

8-9 October 2019  
Reykjavík | Iceland

Raising awareness and building capacity  
for science-based policy-making

# Workshop Summary



## Impressum

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### The workshop was organised by:

German Arctic Office at the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI)  
Association of Polar Early Career Scientists (APECS)  
Icelandic Centre for Research (RANNIS)  
*In cooperation with the German Embassy in Reykjavík.*

### Support was given by:

German Federal Foreign Office  
United Kingdom Foreign and Commonwealth Office

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### Citation:

Grosfeld, L. M., Lenz, J., Fugmann, G., Gunnarsson, T., Níelsson, E. T., Rachold, V. (Eds.) (2020) Raising awareness and building capacity for science-based policy-making: Workshop Summary, October 2019, Reykjavik/Iceland.

**The report is available as PDF via [arctic-office.de](http://arctic-office.de) and [apecs.is](http://apecs.is).**

## Introduction

The dialogue between scientists and policymakers is crucial to ensure that climate and environmental policies are based on sound scientific knowledge. Therefore, the knowledge transfer from science to policy plays a major role in modern science and will be even more important in the future. Exposing researchers to the science-policy-interface is particularly important in an early career stage to develop an understanding of the tools and processes involved and a natural collaboration beyond science. Policy needs scientists who have consolidated knowledge and give objective, independent and target-oriented advice. Communicating scientific information to policymakers requires certain skills in translating the scientific information into information that can be understood by policymakers or nonscientists, as scientists and policymakers very often speak different “languages”.

The workshop “Raising awareness and building capacity for science-based policy-making” aimed to provide training to early career researchers, including indigenous researchers, to raise awareness of the need to communicate beyond the research community, to introduce new career paths for early-career researchers outside academia and to lower “mental barriers” in the knowledge transfer between science and politics. The workshop took place at the Icelandic Centre for Research (RANNIS) in Reykjavík, Iceland from 8 to 9 October 2019. It was organised by the German Arctic Office at the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, the Association of Polar Early Career Scientists (APECS) and RANNIS, in cooperation with the German Embassy in Reykjavík. The workshop was supported by the German Federal Foreign Office and the United Kingdom Foreign and Commonwealth Office.

The workshop gathered 27 participants representing 11 nationalities, with 16 keynote speakers, mentors and organisers. The agenda included keynote presentations by both policymakers and scientists experienced in knowledge transfer. Two breakout groups led by invited mentors discussed specific elements of the science-to-policy and policy-to-science communication in more detail. The overarching guiding questions were (1) how to find an audience in a science-policy communication context, (2) how to translate a message to the target audience and (3) how to design science projects to address stakeholder’s and societal needs.

A summary of the workshop was presented and discussed in a Breakout Session of the Arctic Circle Assembly 2019 immediately following the workshop. This report was developed by the workshop participants and provides a compilation of the recommendations that they identified at the workshop.



# Recommendations for Science-Policy Communication

## 1. From Defining Your Audience to Reaching Out to Your Audience

The first step of any science-policy communication is a clear definition of the target audience. This includes a thorough analysis of the decision-making process that you are aiming to inform. Once you have decided which target audience to approach you better know how to proceed and how to communicate your message. However, approaching people and making contacts is not always straightforward, especially for early-career researchers. Also, the contact platform depends on the audience to be reached. It can include digital platforms (social media, blogs, websites etc.), public presentations, networking events (e.g. Rotary, church groups, discussion clubs, workshops, bingo nights etc.), public consultation processes and engagement in (local) political committees.

People like to be asked, especially if it is about their expertise. It might be helpful to look for a contact person who is neutral, engaged and in general curious – because curiosity creates curiosity. However, you have to find the policymakers where they are, not where they should be. Understand that politicians need incentives to react. Let them know that you are available for requests and be available, close and ready to answer questions – if you once refuse to answer when contacted by a politician, he or she will not come again.

It is also important to identify intermediaries, champions, functionaries or informants and establish a good relationship with them. Intermediate people (e.g. scientific advisors) or organizations (e.g. NGOs, research institutions) are sometimes easier to contact and can help to reach your audience. They can also “translate” the science and communicate it with clarity and confidence despite uncertainties that are often in scientific findings.

Usually you will not communicate with high-ranked politicians but with intermediaries, i.e. functionaries or bureaucrats who serve for a longer time, work as a “filter” for politicians and decision-makers and collect information for them. Compared to scientists, intermediaries may be better placed to give advice how to act and what to do (first/in what combination/with what degree of commitment) based on the earlier communicated scientific evidence. However, your scientific advice, or interpretation, is only one of many balancing factors intermediaries have to take into account. Additionally, you have to be aware that everyone has his/her own background and personal interest. That is not a problem and can align well with your own interest but good communication is key.

Informal relationships and connections are very important for continuous collaboration. Personal contacts not only need to be established, they also need time to be developed and fostered to make communication easier for both sides. It is important to build trust in order to be asked for further collaborations in the future.

Being visible and findable online is very helpful, e.g. on your institutes/department’s webpage, social media, ResearchGate, Orchid (etc.), or professional networks. Let people know you are open for communication and answering questions. No need to be afraid to be too popular, no matter whether you write a book, a blog, produce a TV documentary or radio broadcast.

### Key messages:

- **Reaching out beyond the scientific community is crucial.**
- **Find the right contact person.**
- **Contacts need to be established on a personal level and fostered to be sustainable.**
- **Bring your name out there – but in the right context.**

## 2. Translating Your Message

Knowing your message is key. But why should people and especially policymakers care? Once the audience has been defined and found, it is very important to revisit their needs and expectations and analyse how they benefit from being interested in your topic. Whether a message is coming across does not only depend on the content, but also on

the language and format. Evaluate your communication approach in terms of language and format and if necessary adapt or change it.

Finding your own communication style is key; once you have found it, be consistent in it. Emphasise your strengths, but also know your limitations and be aware of how far you can go and how far you feel comfortable in going.

## 2.1 Language

Language needs to be simplified to avoid overburdening the audience. Science must be provided in a clear, short and catchy message - more like the way you communicate with a child than with an adult, but without oversimplifying the content. That means the scientific process should not be compromised but the scientific jargon should be avoided. A narrative style is preferred (e.g. ABT, And - But - Therefore).

It can help messages to be kept in mind by an audience if you tell stories, show pictures (e.g. of suffering environments) or give examples they can relate to. Depending on the context, it can support your message to bring affected people and let them speak for themselves. In order to catch interest and the imagination of the audience, appropriate, understandable, simple and clear visualizations should be used when needed. A good example is the [Climate Strips by Ed Hawkins](#). Also, it is good to develop awareness for body language in order not to be distracting, as well as being confident in communicating uncertainties of your research. Furthermore, it is important to choose interpreters carefully, as they might be familiar with the language but not with the social context the research is embedded in.

You can relate your research work to political statements to show that you deliver something for politicians to use. Usually responses to existing questions and links to existing political documents are welcomed. Here, it helps to look for keywords (e.g. food security, biodiversity) in high-ranked documents, like UN documents, and in national political programs etc. Pick the part of your research that would be relevant to the person you talk to and start the dialogue from there, even if that is not the main part of your work.

Finally, be aware that an advice will never be directly implemented - there are always additional things that influence the process of decision-making and the implementation of measures. Policy and decision-makers are members of the public too - 'public messages' are pre-loaded before your advice or contact has landed.

### Key messages:

- **Get the message out as clearly as possible.**
- **Communicate in a relatable, tangible and persuasive manner.**
- **Relate your message to ongoing political discussions.**

## 2.2 Format

In order to transfer your message, a diversity of communication channels and methods is required. Remember that politicians read newspapers, not scientific journals. Being active on social media is recommended, but also conventional distribution channels like radio shows or print products are useful. One-page summaries or policy briefings should be easily understandable and very short. You can provide and hand out white papers and fact sheets during your events. Good examples are the [White Papers from PolarNet](#) or the [Policy Report on the rapidly changing Arctic environment from NERC Arctic Research Programme 2011-16](#).

With attending informal gatherings and politically-relevant meetings (e.g. in Brussels to influence the European Commission) or organizing a session at a politically-relevant conference and inviting policy and decision-makers to participate as speakers or panelists, you can set up potential discussion formats.

When you get in touch with policymakers, try to have enough time to speak with them, e.g. during excursions. This will give you the opportunity to explain things, raise awareness, build trust and perhaps convince.

#### Key messages:

- **Use more than one way of communication.**
- **Be at the centre of politics and not a few metres away.**

### 2.3 Message Transfer

To convince policymakers and financial investors, it is vital to be able to sell your points. Here, involving an audience from the start can be a much better selling point, especially when high-level support and connection to decision-makers are necessary. Involving stakeholders (including, where also appropriate, local politicians) to build a group allows you to present research findings on the basis of a broad network of support and to speak from a broader base of authority. With the general approach of co-production of knowledge, everyone is part of the process. Also, knowledge co-production and collaboration results in benefits for both parties.

As a scientist you will be asked about the economic effects of your research – be prepared! Economic stability and economic growth are often in the center of public policy-making; better be ready to answer such questions from outside of the scientific community. It is useful to approach individuals or groups close to your potential audience to test-run your message and your language. This helps to identify successful communication strategies and areas that fail to attract interest.

The more you know about the process of decision-making, the better you can adjust your timing. Build awareness of when your message is likely to be received with greatest interest. Knowing the timeframe of policy issues allows for the cultivation of interest in your topic. The impact depends on understanding the audience's schedule of action. Policymakers react on current events, so better get familiar with policy-making processes, schedules and individual availabilities. As mentioned above, bureaucrats do the work for a long time while politicians only step in at the end.

Finally, the setting of your science-policy communication event should not be underestimated. Providing drinks and snacks in a convenient location is crucial when you want people to come to your events and be open for discussion.

#### Key messages:

- **Involve stakeholders and locals and build interdisciplinary collaborations.**
- **Be prepared and practice in front of a different (non-scientific) audience.**
- **Timing is critical - the best research pitched at the wrong time will not receive the necessary attention.**

### 3. Designing Science to Address Stakeholder's/Societal Needs

In order to identify questions that need to be answered, it is necessary to zoom out and think interdisciplinarily. Interdisciplinarity is important when communicating to policy practitioners because you can approach issues from different angles and reach a wider audience. Even when you work on a very specific topic, you still have to show the larger context - but make sure you go only as far as you are comfortable with. It is always a good idea to ask:

- Where could I make the most impact?
- What is my research good for? Why should anybody care?
- Which difference does my issue make to humankind?
- Is the societal relevance of my research applicable? Is it supporting the people who are voters for policymakers I want to address?
- What is the appropriate level of decision-makers whom I can address?



By looking into strategies and priorities of different organisations and institutions at relevant scales, you may find where your research fits best. Politicians are interested in security relevance and economic implications, among other things. Referring to the online survey of EU PolarNet, business and policymakers find topics of sustainability most important, whereas NGOs find climate change the important topic (see [EU PolarNet survey results](#) on polar relevant topics). At the same time, refrain from only doing policy-relevant research; innovation comes from science that is not always obviously relevant.

Finally, it is important to keep in mind that (most likely) your research is funded by taxpayers, so think about their needs and expectations. This being said, creating public awareness can push the policy agenda – so be thoughtful with your message. On the other hand, you can engage in politics directly and participate in surveys, join already existing campaigns or find other opportunities to contribute to policy-making.

### **Dialogue with Indigenous Peoples**

Cultural awareness of Indigenous Knowledge and roles of expertise are essential to communicate research findings. Identities and other social roles within indigenous groups may be effective intermediaries to connect with indigenous audiences and to achieve co-communication of co-produced research.

This process of co-production of knowledge is a feedback loop, where Indigenous Knowledge is used to adjust research or policy accordingly. Here, it is important to invite them early in the process and invite indigenous representatives as partners rather than as informants. Members of indigenous communities that might want to be involved may also have limited capacity – respect for their time is essential. In addition, it is important to come back after research has been done and communicate findings to the community. They need to know what happened to their contributions and to have their knowledge acknowledged. Ideally, the findings will be translated into their language.

#### **Key messages:**

- **Think multidisciplinary and ask „So what?“ to envisage the greater interest of the society.**
- **Involve Indigenous Peoples from the very beginning and co-develop your research project - resulting in a benefit for both partners.**

## **4. Final Advice**

Finding a mentor in your field of interest will help to develop your personal science-policy communication skills. The cooperation with a mentor can be a great win-win situation: The senior scientist has the experience, but little time and the early career scientist has more time, but also the energy and pre-knowledge that could help a common effort. It might be even good to have a team of mentors or advisors from different fields that can provide different perspectives.

**Find a good mentor and you will both benefit from this relationship.**

It might be a good idea to think of alternative approaches and audiences to create awareness and make the impact you planned. In fact, if you can influence business leaders, you can have an impact on politics as well. Try to find the right people, the open-minded ones, and include the information how their companies can profit from your input and their contribution.

**It did not turn out the way you planned? Do not get discouraged and try again!**

## Agenda

Tuesday 8 October	
8:45 - 9:00	<b>Welcoming remarks and opening from the Organising Committee</b> Þorsteinn Gunnarsson (Icelandic Center for Research RANNIS) Volker Rachold (German Arctic Office, Alfred Wegener Institute) Gerlis Fugmann (Association of Polar Early Career Scientists APECS)
9:00 - 10:30	<b>Keynotes Presentations</b> Speakers: Nicole Biebow (EU PolarNet, Alfred Wegener Institute) Henry Burgess (UK NERC Arctic Office)
10:30 - 11:00	<b>Coffee Break</b>
11:00 - 12:30	<b>Two Breakout Sessions:</b> "From Science to Policy" (Group A) "From Policy to Science" (Group B)
12:30 - 13:30	<b>Lunch Break</b>
13:30 - 13:40	<b>The Arctic Youth Network</b> (Presenter: Pétur Halldórsson, Chair of Icelandic Youth Environmentalist Association)
13:40 - 15:00	<b>Breakout Sessions - continued</b>
15:00 - 15:30	<b>Coffee Break</b>
15:30 - 17:00	<b>Reports from the Breakout Sessions</b> from all participants and mentors
19:00	<b>Workshop Dinner</b>
Wednesday 9 October	
8:45 - 9:00	<b>Welcoming remarks and opening from the Organising Committee</b> Hallgrímur Jónasson (Director of Icelandic Center for Research RANNIS) German Ambassador to Iceland, Dietrich Becker
9:00 - 10:15	<b>Keynotes Presentations</b> Speakers: Lilja Dögg Alfredsdóttir (Icelandic Minister of Education, Science and Culture) Fran Ulmer (Chair U.S. Arctic Research Commission)
10:15 - 10:45	<b>Coffee Break</b>
10:45 - 12:30	<b>Breakout Session: "From Science to Policy" (Group A)</b> Mentors: German Ambassador to Iceland Dietrich Becker Sophia Speckhahn (WWF) Gosia Smieszek (Arctic Centre, University of Lapland, Chair of IASC Action Group on Communicating Arctic Science to Policymakers)
	<b>Breakout Session: "From Policy to Science" (Group B)</b> Mentors: Allen Pope (International Arctic Science Committee IASC) Margareta Johansson (International Network for Terrestrial Research and Monitoring in the Arctic INTERACT)
12:30 - 13:30	<b>Lunch Break</b>
13:30 - 15:00	<b>Breakout Sessions - continued</b>



## Organising Committee

### Keynote speakers

*From Science to Policy:*

**Nicole Biebow**

Project Manager of EU PolarNet  
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**Henry Burgess**

Head of the Natural Environment Research Council  
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*From Policy to Science:*

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### Mentors

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Executive Secretary  
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**Halldór Þorgeirsson**

Chair of the Icelandic Climate Council, former director  
for Strategy United Nations Framework Convention on  
Climate Change (UNFCCC)

**Margareta Johansson**

Coordinator of the International Network for Terrestrial  
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*From Policy to Science:*

**Dietrich Becker**

German Ambassador to Iceland

**Gosia Smieszek**

Researcher at the Arctic Centre, University of Lapland,  
Chair of IASC Action Group on Communicating Arctic  
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Project Manager Education  
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**Tom Barry**

Executive Secretary of the Conservation of Arctic Flora  
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## Further Readings

Hassol, S. J. (2020) Climate Communication Science & Outreach Platform, [online] [www.climatecommunication.org](http://www.climatecommunication.org) [accessed latest on 16 January 2019].

European Geosciences Union (EGU) (2020) Policy Basics, [online] [www.egu.eu/policy/](http://www.egu.eu/policy/) [accessed latest on 8 November 2019].

European Commission (2019) [Scientific Advice to European Policy in a Complex World](#) (Independent expert report), Scientific Opinion No.7, Brussels, doi: 10.2777/80320.

Science Advice for Policy by European Academies (SAPEA) (2019) [Making Sense of Science - For Policy under Conditions of Complexity and Uncertainty](#), Berlin, doi.org/10.26356/MASOS.

Ocean Wise (2018) [Research and Meaningful Engagement of Northern Indigenous Communities](#), Recommendations from the Ikaarvik Youth Summit Nov 19-23, 2018, Vancouver, Canada.

Inuit Tapiriit Kanatami (2018) [National Inuit Strategy on Research](#), Ottawa, Canada.

Likens, G. & Bailey, S. (2014) [The Discovery of Acid Rain at the Hubbard Brook Experimental Forest: A Story of Collaboration and Long-term Research](#), In: Hayes, D., Stout, S., Crawford, R., Hoover, A., (eds) USDA Forest Service Experimental Forests and Ranges: Research for the Long Term, Springer, New York, doi: 10.1007/978-1-4614-1818-4\_20.

Somerville, R. C. & Hassoi, S. J. (2011) [Communicating the science of climate change](#), Physics Today, vol. 64 (10), doi.org/10.1063/PT.3.1296



