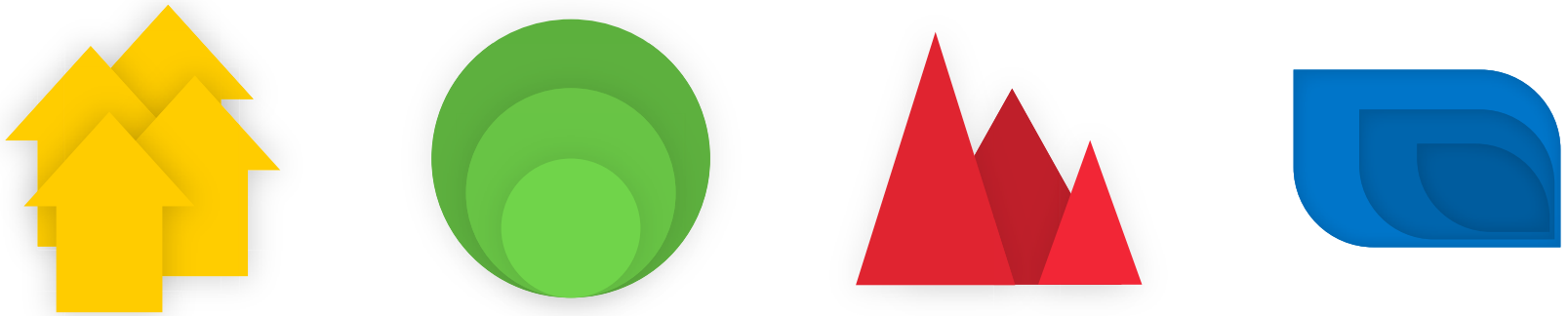
RETHINK SciComm Training Navigator

Resources for training science communicators in a changing SciComm landscape



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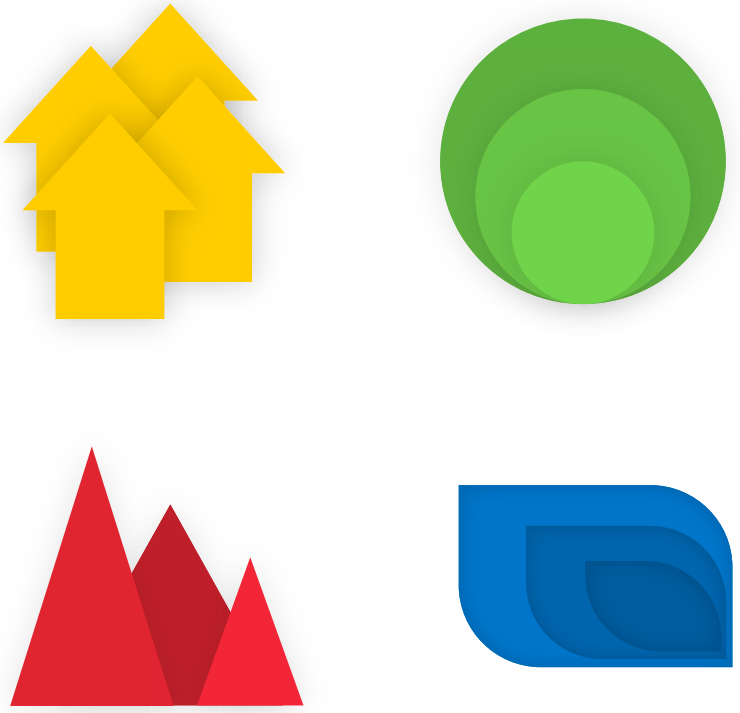
About

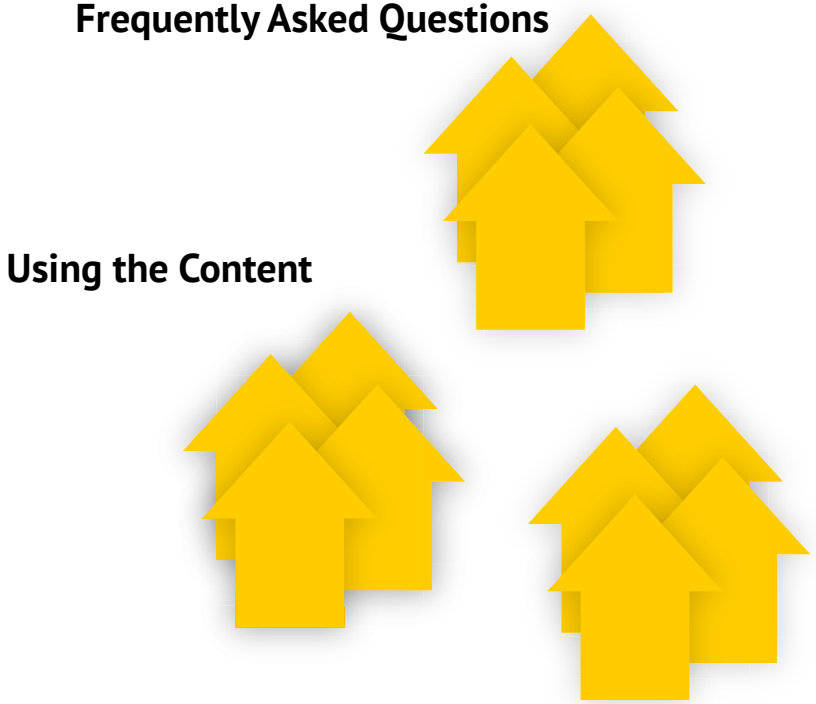
This manual was developed by a group of European science communication scholars in the context of the EU-funded project RETHINK, https://www.rethinkscicomm.eu/. Its development was supported by international science communication trainers and professionals who contributed to the overall development of the project, the actual research conducted within RETHINK and both the interpretation and dissemination of the research findings.

Overall, RETHINK is not only the name for our project but mirrors the fundamental objective of our research and outreach activities. We started from the observation that the science communication landscape is changing fundamentally. Digital transformation and related changes in public communication have been important driving forces behind these developments. Despite many challenges, this new science communication landscape offers opportunities for reflective practice to learn about those developments; to investigate the new interfaces between science, media and society; and to change our understanding of science communication practices. Therefore, RETHINK has aimed at uncovering (some) blind spots and broadening the perspective to contribute to a comprehensive understanding of science communication. To this end, we wanted to address a broad range of actors involved in and responsible for the further development of the field. Therefore, we developed this RETHINK SciComm Training Navigator for you as science communication trainers. Our objective is to involve both you and your students in a conversation about the future directions of science communication practice and research. Our training navigator entails a number of suggestions for teaching resources. These are applicable to a broad range of training settings from science communication graduate programmes at the bachelor and master level to further education of science communication professionals to workshops and training for scientists. The resources were developed to stimulate reflection and discussion and to help broaden perspectives among these diverse groups engaged in science communication. We hope you find them useful!

Birte Fähnrich & Laura Heintz on behalf of the RETHINK team



Getting Started with the RETHINK Training Navigator



To help you get started with the tools, research and frameworks presented in this navigator, have a look at the following sections.

Frequently Asked Questions
Here you can find a number of useful FAQs ranging from background on the project to information for using content found in the navigator.

Using the Content
Here we explain how to best use the navigator. We like to think of it like a map or a compass, helping you understand different parts of the SciComm landscape.

Using the Navigator
We wanted to make the navigator as interactive as possible, and in this section you can read up on the different ways of using the navigator to see the content and information you want.

Using the Content in This Navigator

To help you understand the scope of RETHINK's research and outcomes, we use a symbolic shortform which we call the "landscape of science communication".

The red mountains stand for our insights and research findings. From here you can gain a perspective and an overview of the realm of science communicaton today. This section highlights three fields of enquiry undertaken: sensemaking in science communication, assessing and promoting science communication quality and barriers to and opportunities for reaching audiences. We give a brief summary of our research and hint at consequences, challenges and open questions linked to our observations.

The green tree stands for our model of science communicators' competence levels. Moving from its outermost layers to its center, we present different aspects of the skills needed by a communicator. We outline our basic ideas of training objectives. Science communication training not only aims to enhance science communication skills but also to enable students to fill prospective roles as professional communicators. We briefly explain three different levels of competence that should be strengthened in the context of training: picture of the world, professional norms and roles, and working knowledge.

Finally, informed by both the insights and competence levels, we have the blue resource pool, which reaches from shallow areas to deep dives to help train budding communicators. The resources refer to one or more of the insights and can be categorized under different competence levels. They can be applied individually or in combination and can be easily adapted to your needs.

Using the Navigator

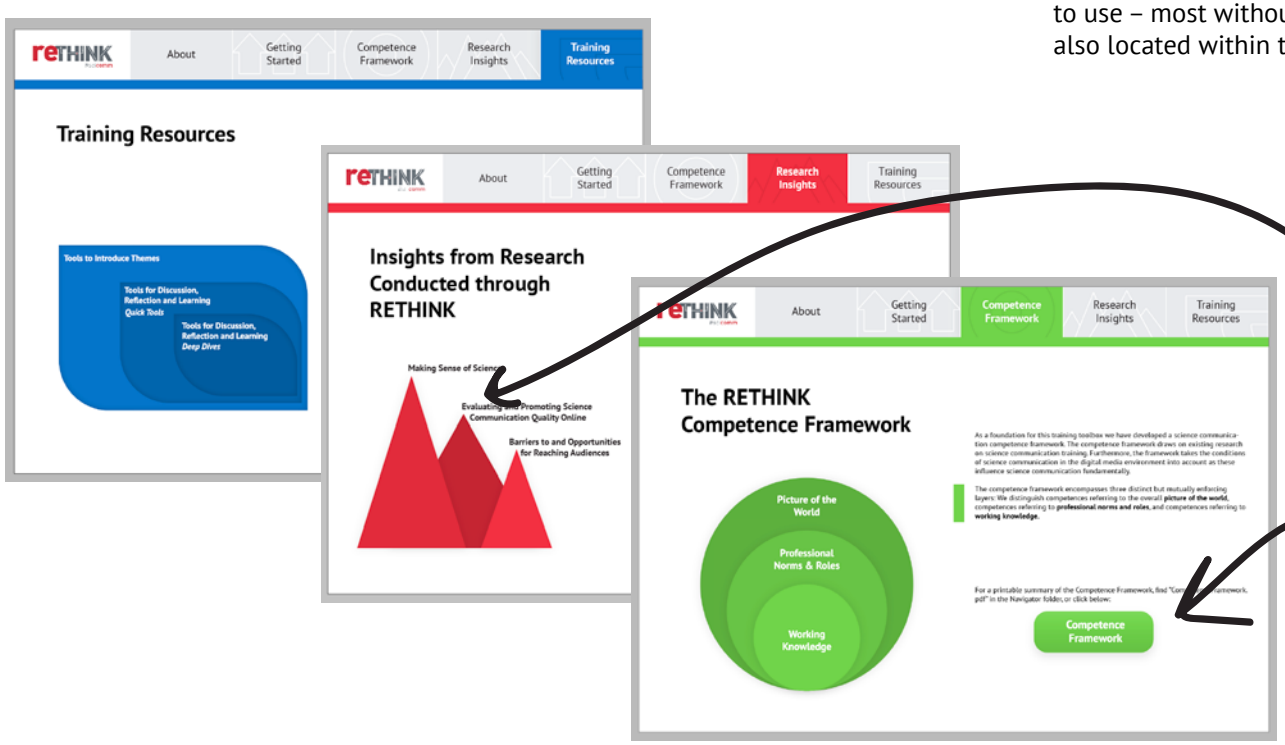
You can always return to the front page of the navigator by clicking on the RETHINK logo.

Click on any of these tabs to go to the respective section.

Head back to the main page of the section by clicking here.

We wanted to make the navigator as interactive as and intuitive as possible so that you can get to the resources and information you need with little effort. The navigator is designed much like a website but functions nearly completely offline.

At the top of each page is a menu with the main sections. Within different sections, an aspect of the landscape of science communication is shown – clicking on part of this image will take you to a page with more information and useful resources. Whenever you see a button, this can open a PDF with more information or a resource to use – most without the need for an internet connection. All of the resources are also located within the folder in which this navigator is found on your computer.



Try clicking on the shapes – each one will lead you to a dedicated page with more information and resources.

Buttons like this one are found throughout the navigator. They can open resources like PDFs, presentation slides or videos.

Frequently Asked Questions

Why aren't the navigation links working?

- Make sure to download the full resource pack from the RETHINK website https://www.rethinkscicomm.eu/. Also make sure that you are using the most recent version of Adobe Acrobat Reader. If this is not available or the links still do not work, you can scroll through like a normal PDF.

I scrolled down to a resource, but now how do I get back to the navigator easily?

- Simply click on the RETHINK logo, found at the top of every page to return to the front page of the navigator, or if you would like to return to the page you came from, look for the back buttons at the top of each resource. There you will find all of the pages that link to that resource, and return to the one you came from.

Is there an easier way to share or print individual parts of the navigator?

- Yes, take a look at the 'Resources' folder in the zip file containing the navigator. There you will find each section as a seperate PDF, named accordingly.

Can I share the resources or the toolbox with others or host it on my own website?

- The resources are open access and free to use. Please indicate the source when shared with colleagues. To host the resources on your website, please contact Frank Kupper in advance at f.kupper@vu.nl.

When was the toolbox created, and who made it?

- The SciComm Training Navigator was developed in 2021 as part of the Horizon-2020 funded project RETHINK. The RETHINK team, which has members across Europe, carried out research into how science is communicated online regarding vital issues such as climate change, health and artificial intelligence. As part of this research, we looked at who is writing and talking about science online, including scientists, PR people, journalists, bloggers, vloggers or influencers, and how they are doing it. They were also interested in how members of the public who aren't experts in science make sense of the science they read or hear about online. Finally, we wanted to figure out whether "good" and "bad" science communication exist and how its quality can be improved. To bring our insights across, our RETHINK team developed this science communication training resource.

Who can I contact if I have questions about the navigator?

- You can contact Birte Fähnrich, Principle Investigator for RETHINK. Please write her at birte.faehnrich@fu-berlin.de. Moreover, Frank Kupper, Coordinator for RETHINK, can be accessed for questions related to the project at f.kupper@vu.nl.

Where can I find more information about RETHINK?

- The Horizon-2020 project RETHINK ran from January 19 until March 22, 2021. Further information on the objectives, European partners involved, research conducted and its participatory approach can be found at https://www.rethinkscicomm.eu/.

The RETHINK Competence Framework

As a foundation for this training navigator, we developed a science communication competence framework. The competence framework draws on existing research on science communication training. Furthermore, the framework takes the conditions of science communication in the digital media environment into account, as these influence science communication fundamentally.

The competence framework encompasses three distinct but mutually enforcing layers: referring to the overall **picture of the world**, **professional norms and roles** as well as **working knowledge.**

For a printable summary of the Competence Framework in PDF format, click below:
Also available in the navigator folder under "CompetenceFramework.pdf"

Competence Framework

Competence Layer 1: Picture of the World

Competences related to the "picture of the world" relate to overall mental models and perceptions of the changing science communication landscape.

These competences encompass...

- Overall 'mental models' and
- Perceptions of the changing societal framework in which science communication takes place and how it affects the conditions for the interactions of science and society.

These competences develop through...

- Offering new insights and perspectives,
- (Guided) observation and reflection and
- Challenging existing mindsets and world views.

For a printable summary of the Competence Framework in PDF format, click below:
Also available in the navigator folder under "CompetenceFramework.pdf"

Competence Framework

Competence Layer 2: Professional Norms and Roles

Competences at this level refer to professional norms, values and role perceptions that can be reflected and further developed in the context of science communication training.

These competences encompass...

- What it means to be 'professional' and
- Guiding norms, values, demands and role models developed by science communication as a field of practice.

These competences develop through...

- Self-perceptions and others' perceptions of roles;
- Getting to know and adopting professional standards; and
- Interaction, (self-)reflection, feedback, development and adjustment of professional attitudes.

For a printable summary of the Competence Framework in PDF format, click below:
Also available in the navigator folder under "CompetenceFramework.pdf"

Competence Framework

Competence Layer 3: Working Knowledge

Competences at the working knowledge level refer to skills and practices in the everyday business of science communication.

These competences encompass...

- Skills and practical knowledge and
- Ability to deal with technical, strategic and operational demands of everyday science communication practice.

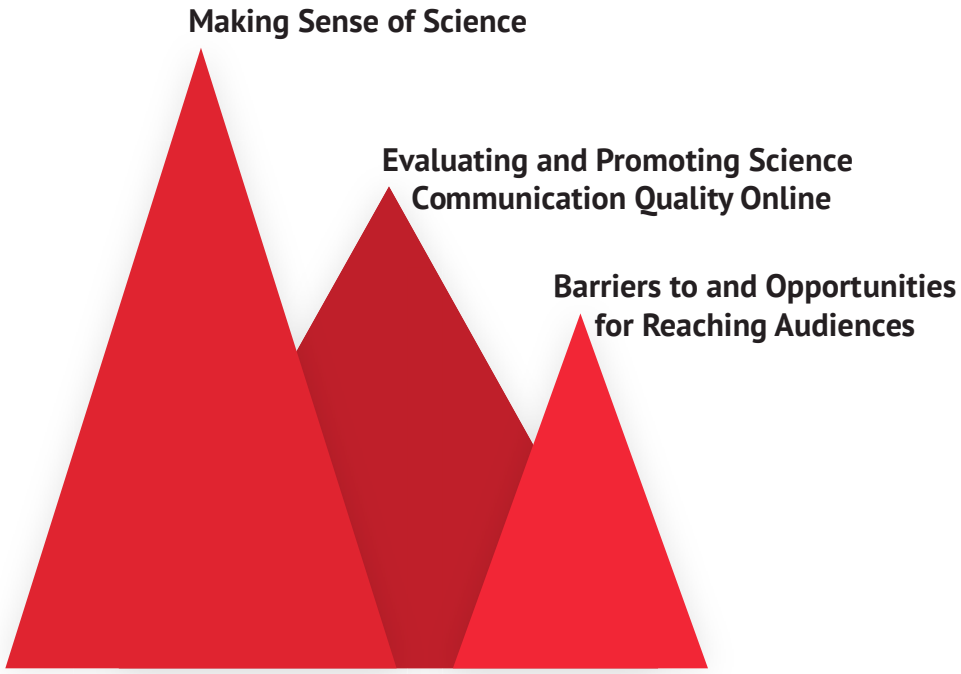
These competences develop through...

- Getting to know models, methods and techniques;
- Practical training, e.g., use of examples and application to other cases; and
- Analysing problems and failures and searching for ways to improve.

For a printable summary of the Competence Framework in PDF format, click below:
Also available in the navigator folder under "CompetenceFramework.pdf"

Competence Framework

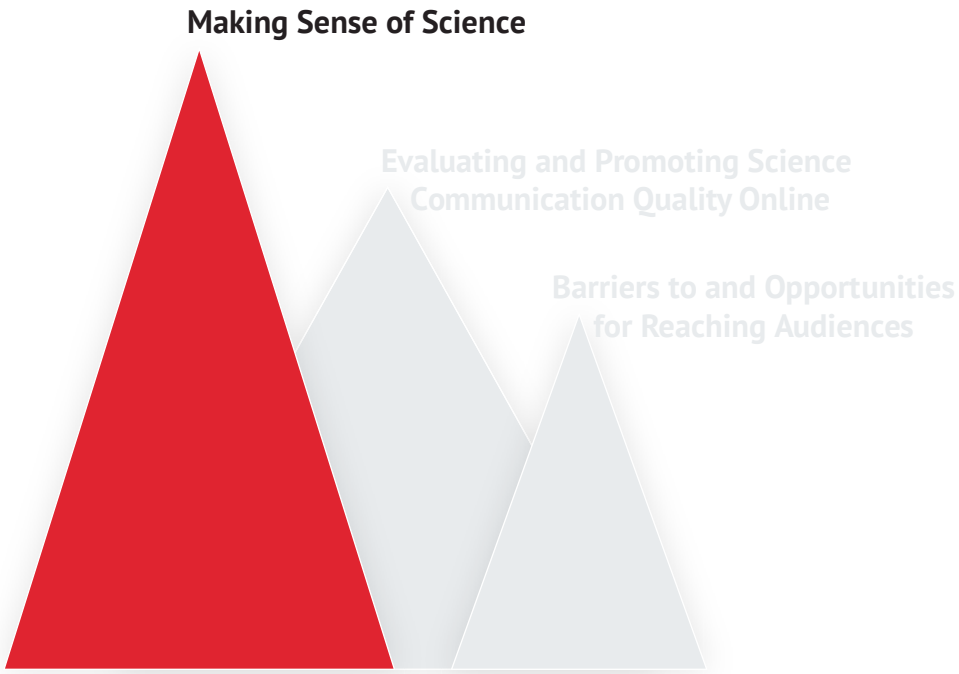
Insights from Research Conducted through RETHINK



In this section, we give a brief overview of the themes that are the focus of the training resources. For reflection on and discussion of the training contexts, three themes were chosen from the RETHINK research objectives that were most applicable to science communication training. These are **making sense of science**, **evaluating and promoting science communication quality online** as well as **barriers to and opportunities for reaching audiences**.

In the following sections, more information about the insights can be accessed by clicking on the button for the respective factsheets. Theses feature extended discussions on the topic as well as figures, references and more reading on the topic.

Insight 1. Understand How Citizens Make Sense of Science



The aim of the study presented was to understand what enables and what hinders the interaction of science and society in the digital media environment.

Question in focus

How do 'lay' audiences understand, perceive and interpret science communication in their everyday practice?

Empirical approach

- 81 semi-structured interviews in seven European countries to analyse sense-making practices
- Workshops with researchers and science communicators to develop strategies to open up sensemaking

Core findings

- 'Gaps' in dealing with science-related information take the form of uncertainty and ambiguity.
- Personal situation and context have a large influence on the use of and trust in sources that help to build 'bridges' to overcome sensemaking gaps.

Future directions

- Develop strategies to apply sensemaking as an approach to understand and adapt citizens' perspectives on science communication

More Information:

For a deeper discussion of this insight, click here:
Also available in the navigator folder under "Insight01.pdf"

Insight 1. Factsheet

Insight 2. Science Communication Quality

The study explored how experts define and assess science communication quality in the digital science communication landscape and which strategies they would recommend to promote quality standards in science communication.

Question in focus

How can science communication quality be assessed in the complex digital media environment?

Empirical approach

- Delphi study with 32 international and interdisciplinary science communication researchers, two waves of consecutive surveys
- Workshop with science communication practitioners in seven European countries

Core findings

- Quality criteria for online science communication can be distinguished into five main categories: content, presentation, procedural, technical and context criteria.
- Quality assessment is regarded as highly context dependent; criteria relating to 'new' settings and actors in science communication especially challenge traditional quality assessments.
- Experts agree that promoting science communication quality is important. Education, reflection and raising awareness within the science communication community are considered the most important approaches, and combining different interventions seems most appropriate.

Future directions

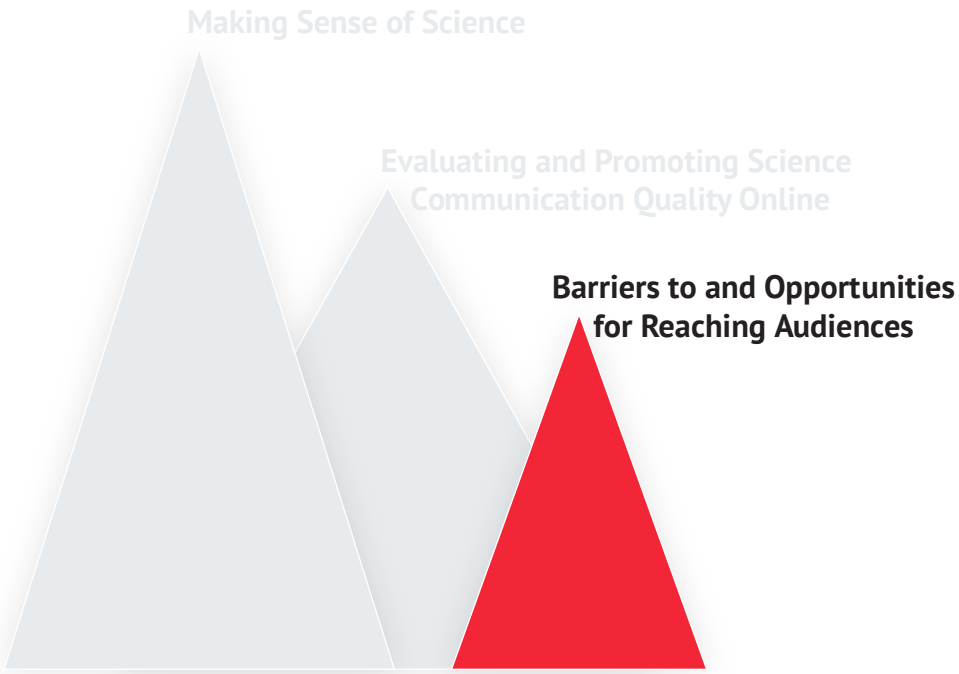
- Develop and foster approaches to promote and enhance science communication quality

More Information:

For a deeper discussion of this insight, click here:
Also available in the navigator folder under "Insight02.pdf"

Insight 2. Factsheet

Insight 3. Reaching Audiences



The aim of this study was to learn about the challenges that occur at the science–society interface, which become especially visible in the context of citizens' sensemaking of science, and to shed light on the consequences for science communication.

Question in focus

Who is addressed by science communicators across Europe? What enables and hinders dialogue and interaction between science and society in the digital media environment?

Empirical approach

- Survey of science communicators across Europe
- Case studies

Core findings

- Most important audiences: university students, school teachers, researchers, policymakers, non-governmental organisations and businesses
- Important motivations to communicate science: information and education, create conversations between researchers and the public, encourage evidence-based attitudes and behaviours and counter misinformation
- Barriers to science communication: lack of time, resources and support
- Barriers to communication and interaction: competition for attention, lack of interest, speed of online communication, missing knowledge and uncertainty regarding how to reach out to specific audiences

Future directions

- Develop science communicators' roles as an opportunity to foster mutual exchange between science and society

More Information:

For a deeper discussion of this insight, click here:

Also available in the navigator folder under "Insight03.pdf"

Insight 3. Factsheet

Training Resources

The following resources can help you to develop your students' science communication competence levels by focusing on the three themes outlined above.

We included materials for the introduction of themes and to help you to stimulate discussion, reflection and learning, which will seed new ideas. For the latter, we have developed quick tools that are applicable within single training sessions as well as deep dives that need a bit more time and can be applied over more sessions.

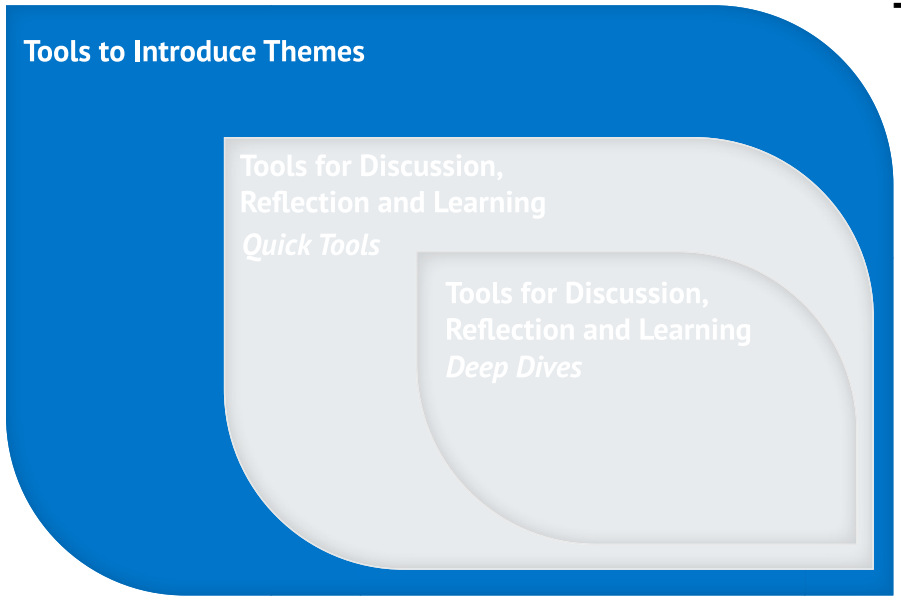
Tools for introducing themes contain several resources for getting people acquainted with overarching themes of science communication.

Quick tools contain a summary of resources that are applicable within a single session of a course. Resources are developed for specific competence levels and themes. Quick tools can be used in combination with every introductory resource and also in combination with deep dives and in a flexible order.

Deep dives encompass resources that can be used over the course of two or more sessions up to a whole term. Again, resources are developed for specific competence levels and themes. The work on these single or group activities takes place during or outside of course time. Students report their findings during the training sessions in front of the plenary and/or submit a report. Deep dives can be used in combination with every introductory resource and also in combination with quick tools.

Tools to Introduce Themes

Resources presented in this section are meant to
- Give an overview of the issue in focus,
- Outline problems and relevance,
- Agree on terms and definitions and
- Develop a basis for discussion and reflection.



Tools in this section:

Kickstarter Videos — View

Factsheets — View

Mini Lectures (Presentation Slides) — View

Kickstarter Videos

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

Making Sense of Science

Evaluating and Promoting Science Communication Quality Online

Barriers to and Opportunities for Reaching Audiences

Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Applicable for all training contexts. Participants would benefit from basic knowledge in science communication.

Complete Guide to this Resource:
Also in the navigator folder under "Resource-Introductions01.pdf"

Resource PDF

Description

The kickstarter introduction contains three short educational videos (2 minutes each) that we created to communicate our research findings in an accessible and entertaining way. The videos address a broad range of stakeholders and thus work as an easy and quick introduction to the RETHINK themes.

Learning Objectives

- Introducing the RETHINK research topics: reaching audiences, making sense of science and science communication quality
- Learning about conditions of the changing science communication landscape
- Getting to know and reflecting on the perspectives of different actors involved in science communication

Technical Requirements and Preparation

- You can download the videos or go online to show them.
- Please check the speakers to make sure that the sound works.
- When used in online settings, students can also watch the video clips on their own devices.

Resources

View videos on the insights by clicking below:

Making sense of science:
Also available online at https://youtu.be/lzIBvNUcCH4

Video Link 1

Science communication quality:
Also available online at https://youtu.be/SMrOofK-UQo

Video Link 2

Reaching audiences:
Also available online at https://youtu.be/htKVHlZBHJg

Video Link 3

Factsheets

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

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Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Applicable for training contexts that contain more than one session.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-Introductions02.pdf"

Resource PDF

Description

Factsheets present research conducted within RETHINK in a concise and summarizing way. They are available for three themes: making sense of science, science communication quality and reaching audiences. Factsheets can be used for course preparation to give students a first overview and to prepare group work and discussions. All factsheets contain links to complete research reports, related papers and recommendations for further reading.

Learning Objectives

- Receiving an overview of RETHINK's main outcomes
- Gaining insights into the research project and applied methods
- Developing a basis for further discussion on science communication from different perspectives

Technical Requirements and Preparation

- Factsheets can be read on the computer or can be printed.

Resources

View detailed information about the insights by clicking below.

Factsheet on making sense of science
Also in the navigator folder under "Insight01.pdf"

Insight Factsheet 1

Factsheet on science communication quality
Also in the navigator folder under "Insight02.pdf"

Insight Factsheet 2

Factsheet on reaching audiences
Also in the navigator folder under "Insight03.pdf"

Insight Factsheet 3

Mini Lectures (Presentation Slides)

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

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Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Applicable for all training contexts. It is up to the trainer to tailor the lectures to students' needs.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-Introductions03.pdf"

Resource PDF

Description

To help you to introduce the themes of the courses, we prepared slides for mini lectures. The slides contain basic information on RETHINK research in the three themes making sense of science, science communication quality and reaching audience. They are meant to support your talk. We recommend reading the factsheets, the full research reports and/or related papers for preparation.

Learning Objectives

- Learning about the relevance, approaches and outcomes of RETHINK research in the fields making sense of science, science communication quality and reaching audiences
- Building the basis for further discussion and group work

Technical Requirements and Preparation

- Applicable to face-to-face sessions (beamer required) and online settings
- Can also be offered to students as digital/printed handouts

Resources

Open the presentation files by clicking below:

Presentation on making sense of science
Also in the navigator folder under "Presentation01.pdf"

Presentation 1

Presentation on science communication quality
Also in the navigator folder under "Presentation02.pdf"

Presentation 2

Presentation on reaching audiences
Also in the navigator folder under "Presentation03.pdf"

Presentation 3

Tools for Discussion, Reflection and Learning: Quick Tools

Resources presented in this section are meant to

- Prompt discussions,
- Enable reflection,
- Stimulate learning and development and
- Enable short-term (quick tools) involvement of students.

Tools in this section:

Discussion Prompts

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

Making Sense of Science

Evaluating and Promoting Science Communication Quality Online

Barriers to and Opportunities for Reaching Audiences

Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Not required, but basic understanding of science and public communication could be an advantage.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-QuickTool01.pdf"

Resource PDF

Description

Discussion prompts are short activating questions to facilitate discussions among participants. The questions can be used individually or before/during the mini lecture presentations and in plenum or in smaller groups. The prompts provide a starting point for activities concerning the development of the science communication environment and refer to the three RETHINK themes: making sense of science, science communication quality and reaching audiences.

Learning Objectives

- Reflecting on themes
- Developing different or new perspectives/points of view
- Finding solutions and strategies in a collaborative way

Technical Requirements and Preparation

- Presentation equipment and/or (black/white) board
- Use of flipcharts or digital alternatives

Resources

For a set of discussion prompts, click here:

also available in the Navigator folder under "DiscussionPrompts.pdf"

Discussion Prompts

Discovering the Science Communication Ecosystem

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

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Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Not required, but basic understanding of science and public communication could be an advantage.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-QuickTool02.pdf"

Resource PDF

Description

Working on their own or in groups, students visualise their understanding of the science communication ecosystem. Participants are asked to modulate (e.g., draw) and explain their ideas about the science–society interface. This can include communicators, issues, audiences, media or other aspects considered relevant.

Learning Objectives

- Explicating oftentimes vague understandings and ideas of the (digital) science communication ecosystem
- Getting to know different perspectives and broaden own views
- Challenging mental models by discussing and exchanging different perceptions

Technical Requirements and Preparation

- Modelling clay (depending on size, one block per student)
- Underlay (e.g., flip chart sheets)

Actor Mapping

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

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Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Not required, but basic understanding of science and public communication could be an advantage.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-QuickTool03.pdf"

Resource PDF

Description

Understanding and observing the complexity of the science communication landscape is essential for professional science communicators and scientists.
To this end, this task aims at mapping actors involved in the public communication of science-related issues. Students work individually or in small groups to develop actor maps for specific science-related communication issues such as climate change, nutrition, endangered species, gentech or vaccination.

Learning Objectives

- Realising the diversity of actors involved in the public communication of science
- Developing a realistic understanding of the competition for public attention in science communication
- Recognising the dual role of actors as audiences and science communicators

Technical Requirements and Preparation

- Internet access and notebooks for students (at least one per group)
- In case of group work: sufficient space or breakout rooms
- Flipcharts or online equivalent
- Depending on platform used, personalised settings could lead to different results for the same search strings. This is not a problem in the context of the training setting, but students should be made aware of this.

Science Communicators' Personas

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

Making Sense of Science

Evaluating and Promoting Science Communication Quality Online

Barriers to and Opportunities for Reaching Audiences

Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Prior knowledge about contexts and workings in professional science communication could be an advantage.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-QuickTool04.pdf"

Resource PDF

Description

Students develop and reflect upon typical 'personas' representing the various actors in the science communication field. On this basis, students develop their personas in small groups by describing organisational and working contexts (e.g., organisational structures and hierarchies), media and audience contexts (e.g., overall objectives and target groups, platforms and media), general tasks and challenges for those 'personas' working in the field.

Learning Objectives

- Reflecting working conditions of science communicators
- Gaining insights into professional working conditions
- Understanding science communicators' perspectives and decisions

Technical Requirements and Preparation

- Internet access
- Space/breakout rooms for group work
- Optional: materials (job interviews, case studies) in print or online
- Flipcharts or online equivalent for presentation of results

Approaching Audiences/ Joint Problem Solving

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

Making Sense of Science

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Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Knowledge about science communication audiences and related difficulties when engaging specific segments of society could be an advantage.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-QuickTool05.pdf"

Resource PDF

Description

In recent years, much attention has been paid to the question of how science communication can reach out to different audiences in an effective and responsible way. Students can both learn from case studies that we conducted for RETHINK and 'help' the communicators to reach out to their audiences in focus by using an approach called joint problem solving. Important steps of this task are to detect the problems and barriers that the actors face when approaching specific audiences online and offline. Students rank the problems with regard to their importance for reaching the science communicators' objectives and can then decide on up to three problems that they will aim to solve. In the next step, students discuss potential ways and required resources to tackle the identified problems.

Learning Objectives

- Reflecting on science communication audiences and challenges to address specific segments of society
- Analysing science communication practices
- Developing skills for joint problem solving and constructive critique

Technical Requirements and Preparation

- Case studies in print or digital form
- Flipcharts or online equivalent
- Optional: sticky notes (offline/online) to rank problems and solutions

Resources

For a set of case studies, click here:

also available in the Navigator folder under "CaseStudies.pdf"

Case Studies

First Aid Bridge Building

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

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Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Knowledge of sensemaking methodology and basic knowledge of communication strategy development needed.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-QuickTool06.pdf"

Resource PDF

Description

Research on sensemaking points to the complex and multifaceted situations in which individuals encounter science in their everyday lives. Against this backdrop, the research conducted within RETHINK aimed at exploring the sensemaking of citizens in the context of the COVID- 19 pandemic. The sensemaking methodology explains the gaps that individuals are facing with and their individual approaches to overcome these and to build bridges to make sense of and cope with the health crisis. Against this backdrop, the task aims at developing instant strategies that respond to the gaps articulated by the people in focus.

Learning Objectives

- Recognising audience's needs
- Learning and improving skills to develop communication strategies
- Developing strategic thinking

Technical Requirements and Preparation

- Visual presentations in print or digital form
- Flipcharts or online equivalent to support students' strategy development
- Equipment for presentation (notebooks, whiteboards etc.)

Resources

For a set of visual presentations, click here:

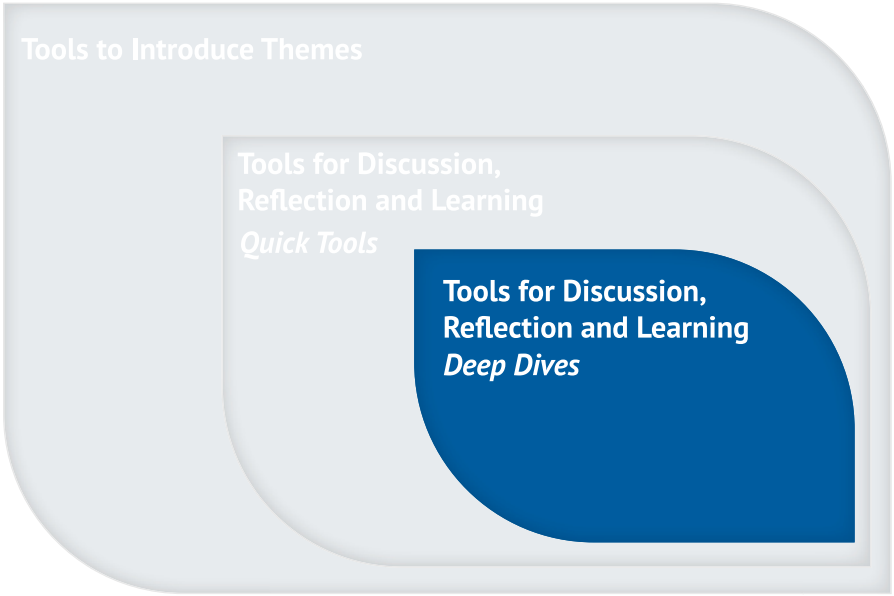
also available in the Navigator folder under "VisualPresentations.pdf"

Visual Presentations

Tools for Discussion, Reflection and Learning: Deep Dives

Resources presented in this section are meant to

- Prompt discussions,
- Enable reflection,
- Stimulate learning and development and
- Enable long-term (deep dives) involvement of students.



Tools in this section:

Science Communication Diary View

SciComm Insta Story View

Creating a Manual for Young Scientists View

Science Communication Diary

Training Resources

Tools to Introduce Themes

Tools for Discussion, Reflection and Learning: Quick Tools

Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

Making Sense of Science

Evaluating and Promoting Science Communication Quality Online

Barriers to and Opportunities for Reaching Audiences

Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Basic knowledge of science communication and scientific working needed.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-DeepDive01.pdf"

Resource PDF

Description

Science communication training aims at supporting (prospective) science communicators in their professional development and thus helps to improve science–society interactions in general. In this task, students use a diary technique to either observe their own science communication activities online, monitor their science communication encounters (i.e., their use of science communication) or apply the diary technique with one to three individuals (e.g., friends/family) to understand their use of science communication.

Learning Objectives

- Reflecting about science communication online
- Systematically observing science communication as a basis for development and improvement
- Getting to know social science approaches (i.e., diary technique) and improving scientific working capabilities

Technical Requirements and Preparation

- Online access and hardware
- Optional: diary app or other applicable tools
- Space (e.g., digital) for group work
- Equipment for presentation (notebooks, whiteboards etc.)

SciComm Insta Story

Complete Guide to this Resource:
Also in the navigator folder under "Resource-DeepDive02.pdf"

Resource PDF

Training Resources

Tools to Introduce Themes
Tools for Discussion, Reflection and Learning: Quick Tools
Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

Making Sense of Science
Evaluating and Promoting Science Communication Quality Online
Barriers to and Opportunities for Reaching Audiences

Competence Framework

Picture of the World
Professional Norms & Roles
Working Knowledge

Required Prior Knowledge

Basic knowledge of science communication required; knowledge about science communication quality an asset. Basic experience in scientific working, esp. conducting literature reviews and summarising study findings, needed. The trainer should possess technical knowledge and experience with Instagram or other social media applied.

Description

Using social media has become a standard in science communication to address a broad range of different audiences. However, the use of online platforms can make it difficult to conform to quality standards. Against this backdrop, this task aims at helping students to experience and reflect on the challenges of social media use in science communication and to practice its application. Students develop their own science communication for Instagram and prepare and produce an Insta feed post and stories. Alternatively, they can produce short videos for YouTube or TikTok. Depending on the course, the theme for the task could refer to the question of what the 'science of science communication' is all about. Of course, more specific questions derived from science communication research could be used, too.

Learning Objectives

- Reflecting on science communication as a discipline
- Reflecting on reaching audiences and quality
- Understanding new conditions of the science communication landscape
- Writing for different audiences

Technical Requirements and Preparation

- Instagram app (on a mobile device) and accounts (at least one per group)
- (Private) Instragram account for the course (to be set up by the trainer)
- Optional: access to literature (e.g., Web of Science license or comparable)
- Space (e.g., digital) for group work
- Equipment for presentation (notebooks, whiteboards etc.)

Creating a Manual for Young Scientists

Training Resources

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Tools for Discussion, Reflection and Learning: Deep Dives

Research Insights

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Competence Framework

Picture of the World

Professional Norms & Roles

Working Knowledge

Required Prior Knowledge

Solid science communication knowledge and experience with scientific working and practical science communication needed.

Complete Guide to this Resource:

Also in the navigator folder under "Resource-DeepDive03.pdf"

Resource PDF

Description

In recent years, public engagement has developed into an important activity of scientific work and a professional demand for academic careers. However, we also know from previous research on public engagement – also conducted within RETHINK – that scientists do not always feel well-equipped for engaging with society, and only some scientists have opportunities to take part in science communication trainings to develop their competences. Against this background, the task is to develop a manual for young scientists that gives them guidance for their own science communication and public engagement activities. When conducting this task, students themselves can thus become 'trainers' for science communication and take up the important role of spreading science communication quality and promoting professionalism.

Learning Objectives

- Applying science communication theory and evidence
- Putting oneself in the position of young scientists who are expected to or want to engage with the public
- Developing writing skills and own science communication competences
- Learning from other perspectives, esp. in interaction with scientists

Technical Requirements and Preparation

- Optional: access to literature (e.g., Web of Science license or comparable)
- Space (e.g., digital) for group work
- Equipment for presentation (notebooks, whiteboards etc.)