ETHNA

Stakeholder involvement in ethical governance of R&I

›››››› **A GUIDE FOR HEFRCS** 31|10|21

AUTHORS: LISA HÄBERLEIN | JULIA MARIA MÖNIG | PHILIPP HÖVEL

Table of content:

List of abbreviations

CIMULACT	Citizen and Multi-Actor Consultation on Horizon 2020
CORDIS	The Community Research and Development Information Service
ECSA	European Citizen Science Association
ENGAGE2020	Engaging Society in Horizon 2020
ETHNA System	Ethical Governance of RRI in Innovation and Research in Research Performing Organisations and Research Funding Organisations
EU	European Union
HEFRC	Higher Education, Funding and Research Centres
JISC	United Kingdom non-profit organisation for digital services and solutions in the higher education and research sector
NCCPE	National Co-ordinating Centre for Public Engagement
PCST	Public Communication of Science and Technology
PE	Public Engagement
PE2020	Public Engagement Innovations for Horizon 2020
R&I	Research and Innovation
RRI	Responsible Research and Innovation
SISCODE	Society in Innovation and Science through CO-DEsign
SciShops.eu	Enhancing the Responsible and Sustainable Expansion of the Science Shops Ecosystem in Europe
QHM	Quadruple Helix Model

What this guide is about and how you can use it

This document provides you with methodological guidance on how to design ethical governance activities in the context of strategic development in Higher Education, Funding and Research Centres (HEFRCs) wishing to implement an ETHNA System. The guide outlines a set of options and vivid examples for conducting deliberative workshops with key actors in your organisation, e.g., actors from civil society, research, innovation and funding communities, business and industry or policy makers. By engaging stakeholders in deliberative participation at an early stage, you can effectively identify, discuss and take into account societal values, needs and expectations related to the RRI activity you plan to undertake. This guide will help you learn more about methods and techniques to promote dialogical learning and deliberation in stakeholder workshops. Both dialogical learning and deliberation are key pathways to engage stakeholders in the ethical governance of R&I. To guide this two-way dialogue, reference is also made to existing approaches developed by other EU-funded projects dedicated to fostering deliberative engagement methods, such as CIMULACT, ENGAGE2020, PE2020, PRO-Ethics, SciShops.eu, SISCODE and RRI Tools or the ECSA network. In addition, this document provides inspiring examples of workshops carried out by organisations implementing an ETHNA System. Thus, the guide offers a flexible workshop design that can be adapted to the specific needs of your organisation and its structures, e.g., by choosing tailored methods for conducting participatory events. As such, it is broad enough to address the specific situation and circumstances of your organisation, but also universal enough to provide a common standard for deliberative activities in HEFRCs.

This guidance document will help you to

1. Strategically develop ethical R&I governance within your organisation
2. Engage stakeholders to assess societal needs and identify as well as relate relevant RRI keys
3. Follow good practice in deliberative stakeholder engagement in HEFRCs by describing success stories
4. Plan and conduct deliberative workshops in a flexible way by using adaptable dialogical methods.

Deliberative stakeholder engagement in R&I in other EU-funded projects		
CIMULACT	http://www.cimulact.eu/	Riisgaard, K./ Danish Board of Technology Foundation/ CIMULACT Consortium Partners (2017): Programmes and concepts for all citizen and multi-actor consultations CIMULACT D3.2. Available at: http://www.cimulact.eu/wp-content/uploads/2017/09/D3.2-Programmes-and-concepts_compressed.pdf.
ENGAGE2020	http://engage2020.eu/	Andersson, E./ Bussu, S./ Davis, H./ Mulder, H./ Klüver, L./ Jørgensen, M. L./ Nierling, L./ Kuhn, R./ Kozarev, V./ Damianova, Z. (2015): What the Future Holds for Societal Engagement. Future Engagement Report. ENGAGE2020 D4.2. Available at: http://engage2020.eu/media/D4.2-Future-Engagement.pdf.
		Hennen, L./ Pfersdorf, S. (2014): Public Engagement - Promises, demands and fields of practice. ENGAGE2020 D2.1. Available at: http://engage2020.eu/media/D2.1-Public-Engagement-Promises-demands-and-fields-of-practice.pdf.
		The Engage2020 Consortium (2015): Engage2020. Science, Society and Engagement. An e-anthology. ENGAGE2020 D2.2. Available at: http://engage2020.eu/media/Engage2020_withVideo.pdf.
PE2020	https://cordis.europa.eu/project/id/611826	Rask, M./ Matschoss, K./ Kaarakainen, M. (2017): Final Progress Report. PE2020 D6.1. Available at: https://cordis.europa.eu/docs/results/611/611826/final1-d6-1-final-progress-report-final.pdf.
		Ravn, T./ Mejlgaard, N. (2015): Public Engagement Innovations – Catalogue of PE initiatives. PE2020 D1.2. Available at: https://tuhat.helsinki.fi/ws/portalfiles/portal/156529598/Public_Engagement_Innovations_H2020.pdf.
PRO-Ethics	https://pro-ethics.eu/	Stubbe, J./ Wetterling F./ Hoffmeister K.-L. (2020): How can IT tools support participation in a responsible way? Available at: https://pro-ethics.eu/news/how-can-it-tools-support-participation-in-a-responsible-way.
RRI Tools	https://rri-tools.eu/	PCST2016 Workshop: https://rri-tools.eu/documents/10184/220840/2_RRITools_PCST2016_workshop.pdf/bc394b6b-8820-4771-84a6-03773ea83d6c.
		Sample timetables for workshops: https://rri-tools.eu/en/training/resources.
SciShops.eu	https://www.scishops.eu/	Russo, P./ Nevinskaitė, L./ Gečienė, I./ Grossi, G./ Barisani, F./ Schroeder (2018): Practitioner roadmap and methodology toolkits. SciShops.eu D4.2. Available at: https://project.scishops.eu/wp-content/uploads/2018/08/SciShops.eu_D4.2_Practitioner_roadmap_and_methodology_toolkits.pdf.
SISCODE	https://siscodeproject.eu/	Interactive guidebook: https://siscodeproject.eu/guidebook/.

Why consulting broader communities is important for RRI

Have you ever asked yourself what you can achieve through stakeholder deliberation in R&I governance? You can consult broader communities to practice ethical stakeholder inclusion and jointly think through the steps and resources for realising your planned RRI activity, identify societal values, needs and expectations and take them into account in R&I governance. Participatory events are thus high-quality participatory processes that can be considered an effective means of gathering informed public views and opinions on complex issues, especially in cases where traditional opinion research struggles to provide relevant insights or where polarised views exist (cf. Andersson et al. 2015, 12f.). By engaging in a trustworthy, fair and open dialogue with relevant stakeholders, you promote ethical governance from within your organisation. Giving stakeholders a say in open discussions raises self-awareness, builds on the existing knowledge of various actors and allows responding to possible societal contributions of R&I in terms of social values, needs and expectations.

Although different actors with different expertise, legitimacy claims, etc. reveal a wide range of perspectives and a variety of relevant issues in the deliberation process, there are topics for which as of today there is a broad consensus that, due to their social relevance, discussion involving relevant stakeholders is necessary.[1] These include:

1. Sustainability/ protecting land and oceans

2. Data Protection/ privacy/ protection of human rights

3. New Technologies: AI/ robotics

4. Health (including psychological health and well-being)

5. Food and farming

6. (Drinking) Water

---

[1]   For guidance on monitoring societal needs and further examples of socially relevant topics, please refer to the following document: "Gauging the potential societal contributions of research and innovation – a guide for HEFRCs" (cf. https://ethnasystem.eu/results/).

Deliberative methods in ethical governance of R&I[2]

> *Deliberative activities are "[…] trying to make sense of value in the public sector and civil society, providing a bridge between the complex patterns of public demands and needs, as expressed through political and other processes, and the changing production system that keep people healthy, educated and safe" (Mulgan et al. 2019, 8).*

The EU-funded ENGAGE2020 project noticed an increased interest in deliberative methods at the European level (cf. Andersson et al. 2015, 8, referring to Hennen/ Pfersdorf 2014). This is because involving wider populations in participatory events offers new opportunities to define recommendations for R&I. By considering different options for complex issues, better informed decisions can be made. Nevertheless, deliberative methods have a long history in the field of R&I. Since the 1970s and 80s, deliberative engagement has been applied to a variety of scientific and technical issues (cf. Andersson et al. 2015, 12). The PE2020 project indicates that "[t]here has been a shift of PE [public engagement] from traditional models of public communication and consultation, where dialogue between decision makers and the public is narrow and restricted, to public deliberation where such dialogue is intensive and influential" (Rask et al. 2017, 19).

> *"Active engagement that requires citizens' cognitive attention during participation in the research process is favoured over limited interaction" (Haklay et al. 2020, 4).*

> *"Deliberative methods are characterised by their focus on ensuring high quality deliberative dialogues, where participants are given time and opportunity to listen to evidence, as unbiased as possible, discuss the issues with other citizens and/or stakeholders, and form their views" (Andersson et al. 2015, 12).*

This transition also relates to the fact that deliberative methods differ greatly in terms of e.g., duration, costs, target group or number of participants. PE2020 considers public deliberation as one approach with different sub-types and points to a more nuanced classification of public engagement processes:

> ❯ **Deliberative research**

> ❯ **Deliberative dialogue**

> ❯ **Deliberative decision making (cf. Rask et al. 2017, 12, referring to NCCPE/ JISC 2013).**

---

2   Although some methods have different names, they are in fact very similar and may differ only in marginal aspects (cf. Russo et al. 2018, 29).

In the ETHNA System, relevant stakeholders are to be engaged in RRI activities primarily through deliberative dialogue in participatory workshops. Such workshops allow you to employ engagement methods and techniques that are appropriate to the aims of the RRI activity you wish to undertake (cf. The Engage2020 Consortium 2015, 13). By using a variety of deliberative engagement techniques, you can also prevent stakeholder fatigue.[3] Thus, the ETHNA System includes a set of different methods and techniques that may help you diversify stakeholder events. An important benefit of various forms of group discussions guided by a skilled facilitator is that they allow participants to discuss contested issues in depth, challenge opinions and iteratively refine their arguments to arrive at an informed perspective. In this way, participants can also build and improve mutual relationships and acquire new knowledge and skills (cf. https://www.involve.org.uk).

> *Deliberative methods place much importance "[…] on a proper, stratified selection process to ensure that the participants reflect the demographics of wider society or are broadly representative of a particular target group, depending on the purpose of the process" (Andersson et al. 2015, 10).*

---

3   This explanation goes back to one of 12 principles for stakeholder engagement. The full list can be found in the ETHNA System stakeholder mapping guide: https://ethnasystem.eu/wp-content/uploads/2021/10/ETHNA_2021_d3.1-stakeholdermapping_2110011.pdf.

Conducting a deliberative stakeholder workshop

Description

A deliberative workshop is a targeted participatory event, aimed at sharing information, transferring knowledge and exchanging experience. It enables in-depth discussion, challenging views, and developing understanding. The potential stakeholder engagement in deliberative workshops is considered to be at the level of involvement and collaboration (cf. http://actioncatalogue.eu/method/7388).[4] When implementing an ETHNA System, the aim of conducting a deliberative workshop is to promote and guide the involvement of relevant actors in the ethical governance of R&I in focused discussions between different groups of stakeholders.[5] In this process, stakeholders should refer to the RRI key areas research integrity, gender perspective, public engagement, open access and to societal challenges relevant to the planned RRI activity.

Societal challenges the deliberative workshop method can be used to address

› "Health, demographic change and wellbeing

› Food security, sustainable agriculture, marine and maritime research and
   the bio-economy

› Secure, clean and efficient energy

› Smart, green and integrated transport

› Climate action, resource efficiency and raw materials

› Inclusive, innovative and reflective societies

› Secure societies to protect freedom and security of Europe and its citizens

› Others" (http://actioncatalogue.eu/method/7388).

Process

Typically, workshop participants are engaged through written materials, videos or expert presentations (cf. Prikken/ Burall 2012, 22). In case the workshop format involves experts presenting information, they should be briefed beforehand so that they clearly understand their role as presenters. However, the majority of the time should be allocated to the participants' discussions. These can take the form of plenary and/or small group discussions. Moderators ensure that all participants have enough time to express their values, expectations, interests and concerns. The discussions are carefully recorded, for example by a person taking notes. Various methods and techniques can be used, the choice of which depends, among other things, on the size of the group and the nature of the topic. Ideally, the ways in which participants can express their opinions should vary during the workshop (cf. http://actioncatalogue.eu/method/7388).

---

4   To explore stakeholder analysis, priorisation and levels of engagement in more depth, see the ETHNA System stakeholder mapping guide available at: https://ethnasystem.eu/wp-content/uploads/2021/10/ETHNA_2021_d3.1-stakeholdermapping_2110011.pdf.

5   The deliberative workshop approach might also be named Public Dialogue Workshops in the UK, Deliberative Policy Workshops or upstream engagement (cf. http://actioncatalogue.eu/method/7388).

"Deliberative workshops have been used to:

> Understand how people's views about a controversial scientific research or policy can change as they are given new information or deliberate over an issue;

> Explore how policies, or new activities, would impact communities and stakeholders, as well as to develop alternatives that result in better-informed decisions;

> Consult on conflicting beliefs or values around certain policies;

> Stimulate interest in specific scientific or societal issues among participants;

> Provide valuable insight and input into the concerns of peers and the wider public about an emerging, controversial research or policy agenda which may have impacts on wider society in the future;

> Enhance understanding and the relationship between science and wider society" (http://actioncatalogue.eu/method/7388).

Target group

The target group depends on the purpose of the workshop. The selection of participants depends on the issue at hand, but for a deliberative workshop on the implementation of an ETHNA System, participants should be selected according to the quadruple helix model (QHM).[6] In this way, you build a group of relevant stakeholders that includes different perspectives and reflects relevant aspects of your RRI activity. In addition to interest groups or demographic criteria, random selection is often used to avoid bias. (cf. http://actioncatalogue.eu/method/7388).

SciShops point out that stakeholder participation is not a goal in itself. So, keep in mind the benefits and limits of participatory events. How do participatory activities help to reach the objectives of your planned RRI activity? Why are stakeholders involved? To define the objectives, to interpret collected data or other? (cf. Russo et al. 2018, 27)

Brody et al. recommend that relevant actors should be included in the RRI activity "[…] from its earliest stages through every important decision point. At a minimum, there should be systematic participation at the preplanning or visioning stage, at the selection of goals and objectives, at the choice of alternatives, and at the review and approval of the final planning package" (Brody et al. 2003, 260).

---

6   More information on the quadruple helix model and its usefulness to develop an intersectional focus, see: https://ethnasystem.eu/wp-content/uploads/2021/10/ETHNA_2021_d3.1-stakeholdermapping_2110011.pdf.

> *When considering who should be involved and why, the limitations of participation should also be taken into account, e.g., the complexity of the issues, as overly complex issues may not be suitable for less experienced stakeholders. The geographical scope also needs to be considered when determining who should be involved, as this aspect poses budgetary and logistical challenges. Online activities (e.g., video conferencing, online workshops, focus groups) can possibly help to overcome geographical limitations (cf. Russo et al. 2018, 28).*

So, start planning the event and engaging the relevant stakeholders you want to involve as early as possible. Motivate potential participants for the topic and establish contact by promoting a culture of openness, transparency and participation. This can be realised by clearly articulating the objectives, expectations, but also limitations of participation in the RRI activity. Provide relevant and clear information to participants and clarify the extent to which participants can influence outcomes (cf. Häberlein et al. 2021, 9f).

When choosing your methods, take into account that participants will vary depending on the issue and the scope. The methods and techniques should therefore be oriented towards the knowledge, experience and skills of the participants. Also, ensure that structures are created that ensure all voices are heard. In your participatory event, create a space with a pleasant atmosphere that allows participants to talk openly about their needs, wishes and concerns and to listen to each other. If you want to know more about spaces for understanding you can refer to the ETHNA System guide "Mapping stakeholders and scoping involvement – a guide for HEFRCs" and the ideal typical criteria for stakeholder dialogue (cf. Häberlein et al. 2021, 9).

Number of participants

The number of participants should not exceed 8-16 people in a single workshop group so that a discussion can take place and everyone gets a chance to have their say. However, it is possible to include several group discussions in a workshop and thereby engage more participants.

> *ENAGAGE2020 points out that "[…] small numbers can be construed to be a problem, in particular when behaviour change is on the agenda. A small process is unlikely to have much impact on the public at large" (Andersson et al. 2015, 10). Therefore, ask yourself: What are the objectives and intended outcomes of the event?*

Time expense

The duration of a deliberative workshop depends on the topic and intended outcome. It may vary between 3 hours if the topic is narrow and the intended outcomes are circumscribed on the low end and several days if the topic is broad or particularly contentious and the intended outcomes are highly ambitious on the high end. Importantly, longer workshops are not inherently superior to shorter ones: what matters is that objectives and methods are aligned.

> *Provide enough time to discuss what is on the agenda, allow stakeholders to have their say and address their values, needs and expectations as well as their potential concerns. Set a concrete focus. This will allow you to actually get answers to relevant questions and discuss issues in depth.*

Costs

Low – Medium, depending on the number of participants, duration of the event, venue hire, catering, transportation costs etc.

Engage2020 identified important challenges in stakeholder engagement:

› "Pressures to cut costs

› Pressures to reduce the time the process takes

› Pressures to increase the quality of the participation

› Pressures to increase the number of participants involved" (Andersson et al. 2015, 10).

"Attempting to turn deliberative methods into a fast and cheap approach may play to its weaknesses and not its strength" (The Engage2020 Consortium 2015, 79).

An example from the ETHNA System project and lessons learned

The ETHNA System project conducted deliberative workshops together with six HEFRCs implementing an ETHNA System. The workshops intended to exemplify a flexible deliberative engagement approach for the strategic development of RRI activities. Furthermore, the aim of the deliberative workshops was to share project results on needs assessment in order to define together with relevant stakeholders[7] which items from the areas of e.g., research integrity, gender perspective, public engagement, open access should be covered by an ETHNA System.

During the workshops, stakeholders exchanged views on main questions in discussion rounds, such as

1. How does an organisation identify societal needs to which research and innovation may respond?

2. What are the most pressing needs expressed in this regard?

They evaluated statements and voted on them, as well as engaged in a flashlight method on the basis of secondary research.[8]

In a flashlight session the following key questions were raised:

a. How to combine bottom-up and top-down approaches?

b. How to verify the legitimacy of societal needs?

c. Are there existing structures for stakeholder engagement within your institution?

d. Are there regional challenges?

Flashlight

Goal: Improving communication in learning groups. Opinions can be expressed spontaneously and briefly without commenting on them. Only questions of understanding are allowed.

The method was used in the ETHNA System deliberative workshops as an introductory exercise to explore existing knowledge and opinions on a newly introduced topic. As an intermediate session, the method could also be used to find out if pre-existing opinions have already changed during the workshop. Also, it is possible to use this method for final feedback on the event (What went well or not so well at the workshop?)

Instruction: All participants express their opinion in first-person statements on a clearly defined topic, problem or impulse, noted as a snapshot. Each person voices no more than one or two sentences. It is suggested to visualise the impulse, e.g., with a short text paragraph, picture or a cartoon.

---

7   In this case, relevant stakeholders included the implementing partners of the ETHNA System, as well as the recruited internal and external stakeholders.
8   Workshop participants used secondary research by going back to existing findings and continuing working with them. The information they used further came from a previous literature review of H2020 projects, a state-of-the-art review from the ETHNA System project, and an analysis of action plans of human resources policies (EU Charter and Code).

A lively example from the ETHNA System deliberative stakeholder workshops

The two online workshops with internal and external stakeholders started with a short introduction round, which could be regarded as a "personal business card". In addition to general information about themselves, such as name, background and institution, all participants were asked to assign themselves to one or more of the RRI key areas: gender equality, open access, research integrity or public engagement.

An unexpected outcome of this session was that the importance given to research integrity was very different. While no respondent explicitly mentioned research integrity in the internal stakeholder workshop, this key area was highlighted as particularly significant in the external stakeholder workshop. Research integrity thus seemed not to be a particularly relevant topic for some participants, whereas others described it as one of the most important topics of our time.

Such differences are particularly interesting and deserve to be reflected on again. At this point, it is worth looking at the context and thinking more carefully about the different perspectives of those who may influence or be affected by the RRI activity you plan to undertake, since they ultimately point to the needs that arise from different backgrounds.

A user guide in three planning stages

… before the workshop

✔ Use the ETHNA System guide "Mapping stakeholders and scoping involvement – a guide for HEFRCs" to identify stakeholders you would like to invite to the participatory event, ask yourself guiding questions for planning a deliberative workshop, and consult valuable tips from the projects ENGAGE2020, ROSiE and SATORI or from current practitioners' handbooks like BiodivERsA Stakeholder Engagement Handbook (cf. Häberlein et al. 2021).[9]

✔ Think about the objectives and desired outcomes of the workshop. Consider why the participation of relevant stakeholders is necessary and what contribution they should make. This step will guide the selection of methods, lead participatory activities and set criteria for evaluation (cf. Russo et al. 2018, 27).

✔ Draft an agenda: Brody et al. recommend that participation programmes should target relevant stakeholders. In this regard, the agenda should ensure both "breadth and depth" of stakeholder knowledge and input. "It is possible to overcome problems of citizen apathy and disinterest in the planning process by crafting lively and engaging participation programs" (Brody et al. 2003, 260f.).

✔ Send an invitation to relevant stakeholders and include important documents and guiding questions in advance. Ask participants about drivers and barriers for addressing societal values, needs and expectations in RRI activities in their institutions.

> *"The planning of engagement activities or project[s] should identify the phases and timeline of implementation. The phases include such necessary steps as identification of prospective participants, development of an invitation list, development and distribution of the invitation message, preparation of guidelines/scenario of the event, preparation of written materials (if needed), and other" (Russo et al. 2018, 30).*

… during the workshop

✔ Moderate the event, keep to the schedule and ensure that the programme runs smoothly. Be prepared as much as possible for all eventualities, e.g., possible technical difficulties.

✔ Provide basic information, explaining what a deliberative workshop is about and who is running it.

✔ Explain the purpose of the workshop and how the results will be used.

✔ Outline the process that led to a deliberative workshop, and why you are having one.

---

9   Slocum provides additional planning information in the participation methods toolkit: Logistics like establishing the dates for an event, choosing the location, providing materials like microphone, table, podium, flipchart, paper and so on or providing accommodation, meals etc. https://cris.unu.edu/sites/cris.unu.edu/files/Toolkit.pdf.

✔ You might want to share information such as names, bios and photos that require consent from workshop participants. Circulate a privacy statement including your commitment to the GDPR and explaining the channels available should anyone who has submitted personal information wish to withdraw their consent.

✔ Guide participants through the methods and techniques used in the workshop and provide assistance.

✔ Share a code of practice or principles outlining the behaviour you expect from workshop participants, online and face to face (cf. Crow et al. 2019, 7f.). Possible codes of conduct to share with participants could be the ideal typical criteria for stakeholder dialogue or the 12 principles for stakeholder engagement provided in the ETHNA System guide "Mapping stakeholders and scoping involvement – a guide for HEFRCs" (cf. Häberlein et al. 2021).

✔ Provide access to evidence that is presented in the workshop: This is very important for transparency and will include e.g., any slides or videos of presentations (Crow et al. 2019, 8).

"Expert facilitation is important to guarantee as much as possible a level-playing field within the public engagement space and to manage issues of power, accessibility and confidence in the context of public engagement" (The Engage2020 Consortium 2015, 73).

✔ Record your results to reflect on the process and draw conclusions. You might wish to use the notes being taken to write a report of the event and share relevant results with participants or the wider public afterwards.

✔ Close the workshop session with final remarks and words of farewell. You can also mention upcoming activities and further opportunities for engagement.[10] To summarise the event, you can refer back to exploration questions:

 – Were the objectives of the workshop achieved?

 – What difficulties were encountered?

 – How were they tried to be solved?

 – What should be discussed at the next event?

---

10   See follow-up phase on page 23.

… after the workshop

✔ Let people know what their input is used for, share documents (e.g., send draft or interim report) or let them comment on the workshop results again.

> *Once the workshop is over and a report has been written, you might want to share it on different platforms, including a summary on the website of your organisation to make your RRI activity more visible. You might also consider blog posts from members or interviews with them (cf. Crow et al. 2019, 8).*

✔ Draw conclusions for your planned RRI activity. What went well, what would you like to do differently at the next event? Also consider doing a brief survey with participants to ask them about their experience of the event. Have their expectations been met?

✔ Update your stakeholder map, as the workshop may have changed the way you want to engage relevant stakeholders in your RRI activity. Therefore, prioritise stakeholders again if necessary and keep your map up to date. This will make it easier for you to recruit relevant stakeholders at the next participatory event. Feel free to use the ETHNA System guide "Mapping stakeholders and scoping involvement – a guide for HEFRCs" and its helpful templates (cf. Häberlein et al. 2021).

Deliberative methods to cover more precisely the values, needs and expectations of society

In the ENGAGE2020 project it is emphasised that "[i]n the future we will need to see more flexibility on methods, groups and different frames for methods in deliberation" (Andersson et al. 2015, 14). Using a mix of methods in deliberative workshops means you can potentially reach a wider range of people, giving them various opportunities to get involved.

You can for example use a set of criteria when deciding on which methods to employ in deliberative workshops. Templates from the guide e.g., the template for stakeholder analysis, can help you with this.

› Objectives: Ask why stakeholders should be involved and what the expected outcomes are.

› Topic: Ask e.g., about the nature and scope of the problem and specify the topic for precise guiding questions.

› Contextual situation: Ask e.g., about time and duration available.

› Resources available: Ask e.g., about the financing of the event and all related costs.

› Stakeholders: Ask about the potential role of the participants, e.g., their knowledge about relevant RRI key areas or their commitment to responding to the values, needs and expectations of society (cf. Russo et al. 2018, 29).

"One of the main results of SISCODE is the acknowledgement that to successfully and effectively apply co-creation, methods and objectives need to be not only made explicit, but also carefully selected in order to be appropriate to the scope, context and people" *(https://siscodeproject.eu/guidebook/).*

SciShops.eu emphasises to use the interactive online Action Catalogue, developed by the EU-funded Engage2020 project (http://actioncatalogue.eu/). "The tool is meant to enable researchers, policy-makers and other stakeholders to select the appropriate format for the PE [public engagement] initiatives they wish to develop. The database is searchable on 32 criteria, including objective of application of the method, level of stakeholder/public involvement, geographical scope of application, time needed for the execution of the methods, and many other" (Russo et al. 2018, 29).

The EU-funded project RRI Tools has developed a series of showcases, which give detailed descriptions of examples of RRI in practice like examples on training workshop programmes. Feel free to use these agendas to guide your event planning (cf. https://rri-tools. eu/documents/10184/220840/2_RRITools_PCST2016_workshop.pdf/bc394b6b-8820-4771-84a6-03773ea83d6c) You can download some sample timetables for workshops that the RRI Tools project has delivered here: https://rri-tools.eu/en/training/resources).

In the following section, you will get to know a series of methods that you can use flexibly to design deliberative workshops. The methods are listed according to different areas of application, for example "getting to know the topic", "identifying different perspectives", "connecting ideas", "entering into a dialogue", "finding solutions to problems" or "reducing conflicts". All methods are described in such a way that you can select, adapt and use them for planning and conducting deliberative workshops in your organisation. The examples of methods aim at self-reflective, creative and dialogical learning, critical thinking and decision-making and can thus contribute to the democratisation of RRI activities. When choosing a method, make sure that it fits your RRI activity, enables you to achieve your objectives and allows you to engage relevant stakeholders in the most suitable way.

My personal business card

Goal: Get to know each other, reduce insecurities and establish a connection to the topic

Instruction: Grab a piece of paper or use a virtual whiteboard. Write down your name, your institution and your background to create your personal business card. Also assign yourself to one or more of the RRI key areas (open science, gender equality, research integrity and public engagement). Now spread out in the room or come together in virtual breakout sessions and get to know each other better.

Complete phrases like:

> I consider the relevance of open science to be …

> For me, gender equality means …

> Research integrity is what I encounter through …

> I am interested in the topic of public engagement, in that …

Collaborative mind map

Goal: Encourage creative working techniques to bring together ideas from the workshop group, to associate and collect them and to identify and link different aspects of a R&I topic

Instruction: Participants share thoughts, ideas and contexts with the group without a strict structure, so that the workshop moderator can assign the ideas and write them on a whiteboard. You can see the most important terms and contexts of a R&I topic at a glance.

Impulse discussion

Goal: Identification of different opinions, views and (pre-)judgements

Instruction: Impulses concerning your RRI activity are written on a (virtual) whiteboard or flipchart so that all participants can read them. Once listed, each stakeholder should have a say and complete the respective sentence(s).

Complete phrases like:

❯ When it comes to the human right to access to clean drinking water, I think of …

❯ The following comes to my mind with regard to chances and risks of new technologies in elderly care …

❯ Sustainable food system and agriculture for me is …

Four corners method

Goal: Start a conversation and working on a variety of RRI issues at the same time. Ideas and approaches can be transferred or linked

Instruction: Participants discuss specific questions in small groups at different stations in the room. The four corners of the room (at an online event this can be virtual breakout rooms or a virtual whiteboard) are assigned to issues concerning your RRI activity. As a workshop participant, allocate yourself to one of the four thematic areas. Exchange views on the RRI topic and identify similarities as well as differences with other stakeholders and try to find solutions to problems. If time allows, you can also rotate. In that case, the discussion per station lasts for five minutes, then participants move on to the next station.
At each rotation, new results are added to the discussion so that the debate is broadened.
Discuss ideas in the plenum.
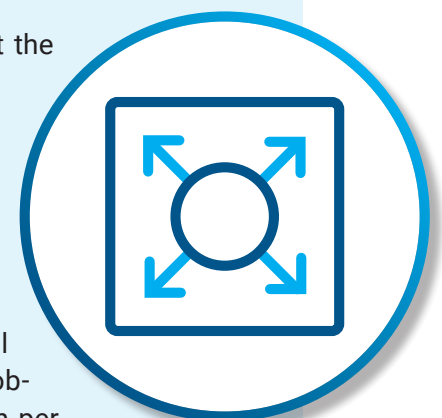
Brainstorming

Goal: Identify possible solutions to RRI problems as the free-thinking atmosphere encourages creativity. Sometimes it can help to reduce conflicts, as it helps participants to see other points of view and possibly change their perspective on problems. It can also bring humour to the situation and help break the ice. Brainstorming is useful to gather a lot of ideas, prior to scenario analyses, problem solving, decision-making or planning.

Instruction: A problem case is presented and described in as much detail as possible so that all workshop participants understand the situation. Stakeholders are asked to list as many potential solutions to the problem as they can, in a relatively quick and spontaneous manner. Each idea is briefly articulated and noted so that it can later be prioritised and ranked.

Problem cases can for example address questions from the following RRI subject areas:

› Building bridges between science and society

› The legitimacy of societal needs

› Trust in science

› Local challenges in stakeholder engagement

› Monitoring societal values, needs and expectations

› Adhering to ethical principles like transparency, accountability, honesty, respect, reliability

› Empowering "invisible", "hidden" and "indirect" stakeholders

Fishbowl

Goal: Providing new impulses and perspectives and clarifying concerns related to a specific RRI issue

Instruction: At least 10 participants approach a chosen topic in small panel discussions for about half an hour. A sitting circle of three to five people forms the podium for the discussion. All other participants sit around the circle and follow the discussion. There is a free chair in the podium that must be seated by a person from the outer circle whenever someone wants to join the discussion in the podium. The seats in the inner circle can be exchanged so that the discussion always gets new impulses. All speakers are allowed to leave the circle when their concerns have been clarified. Participants decide by themselves when the places are exchanged during the discussion.

World Café

Goal: Promote a creative approach, generate input, share knowledge, stimulate innovative thinking and explore action to a defined topic concerning your RRI activity

Instruction: Participants divide into small teams of no more than four people and discuss a given topic as if they were sitting around a table in a café. They note their results on their table cover by hand, which can later be taped to a wall so that everyone can see them. The discussion of the results takes place in at least three rounds of 20 minutes each, with all but one participant moving from table to table. In this way, one person always remains at the table as an expert and ensures that the discussion continues to develop. Experts from the respective tables present the results in the plenum. It is recommended to prepare the tables in a comfortable way, to provide tea, coffee or biscuits, to put a blanket on the tables, etc.

CIMULACT recommends: "The method can be used by partners who want to organize a consultation with mixed target groups: citizens, stakeholders, and policy-makers together" (Riisgaard et al. 2017, 25).

It is in these town meeting-style conversations that patterns can be identified, collective knowledge grows and possibilities for action emerge" (Slocum 2003, 151).

Table expert:

› "Remind people at your table to note down key connections, ideas, discoveries and deeper questions as they emerge.

› Remain at the table when others leave and welcome travellers from other tables.

› Briefly share key insights from the prior conversation so others can link and build using ideas from their respective tables" (Slocum 2003, 151).

"Explore Questions That Matter!

The question(s) addressed in a Café conversation are critical to the success of the event. Your Café may explore a single question or several questions may be developed to support a logical progression of discovery throughout several rounds of dialogue. [...]

A Powerful Question:

❯ is simple and clear

❯ is thought provoking

❯ generates energy

❯ focuses inquiry

❯ surfaces unconscious assumptions

❯ opens new possibilities

❯ seeks what is useful" (Slocum 2003, 145).

Additional Resources:

❯ **Brown, J./ World Café Community. (2002): The world café: A resource guide for hosting conversations that matter. Mill Valley, CA: Whole Systems Associates. Available at: http://www.meadowlark.co/world_cafe_resource_guide.pdf.**

❯ **Slocum, N. (2003): Participatory Methods Toolkit. A practitioner's manual. Available at: https://cris.unu.edu/sites/cris.unu.edu/files/Toolkit.pdf.**

❯ **The World Café website: http://www.theworldcafe.com**

Online workshops

There are also options to conduct deliberative workshops online. ENGAGE2020 describes online dimensions of stakeholder deliberation as an underdeveloped area (cf. Andersson et al. 2015, 12). However, digital technologies in deliberative stakeholder engagement divide the field, with many practitioners seeing online engagement as inferior, while others consider digital options as the avenue of the future (cf. Andersson et al. 2015, 18).[11] Strengths and weaknesses of online deliberative forums are discussed in the ENGAGE2020 Action Catalogue: http://actioncatalogue.eu/method/7407

One area where deliberative online workshops may prove useful is in ensuring anonymity (cf. Andersson et al. 2015, 19).

---

11   If you would like to get more inspiration, please refer to the EU Digital Education Action Plan (2021-2027): https://ec.europa.eu/education/sites/default/files/document-library-docs/deap-communication-sept2020_en.pdf.

As part of the PRO-Ethics project, an online workshop was held in September 2020, where participants discussed, among other things, how to avoid a deepening of the so called 'digital divide'. The workshop was guided by the question how IT tools can enable new forms of responsible participation in R&I processes. In the course of the discussion, the analysis of relevant stakeholders and the selection of methods and techniques emerged as issues that require special attention (cf. Stubbe et al. 2020).

Other things you might want to consider when conducting a deliberative workshop online:

> **Appoint a technical facilitator, who can be contacted directly via the chat if technical difficulties occur**

> **Specify rules at the beginning (e.g., raising hand before asking questions, unmute before talking, mute when not talking etc.)**

> **Ask participants to use the chat for questions**

> **Start with an introduction round**

> **Moderate the online event, keep to the schedule and ensure that the programme runs smoothly**

> **Have a break! Participants should be able to take a short break and "recharge their batteries" even in online formats**

> **Choose deliberative methods and adapt to the online environment**

Need an example?

Apply the World Café method digitally, e.g., by using the breakout room function. Divide participants into groups of four so that they come together in small discussion rounds. The technical facilitator can rotate the groups after 20 minutes so that other stakeholders can come together and share ideas. In the online version of the workshop, notes can be taken on a virtual whiteboard. The table expert remains in place, as in the face-to-face variant, and passes on the results achieved so far to participants entering the room. The technical facilitator finally ends the group sessions and allows participants to come back together in the main session, where they can have a plenary discussion together with all workshop participants.

Online whiteboards are virtual workplaces where people can work in real time and asynchronously. Meetings and brainstorming sessions function as if participants were all in the same room. Whiteboard applications might even be included in the software of the video conference itself, e.g., in Zoom.

Possible online collaborative whiteboards:

Etherpad	https://etherpad.org/
Jamboard	https://jamboard.google.com/
Miro	https://miro.com/
Mural	https://www.mural.co/
WBO	https://wbo.ophir.dev/?lang=en

Follow-up phase

ENGAGE2020 points out that deliberation often creates enthusiasm among participants. "Post event participants could play roles around spreading the results and holding the organisers to account for what happened as a result" (Andersson et al. 2015, 15). Once you finished the participatory event, you can reach out to workshop participants, ask them for feedback and adapt the workshop design. Let participants know how their input is appreciated and how their contribution will be implemented in the RRI activity you plan to undertake, e.g., how their data are being used and what the research, policy or societal outcomes are (cf. ECSA 2015). This will help to create more stable relations with relevant stakeholders, in view of the participation initiatives in the future (cf. Russo et al. 2018, 31).

References

Andersson, E./ Bussu, S./ Davis, H./ Mulder, H./ Klüver, L./ Jørgensen, M. L./ Nierling, L./ Kuhn, R./ Kozarev, V./ Damianova, Z. (2015): What the Future Holds for Societal Engagement. Future Engagement Report. ENGAGE2020 D4.2. Available at: http://engage2020.eu/media/D4.2-Future-Engagement.pdf.

Brody, S. D./ Godschalk, D. R./ Burby, R. J. (2003): Mandating citizen participation in plan making: Six strategic planning choices. American Planning Association. Journal of the American Planning Association, 69 (3), 245-264. Available at: http://research-legacy.arch.tamu.edu/epsru/pdf/JAPA-brody.pdf.

Brown, J./ World Café Community. (2002): The world café: A resource guide for hosting conversations that matter. Mill Valley, CA: Whole Systems Associates. Available at: http://www.meadow-lark.co/world_cafe_resource_guide.pdf.

Crow, L./ Nixon, M./ Parsons A. (2019): Citizens' Assembly Websites: Practical Guidance. mySociety. Available at: https://research.mysociety.org/media/outputs/citizens-assembly-websites_CqWRRCI.pdf.

ECSA (European Citizen Science Association) (2015): Ten Principles of Citizen Science. Berlin. Available at: https://ecsa.citizen-science.net/wp-content/uploads/2021/05/ECSA_Ten_Principles_of_CS_English.pdf.

ECSA (2021): Third international ECSA conference 2020: conference report. Berlin, European Citizen Science Association. Available at: https://zenodo.org/record/4558787#.YDYZsRYxk2w.

Haklay, M./ Motion, A./ Balázs, B./ Kieslinger, B./ Greshake T. B./ Nold, C./ Dörler, D./ Fraisl, D./ Riemenschneider, D./ Heigl, F./ Brounéus, F./ Hager, G./ Heuer, K./ Wagenknecht, K./ Vohland, K./ Shanley, L./ Deveaux, L./ Ceccaroni, L./ Weißpflug, M./ Gold, M./ Mazzonetto, M./ Mačiulienė, M./ Woods, S./ Soledad, L./ Hecker, S./ Schaefer, T. Woods, T./ Wehn, U. (2020). ECSA's Characteristics of Citizen Science. Available at: https://ecsa.citizen-science.net/wp-content/uploads/2020/05/ecsa_characteristics_of_citizen_science_-_v1_final.pdf.

Häberlein, L./ Mönig, J. M./ Hövel, P. (2021): Mapping stakeholders and scoping involvement. A guide for HEFRCs. ETHNA System Project – Deliverable 3.1. Available at: https://ethnasystem.eu/wp-content/uploads/2021/10/ETHNA_2021_d3.1-stakeholdermapping_2110011.pdf.

Hennen, L./ Pfersdorf, S. (2014): Public Engagement - Promises, demands and fields of practice. ENGAGE2020 D2.1. Available at: http://engage2020.eu/media/D2.1-Public-Engagement-Promises-demands-and-fields-of-practice.pdf.

Mulgan, G./ Breckon, J./ Tarrega, M./ Bakhshi, H./ Davies, J./ Khan, H./ Finnis, A. (2019): Public Value. How can it be measured, managed and grown? Nesta. Available at: https://media.nesta.org.uk/documents/Public_Value_WEB.pdf.

National Co-ordinating Centre for Public Engagement/ JISC (2013): Embedding Impact Analysis in Research. Available at: https://www.publicengagement.ac.uk/sites/default/files/publication/nccpe_jisc_booklet_proof_07.05.13.pdf

Rask, M./ Matschoss, K./ Kaarakainen, M. (2017): Final Progress Report. PE2020 D6.1. Available at: https://cordis.europa.eu/docs/results/611/611826/final1-d6-1-final-progress-report-final.pdf.

Ravn, T./ Mejlgaard, N. (2015): Public Engagement Innovations – Catalogue of PE initiatives. PE2020 D1.2. Available at: https://tuhat.helsinki.fi/ws/portalfiles/portal/156529598/Public_Engagement_Innovations_H2020.pdf.

Riisgaard, K./ Danish Board of Technology Foundation/ CIMULACT Consortium Partners (2017): Programmes and concepts for all citizen and multi-actor consultations CIMULACT D3.2. Available at: http://www.cimulact.eu/wp-content/uploads/2017/09/D3.2-Programmes-and-concepts_compressed.pdf.

The Engage2020 Consortium (2015): Engage2020. Science, Society and Engagement. An e-anthology. ENGAGE2020 D2.2. Available at: http://engage2020.eu/media/Engage2020_withVideo.pdf.

European Union (EU) (2020): Digital Education Action Plan (2021-2027). Resetting education and training for the digital age. Available at: https://ec.europa.eu/education/sites/default/files/document-library-docs/deap-communication-sept2020_en.pdf.

Slocum, N. (2003): Participatory Methods Toolkit. A practitioner's manual. Available at: https://cris.unu.edu/sites/cris.unu.edu/files/Toolkit.pdf.

Prikken, I./ Burall S. (2012): Doing Public Dialogue. A support resource for research council staff. Available at: https://www.involve.org.uk/sites/default/files/uploads/120727-RCUK-Resource-FINAL.pdf.

Russo, P./ Nevinskaitė, L./ Gečienė, I./ Grossi, G./ Barisani, F./ Schroeder (2018): Practitioner roadmap and methodology toolkits. SciShops.eu D4.2. Available at: https://project.scishops.eu/wp-content/uploads/2018/08/SciShops.eu_D4.2_Practitioner_roadmap_and_methodology_toolkits.pdf.

Stubbe, J./ Wetterling F./ Hoffmeister K.-L. (2020): How can IT tools support participation in a responsible way? Available at: https://pro-ethics.eu/news/how-can-it-tools-support-participation-in-a-responsible-way.

List of links

❯ CIMULACT project: http://www.cimulact.eu/

❯ ECSA: https://ecsa.citizen-science.net/

❯ ENGAGE2020 project: http://engage2020.eu/

❯ ENGAGE2020 Action Catalogue: http://actioncatalogue.eu/method/7407

❯ Etherpad open source online editor: https://etherpad.org/

❯Jamboard interactive whiteboard: https://jamboard.google.com/

❯ Miro collaborative online whiteboard: https://miro.com/

❯ Mural collaborative online whiteboard: https://www.mural.co/

❯ PE2020 project : https://cordis.europa.eu/project/id/611826

❯ PRO-Ethics project: https://pro-ethics.eu/

❯ RRI Tools project: https://rri-tools.eu/

❯ RRI Tools project sample timetables for workshops: https://rri-tools.eu/en/training/resources

❯ RRI Tools PCST2016 Workshop: https://rri-tools.eu/documents/10184/220840/2_RRITools_
PCST2016_workshop.pdf/bc394b6b-8820-4771-84a6-03773ea83d6c

❯ SciShops.eu project: https://www.scishops.eu/

❯ SISCODE project: https://siscodeproject.eu/

❯ SISCODE interactive guidebook: https://siscodeproject.eu/guidebook/

❯ The Involve Foundation (known as Involve): https://www.involve.org.uk

❯ The World Café website: http://www.theworldcafe.com

❯ WBO open-source online collaborative whiteboard: https://wbo.ophir.dev/?lang=en