

Integrating Activities for Advanced Communities



D2.9- Science expertise among INTERACT partners and ability to act as INTERACT Ambassadors

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| 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

INTERACT is a network of 80 terrestrial field stations. In addition to networking field stations, the project also networks a huge pool of science expertise through its partners. The aim of this deliverable is to identify a pool of science expertise from INTERACT's partners that can respond to requests from external organisations, consortia and networks for information, collaboration and representation from INTERACT. The survey identified 44 INTERACT Ambassadors from 16 countries covering a wide range of different topics from ecology, permafrost, hydrology, geomorphology, glaciology, science-policy interface to project management and arctic science logistics. The next steps will be to implement the INTERACT pool of expertise to ensure continued information flow and collaboration with relevant projects and networks. This survey will be followed up by another survey among the Transnational Access users to further enhance and improve our pool of INTERACT Ambassadors.

1. Introduction

INTERACT is an infrastructure project that networks 80 terrestrial field bases in northern Europe, Russia, US, Canada, Greenland, Iceland, the Faroe Islands and Scotland as well as stations in northern alpine areas. 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 capacity is limited compared to most other latitudes.

In addition to providing access to research stations and data from the Arctic, the network has a huge pool of science expertise. The aim of this deliverable is to identify a pool of science expertise from INTERACT's partners that can respond to requests from external organisations, consortia and networks for information, collaboration and representation from INTERACT. The definition of an INTERACT Ambassador is:

An INTERACT Ambassador should be available for scientific questions related to your science expertise within the context of INTERACT and should on some occasions want to represent INTERACT in thematic workshops

2. The Survey

To identify the pool of science expertise we created a survey in google docs consisting of four questions (Figure 1). The idea was to make the survey as simple as possible to increase the number of participants. The link to the survey was sent to all partners in INTERACT as well as to our Observer Stations contact persons.

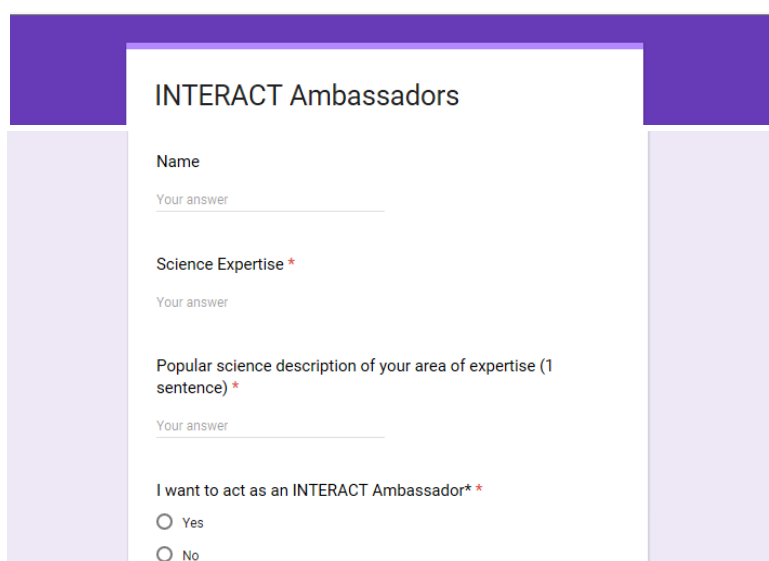
A screenshot of a Google Docs survey form titled "INTERACT Ambassadors". The form is set against a purple background. It contains four questions: 1. "Name" with a text input field. 2. "Science Expertise *" with a text input field. 3. "Popular science description of your area of expertise (1 sentence) *" with a text input field. 4. "I want to act as an INTERACT Ambassador*" with two radio button options: "Yes" and "No".

Figure 1. The questionnaire that was sent to the INTERACT partners regarding INTERACT Ambassadors.

3. Results

We received 52 responses on the survey and out of those there were 44 experts who volunteered to act as INTERACT Ambassadors. The Ambassadors come from 16 different countries (Figure 2) including all eight Arctic countries.

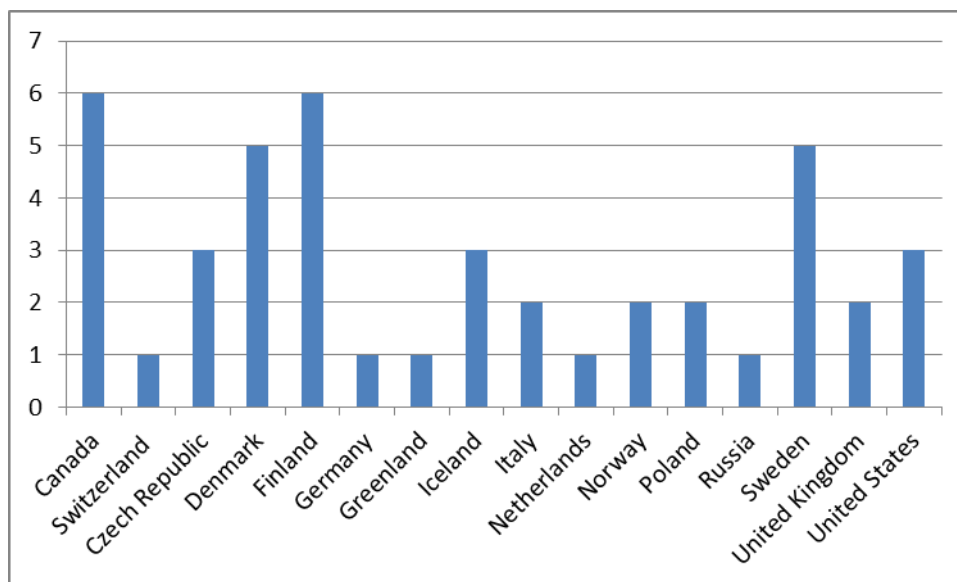


Figure 2. The INTERACT Ambassadors come from 16 different countries.

The Ambassadors cover a whole range of disciplines from ecology, permafrost, hydrology, geomorphology, glaciology, science-policy interface to project management and arctic science logistics. Figure 3 provides an overview and a detailed list of topics covered by the INTERACT Ambassadors can be found in Appendix I. The overview shows that the Ambassadors as a whole have a particularly great expertise in terrestrial ecology and that INTERACT is truly multidisciplinary with a significant potential for contributing to activities in many areas.

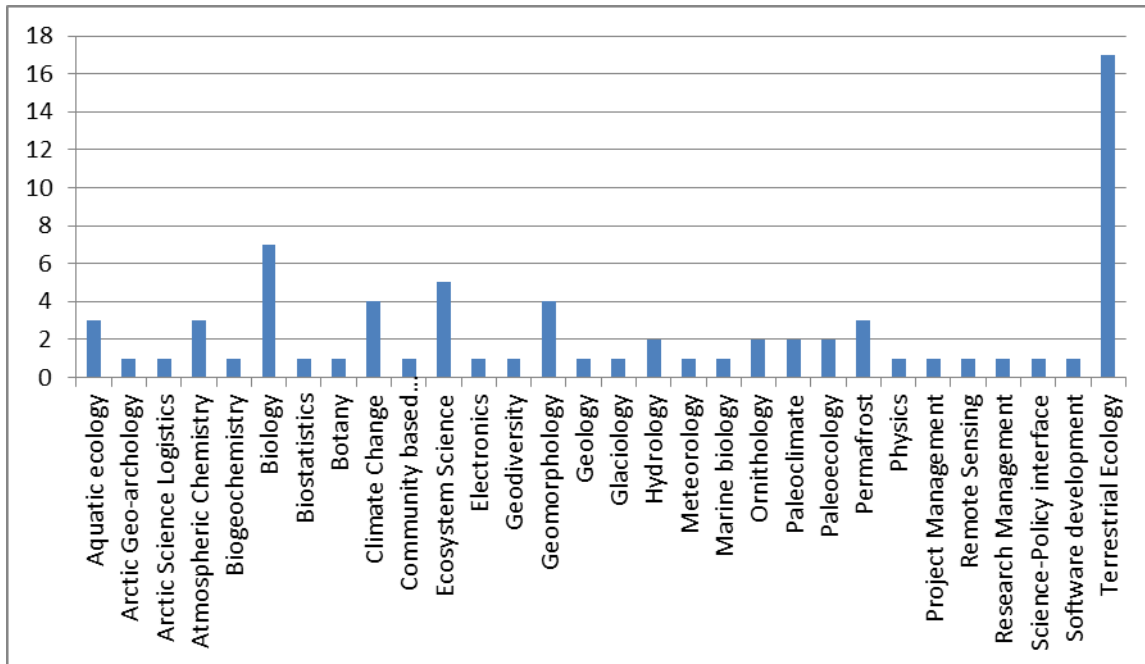


Figure 3. An overview of the different disciplines that the INTERACT Ambassadors are covering.

4. Next steps

The next steps include to start to utilise the INTERACT pool of expertise to ensure continued and enhanced information flow and collaboration with relevant organisations. To further enhance and improve our pool of INTERACT Ambassadors a similar exercise will be carried out among the Transnational Access Users. However, it was decided that this will be done after the field season as they are currently working on their TA projects in the field.

Appendix 1 – List of INTERACT Ambassadors

| Name | Surname | Science Expertise | Popular science description of your area of expertise (1 sentence) |
|-----------|------------|---|--|
| Mora | Aronsson | Botany, Ecology, Taxonomy, Red listing, Monitoring | My main work is as adviser coordinator of biodiversity, nature protection, monitoring and red listing |
| Paul Eric | Aspholm | Researcher in ecology, experience and knowledge in a variety of thematic. | Nature and humans. Knowing the background for Interact (scannet). http://www.framshorts.com/video/the-mysteries-of-the-freshwater-pearl-mussel/ |
| Jaana | Bäck | Forest ecophysiology, climate change | Climate change impacts on forests, and the impacts of forests on climate through both biogeochemical and biophysical feedbacks |
| Christine | Barnard | Research management; Aquatic research | Research and program management of northern science; infrastructure development and management; data management; research coordination |
| Brian | Barnes | Hibernation and cryobiology | how animals survive arctic winters |
| Tom | Barry | Science-Policy interface | Science-Policy interface |
| Luisella | Bianco | a) physics b) project management | a) Physics b) Project management in EU projects |
| Boris | Biskaborn | a) Permafrost data science b) Paleoclimate | a) Permafrost temperature development on global scale b) Late Quaternary environmental variability, diatoms, sediment-geochemistry in lake sediment cores. |
| Syndonia | Bret-Harte | Plant ecology and ecosystem ecology | How plant species affect carbon and nitrogen cycling in arctic tundra |
| Terry | Callaghan | Plant Ecology and Ecosystems | I have an overview of Arctic environmental change and particularly vegetation responses to change |
| Jan | Dick | Socio-ecological coupled systems | I work at the interface between social and ecological science focusing particularly on ecosystem services and natural capital |
| Oleg | Ditrich | Parasitology | Parasitic infections of humans and other animals, including polar regions. |
| James | Drummond | Atmospheric composition and energy transfer | My research is in the area of the composition of the atmosphere and how energy moves around in the atmosphere |
| Josef | Elster | Microbiology, phycology | ecophysiology of cyanobacteria and microalgae in terrestrial and freshwater polar environment |

| Name | Surname | Science Expertise | Popular science description of your area of expertise (1 sentence) |
|-----------|-----------|---|---|
| Tor | Ericson | Digitalisation, embedded systems, electronics, software | Create new products or services |
| Håkan | Grudd | Tree rings; dendroclimatology; paleoclimatology | I am using the information stored in the annual rings of trees to reconstruct climatic changes over the past two millennia |
| Snorre B. | Hagen | Ecology, population genetics, conservation biology | I work with animal populations in several taxa, including various large carnivores, insects and fish. I am particularly interested in how and why wildlife populations change in numbers and genetic composition in time and space. For example, I am interested in understanding the influence on populations habitat fragmentation, climate change, and management strategies. |
| Nagruk | Harcharek | Arctic Science Logistics | North Slope Science Logistics |
| Erika | Hille | Permafrost Hydrology | Cold regions water resources specialist |
| Antero | Järvinen | Ecology, long-term studies, natural variation in northern nature, etc. | Northern animals, especially birds |
| Margareta | Johansson | Permafrost dynamics and permafrost and vegetation interaction | Lowland permafrost in northernmost Sweden is located at the boundary of where permafrost can exist. It is hence very sensitive to ongoing climate change. I am monitoring the development of the so call active layer and ground temperatures around Abisko. In addition, I have an experiment telling about what will happen in the future with permafrost when the area is likely to receive more snow. |
| Christian | Körner | Arctic-alpine plant life | Plant ecology |
| Aart | Kroon | Geomorphology, morphodynamics | Looking to physical processes by wind and water that change the landscapes. |
| Jana | Kvídárová | stress ecophysiology and ecology of algae and cyanobacteria, astrobiology | My research is focused on survival and adaptation of algae and cyanobacteria to extreme environmental conditions, and its connection to astrobiology (limits of life). |
| Kirsi | Latola | Changes in the Arctic, holistic approach | What are challenges Arctic and its residents are facing and how to cope with those. |
| Nicolas | Lecomte | Polar ecology, biostatistics, ecosystems | Understanding the impacts of climate change on arctic ecosystems |

| Name | Surname | Science Expertise | Popular science description of your area of expertise (1 sentence) |
|----------|------------|---|--|
| Maarten | Loonen | Biology but also multidisciplinary | 30 years of science and field work in an international setting (Ny-Alesund, CAFF), collecting data in the entire food web, even lakes and fjord. |
| Maribeth | Murray | Historical Ecology and Climatology | Arctic climate change past and present |
| Hlynur | Oskarsson | Peatland ecologist | Wetland scientist / wetland ecologist |
| Wojciech | Piotrowski | Physical geography, esp. geoecology | Geoecology is an interdisciplinary study of geography and ecology |
| Jouni | Pullianen | Remote sensing (Earth Observation) of cryosphere | Use of satellite data to investigate arctic and sub-arctic regions |
| Zofia | Rączkowska | Geomorphology, physical geography, high mountains, subarctic areas, present-day geomorphological processes, recent landscape evolution, snow avalanches, geoecological issues of high mountain, the Tatras, the Scandinavian Mts., the Alps, the Pyrenees, the Carpathians, the Caingorms, the Himalaya | I am geomorphologist expertised in geomorphological and geoecological problems of high mountains and subarctic areas. |
| Morten | Rasch | Ecosystem function, coastal geomorphology, arctic geomorphology | General insight in how arctic physical landscapes and ecosystems function |
| Katrine | Raundrup | Biology | I work with Arctic land mammals; interactions between grazers and vegetation; and monitoring of biological effects of climate change |
| Ninis | Rosqvist | Effects of climate change on glaciers, snow, lakes in polar and high alpine environments | Effects of climate change on glaciers, snow, lakes in polar and high alpine environments |

| Name | Surname | Science Expertise | Popular science description of your area of expertise (1 sentence) |
|--------------|----------------|---|---|
| Hannele | Savela | Animal physiology, Applied animal physiology | Nutrition physiology and reproductive physiology of the reindeer. |
| Niels Martin | Schmidt | Arctic ecology, mammalogy, population dynamics, interactions | My research focuses on the importance of interactions between organisms, and how these interactions modulate the responses to climate change |
| Jamal | Shirley | Aquatic systems; community research engagement | Design and coordination of research and training related snowmelt hydrology and water quality in Iqaluit Nunavut |
| Henrik | Skov | Arctic Atmospheric chemistry | I am working with the problems of transport of contaminants into the Arctic and how they might affect the environment and how they interact with climate |
| Aleksandr | Sokolov | Ecology, biology, Arctic | State of the ecosystems under climate change and growing antropogenic presence in the Arctic |
| Otso | Suominen | Subarctic ecology, arctic herbivory, biodiversity, | Ecological inetractions and biodiversity in subarctic and borel ecosystems. |
| Elmer | Topp-Jørgensen | Greenland: Wildlife management, Biodiversity conservation, Community-based monitoring | Experience with sustainability issues in Greenalndic wildlife management (including involvement of local communities) and conservation planning for the protection of biodiversity. |
| Stefano | Ventura | Microbial ecology of terrestrial polar habitats; Cyanobacteria | In polar regions, where plant growth is impaired, microbes colonise bare lands, produce nutrients for other life forms, shape the environment: they depend only on sunlight, water, and carbon dioxide in the air for being successful in hostile conditions. |
| Solvi Runar | Vignisson | Marine biology and ornithology | Bird migration and littoral ecology are my favorite. |