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CONNECTING SCIENCE WITH SOCIETY

Deliverable 2.7
Second progress report on science - stakeholder
Interaction

Submission of Deliverable

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1. Introduction

EU-PolarNet has a clear mandate to co-design an integrated European Polar Research Programme with all relevant polar stakeholders. Over the past three years, the consortium has therefore reached out to a wide range of stakeholders through dedicated stakeholder workshops, a Town Hall event, interactive breakout sessions, side events and an online questionnaire and a survey. During its mid-term retreat the members of the EU-PolarNet consortium decided to base the Research Programme on the societal challenges and needs, which have been identified through these events and the survey. In the second progress report on science – stakeholder interaction we show the project’s activities from July 2017 until the end of 2018. In addition, we present also a brief introduction to the methodology used for these interactions, as a relevant output of EU-PolarNet.

2. Methodology for the interaction with stakeholders

EU-PolarNet considers the interaction with stakeholders as of high priority, because the overarching goal of the project is to co-design the European Polar Research Programme **WITH** the relevant stakeholders. The investment in these interactions has been quite significant in terms of effort, human and financial resources.

The EU-PolarNet stakeholder engagement process has included the following steps:

a) Identification of relevant stakeholders in a stakeholder map (D4.5):

Since EU-PolarNet wants to create and deliver a framework and implementation plan to facilitate engagement and interaction between EU-PolarNet and stakeholders, the identification of key stakeholders was critical for their successful engagement. The stakeholders are those who are potentially affected by or concerned about, interested in, important to, or having any power over the polar research agenda or will be end-users of polar research outcomes. Stakeholders form a wide variety of public and private sectors including policy, business, governmental and non-governmental organisations (NGOs) and a wider society, including local and indigenous peoples. But also the polar research community itself is regarded as an important stakeholder group. A large group of these stakeholder organisations can be found in a separate excel document (D4.5). That document is a living document that is being up-dated during the whole project, and it is the basis for future initiatives where new stakeholder groups will emerge. In addition, we have tried to relate the stakeholder groups to the key research questions, defined in deliverable D2.1.

b) Outreach to and interaction with stakeholders

We considered that a good approach to get in contact with relevant stakeholders was the participation in joint meetings, both organized by external groups and by the consortium itself either as side events at large conferences or meetings or as ad-hoc meetings focused on topics of interest for the European polar community. By doing that over the past 3 years, EU-PolarNet became a very well-known consortium in Europe and North America and it is considered as a key player in the European polar community, covering both social and natural sciences research. This strategy was quite successful and achieved its goal in getting an intensive engagement of a large number of different stakeholders into the project. Their participation and topical input is allowing a neat co-design of the research programme in a reinforcing bottom-up fashion.

c) Collecting input by online surveys and questionnaires

A valuable tool to acquire stakeholders’ input into the strategic research planning was the use of online surveys that served to gather the opinion of stakeholders and/or identify the research priorities and key questions. EU-PolarNet performed two major online surveys.

In 2016 a public online consultation was launched within the international scientific community and relevant stakeholder groups to examine whether the 10 European research priorities, which were identified by a desk study based on publications of national Polar strategies, international consortia and major scientific clusters, were complete and the societal relevance well addressed.

The second public online consultation was related to the development of the five EU-PolarNet White Papers. The survey was launched during spring-summer 2017 to identify the research needs of the different polar stakeholder communities. The anonymous survey featured one key question: *“What are the most important topics in relation to your work and/or everyday life (either locally, nationally or internationally) in the Polar Regions that should be solved by future research.* To facilitate the assessment of the survey the respondents were asked to indicate up to three priorities and to categorize their topics under one of the five overarching themes: People and societal issues; Climate and cryosphere; Sustainable resources and human impact; Polar biology, ecology and biodiversity; and New technology. These overarching topics are based on the results of the [EU-PolarNet Report on prioritized objectives in polar research](#). More than 500 answers from 36 countries were obtained.

d) The EU-PolarNet White Paper Workshop

In September 2017, EU-PolarNet convened a team of 50 experts from 16 countries to identify key research needs, and discuss and draft the 5 white papers. This team drew participants from many areas of polar research, including:

- Climate, atmospheric, oceanographic, cryospheric and geological sciences;
- Social, historical and cultural research;
- International policy development, environmental regulation, resource management and governance;
- Behavioural, ecosystem and evolutionary biology; and
- Satellite, communications, instrument and autonomous technologies.

These researchers were complemented by representatives from business and Arctic communities. Following a specially prepared methodology, involving several stages of refinement, the teams identified the topics and began the preparation of what has become the EU-PolarNet White Papers.

e) Identification of stakeholder needs for the Integrated Polar Research Programme

The identification of the stakeholder needs was based on all EU-PolarNet stakeholder workshops, the Town Hall event and interactive breakout sessions at conferences, side events, both online consultations and an online questionnaire which is permanently open at the [EU-PolarNet website](#).

During its mid-term retreat, the consortium agreed to use the white papers as a basis for the research programme, but to additionally consider those issues provided by academic and non-academic stakeholders that had not yet been addressed in the White Papers. The five white papers were reviewed and issues they dealt with were extracted using the content analysis tool MAXQDA. The output was a list of keywords. Based on the resulting list of keywords from the white papers a preliminary categorization was undertaken. These categories were meant to be broad, accounting for issues that are recurring in the white papers, and to be relevant to several stakeholder communities, therefore offering potential for future interdisciplinary research.

Based on the list of issues that are addressed in the white papers, the answers of the EU-PolarNet stakeholder surveys were reviewed. All issues that were received through the answers to the survey, but had not been addressed in the white papers were extracted and added to the preliminary categorization. The review of the survey was conducted by two individuals of the consortium; first separately and then cross-checked for deviations.

In parallel to the review of the survey, the issues brought up during stakeholder workshops and events were compiled. The compilation is based on the input from the events listed above. The input from these events that had not been addressed in the white papers or in the survey was added to the preliminary categorization.

Based on the issues, which have been addressed in the white papers and the additional input from the survey and the workshops and events, the preliminary categorization was revised by clustering the issues in a mind map. The outcome is an initial structure with six overarching topics, several (6 to 11) subtopics in each of the overarching topics, and a wide range of underlying issues in each of these sub-topics.

Finally a stakeholder panel consisting of 10 experts covering policy makers, polar organizations, indigenous peoples' organizations, media and NGO's has been appointed. The stakeholder panel was asked to critically review societal/stakeholder needs, which EU-PolarNet has collected. All the comments of the stakeholder panel have been included in a document covering the societal/stakeholder needs for future Polar Research. This document is the backbone of the European Polar Research Programme.

3. Past and ongoing stakeholder interaction activities

The stakeholder-related events organized by EU-PolarNet cover different categories. In most cases, the interaction took place within the framework of larger events, where EU-PolarNet organized breakout sessions or side events. At other occasions, EU-PolarNet organized special events targeted at particular stakeholder groups. In the reporting period, EU-PolarNet has focused its efforts on stakeholder interactions at large conferences (i.e. Arctic Circle, Arctic Frontiers, Polar2018), where interaction has been targeted to **wider audiences**. One major effort is an ongoing questionnaire accessible via the EU-PolarNet website in which relevant information is acquired about the stakeholders with interest in engaging with EU-PolarNet.

The period reported in this summary starts with the **White Paper Workshop** held near Madrid (Spain), in which 50 participants were invited to develop ideas for a set of polar White Papers. The workshop started an intense interdisciplinary effort, in which the invited specialists, including representatives from indigenous peoples and the business realm, and the EU-PolarNet consortium co-developed five White Papers. These white papers were presented at the European Parliament in September 2018, but also were presented to the world's polar community in Polar 2018 event at Davos, where scientists from both Polar Regions met together in June 2018.

3.1 Examples of the activities

a) Stakeholder workshops

One stakeholder workshop was co-organized with CliC (Climate and Cryosphere), the University College London, ARCUS, the Norwegian Meteorological Institute and the Bjerknnes Centre for Climate Research, covering the topic "Arctic Sea Ice Prediction". The workshop took place in January 2018 in conjunction with the Arctic Frontiers conference in Tromsø, Norway. During the workshops sea ice scientists, modelling experts and business representatives discussed stakeholder-relevant research needs related to better sea ice predictions. The results of the workshop are summarized in [Deliverable 4.11](#) and will be incorporated in the Integrated European Polar Research Programme.

b) White Paper Workshop

The white paper workshop had the purpose of co-developing the ideas and structure of a set of white papers targeting different research needs related to five overarching topics, identified in Deliverable 2.1 [Report on prioritised objectives in polar research](#): polar biology, climate and cryosphere, new technology, people and societal issues, as well as sustainable resources and human impact. The workshop involved stakeholders from different sectors including science, business, indigenous peoples, administrations, etc. Jointly the participants identified main research needs of societal relevance within the five overarching themes, which should be addressed by future research. The

research needs were based on the results from a [public online survey](#), which EU-PolarNet conducted in April and May 2017. The writing of these five white papers is already finished and the summary document was presented to the European Parliament last September. The complete set of White Papers is available for download at the [EU-PolarNet Website](#).

c) Side Event at Polar 2018

In June 2018, the Polar 2018 conference was held in Davos, Switzerland, during which both Arctic and Antarctic science events took place at the same location. It was considered by EU-PolarNet an exceptional opportunity to increase the interaction with different stakeholders from both Polar Regions. A side event was organized by EU-PolarNet, in which for the first time the main outputs of the White Papers were presented publicly.

d) Participation in the Arctic Circle General Assembly 2017 and 2108

The Arctic Circle Assembly is celebrated every year in October in Reykjavik (Iceland) and EU-PolarNet has participated in the last three events with sessions led by members of the consortium in the name of the project.

- In 2017, EU-PolarNet organized a session on the EU Arctic Policy: Science as catalyst for international cooperation, with the aim of engaging with policy-makers, business representatives and scientists to discuss the importance of international cooperation and how science can foster this. This session was convened by Andrea Tilche from the European Commission.
- In 2018 two sessions were organized entitled: ‘And action! Moving beyond benevolent rhetoric in stakeholder engagement’ and ‘Research for societal benefit: Where polar research can make a difference’ with the objective of getting a better perspective of the stakeholders’ opinions and pursuing an active role from the participants. In addition, EU-PolarNet participated in a joint booth of the EU-Arctic Cluster and the European Commission.

e) Participation in UArctic Congress, Oulu (Finland), September 2018

EU-PolarNet organized two sessions entitled: ‘The UN Sustainable Development Goals: A signpost for societal relevant polar research?’ and, ‘Connecting polar research, policy and stakeholders across scales - examples from Europe and beyond’ at the UArctic Congress. Both sessions had a clear orientation towards stakeholder engagement.

f) Participation in Arctic Biodiversity Congress, Rovaniemi (Finland), October 2018

The ‘Stakeholder Workshop on Research Needs on Arctic Biology and Terrestrial Ecosystems’ considered research needs in relation to Arctic biology and biodiversity, and terrestrial and freshwater ecosystems as well as the impact of climate change on these systems. In addition to scientists, the Indigenous community provided strong input to this workshop. The report will be Deliverable D1.19.

g) EU-PolarNet policy briefing in the European Parliament

EU-PolarNet held its second policy briefing in September 2018 in the European Parliament in Brussels. Themed “At the frontline of climate change: Key changes in the Polar Regions that call for European action”, the event brought pressing polar issues to the European Parliament. During the two-hour long policy briefing EU-PolarNet presented its five polar white papers and fostered discussions on how European polar research and climate policies can contribute to the protection and sustainable development of the Polar Regions. The aim was to increase policy-makers’ awareness on the far-

reaching effects of climate-induced changes in the Polar Regions and to enhance the dialogue between polar stakeholders from various backgrounds. The event was co-organized by the EP Intergroup on “Climate Change, Biodiversity and Sustainable Development” and hosted by Christel Schaldemose, Member of the European Parliament and Chair of the Intergroup’s “Polar Regions” working group.

3.2 Evaluation of stakeholder interaction

The consortium has focused its interaction efforts during the reporting period on more intense interactions with stakeholders. Both large conferences where wider audiences could be reached and smaller events were cultivated with very fruitful results, including the first ‘product’ emanating from EU-PolarNet as a co-designed exercise: the five White Papers. We were also very much interested in the quality of the events and even if the total number of attendees could look somehow smaller than before, they were chosen as relevant targets of our discourse. As an example the presentation of the White Papers at the European Parliament allowed us to address our findings and products to relevant personalities of European policy, including some parliamentarians.

During those interaction opportunities, EU-PolarNet was able to deliver its message to a considerable number of people. It is also remarkable that we reached a selected group of policy-makers and diplomats in which our discourse can have great effects.

Regarding the categories of the audiences reached (following the category distribution stated in the deliverable D2.4), all the EU-PolarNet stakeholder-related events reached audiences referred to in sciences and industry. Social sciences and humanities were addressed in most of the events. Groups related with policy and NGOs or international organizations were also well covered. However, interaction with Indigenous communities and media still happened on fewer occasions. These low interactions have been identified also in other projects which interact with stakeholders and require further analysis. Sociologists/anthropologists within the EU-PolarNet consortium are investigating this relevant fact and their expert advice will be considered for the rest of the project.

Of the events organized (see the complete list in Annex I) with stakeholders from September 2017 to December 2018, most of them (60%) were targeted at both Polar Regions, whereas about 40% can be considered related to Arctic topics alone.

Looking at the overall thematic focus of the stakeholder interactions, some of them were devoted to highlighting the relevance of polar science, because in fact most stakeholders already knew EU-PolarNet from previous years. However, for the first time EU-PolarNet could also present products emanating from the consortiums’ stakeholder interactions as the White Papers and some other deliverables. The consortium is still promoting a more intense interaction with stakeholders to improve their engagement.

4. Interaction map

In terms of the geographical distribution of the events, all events took place in Europe, in 7 countries: Belgium, Finland, Germany, Iceland, Norway, Spain, and Switzerland. In terms of international visibility and policy relevance, EU-PolarNet’s side events at large conferences should be highlighted as bringing together several thousand potential attendees. Due to the international perspective of the events in which EU-PolarNet has participated interacting with stakeholders, it can be stated that the consortium had in this period of time a wide distribution.

5. Future perspectives

The EU-PolarNet stakeholder interaction can be considered as successful, focusing on large events and in-depth interaction with stakeholders. In the last year of the project we envisage a deeper interaction with stakeholders since the main tasks are: i) to introduce the White Papers to the different

stakeholders; and ii) to create the European Integrated Polar Research Programme, considering the 5 White Papers as the pillars, but in continuous consultation with the different engaged stakeholder groups identified in previous tasks. However, this interaction would be more focused and likely more intense with some groups as researchers, research agencies and policy-makers, not forgetting indigenous communities and industry, who will be included in the development of the Integrated Polar Research Programme.

We still consider that links with education and capacity-building structures should be implemented. This would be reinforced through the contacts that members of EU-PolarNet have with educational programmes such as APECS and UArctic, as it has happened in last analyzed period.

Another important group of stakeholders are non-governmental organizations that are very active in the Polar Regions and represent the civil society. We are aware that NGOs such as WWF and Greenpeace could feed in relevant contributions to the Research Programme and that we need to make efforts to cooperate more closely with them. One step towards integrating the views of NGOs has been already achieved by inviting a representative to the Stakeholder Panel.

Funding agencies, as well as the European Commission, will be invited to take part more intensively in the co-design of the Research Programme. EU-PolarNet will also reinforce the interaction with high-level international polar organizations, such as the Antarctic Treaty System, SCAR, the Arctic Council and IASC in the process of the creation of the new programme.

The recently created EU Arctic Cluster coordinated by EU-PolarNet aims at improving coordinating efforts within EU-funded polar projects. The cluster merges a broad spectrum of research and coordination activities, ranging from the most up-to-date findings on permafrost and sea ice, from enhancing observation to improving predictions, and from networking research stations to coordinating access to icebreakers. Its objective is to bring the insights from these various areas of expertise together in order to provide one entry point to EU-funded Arctic research. Jointly the Cluster projects are aiming at providing policy-relevant information and supporting the EU in implementing its integrated policy for the Arctic.

