Rapporteur, Andy Sier, National Environment Research Council, UK.

Table 1. Stakeholder groups and ways of reaching these.

Types of stakeholder	Social media (facebook, twitter,....)	Website	Open days workshops	Media (newspaper, radio, TV)	Paper (books, pamphlets)	Citizens science	School visits	Key leaders (Admin people)	Fun activities (competitions)	Tourism agents and attractions.
People in the north	Increasing							Personal visits		
Young people	x	x		TV		Exciting activities (out of the classroom)	x		Earth caching.	
Old people				Local radio.						
People with different interests								Through interests groups		Bird tours. Wildlife.
Primary of source of income								Through interests groups		
Resident			x	x		X	x			
Non-resident (visitors)										Earth caching
Non-resident (non-visitors)		X		TV, film			x	Talking to members of parliament…		
Cultural background			Offer appropriate food…	Local language.				Target individuals.		
Policymakers – local, national, global	x				Policy briefs			Targeting individuals		
industry	x							Key leaders.		
donors								Lobbyist		
Media								Press releases		
Educators	x						Start with teachers.			

SMF 5, 7 March 2013, Greenland Institute of Natural Resources, Greenland.

* Language is important in general.

**Know what outreach is already going on.

*** When implementing it must be appealing. (Competition for example, door prizes & food)

**** Template communication plan.

***** For citizens science you need to think in the long term (10 years…) with constant review. E.g. school curriculum. Consider accuracy of citizen-gathered data: it relates to how it can be used. Activities - Keep people safe and happy!

Members of the break out group will – **BY 15TH MARCH** 2013 contribute with the following information:
- **Hlynur Oskarsson**- will provide text about outreach when you have a field site and not a field station.
- **Antero** - will provide information on local school involvement and long-distance education related to field stations.
- **Warwick Vincent** - will provide information on how to integrate station activities into the school curriculum.
- **Andy Sier** - will provide template of a communication plan for a station, including: key messages, target audience, purpose, risks and obstacles, etc.

Group 2: Emergency check lists
Rapporteur, Elmer Topp-Jørgensen, Aarhus University, Denmark

The group discussed issues of relevance for emergency operations and not only check-list information. This section will therefore include elements of policies and regulations in addition to a check list template.

A number of emergency mitigation issues were highlighted by the group:
- Group whereabouts: Station management should know whereabouts of all field groups (e.g. notifying station management of activities and use sign in/out board)
- Fixed hours of communication: For groups working in remote areas away from the station, it is important to have fixed hours for communication between field groups and station management to ensure that all is well.
- When to initiate emergency operations: Stations should have internal guidelines for when to initiate emergency operations if calls are missed. The station manager will decide when to initiate emergency operations. The station manager can seek advice from police, rescue service, back office (at owner institution), etc., before taking a decision. The groups suggested that station management should react 12 hours after a missed call (general recommendation).
- How to handle emergency situations: Stations/institutions should have procedures for how to handle the press and next of kin. In emergency operations, there may be a great interest in getting information from the press, politicians or next of kin. In such cases, it may be a good idea to limit information sources to ensure that the information coming out is correct and allow for swift emergency operations. Station management should ask people to be decent and not spread information about the situation at the station until station management has informed relevant authorities, institutions, relatives, etc. Ask people not to spread information via social media.
- Always have a debriefing of people on the station and evaluate the operation (including identification of people in need post emergency support).

The check lists were discussed and detailed recommendations for revision were given by group members. General issues raised were:
- Add element for unmanned stations.
- Include section on when to initiate emergency operations in the report.
- Write box on when there are increased risks for people to put themselves in dangerous situations (increased risk associated with coming back, tiredness, being close to base). Will be drafted by Nick Cox, Henrik Spanggård and Thor Markussen.
- Add more on back office 24/7 support (Nick Cox to send BAS policy to Elmer).

Additional elements for Theme 6 on health and safety:
- The best you can do regarding fire is to prevent them from happening. Test electrical equipment before they are used and left running on their own.
- Make personal records available for back office. This will allow them to deal with tasks, so station staff can focus on the emergency operation in the field/at station.

Group 3: Application form
Rapporteur, Brian Barnes, Toolik Field Station, USA

Good start, fairly comprehensive, will be a valuable resource as a template that can be downloaded and customized for individual research stations. Would be especially useful if the form is web-based, and will allow managers to easily extract information for their reports (e.g. users, schedules, types of science, etc.).

Some station may want different versions of the application form (short versus long) depending on the user;
- Long version for principal investigators, including comprehensive science information.
- Shorter form for students, technicians, journalists or workshop participants. If too long, it won't be filled out.

At Toolik, the application form is reinforced with a briefing by the camp manager that includes additional information about activities and expectations (how to recycle, sauna hours, meals, etc.).

A web based form would call for more detail, especially:
- Schedule, who comes/leaves when.
- Space use, type of lab space needs, desks, equipment use (snow machines, freezers, etc.).
- Science support needs: GIS, widget builder, field support.
- Needs for shipping receiving, transport needs.
- Emergency contacts.
- Should be explicit mention of fees and payments, form a contract both for user and station manager.
- Agreement to clean up, remove waste, pack up equipment, etc.
- Statement of expectations for conduct; supervision of minors, alcohol use, etc.

Permit expectations are a big source of concern. Users must be responsible for their own permits, but managers can facilitate, provide lists of possible needed permits (vertebrate animal use, human subject, land use, use of radioactive materials). Good relations and frequent communication between station managers and agencies is critical to stay updated on permit requirements. Managers can screen applications for problems and speed up approvals. Possibility of "blanket permits" but most managers do not want to take on responsibility without authority over users. Six month turn-around is common.

Station management need to be provided with enough detail of scientific plans and field site locations to determine whether there may be a potential conflict or incompatible use.

Lots of discussion over the medical forms, with issues of privacy and confidentiality (archive without reading unless needed, destroy at end of season); only needed at remote stations with distant medical care; what minimum information is required? Include waivers/disclaimers, requirement for evacuation insurance?

Also training requirements; this should be the responsibility of the employers of the user, but some custom training at the stations may be appropriate. Can provide a list of recommended training (water, lab, field, haz mat, firearm, bear, etc.), but not the responsibility of Station Managers to check for compliance.

Application forms could also include a statement of the need to provide meta-data or links to primary data, agreement to post research publications using data from the station on the web site of the research station and willingness to give talks.

Statement of responsibility of individuals to inform managers of away team locations, time of return, radio check agreements, search and rescue options. Are there temperature minimum cut-offs for field work, requirement for two-person teams, etc.

Statement of expectations for staff support needed to undertake research, GIS, field work, logger download, etc. What is available for free vs. what services should be paid for.

Group 4:
Rapporteur, Syndonia Bret-Harte, Toolik Field Station, USA

Disclaimers and insurance forms:
There was general agreement that a disclaimer is a good idea. However, in the US, a disclaimer may not keep you from being sued. This is less common in Europe.

Question about whether to check if visitors are covered by an insurance. Station managers should not need to be responsible for assuring that people have insurance, only for letting them know that they need it (unless required by law).

Staff, visitors, and students usually have different insurance cover needs and are covered by different entities; this needs to be recognized.

At Toolik, we tell people that they need evacuation insurance and give them the name of a company they can buy it from, but we don't take responsibility if they don't have it; it is their individual responsibility to get it. Otso and Ninis agree.

It may not be possible to make a generalised insurance form for all countries, but one could do a form paradigm or policy that could be a starting point (example, to be customized).

Group members suggest that the Zackenberg disclaimer statement is good and very general, could be an example for many groups.

It is good to have several examples, because the statement may be needed to be very different in different countries – Russia is often very different. It would be good to get a Russian example for Russian stations.

There was general consensus that it is good for station managers to think about these issues (disclaimer and insurance).

Other health and safety related issues to consider:

Vehicles
Who can drive station vehicles? Can students drive? Can students drive boats?
What does insurance cover? Otso Suominen – they discovered that damages to cars were not covered only after an accident.

Mental health issues – Ninis – had a student in a course who had mental health issues and needed to be removed; who pays in that case? She charged the student, but the student refused to pay.
Riku – students were afraid of another student in a course, potentially violent; what to do in that case? Took some precautions and fortunately nothing happened, but it was scary.
Ninis – Ph.D. course student, who expressed strange views on weapons, freaked out another student who had experience with a prior shooting; student was removed, even though he was not a danger.

It would be good to provide some guidance to station managers on how to handle mental health issues. Lots of examples came up in discussion. Station managers should think about what thresholds would trigger dismissal of guests or staff.

Should have a small document on what are grounds for dismissal, and also positive statements about how we expect people to behave. For example, research is the mission of the **station**, people should behave respectfully to others.

An example of a statement on dismissal from Toolik:
The station manager has the ultimate responsibility to remove from the station any staff member, contractor, or member of the scientific community if that person's behaviour creates a serious problem for the community. Persons will be asked to leave camp immediately if they engage in physical intimidation, sexual harassment, or behaviour that endangers themselves or others. Repeated infractions of camp rules may also result in expulsion from camp if these behaviours are not corrected after being brought to the perpetrator's attention.

Aspects of this could also be different for student courses, visiting researchers or staff.

Student groups should have a responsible course leader, who is aware of mental health issues (if these are known in advance). Course participants may not be aware of what is required, may have incorrect clothing or health issues and are generally not as well prepared as researchers (or Ph.D. students) who stay for a long time. Student leaders should not engage in irresponsible behaviour. It might be a good idea to draft guidelines for student course leaders that could be distributed ahead of time.

Employees are a special case, because their employment may be governed by union rules.

Medical care at the station:
What level of care is provided?
First aid kits; how much is provided?
Epinephrine/adrenaline: Ninis has it prescribed for herself, then uses for others if needed; Toolik can't prescribe, but can administer if someone has their own.
Diabetic staff members at Kevo and Tarfala didn't reveal their conditions, and this caused some problems; Toolik has people fill out medical forms, which go to our Emergency Medical Technician, EMT (in the summer).
Ninis: it can be tricky when senior researchers and colleagues have medical issues; US Antarctic Program requires medical tests, but not in the Arctic. Ninis requires her staff at Tarfala to take a cardiac stress test.

It is often problematic that senior researchers do not want to follow new rules.

Other safety issues:
Generally a good idea for people to work in pairs, not alone. Should sign out (most stations require this, but people need to be reminded). People do go out on their own in the evening - if it is close by, sometimes they don't sign out.

Relevant floatation devices (life jackets, rafts) should be used in boats. Staff and users of boats should be instructed in what to do in case of emergency.

Torbjørn – Finse will require people to do a risk assessment when they sign in: what are their major potential risks, how great is the risk, what can you do to reduce the risk, what will you do if something happens, what kind of equipment do you have? Goal is to get them to think about it. Only group leader or all participants? – Not clear, but especially field course leaders should do this.

If you put yourself at risk, you put others at risk because others have to try to save you – helicopter crash trying to rescue climber – a question of education of visitors.

**Separate issue (not related to health and safety): some TA people are applying for too little time (not feasible); station managers should have the ability to extend their time. Researchers need to have a margin of error for sampling. In INTERACT Phase II, station managers should be able to propose extra time. It might be good also to require (or encourage) that the proposal be sent to station manager for comment ahead of time.

Session 3 – Web-based version of the INTERACT station catalogue

By Kirsten Elger, AWI.

Kirsten presented the status of the web-based version of the INTERACT Station Catalogue and presented technical functionalities of the system. Kirsten highlighted details of the system that needs to be dealt with and asked for feedback from the participants.

It was generally agreed to have as little new (and double) information on the Arctic Portal site as possible. Instead, we will ensure links to the INTERACT website where station specific information will be available and updated. This means that we can limit the updating and maintenance of information on the Arctic Portal website.

Issues to be addressed:
- We need a general description of INTERACT for layer information text – Elmer will write.
- We need to decide if we want additional "Features in the study area" integrated in the system (will require supplementary data from all stations):
  - Lakes?
  - Northern Subarctic Forest (Taiga)?
  - Peatland?
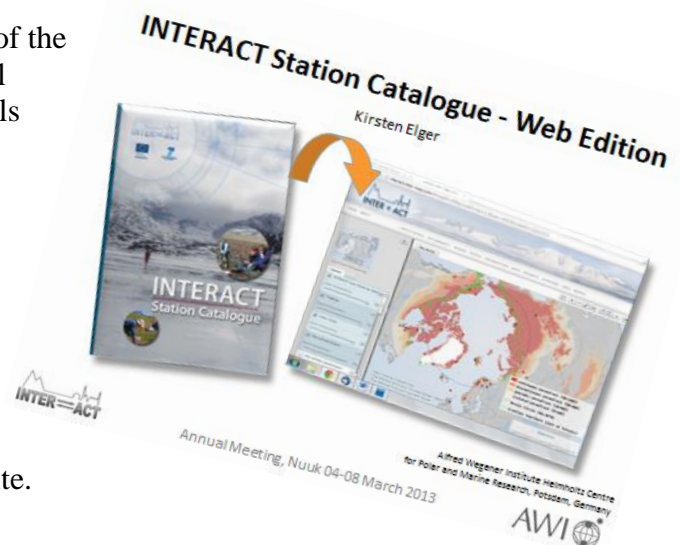
- Floodplain?
- Anything else? (see post meeting follow up below)
  - We need to define layer names for sub-layers under the INTERACT theme.
  - We need to decide if we want separate layers and use separate colours for (this also depends on the possibilities of the system at the Arctic Portal):
    - INTERACT and Observer Stations - Start map (red and yellow?)
    - Sub-layers (e.g. Tundra, Valley, Ice Cap)
  - We are responsible for embedding the Arctic Portal-map in the INTERACT website – will be done by WP1.

Participants provided input and it was agreed that the issues should be addressed in detail by Kirsten and Elmer with involvement of WP1.

Follow up (post meeting): After the meeting, a second questionnaire was distributed among the station managers to collect information for the environmental envelope. We asked about the presence or absence of several additional "features in the study area" (ice cap or glacier, permanent snow patches, mountain, valley, shoreline, treeline, river, lake, polar deserts/semi-deserts, shrub tundra, graminoid tundra, forest tundra, peatlands, wetlands, palsa mires, deciduous forest, Evergreen Forest, human land/ presence of human communities). The results will be used to create additional layers at the interactive map of the Arctic Portal. Details about their implementation are still pending but we are in discussion with the Arctic Portal.

Session 4 – Local involvement – sustainability and climate change

By Lis Mortensen

Johannes Heilmann, Greenland Hunter and Fishermen Organisation (KNAPK).
Johannes, a local hunter and fisherman from Nuuk, described activities of a typical year for him where targeted species changes with the annual cycle.

Winter: seals and birds
Spring: lump sucker (for caviar) and cod
June: trout; August: reindeer, musk ox and salmon
Autumn to winter: reindeer and birds

Local hunters have experienced increased calving of the glaciers in the bottom of the fiord. Previously calvings filled the fiord with ice 1-2 times per year (spring and autumn), but now calvings take place all year round. Furthermore, the increased thaw results in a bigger top-layer of freshwater that freezes at higher temperatures than saltwater and therefore have implications for boat transport. The experienced climate changes especially affect winter hunting activities.

Fernando Ugarte, Head of Mammals and Birds, Greenland Institute of Natural Resources.
Fernando explained that GINR is an institution under the Government of Greenland that carries out monitoring to document changes and provide management advice to the government.

GINR represent Greenland in a number of international and regional advisory committees and recommendations for some species go through these fora, e.g. International Whaling Commission

(IWC), North Atlantic Marine Mammal Commission (NAMMCO), Joint Commission for Narwhal and Beluga (JCNB). GINR is also the Scientific Board in the Greenlandic CITES system.

The institute has developed a monitoring strategy with intended monitoring frequencies for populations and colonies. Monitoring frequency is prioritised according to a number of factors including vulnerability and importance. Desired frequencies cannot be met by government funding and external funding is thus necessary to fulfil the strategy.

GINR collaborates with the hunter and fishermen organisation (KNAPK). Examples of cooperation includes meetings that are often held with local hunters prior to surveys to include their perspective on methodology, local hunters are employed as observers during some survey, and local hunters and game officers are trained in monitoring techniques. The presentation can be seen at www.eu-interact.org/station-managers-forum/

Management perspectives
Unfortunately the Hunting Division of the Ministry of Fisheries, Hunting and Agriculture cancelled their presentation the day before it was scheduled. Management issues were debated briefly under the discussions and a presentation of the managerial tasks in relation to wildlife management and monitoring can be seen at www.eu-interact.org/station-managers-forum/ (made by WP2 based on input from the ministry).

It was agreed that the potential for a one day workshop on local involvement held back to back with SMF 6 should be investigated. Ninis (Tarfala) offered to assist and will work with WP2 and WP8 to explore possibilities and develop workshop purpose and contents.

Session 5 – Research and monitoring at INTERACT stations – Template

By Elmer Topp-Jørgensen

Previous SMF meetings have provided input to the meta-data template that should be used to gather information on research and monitoring projects carried out at INTERACT stations since 2000.

Other work packages in INTERACT also gather project meta-data. WP4 gathers project meta-data under the Transnational Access programme and WP7 has developed a GIS based project management tool for Abisko Scientific Research Station. Furthermore, the Sustaining Arctic Observing Network (SAON, an Arctic Council initiative), who is represented in the INTERACT consortium, is also in the process of developing project meta-data templates for the SAON database.

Internationally there are standards to build on/adapt from including ISO 19115 and INSPIRE (EU) and several national initiatives have launched to develop standards. It was agreed at the meeting that WP2, WP7 and AMAP/SAON should seek ways to cooperate with the aim of developing a common set of meta-data based on international standards but possibly adapted to an arctic setting.

A side meeting was held to discuss how to proceed. Jan Rene Larsen, Tomas Thierfelder, Yannis Ioannidis, Hannele Savela and Elmer Topp-Jørgensen will continue discussions.

Session 6 – Research and monitoring at INTERACT stations – Parameters and best practices

By Morten Rasch, Aarhus University

It was agreed that INTERACT should link up to already existing monitoring programmes/scientific networks when describing best practises of monitoring selected parameters.

Following networks/programmes were identified:
AMAP – Arctic Monitoring and Assessment Programme
-   Assessing status and threats to the Arctic environment (expected to develop new versions of protocols within this year).

CBMP – Circumpolar Biodiversity Monitoring Programme / BTF - Back to the Future
-   Biodiversity monitoring initiatives.

GEO – Group on Earth Observation / GEOSS – Global Earth Observation System of Systems
-   The GEOSS 'system of systems' will proactively link together existing and planned observing systems around the world and support the development of new systems where gaps currently exist. It will promote common technical standards so that data from the thousands of different instruments can be combined into coherent data sets. Includes a number of sub-themes, e.g. ecosystem, biodiversity themes, climate, etc. http://www.earthobservations.org/index.shtml

IPA/GTN-P, CALM, ADAPT (Canada), PAGE21
-   Permafrost/active layer initiatives.

ICOS – Integrated Carbon Observation System (and W6)
-   Carbon cycle, energy balance and flux measurement (CO_2, water vapour, energy).

ITEX/EXPEER/INCREASE
-   Experimental ecosystem research.

ENV-Europe
-   Standard protocols for monitoring habitat and climate.

Insects
-   This was mentioned as a required theme, but no known networks. Zackenberg and Oulanka have protocols.

In addition to the identification of potential networks for describing best monitoring practises, participants came up with additional elements for the report:
-   Preservation of samples for later DNA analysis.
-   Suggestion for a minimum set of parameters being monitored by INTERACT stations/What can you do with limited funding.

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ScanDB – database (Yannis Ioannidis, University of Athens)
Yannis presented ideas for a platform architecture for the ScanDB database. Information from station managers is required to develop the database. It was agreed that WP7 and WP2 work together on this, as a task under the WP2 is to provide a database over what variables are being monitored at INTERACT stations.
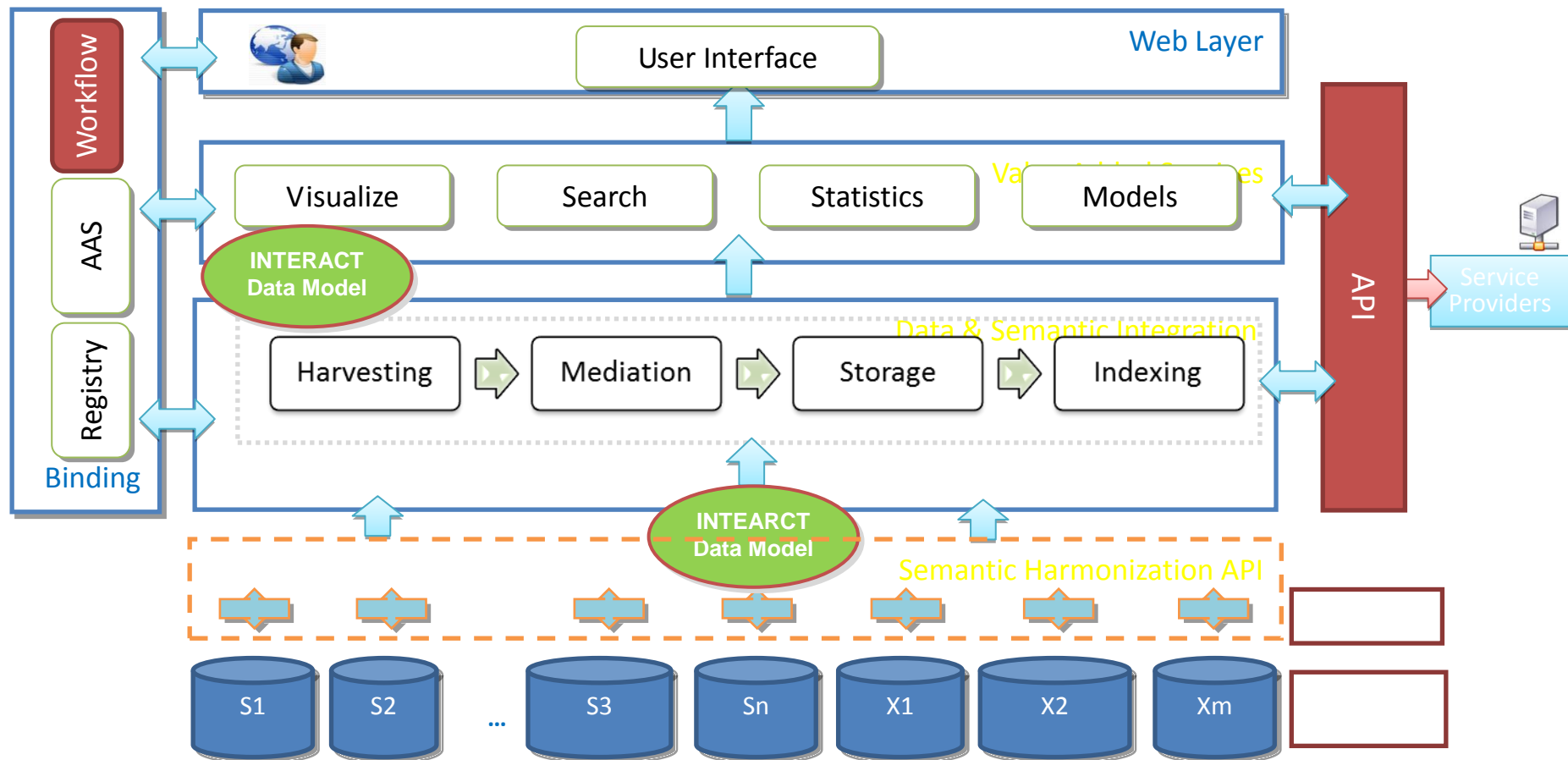
Session 7 – Closing of SMF 5

By Morten Rasch, Chair of Station Managers' Forum

Morten thanked everyone for coming to Nuuk and for the active and constructive participation in the Station Mangers' Forum meeting number five. He encouraged rapid responses to requests for information/comments to reports in the time ahead of us. He informed that next meeting will be held in Abisko 26-27 September 2013, possible with a voluntary one day workshop the 24-25 September on local involvement at research stations.

INTERACT 2nd Annual Meeting
March 4-7, 2013
GINR, Nuuk, Greenland
Agenda

March 4 Monday– Day 1
Consortium Meeting and Mid Term Review

Arrival day

14:30 Transfer from Hotel Hans Egede to GINR

15:00-15:30	Welcome and round table presentation	Terry Callaghan
15:30-15:40	Welcome greetings from GINR	Katrine Raundrup/ Klaus Nygaard

Start of Mid Term Review

15:45-18:00 First Phase Mid Term Review

15:40- 16:00	INTERACT in progress	Terry Callaghan/ Margareta Johansson

16:00 – 17:30 Presentations of work packages
Chair: Terry Callaghan

16:00 – 16:20	WP1 Management and Coordination	Margareta Johansson Hanna Frykman
16:20 – 16:40	WP 2 Station Mangers Forum	Elmer Topp-Jørgensen
16:40- 17:10	WP 3 International Cooperation	Morten Rasch
17:10- 17:30	WP 4 Transnational Access	Hannele Savela

18:00 Transfer from GINR to Hotel Hans Egede

19:00 Dinner

End of day 1

1

INTERACT 2nd Annual Meeting
March 4-7, 2013
GINR, Nuuk, Greenland
Agenda

March 5 Tuesday – Day 2
Consortium Meeting and Mid Term Review

07:00 – 08:00 Breakfast

8:30 Transfer from Hans Egede to GINR

09:00 – 10:20 Presentations of work packages
Chair: Margareta Johansson

09:00 - 09:20	WP 5 Virtual Instrumentation	Joel Grandos
09:20- 09:40	WP 6 Measurements of terrestrial biospheric feedbacks to climate	Torben R Christensen
09:40-10:00	WP 7 Data management	Tomas Thierfelder
10:00-10:20	WP 8 Outreach	Andy Sier/ Jan Dick/ Lis Mortensen
10:20 – 10:35	Mid Term Review immediate feedback	John Calder

End of Mid Term Review

10:35 – 11:00 Coffee break

11:00 – 13:00 Matters arising from the first periodic report
Chair: Morten Rasch

11:00-11:15	Preparation for the periodic report – lessons for the future	Luisella Bianco Margareta Johansson
11:15- 12:20	WP integration and synergies, plenary discussion	
12:20- 12:40	Presentation of GINR	Katrine Raundrup
12:40- 13:00	Guided tour of GINR	Katrine Raundrup/ Torben Christensen

13:00 – 14:00 Lunch

2

SMF 5, 7 March 2013, Greenland Institute of Natural Resources, Greenland.

INTERACT 2nd Annual Meeting
March 4-7, 2013
GINR, Nuuk, Greenland
Agenda

March 5 Tuesday – Day 2
Consortium Meeting

14:00 – 15:30 Current developments
Chair: Margareta Johansson

14:00 – 15:00	Presentations about linked programs e.g. GEO, ISAC IASC, CBMP, SIOS, AOS, SAON, AMAP, U.Arctic	Hannele Savela/ Morten Rasch/ Terry Callaghan/Jan René Larsen/Christer Jonasson
15:00 -15.30	New EU cross fertilization biodiversity meeting and updates on Horizon 2020	Anna Maria Johansson

15:30 – 16:00 Coffee break

16:00 – 18:00 Current developments
Chair: Margareta Johansson

16:00 -16:50	New observer stations CHAR, Samoylov and FMARS, Station Nord	Georgina Lloyd/ Kirsten Elger/ Terry Callaghan/ Morten Rasch
16:50 – 17:20	Update about the INTERACT science book	Hannele Savela/ Morten Rasch/ Terry Callaghan
17:20- 17.40	Arctic Portal.	Halldór Jóhansson

18:00 Transfer from GINR to Hotel Hans Egede

19:00 Dinner

End of day 2

3

INTERACT 2nd Annual Meeting
March 4-7, 2013
GINR, Nuuk, Greenland
Agenda

March 6 Wednesday – Day 3
Consortium meeting

07:00 – 08:00 Breakfast

8:30 Transfer from Hotel Hans Egede to GINR

9:00-10:20	Expected achievements for each WP up to 2014 WP 1-8, 10 min each	Morten Rasch *(chair)* WP leaders
	10:20 – 10:50 Coffee break	
	10:50-12:20 The Future **Chair: Terry Callaghan**	
10:50 - 11:10	**INTERACT II**	Terry Callaghan
11:10 - 11:30	INTERACT II, Plenary discussion	Morten Rasch
11:30 - 11:40	Summing up evaluation	John Calder
11:40 – 12:20	Advisory Board presentations	Advisory Board
12:20	**Concluding remarks**	*Terry Callaghan/* *Margareta Johansson*
	13:00 - 14:00 Lunch	
14:00-17:00	**Excursion**	**Tour guides**

End of Consortium meeting

19:00 Banquette Dinner

21:00 – 22:00 Entertainment

End of day 3

4

INTERACT 2nd Annual Meeting
March 4-7, 2013
GINR, Nuuk, Greenland
Agenda

March 7 Thursday – Day 4
Station Managers Forum

07:00 – 08:00 Breakfast

8:30 Transfer from Hotel Hans Egede to GINR

Station Managers Forum meeting

09:00-15:30 Station Managers Forum

09:00 - 09:15	Opening of Station Managers' Forum 5	Morten Rasch
	- Status of work and agenda	Elmer Topp-Jørgensen
09:15 - 10:30	Revision of best practices for station management themes (break out groups)	Elmer Topp-Jørgensen

10:30 – 11:00 Coffee break

11:00 - 11:30	Revision of best practices for station management themes	Elmer Topp-Jørgensen
11:30 - 12:00	Web-based INTERACT Station Catalogue presentation	Kirsten Elger
12:00 - 13:00	Local involvement - Discussion of climate change and adaptation	Lis Mortensen

13:00 – 14:00 Lunch and walks

14:00 - 14:20	Report on research and monitoring at INTERACT stations	Elmer Topp-Jørgensen
	- Agreeing on final template and time span	
14:20 - 14:50	Report on research and monitoring at INTERACT stations	Morten Rasch
	- Selection of parameters for which best practices should be described	
	- Identification of potential contributing scientific networks and programs	
14:50 - 15:00	**Closing of Station Managers' Forum 5**	Morten Rasch

15:00 – 15:30 Coffee break

5

INTERACT 2nd Annual Meeting
March 4-7, 2013
GINR, Nuuk, Greenland

Agenda

15:30-16:30	Individual WPs meeting	Chairs WP Leaders
16:30-17:00	Closing of meeting and Concluding remarks	Terry Callaghan/ Margareta Johansson

17:00 Transfer from GINR to Hotel Hans Egede

19:00 Dinner

End of day 4

March 8 Friday – Day 5

Departure from Nuuk

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INTER═ACT

Participant List
INTERACT Annual Meeting 2
Greenland Institute of Natural Resources, Greenland
4-8 March 2013

List of participants

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