

Societal Engagement Group Knowledge Exchange 1



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Summary for publication

In Blue-Action the teams are working at different levels in **stakeholder engagement**. In the project we define **direct stakeholders** as the series of end-users who contribute directly to the co-design of climate services and information services, and who benefit directly from the project results. In Blue-Action WP5 "Developing and Valuing Climate Services and Information Services", the five case studies have been involving several stakeholders in their work. Most of the stakeholders in the case studies are direct "beneficiaries" of the project in terms of EU funding, i.e. fully-fledged partners receiving Horizon 2020 funding for their activities in the project who contribute to the co-design of the climate and information services in this project. Additional **indirect stakeholders** are involved in the activities planned in WP8 "Communication, Dissemination, Engagement and Exploitation" and will also benefit from the co-designed products and services. The final way we involve societal stakeholders in the project is through our **Societal Engagement Group**. This is an advisory group to the project, whose role is double:

- Support Blue-Action in opening up a dialogue between the represented communities and the
 project, for the project to receive critical feedback on development and results and how these can
 provide a feed from the communities' existing agendas.
- Act as an additional channel of communication for improving usage of data and information by the communities and organisations represented by the Societal Engagement Group members and enhancing climate adaptation.

In this deliverable we would like to report not only on the exchange and engagement with the SEG but also with the other stakeholders addressed by the five case studies and the WP8.

Work carried out and main results achieved

Why engaging with Stakeholders (WHY)

The goal of the engagement with the **direct stakeholders** in Blue-Action is the co-design of targeted services/products/information (i.e. climate services and information services) for the targeted users.

The goal of the engagement with the **indirect stakeholders** is to collect critical feedback on development and results of the project, use them as an additional channel of communication for improving usage of data and information by the indirect stakeholders represented in the Societal Engagement Group members and thus enhance their adaptation.

How to engage with Stakeholders (HOW)

In order to achieve this, we have adopted a methodology is based on the **Deming cycle**, the **Plan-Do-Check-Act (PDCA)**.

Key features of this methodology are:

- Knowledge sharing
- Joint and targeted knowledge production (i.e. climate services and information services)
- Continuous feedback between stakeholders and scientists to re-target the knowledge production.

In reality our PDCA is an OPDCA cycle, where the O stands for Observations "Observe the current condition". We performed the observation phase during the setting up of the project proposal and this provides the **baseline** for the implementation of the entire project.

The stages of the PDCA methodology are described below.

Plan

The planning phase involves assessing a current process and brainstorming with the stakeholders on how the process can be improved. We involve stakeholders in the design of the climate and information services from the very beginning: knowing what types of outputs they desire helps us to develop a more detailed plan. Smaller, ongoing changes are incorporated during this phase, making it easier to adjust the plan according to new needs. The planning has been mostly performed in the first deliverables of the case studies in WP5.

Do

The 'do' phase allows the plan from the previous step to be implemented: WP5 "translates" the model outputs and improved modelling skill developed in WPs 1-4 into societal- and sector-relevant products (climate services) or targeted information services. Small changes are usually tested, and data is gathered from the end-users/stakeholders/right-holders to see how effective the services are.

Check

This is the evaluation phase of the results of the 'do' phase. The prototype service is compared to the expected results to explore any similarities and differences. The process used to test the services is also evaluated to highlight any changes from the original test, created during the planning phase. In this phase, the PDCA cycle can be conducted multiple times to verify which changes work better than others. A gap analysis can be performed at this stage to understand which changes need to be further improved.

Act (and Adjust)

If the check stage shows that the plan ' implemented in the 'do' stage is an improvement to the baseline, it becomes the new baseline going forward. If this is not the case, the plan needs to be revised and a new cycle is to be started with feedback provided to WP1-4 and new inputs provided to the WP5.

PDCA has been run multiple times in Blue-Action, as this is typical for the PDCA process; the process generally has enough information for it to be considered a new standard. Doing this lets the PDCA cycle truly be for continuous improvement.

Timeframe for Engaging with the Stakeholders (WHEN)

The figure below describes when the different stakeholders are going to be involved: the gradient in the arrows indicate the intensity of the interactions and re-iterations with the stakeholders

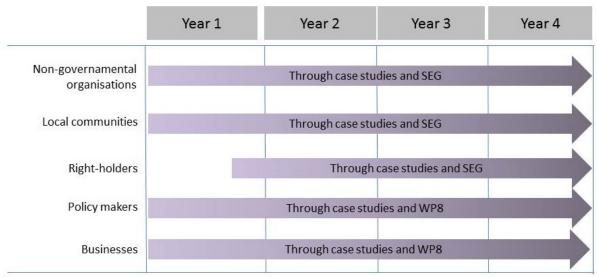


Figure 1: Timeframe for Engaging with the Stakeholders (WHEN) in Blue-Action

Some remarks:

- In the SEG, for the time being we have been concentrating on NGOs, such as Greenpeace because this could give a valuable contribution to the **plan stage**. See the report on this interaction at the end of this deliverable. More NGOs have been involved in the case studies.
- SEG members representing indigenous communities (right-holders) are already in contact with the project but will be actively involved later in our project, when the case studies enter the more specifically the **do stage** to allow reiterations in the **check stage** and **act/adjust stage**.
- Some of the activities in WP8 address directly policy makers and businesses, to involve them more in the do stage, check stage and act/adjust stage.
- **Policy makers** have been involved in the project from the beginning through links with the European Commission and at WP 8 awareness/dissemination events. However, **policymakers** will become more involved in the project from year two onwards, as we move into the 'do' stage.
- In the chart above, with the wording "Local communities" we refer to the Blue-Action partner Almada City Council and to the work done with local institutions in the Barcelona area in the case study on Temperature-Related-Mortality¹.
- Indigenous peoples are referred to as *rights-holders* instead of stakeholders, because they have explicit rights to the land where they have been living for centuries. In the chart above, with the wording "right-holders" we refer instead to the right-holders involved in the case study Yamal 2040: Scenarios for the Russian Arctic².

Description of the case study: http://www.blue-action.eu/index.php?id=4662

² Description of the case study: http://www.blue-action.eu/index.php?id=4146

With whom we engage: our stakeholders (WHO)

Stakeholders are defined as the series of end-users benefitting from the project results, including climate services and information services. In these terms, among our stakeholders, we have a number of right-holders, service end-users, businesses, government organisations and community members. We engage with these stakeholders at different levels:

- 1. Stakeholders involved through activities in the case studies: some of these are consortium partners, thus represented in the General Assembly³, and some of these are instead non-partners (direct stakeholders).
- 2. Stakeholders represented in the Societal Engagement Group through representatives of communities and organisations (indirect stakeholders).
- 3. A wider stakeholder community reached through the dissemination activities of WP8.

When we set up the project, it became evident we could not bring all the relevant stakeholders in the project as a "beneficiary" for different reasons⁴: In the context of Horizon 2020 the term *beneficiary* (i.e. a "participant") is used to describe a legal entity which has signed the Grant Agreement and therefore is bound by its terms and conditions with regards to the European Union (represented by the European Commission or another funding body). Thus we had to adopt a multi-layered approach: some strategic stakeholders became **direct** "beneficiaries" in the project, and some of them established a close link to the project by accepting to become part of the Societal Engagement Group.

The picture below represents areas where stakeholders are involved in the project processes.

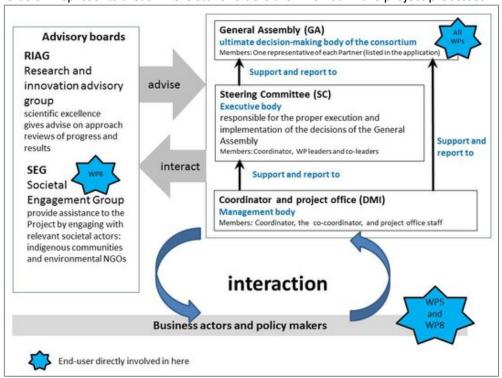


Figure 2: Blue-Action involves the end-users at different levels in the governance structure of the project.

³ The ultimate decision making body of the project.

⁴ For instance: Some legal entities had no capacity to deal with the process of becoming a beneficiary of an H2020 grant for instance (due to limited staff, knowledge or budget) and some individuals represented local communities but could not be entitled to become an official beneficiary of an H2020 grant either. Some international organisations' official participation in a H2020 grant application was also subject to restrictions.

Societal Engagement with Stakeholders in WP5

A set of five case studies bring scientists together with stakeholders and often small and medium enterprises to co-develop products that "translate" the model outputs and improved modelling skill developed in WPs 1-4 into societal- and sector-relevant products i.e. climate services and targeted information services.

The case studies address the following sectors:

- 1. + Winter tourism centers in Northern Finland
- 2. Temperature-related human mortality in European regions
- 3. → Extreme weather risks to maritime activities
- 4. + Climate services for marine fisheries
- 5. → Yamal 2040: Scenarios for the Russian Arctic

Each case study follows a broadly similar pattern, involving:

- identification of end-user/stakeholder requirements
- development of products (climate and information services)
- evaluation and valuation of products and information and the increased skill delivered by Blue-Action
- dissemination of results

Each of the five case studies in Blue-Action⁵ has developed its own methodology for interacting with stakeholders at various levels. The recent work implemented in the case studies has been presented in the deliverables indicated in the table below, with details on the specific stakeholders/end-users involved in the implementation of the case studies.

"Beneficiaries" of the Blue-Action project are in bold in the table below.

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⁵ http://www.blue-action.eu/index.php?id=4662

C S	Short case study title Link to webpage	Currently engaging with the following stakeholders, right-holders and end-users	Refer to Deliverable/Document for more details
1	Winter tourism in Northern Finland http://www.blue- action.eu/index.php?id=4140	 A private company in the winter tourism sector (business): Rukakeksus Ltd Northern Finnish winter tourism industry North Scandinavia and other snowy countries winter tourism industry 	D5.1 End Users Needs Report: Weather and climate data for Northern Finnish winter tourism centers
2	Temperature related mortality in European Regions http://www.blue-action.eu/index.php?id=4141	 Local stakeholders in Portugal: Almada City Council Local stakeholders in Spain: Barcelona International stakeholders mainly EU and US in the area of Climate and health, Heat waves and decision making, Extreme events and health, Weather and human biometeorology, Climate and heat health. The full list with contact names and addresses is confidential. 	D5.7 Temperature- related human mortality (TRM) in European regions. End-User Requirements Specification Report
3	Extreme weather risks to maritime activities http://www.blue-action.eu/index.php?id=4144	 Authorities and regulatory bodies such as the Norwegian Maritime Authority and the Norwegian Coastal Administration Japanese and Norwegian ship-owners, oil and gas operators Fisheries include coastal fisheries, aquaculture, and fish farm owners and operators 	D5.11 Extreme weather risks to maritime activities. End-user Requirements Specification Report
4	Climate services for the marine fisheries http://www.blue- action.eu/index.php?id=4145	 Pelagic Freezer Trawler Association (PFA) Danish Pelagic Producers Organisation (DPPO) Marine Ingredients WKPELA2018 WGIPS ICCAT / Iceland, Greenlandic Fishing Industry Recreational Fishers / Fangstjournal 	D5.16 Report on Marine Fisheries Climate Services Workshop
5	Yamal 2040: Scenarios for the Russian Arctic http://www.blue-action.eu/index.php?id=4145	 A detailed map is provided in deliverable D5.20. To mention here but a few: Indigenous people (right –holders) who are affected in different stages by the Yamal oil and gas business Non-governmental organizations (local, federal, international) Stakeholder groups from within the Yamal-Nenets Autonomous Okrug region 	D5.20 Arctic Stakeholder Map Stakeholder groups involved in Yamal oil and gas development

Societal Engagement with Members of the Societal Engagement Group

The Societal Engagement Group (SEG) members provide advice to the Blue-Action community and Blue-Action uses the SEG advisors as vehicle to share and transfer results to the wider communities they represent and get feedback from these communities. The approach of having a SEG as independent advisory body to the project is consistent with both the EU's commitment to Science Education within the **Responsible Research and Innovation (RRI)**⁶ innovation agenda and the wider aims of citizen science.

The SEG members have the mandate to:

- Support Blue-Action in opening up a dialogue between the represented communities and the project, for the project to receive critical feedback on development and results and how these can provide a feed from the communities' existing agendas.
- Act as an additional channel of communication for improving usage of data and information by the communities and organisations represented by the SEG members and enhancing climate adaptation.

So far, we have connected to a number of SEG members, giving priority to those who could provide effective feedback to the first stages of the project and in particular to the **plan stage**. The current composition of the SEG is openly available⁷: this list is non-exhaustive and we are adding new members to the pool of the SEG advisors to make sure we are not missing relevant stakeholders for specific phases of the project, and to ensure that project results can be transferred to relevant audiences by the most relevant SEG advisors. Thus we are inviting advisors to support the project and take part in major meetings or events on a rotating mechanism, according to the key focus of expertise, their affiliation, and the work implemented at a specific time in the project and the nature of the results we are ready to transfer.

Engaging with Greenpeace

Greenpeace is campaigning to **Save the Arctic**⁸ for:

- Securing Arctic protection: Greenpeace is campaigning for a protected sanctuary in international waters around the North Pole as part of a network of protected areas across the Arctic Ocean. The Save The Arctic movement asks world leaders to create a global sanctuary in the uninhabited area around the North Pole, and to ban oil drilling and destructive fishing in Arctic waters.
- Stopping Big Oil's destruction of the Arctic
- **Defending the wildlife in the Arctic**: The Arctic Ocean is home to incredible wildlife, from majestic polar bears to blubbery walruses, mysterious narwhals and graceful seabirds. But the sea ice they depend on is vanishing at a high speed. Without the ice to hunt, rest, and breed, the very survival of polar bears and other wildlife is under threat.

Greenpeace has had a representative in the Societal Engagement Group since the start of the project. Job Burgwald supported the project during the application and first implementation stages, Laura Meller took over from Jon in December 2017. Additionally, a representative of Greenpeace Russia has been involved in the activities of one of the case studies (ref: Deliverable D5.20 ⁹).

⁶ https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation

⁷ http://www.blue-action.eu/index.php?id=3503

⁸ https://www.greenpeace.org/archive-international/en/campaigns/climate-change/arctic-impacts

⁹ http://www.blue-action.eu/index.php?id=4122

Laura Meller joined us for the Blue-Action annual project meeting in Bologna on 18-19 January 2018. Her feedback on the project activities so far was very positive.

"I was inspired to learn about the structure and topics of the project, which I find timely and relevant for the understanding of the Arctic as part of the global climate system as such, but also with direct application value."

" I was particularly impressed by the in-built work with stakeholders and audiences in the form of the case studies undertaken in WP5."

Laura Meller



GREENPEAC

Currently Greenpeace is interested in contributing to the project in terms of research, dissemination and generally communication. There is space to involve them in activities such as policy briefings, and in addressing together the following questions:

- Who are the stakeholders and audiences who will find value in and use for specific outcomes of the project?
- How will the project and the outcomes find their way to these stakeholders and audiences?
- How can the project let the stakeholders and audiences help defining the valuable outcomes and making use of them?

Progress beyond the state of the art

- Early and continuous engagement of all stakeholders is essential for sustainable, desirable and acceptable innovation.
- The case studies are concrete examples of **co-design of products and services**, based on shared technical expertise.
- The use of the stakeholder knowledge is fundamental in the co-design of the climate and information services of the case studies.
- It is fundamental to have a **multi-actor dialogue and engagement** within the project to ensure an efficient production of joint knowledge.
- The deliverables submitted so far under WP5 indicates how this technical expertise flows into the project and then is further elaborated within the consortium.
- Different tools, **both online and offline**, have been used so far for the dialogue with the stakeholders and for collecting information, technical expertise and sharing resources. Some of the case studies have organised workshops, some of the case studies have relied on teleconferences, **a blend** of online and offline tools seem to be the best working in this environment.
- At management level it is fundamental to map and track which stakeholders are actively involved in the process (stakeholder mapping).
- WP5 case studies focus mostly on co-designing within the consortium.
- WP8 activities instead collect inputs for contributing to the co-design with inputs from outside the
 consortium.

Impact

The work done so far on the level of stakeholder engagement has contributed to several of the expected impacts of Blue-Action:

Improvement of stakeholders' capacity to adapt to climate change

In Blue-Action a wide range of societal work together during the whole research and innovation process in order to better align both the process and the project outcomes with the values, needs and expectations of society, in line with the European strategy for Responsible Research and Innovation. Specifically in these first 15 months of work we have brought together:

- Key stakeholders who are planning jointly with our teams new climate and information services
- Key representatives of environmental NGOs such as Greenpeace who are engaged in the
 project through the Societal Engagement Group and requested to review project results and
 activities on a regular basis.

Contribution to better servicing the economic sectors that rely on improved forecasting capacity

Through the case studies in WP5, selected stakeholders and scientists are working jointly to test the value of improved climate services for specific sectors - marine fisheries, tourism, shipping, sustainable management of oil and gas, health sector- relying on improved forecasting capacity for implementing joint-measures and improving their services to customers. In WP8 the planned work of these lighthouse projects is brought to a wider audience of stakeholders.

Improvement of the innovation capacity and the integration of new knowledge

The variety of planned exploitation measures of Blue-Action products and results will foster their utilization for further development, creation and marketing of products/services and processes (WP5, WP8) for business stakeholders, and for improved information to policy makers, NGOs and indigenous communities (WP8). Open access to results i.e. data and publications is a high priority in this project for allowing re-utilization and transfer of know-how at all levels. Open access to documents is granted through Zenodo.

Impact on the business sector and Blue Growth

The project has opened a match making dialogue between the users of the project modelling data, their analyses and the core scientific groups (WP1-4) with the goal of strengthening the competitiveness and growth of **business actors** i.e. Climate-KIC's startups' community and **established industries** through the consolidated World Ocean Council network¹⁰. These companies need climate and weather data or analysis for developing new innovative services/products, and for enhancing their existing core business activities that rely on improved forecasting capacity. The match making is seen to support business actors in rethinking and redesigning/shaping their business model, boosting new ideas which stimulate **sustainable** growth, enhancing innovation capacity and creating new market opportunities by establishing new sustainable products and services for the market.

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¹⁰ Corporate and associate members of WOC: http://www.oceancouncil.org/site/members.php

Lessons learned and Links built

- Future development in the composition of the SEG:
 - WWF Arctic Programme: Currently we are working on adding a representative of the WWF Arctic Programme to our SEG advisors they have recently scaled up their work in the Arctic, in recognition of the region's importance internationally: this programme is focused on the circumpolar world since 1992 and has an office in every Arctic Council country. The WWF Arctic Programme office is headquartered in Canada and with an office in Oslo, coordinates the Arctic work. WWF Arctic Programme is the only circumpolar Environmental NGO present at the Arctic Council, where they hold observer status.
 - Indigenous people: the involvement of their representatives is planned later in the project, in
 the second half of the project duration. WP5 case studies need to produce their first demo
 products/information services in order to involve the indigenous people representatives; we
 would like to have something tangible in our hands before starting a dialogue with these local
 communities.
- EU Arctic Cluster, working group on Stakeholder Engagement: The EU-PolarNet has set up a working group for organising joint stakeholder engagement activities across the projects Blue-Action, APPLICATE and INTAROS. The working group is led by Annette Scheepstra of the University of Groningen / Arctic Centre and Kirsi Latola, European Polar Board Chair, Director UArctic Thematic Networks. Currently Kirsi Latola is planning to collect the experiences in the stakeholder engagement in a handbook to be published in a year from now. Blue-Action has declared its availability to contribute actively to the handbook.

Contribution to the top level objectives of Blue-Action

This deliverable contributes to the achievement of all the objectives and specific goals indicated in the Description of the Action, part B, Section 1.1: http://blue-action.eu/index.php?id=4019 and more in particular to:

- Objective 7 Fostering the capacity of key stakeholders to adapt and respond to climate change and boosting their economic growth
- Objective 8 Transferring knowledge to a wide range of interested key stakeholders

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Dissemination and exploitation of Blue-Action results

Uptake by the targeted audiences

As indicated in the Description of the Action, the audience for this deliverable is the general public (PU) is and is made available to the world via <u>CORDIS</u>.

This is how we are going to ensure the uptake of the deliverables by the targeted audiences:

- This deliverable will be uploaded in the Zenodo Blue-Action community in open access.
- We plan to share the document with the EU Arctic Cluster.
- The document will be also shared with the other projects we collaborate with who have strong codesign activities with end-users and stakeholders in the field of climate services (Climateurope and MARCO for instance) to ensure that best practices can be shared with the teams outside the project.