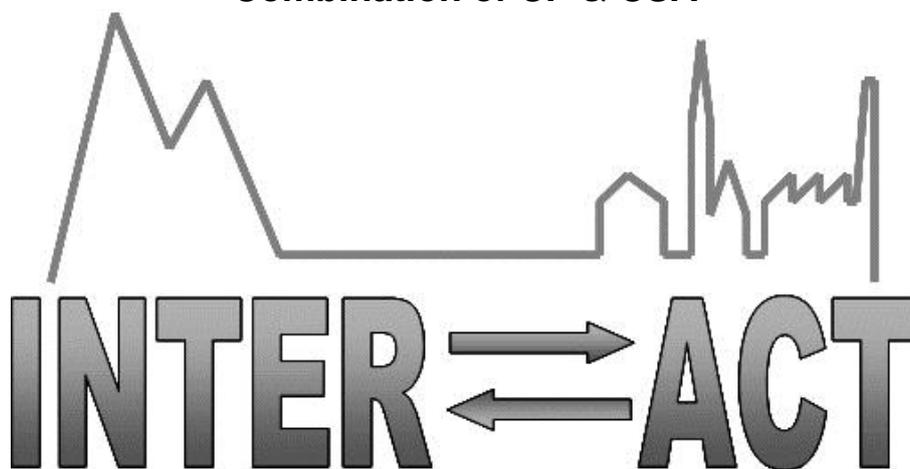


Combination of CP & CSA



D3.4 - “Word Models Published”

Project No.262693– INTERACT

FP7-INFRASTRUCTURES-2010-1

Start date of project: 2011/01/01
Due date of deliverable: 2012/12/01

Duration: 48 months
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Lead partner for deliverable: Royal Swedish Academy of Sciences
Author: Terry Callaghan

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 main objective of Work Package 3 is “To secure the further integration and expansion of INTERACT across the boundary of the EU” and a specific goal is to “Increase further the integration in INTERACT of the non-EU partners”. This specific goal was intended to exchange information with and further integrate the INTERACT infrastructures outside the EU and to publish information about the non-EU infrastructures.

Since the inauguration of INTERACT, 14 Observer Stations have joined INTERACT and more applications are pending which has widened the scope of the task and Deliverable because it became essential to adequately include details of both non-EU partner infrastructures and new Observer Stations. This has been achieved in five different ways: 1) Invitation to join INTERACT meetings 2) Presentation of the infrastructures on the INTERACT web site 3) Newsflash on the INTERACT website when accepted as new Observer Station and 4) The presentation of detailed information on the Infrastructures in the INTERACT Station Catalogue 5) Inclusion in the Best Practise Report for Station Management and Administration (D2.6).

This Deliverable has been achieved to a greater extent than foreseen at the outset of the project and non-EU Partners as well as Observer Stations are fully integrated within INTERACT.

1. Word Models Published

1.1. Background

The main objective of Work Package 3 is “To secure the further integration and expansion of INTERACT across the boundary of the EU” and a specific goal is to “Increase further the integration in INTERACT of the non-EU partners”. This specific goal is represented by Task T3.1 which was intended to exchange information with and further integrate the INTERACT infrastructures outside the EU. This task implied the Deliverable 3.4 which was intended to publish information about the non-EU infrastructures. The Task and Deliverable were mainly the responsibility of the Coordinator and partner KVA (partner 1).

1.2. Activity

When the relevant deliverable and task were designed, the focus was on infrastructures in Canada and the US. However, since the inauguration of INTERACT, 14 Observer Stations have joined INTERACT and more applications are pending. This has widened the scope of the task and Deliverable because it became essential to adequately include details of both non-EU partner infrastructures and new Observer Stations. This has been achieved as follows:

1. Representatives of non- EU-Infrastructures and Observer Stations have been invited to attend all INTERACT meetings and present their infrastructure, and thereby to become fully integrated.
2. Details of all these infrastructures – “Word Models” have been included on the INTERACT web site (www.eu-interact.org) and on the INTERACT and Arctic Portal location maps (being developed).
3. When each new Observer Station is accepted as an INTERACT Member, a news item is posted on the INTERACT web site giving details of the infrastructure and its activities.
4. Details of the Infrastructures have also been published along-side INTERACT EU Infrastructures in a volume entitled “INTERACT Station Catalogue” compiled by partners NERI (partner 2) and AWI (partner 23) with some external funding. The volume is available as hard copy and has been distributed widely, for example to the Chair of the Arctic Council, and is also available as a downloadable pdf from the INTERACT web site (<http://www.eu-interact.org/station-managers-forum/report-deliverables/station-catalogue/>). The Station Catalogue is arranged by infrastructure and for each, a description is given of the infrastructure, its location, environment, activities, contact details and practical arrangements necessary to visit the station. The Catalogue is generously illustrated and designed to appeal to a wide target audience.
5. Details of best practises operated by some Observer Stations have been included in the Best Practise Report for Station Management and Administration (D2.6).

Examples of a) a news item (Figure 1), b) an entry on the web site (Figure 2) and c) pages in the Station Managers Forum are presented below (Figures 3 and 4).



■ STATION MANAGERS FORUM

The Interact project will provide a platform for exchange of information between research station managers and other participants. This is done through the Station Managers Forum.

[Image Gallery](#)

Welcome to INTERACT - International Network for Terrestrial Research and Monitoring in the Arctic

INTERACT is an infrastructure project under the auspices of SCANNET, a circumpolar network of 33 terrestrial field bases in northern Europe, Russia, US, Canada, Greenland, Iceland, the Faroe Islands and Scotland. INTERACT specifically seeks to build capacity for research and monitoring in the European Arctic and beyond, and is offering access to numerous research stations through the Transnational Access program.

The project, which is funded by the EU, has a main objective to build capacity for identifying, understanding, predicting and responding to diverse environmental changes throughout the wide environmental and land-use envelopes of the Arctic. This is necessary because the Arctic is so vast and so sparsely populated that environmental observing

■ NEWS

16 January 2013
New observastation joining INTERACT
INTERACT are excited to welcome yet another research station, FMARS as an observer station!
[READ MORE](#)

16 January 2013
Applications for research permission to Zackenberg

Figure 1. An example from the INTERACT web site of news posting for a new observer station. The most recent is the FMARS station situated on Devon Island, Canada.

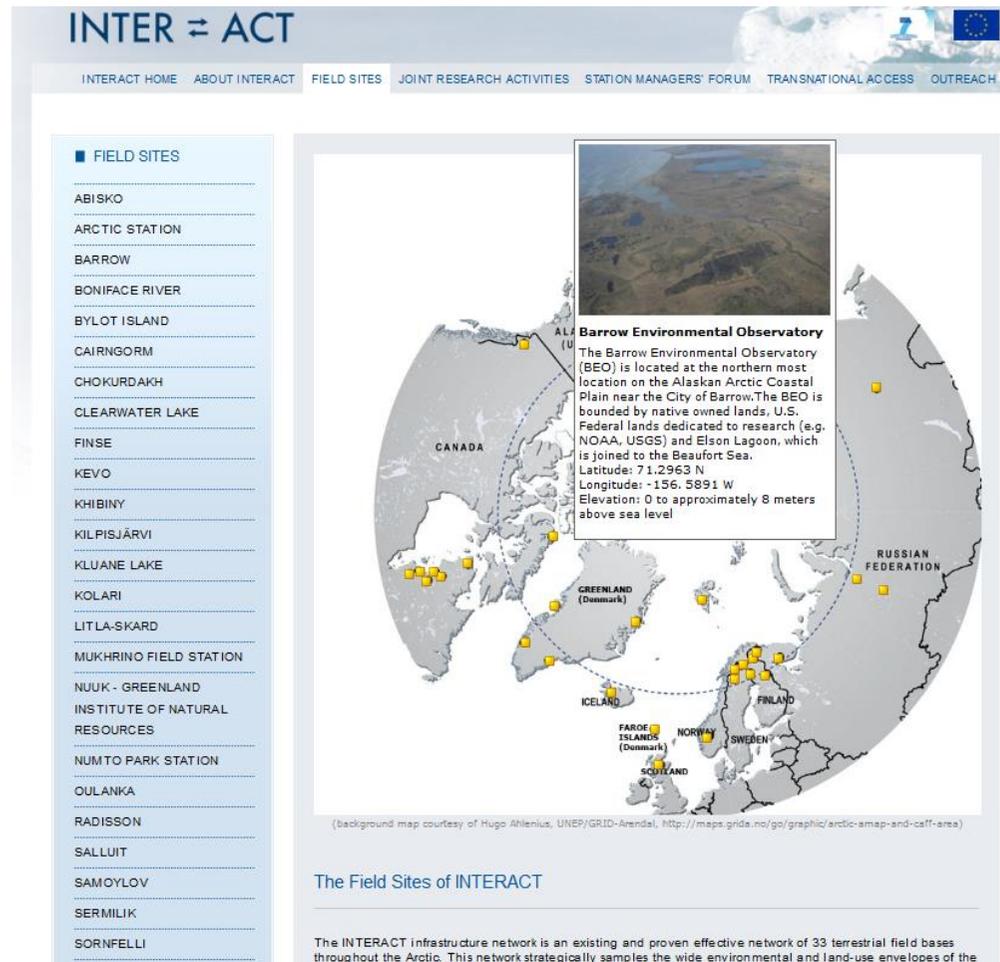


Figure 2. An example of the presentation of the infrastructures in an interactive map on the INTERACT web site

CHOKURDAKH

STATION NAME AND OWNER
 The Chokurdakh Scientific Tundra Station is owned by the Institute for Biological Problems of the Cryolithosphere (Siberian Branch of the Russian Academy of Sciences).

LOCATION
 The Chokurdakh Scientific Tundra Station (70°49'28" N, 147°29'23" E, elevation 11 m a.s.l.) is situated in the Kytalyk Wildlife Reserve, located on the north bank of the Elon (Berelekh) River in Northeastern Yakutia, Republic of Sakha (Yakutia), Russian Federation, approximately 25 km north of the Chokurdakh settlement and around 480 km north of Arctic Circle.

BIODIVERSITY AND NATURAL ENVIRONMENT
 The research area consists of three different morphological units, i.e. (i) the present, frequently flooded river floodplain, (ii) the river terrace with tundra vegetation, and (iii) higher (10-30 m) plateaus with well-drained soils. The ice-rich continuous permafrost reaches more than 300 m depths. The levees on the floodplains are overgrown with Salix brush. The backswamps consist of meadows with low grass (*Arctophila fulva*) and sedges (*Carex* arcticus, *C. glauca*) grading into shallow lakes. In the tundra, the main vegetation types are dry heath with *Betula nana* on higher sites (polygon rims, palsas); moist tundra with *Eriophorum* tussocks; wet sites with Sphagnum and *Carex* spp., and wet sites with a species-poor vegetation of *Carex* and some *Eriophorum*. At several sites the Sphagnum vegetation overlies a very thin active layer of loose moss peat (<20 cm thickness).

HISTORY AND FACILITIES
 The station was established in 2001 by the Siberian Branch of the Russian Academy of Sciences and the Vrije University of Amsterdam (Netherlands) with financial support from the government of Netherlands and with permission and help of the Ministry for Nature Protection of the Republic of Sakha (Yakutia). For accommodation, there is one 4x8 m large living house with four beds and firewood and kerosene heating. Additional tent accommodation for 4-6 people is possible during summer time. Kitchen is available. In addition, a big house for 10-12 peoples and a

sauna can be rented from the Kytalyk Wildlife Reserve. There are two 5 m high observational towers for meteorological and flux measurements. Basic instruments are available at the station. Electrical power supply is provided by solar power and wind generator (12 V DC) and portable electrical generators (220 V AC).

GENERAL RESEARCH AND DATABASES
 The interdisciplinary research at the Chokurdakh Scientific Tundra station mainly focus on studies of the environmental

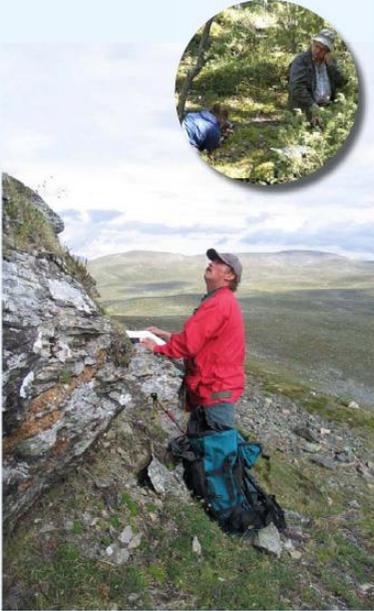
conditions and the role of permafrost ecosystems in Climate Change. This includes the interaction between the atmosphere, the biosphere, the hydrosphere, and the cryolithosphere with respect to biodiversity and global environmental change. Short-term monitoring data exists for different aspects of human activity. Data is available at the web-sites of PIN-MATRA and TCOS-Siberia projects.

HUMAN DIMENSION
 The Chokurdakh Scientific Station is situated in the Kytalyk Wildlife Reserve of the WorldWide Fund for Nature, which is dedicated to the preservation of the white crane (*Grus leucogeranus*). Human activity is restricted to fishing and reindeer herding.

ACCESS
 The Chokurdakh Scientific Tundra Station can be reached from Chokurdakh settlement which is 3-5 hours by airplane from Yakutsk. From June to September, the transport to the station is possible by boat (2 hours from Chokurdakh along Berelekh River). In winter-time (November-April), transport takes place by snowmobile/sledge (2 hours from Chokurdakh).

Figure 3. An example of general information presented from one research station in the INTERACT Station Catalogue.

Category	Sub-Category	Kolari Research Unit
Website		http://www.metsa.fi/ko/index/en.htm
Country		Finland
Opening year		1954
Operational period		Year-round
Permitting issues categories	Permits required for access to the station Permits required for studies Contact (permit issues)	Yes Yes mirja.uopio@metla.fi
Facility owner and manager	Name of the facility owner Owner status Institution responsible for managing the station Contact (access to station) Website (institution)	Finnish Forest Research Institute METLA Government Finnish Forest Research Institute METLA mikko.jokinen@metla.fi www.metsa.fi
Other institutions	Name Country	- -
Location	Geographical coordinates Altitude of station Min. altitude within study area Max. altitude within study area Nearest town/settlement Distance to nearest town/settlement Map	67°21'16" N, 22°49'46" E 221 m a.s.l. 200 m a.s.l. 800 m a.s.l. Kolari (1500 inhabitants) 4 km Several maps, air photographs, satellite images, open access to digital maps of Finland
Climate	Climate zone Periods measured Mean annual temperature Mean temperature in February Mean temperature in July Mean annual wind speed Max. wind speed Dominant wind direction Total annual precipitation Precipitation type Ice break up	Sub-Arctic (Northern-Boreal) - Since 2010 0.8 °C -18.4 °C 15.4 °C 2 m/s 10.1 m/s S 491.5mm (2010), 612.7 mm (2011) Rain, snow, hail May
Station facilities	Area under roof Scientific laboratories Logistic Number of rooms (beds) Number of staff on station (peak/off season) Max. number of visitors at a time Showers Laundry facilities Power supply (type) Power supply	440 m ² 36 m ² 120 m ² 3 guest rooms (6 beds) 10/10 5-10 Yes Yes 230 V, 50 Hz AC power, DIN standard 24 hours per day
Scientific equipment	Specific device Scientific services offered	Light table, 2 heat closets, 5 exsiccators, 4 microscopes, 4 scales, ultrasonic washers, fume chamber -
Medical facilities	Medical facilities Medical suite No. of staff with basic medical training or doctor Distance to hospital (estimated time) Compulsory safety equipment Recommended safety equipment	Basic - 10 5 km (10 minutes, 2 hours to central hospital) - -
Landing facilities	Airstrip (Length x Width) Airstrip surface Helipad Ship landing facilities	- - - -
Vehicles at station	Sea transportation Land transportation	- Car, ATV, snowmobile
Transport and freight	Transport to station Number of ship visits per year (period) Number of flight visits per year (period)	- Car, railway, boat, plane (airport 75 km away) -

Features within study area

- Ice cap or glacier
- Permanent snowpatches
- Mountain
- Valley
- Shoreline
- Tundra
- Tree line
- Other

Main science disciplines

- Anthropology, Sociology, Archaeology
- Astrophysics
- Atmospheric chemistry and physics
- Isotope chemistry
- Climatology, Climate Change
- Environmental sciences, Pollution
- Geodesy
- Geology, Sedimentology
- Geophysics
- Glaciology
- Geocology, Geomorphology
- Soil science
- Human biology, Medicine
- Mapping GIS
- Marine biology
- Oceanography, Fishery
- Microbiology
- Hydrology
- Terrestrial biology, Ecology
- Palaeontology
- Palaeocology
- Limnology

Workshop facilities

- Metal workshop
- Wood workshop
- Pleights workshop
- Staff available to assist with constructions

Communication

- Telephone
- Satellite phone
- WiFi
- E-mail
- Internet
- Computer
- Printer
- Scanner
- Fax





Figure 4. An example of specific information that is presented from one research station in the INTERACT Station Catalogue.

1.3. Conclusions

The Deliverable’s intentions have been fulfilled to a greater extent than foreseen at the outset and non-EU Partners as well as Observer Stations are fully integrated within INTERACT. Although it was intended originally to extend the series of SCANNET Newsletters, the vastly increased communication activities within INTERACT have superseded this idea. In particular, the Station Catalogue with its word models is proving to communicate far more efficiently than the Newsletters.