

D2.1. Consultation paper and plan to engage the public and expert stakeholders

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2.	Partner	European Network of Research Ethics Committees	EUREC	Belgium
3.	Partner	High Council For The Evaluation of Research and Higher Education	HCERES	France
4.	Partner	French Research Institute for Agriculture, Food and the Environment	INRAE	France
5.	Partner	Oslo Metropolitan University	OsloMet	Norway
6.	Partner	Eurosis Federation of Finnish Learned Societies	TSV	Finland
7.	Partner	University of Central Lancashire-Cyprus	UCLanCY	Cyprus
8.	Partner	University of Helsinki	UH	Finland
9.	Partner	University of Humanistic Studies	UHS	The Netherlands
10.	Partner	University of Latvia	UL	Latvia
11.	Partner	University of Tartu	UTARTU	Estonia
12.	Partner	Stichting VUMC / The Embassy of Good Science	VUMC	The Netherlands
13.	AP	Trilateral Research LTD	TRI	UK
14.	AP	Heriot-Watt University	HWU	SCT

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List of abbreviations

ALLEA	All European Academies
CSO	Civil society organizations
EACME	European Association of Centres of Medical Ethics
ENRIO	European Network of Research Integrity Offices
FFP	Fabrication, falsification and plagiarism
NGO	Non-governmental organization
RE/RI	Research ethics and research integrity
REC	Research ethics committee
RFO	Research funding organisation
RIO	Research integrity office
RPO	Research performing organisation
OECD	Organisation for Economic Co-operation and Development
WP	Work package

Introduction

Violations of research integrity, such as research misconduct (also known as fabrication, falsification and plagiarism (FFP)), and other unacceptable practices, are harmful to the process of generating scientific knowledge.¹ Research misconduct misleads the scientific community and society and can lead to serious negative consequences, such as development of unsafe technologies, e.g., ineffective medicines or biased artificial intelligence tools. Breaches of research ethics and research integrity (RE/RI) in the form of research misconduct also negatively impact public trust in science. Despite the obvious consequences for the public, research misconduct issues are mostly addressed within the scientific community and scientific organisations, and this process is raising questions about transparency.² At the same time, the 2021 Eurobarometer on European citizens' knowledge and attitudes towards science and technology shows that 32% of citizens believe that “the public should be consulted, and public opinion should be seriously considered” when making decisions about science and technology. The public has been acknowledged as a crucial stakeholder in the context of RE/RI also by the European Commission: “The public is an important stakeholder in RI as it works together with other societal actors to align the research process and outcome with the values, needs and expectations of the society.”³

To promote dialog between the scientific community and the public, and to emphasize the importance of public and stakeholder engagement, BEYOND plans to organize bottom-up and solution-oriented public consultation on RE/RI needs and public and stakeholder perspectives on efficacy of RE/RI interventions in addressing research misconduct. OECD defines public consultation as a tool to improve the quality of decisions, identify better solutions in an open and transparent fashion, increase the amount of information available in the decision-making process and include stakeholders' expertise, perspectives, and ideas in the discussion.⁴ Public consultation allows for identifying different directions of action, helps to balance opposing interests and solve practical problems.⁵

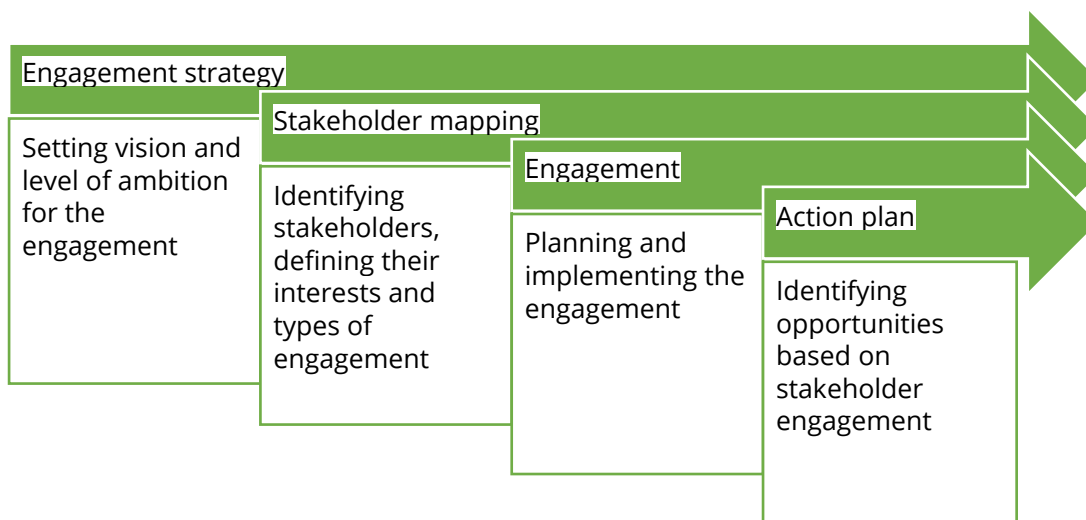
This report is aimed at detailing BEYOND strategy for stakeholder and public engagement and at planning the BEYOND public consultation. The report outlines the specific goals of the stakeholder and public engagement, describes the planned engagement activities that will be conducted during the project, identifies key stakeholders, and explains the involvement of each stakeholder group. The report also outlines the design of public consultation, based on bottom-up contributions from citizens and stakeholders, the aim and objectives of the consultation, questions for discussion, the online respondents' form including questions to collect quantitative and qualitative data, and questions for direct stakeholder interviews.

1. Stakeholder and Public Engagement Strategy

1.1 Objectives of Stakeholder and Public Engagement

The BEYOND stakeholder and public engagement activities are planned to collect and analyse experiences and views from different stakeholder groups and the general public on RE/RI needs, knowledge, and perspectives on the efficacy of RE/RI interventions and to balance representation of different interests. Importantly, the ongoing communication with stakeholders will also ensure the relevance and uptake of the project results. Stakeholder and public engagement strategy aims to involve stakeholders that have various roles related to RE/RI: research community, relevant groups outside the scientific community and general public. This will solidify the acknowledgement and endorsement of the findings and recommendations prepared as the outcome of BEYOND.

In general, BEYOND stakeholder and public engagement plan is based on the four-step approach (adapted from BSR¹):



1.2 Types of Stakeholder and Public Engagement

BEYOND will implement three types of stakeholder and public engagement:

- 1) **Consultative** – collecting of stakeholders’ views and opinions, as well as including stakeholders in the co-creation process.
- 2) **Informative** – providing information to stakeholders on the progress and results of BEYOND project.

¹ Business for Social Responsibility (BSR). (2019). Five-Step Approach to Stakeholder Engagement. Available at: <https://www.bsr.org/en/our-insights/report-view/stakeholder-engagement-five-step-approach-toolkit>

- 3) **Educational** – involving stakeholders in educational activities organized by BEYOND consortium.

Consultative

The “Consultative” component of the stakeholder and public engagement involves actively seeking and incorporating feedback from the stakeholders and general public throughout the development of the project. In BEYOND it includes consultations with the Stakeholder Advisory Board (WP8), public consultation including collection of quantitative and qualitative data in an online platform and qualitative interviews with stakeholders (WP2), input from stakeholder interviews for the review of the socio-economic consequences of research misconduct (WP1), stakeholder participation in empirical research as research participants (WP3 and WP4), co-creation of a best practice manual, guidelines and RE/RI Roadmap to 2030 (WP5), participation in mapping existing training materials and tools for RE/RI education and a collaborative approach to creating training materials (WP6), and horizontal coordination by liaising with other EU projects and expert stakeholders (WP7). When it comes to horizontal coordination with expert stakeholders, “consultative” may be used interchangeably with “collaborative”, to emphasize the joint effort.

Informative

The “Informative” constituent of the BEYOND stakeholder and public engagement includes ongoing communication about the activities, progress, and results of the project. The information will be shared in the form of scientific and popular publications based on project deliverables, conference presentations, training guide and new training materials in the Embassy of Good Science platform and in the ENERI classroom. WP7 is responsible for constantly informing stakeholders via web page, social media and other communication channels.

While the informative dimension differs from the consultative one in terms of being less interactive, it is crucial to ensure that the knowledge gathered and produced during BEYOND reaches the respective stakeholder groups swiftly, so they can provide their feedback without delay in case it is pivotal. Another merit that the continuous approach to information sharing brings is enabling the stakeholders to make use of the findings and outputs of the project with the least delay.

Educational

The “Educational” component of the stakeholder and public engagement process involves providing stakeholders with the necessary tools and knowledge to promote

RE/RI in an efficient way. The format and channels of the educational activities will be various: as a result of BEYOND activities, there will be available the best practice guidelines and RE/RI Roadmap to 2030, and the stakeholders will also have a chance to participate in online training sessions and webinars. It is of importance that the “Educational” part of the engagement activities enables and equips the stakeholders to positively influence the RE/RI practices in their fields of practice.

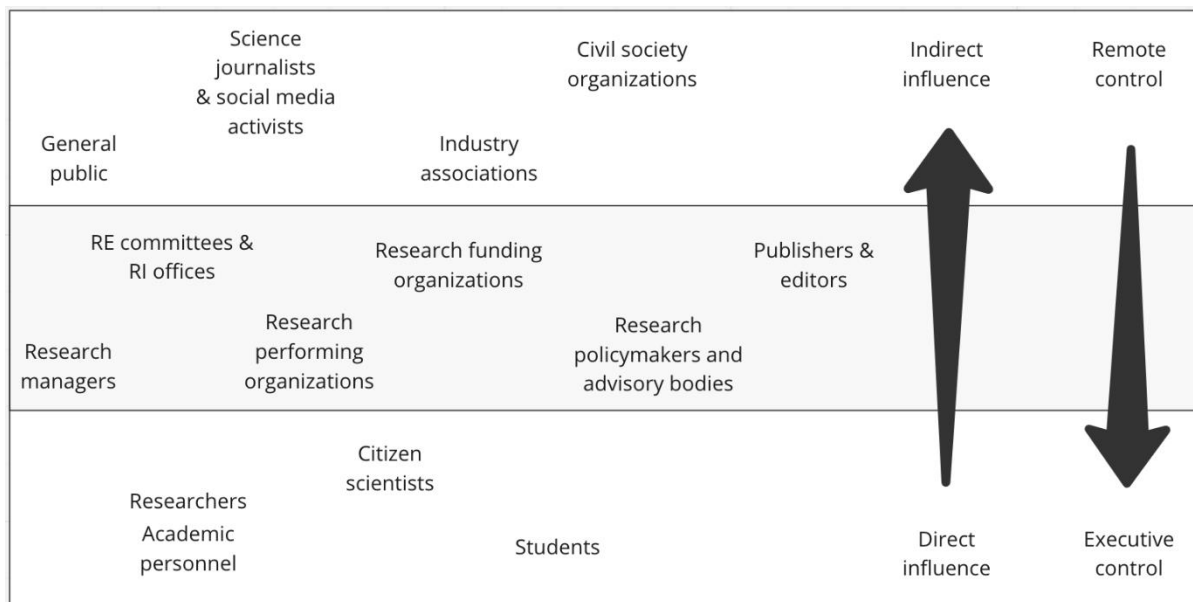
2. Stakeholder Mapping

BEYOND stakeholder mapping is aimed at ensuring diversity of stakeholders engaged and at balancing representation of interests. To reach this aim, we identified 13 groups of stakeholders that are involved in or whom RE/RI practices concern at different levels:

1. General public
2. Researchers and academic personnel
3. Students
4. Citizen scientists
5. Research managers
6. Research performing organizations
7. Research funding organizations
8. Publishers and journal editors
9. Research ethics committees and research integrity offices
10. Civil society organizations and non-governmental organizations
11. Science journalists and social media activists
12. Research policymakers and advisory bodies
13. Industry associations

To address the various levels of influence and control in the field of RE/RI, stakeholders were grouped on a spectrum where on the one end hands-on research practitioners can be found (“full control”), while on the other end - stakeholders that are far from the research practice, but still are interested in exploiting the research results and have some influence on the practice (“remote control”). Among those stakeholders who have executive control because of direct involvement in research practice there are researchers, academic personnel, citizen scientists and students. In the middle of the spectrum, both closely monitoring of what is happening in the field and influencing the practitioners (“close control”) there are research managers, research performing organizations, research ethics committees (RECs), research integrity offices (RIOs), research funding organizations (RFOs), research policy makers, advisory bodies, as well as publishers and editors of scientific journals. This group consists both of actors that create RE/RI guidelines, rules and recommendations (RFOs, RE/RI offices and more), and those that strive to implement them in the research practices, such as research

managers. Finally, usually far from the everyday scientific practice and having just indirect influence on RE/RI practices, there are industry associations, science journalists and social media activists and the general public.



Stakeholder groups mapped by the presumed influence and control

It should be noted that this mapping has been performed for the sake of planning the process and organizing the stakeholder engagement and public consultation, and the real situation might not be as clearly cut as the three groups described above. As the project develops, the classification can be adjusted, with some stakeholders possibly changing their position in terms of control and influence on the RE/RI.

3. Methodology of Engagement

For each group of stakeholders identified in the stakeholder mapping process we defined the ways of participation in BEYOND activities.

	Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, best practice manual, and roadmap	Target audience for outgoing communication	Utilization of project results
General public	+					+	
Researchers and academic personnel	+		+	+	+	+	+
Students	+		+		+	+	+

Citizen scientists	+				+	+	+
Research managers					+	+	+
RPOs					+	+	+
RFOs					+	+	+
Publishers and journal editors					+	+	+
RECs and RI offices				+	+	+	+
CSOs and NGOs		+				+	
Science journalists and social media activists		+				+	
Research policymakers and advisory bodies		+			+	+	+
Industry associations		+		+	+	+	+

Overview on participation in BEYOND stakeholder and public engagement activities

3.1. General public

The general public² is a stakeholder that most of the time is quite far away from research practice, yet at the same time public benefit is one of the main goals of scientific research. Also, if the research community often fails to communicate effectively in the cases when research misconduct gains public attention, and it may harm the public's trust in science. As BEYOND strives to fill the gaps in the knowledge on RE/RI, the perception and attitudes that the general public holds towards RE/RI is of primary interest. The main interest of the general public in the context of BEYOND is ensuring trustworthy scientific practice.

To improve the understanding of the perceptions and attitudes of the general public, BEYOND will involve this stakeholder group in public consultation. General public

² For BEYOND purposes we define 'general public' as those members of public who are not involved in research practice or are not students at higher-educational institutions.

will also be one of the target audiences of the outgoing communication regarding the course and results of the project.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
+					+	

Participation of general public in BEYOND stakeholder and public engagement activities

3.2. Researchers and academic personnel

BEYOND recognizes the important role of researchers and academic personnel when it comes to the perception and practice of RE/RI. Working both individually and as a part of the team, researchers and academic personnel are the actors who are directly involved in the processes of research planning, data collection, data management, interpretation and publication of research outputs. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, as well as new research data on behavioral ethics and moral psychology in the context of research misconduct. To ensure that the outputs of BEYOND are relevant, comprehensible, and applicable for researchers and academic personnel, the engagement of this group is crucial.

Researchers and academic personnel will be engaged in BEYOND as research participants (WP3 and WP4) and as members of the Stakeholder Advisory Board (WP8). They will also be invited to participate in the online public consultation and co-creation of the best practice manual and RE/RI Roadmap to 2030 to ensure that the project outcomes are relevant for this stakeholder group. Academic personnel might be particularly interested in measurement instruments for short-, medium-, and long-term training effects both for students and trainees of lifelong education. Additionally, researchers and academic personnel will be not only a target audience of outgoing communication, but also will directly utilize project results.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
+		+	+	+	+	+

Participation of researchers and academic personnel in BEYOND stakeholder and public engagement activities

3.3. Students

In the study process, Bachelor, Master's and PhD students are not only internalizing RE/RI principles and acquiring respective skills, but also often contributing to research and sometimes facing or experiencing cases of research misconduct. Most importantly, they are potential future researchers. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, as well as new research data on behavioral ethics and moral psychology in the context of research misconduct that can be used in the study process.

Students will be engaged in BEYOND as research participants (WP3 and WP4). They will also be invited to participate in the online public consultation and co-creation of the best practice manual and RE/RI Roadmap to 2030 to ensure that the project outcomes are relevant for this stakeholder group. This stakeholder group will be not only a target audience of outgoing communication, but also will directly utilize project results.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
+		+		+	+	+

Participation of students in BEYOND stakeholder and public engagement activities

3.4. Citizen scientists

Citizen scientists form a unique stakeholder group – they are engaged in the scientific process, yet they may not have formal scientific training or credentials in the respective field of science. In contrast to the general public, they are not just observers of scientific process. Citizen scientists may engage in planning of research, data collection, data analysis etc. As technologies and information accessibility develops worldwide, citizen scientists have more and more opportunities to get involved in science. Consequently, the significance and impact of citizen science is growing. It is important for BEYOND to gain a better understanding of RE/RI experiences of citizen scientists and a value citizen scientists assign to RE/RI. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE.

In order to achieve the goals of BEYOND, citizen scientists will be one of the stakeholder groups involved in online public consultation, as well as in co-creation of the best practice manual and RE/RI Roadmap to 2030. Additionally, as BEYOND intends to provide information to different stakeholder groups, citizen scientists will be in focus when sharing information by the means of communication activities and are viewed as a target audience for the project results.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
+				+	+	+

Participation of citizen scientists in BEYOND stakeholder and public engagement activities

3.5. Research managers

Among the stakeholders that are not directly involved in research process, research managers are assumed to have the most direct influence on what happens during the research, as they overlook the work of the researchers. Unlike regular administration, the research managers make decisions minding the scientific knowledge and the societal environment in which research takes place. Research managers often plan and organize training for teams of researchers and monitor implementation of RE/RI guidelines. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, contextual interventions to address research misconduct, measurement instruments for short-, medium-, and long-term training effects, best-practice manual and RE/RI Roadmap to 2030.

In BEYOND research managers will provide their perspective as participants of the Stakeholder Advisory Board, as well as contribute to the co-creation process that will result in best practice manual and the RE/RI Roadmap to 2030. Additionally, research managers will be not only a target audience of outgoing communication, but also will directly utilize project results.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
				+	+	+

Participation of researcher managers in BEYOND stakeholder and public engagement activities

3.6. Research performing organizations

Public and private research performing organizations (RPO) form one of the most diverse stakeholder groups of BEYOND. Among the publicly funded RPOs are public universities, state funded research organizations, national and international research organizations etc. RPOs of the private sector include private research institutes, private companies, corporate R&D centres etc. The roles RPOs undertake in advancing innovation and scientific discovery can vary greatly, and so can their internal structures.

Both public and private RPOs are involved in establishing RE/RI compliance mechanisms, providing education, guidance and training, and implementing internal policy development. Corresponding to the best practices, they are collaborating with other stakeholder groups and carrying out investigation and reporting in research misconduct cases. The main interests of RPOs in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, contextual interventions to address research misconduct, measurement instruments for short-, medium-, and long-term training effects, best-practice manual and RE/RI Roadmap to 2030.

Due to significant differences in contexts where this stakeholder group is operating, qualitative interviews with various RPO representatives will be held. RPOs will also be an important partner when collaborating on the creation of best practice manual and complementing guidelines. The RPOs will also be the target audience of materials released as the output of BEYOND.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
				+	+	+

Participation of RPOs in BEYOND stakeholder and public engagement activities

3.7. Research funding organizations

Public and private research funding organizations (RFOs) have significant influence on the direction the RE/RI discourse and practice takes, as they can express their approval or disapproval of particular RE/RI practices and research misconduct cases by increasing or limiting the funding for enabling research. RFOs may put in place various mechanisms, ensuring that researchers they fund adhere to high RE/RI standards: controlling activities (ethics reviews and self-evaluation, enforcement of compliance, monitoring research etc.) and educational ones (development of guidelines and providing best-practice examples). The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, contextual interventions to address research misconduct, best-practice manual and RE/RI Roadmap to 2030.

RFOs will be engaged in the co-creation of BEYOND best practice manual and RE/RI Roadmap to 2030, as these project results must be fit for use by the funding organizations. They will also be one of the target groups of the informative communication activities and will directly utilize project results.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
				+	+	+

Participation of RFOs in BEYOND stakeholder and public engagement activities

3.8. Publishers and journal editors

Publishers and editors of scientific journals play a significant role in promoting research ethics and integrity. They can enforce publication standards to prevent misconduct, provide editorial guidance, ensure appropriate peer review of manuscripts, as well as retract articles that violate RE/RI standards. Importantly, publishers of scientific journals can also create support mechanisms for whistleblowers, further emphasizing the joint effort necessary for good research practice. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, contextual interventions to address research misconduct, best-practice manual and 2030 RE/RI Roadmap.

Within BEYOND, publishers and editors of scientific journals will participate in the Stakeholder Advisory Board and co-creation of best practice manual and roadmap. They will also be one of the target groups of the informative communication activities and will directly utilize project results.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
				+	+	+

Participation of publishers and editors of scientific journals in BEYOND stakeholder and public engagement activities

3.9. Research ethics committees and research integrity offices

Research ethics committees (RECs) and research integrity offices (RIOs) are significant actors when it comes to the management of RE/RI issues and research misconduct cases, as their efforts contribute to fostering responsible research practice and ensuring integrity of scientific activities. It might not be clear where to draw the line when it comes to the areas of responsibility of RECs and RIOs, as both work towards an honest, reliable and transparent scientific practice, however, RECs are predominantly involved in the evaluation of ethical aspects of research studies before they start, while

RIOs set the standards, address research misconduct allegations and whistleblowing, and/or coordinate training on a national level. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, contextual interventions to address research misconduct, measurement instruments for short-, medium-, and long-term training effects, best-practice manual and RE/RI Roadmap to 2030.

The participation of this stakeholder group in BEYOND activities will add significant expertise and validation to the output of the project, and it's especially relevant as RECs and RIOs are expected to be the users of the project results. They will be consulted as members of the Stakeholder Advisory Board and involved in co-creation of the best practice manual and roadmap. The findings and results will be communicated RECs and RIOs throughout the course of the project.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
			+	+	+	+

Participation of RECs and RI offices in BEYOND stakeholder and public engagement activities

3.10. Civil society organizations and non-governmental organizations

Civil society organizations (CSOs) and non-governmental organizations (NGOs), e.g., patient organisations, environmental organizations, organizations of citizen scientists, are often known for promoting the use of scientific evidence in policy-making, making them a significant stakeholder group when it comes to the discussion of RE/RI. CSOs and NGOs directly work with various other stakeholder groups: they can partner with research institutions, ensuring that research is accessible to the general public, engage in citizen science projects or participatory research initiatives, advocate for research that addresses societal needs and carry out monitoring activities when it comes to the integrity of scientific institutions and individual scientists. The main interest of this stakeholder group in the context of BEYOND is ensuring trustworthy scientific practice.

BEYOND will carry out interviews with CSO and NGO actors involved in trust-building between the scientific community and the general public. This stakeholder group will also be one of the target audiences of the outgoing communication regarding the course and results of the project.

Online public consultation	Qualitative interviews	Participation in BEYOND	Stakeholder advisory	Co-creation of guidelines, a	Target audience for outgoing	Utilization of project

		research studies	board	best practice manual and roadmap	communication	results
	+				+	

Participation of civil society organizations in BEYOND stakeholder and public engagement activities

3.11. Science journalists and social media activists

Science journalists and social media activists serve as important mediators between the scientific community and the public and are promoting research ethics and integrity, transparency, and responsible development and communication of scientific knowledge. They engage in analysis and discussion when it comes to cases of research misconduct, raising awareness and fostering public dialogue. Journalists and social media activists are often involved in ongoing fact-checking to avoid misinformation and misrepresentation. The nature of the work of this stakeholder group is going through constant change, related to the evolution of technology and social media. The main interest of this stakeholder group in the context of BEYOND is access to research data on behavioral ethics and moral psychology in the context of research misconduct.

Thus, the voices of science journalists and social media activists will be incorporated in BEYOND by inviting them to participate in the public consultation and interviews. This stakeholder is also an important partner for distributing the results of BEYOND project, as well as one of the target audiences of the outgoing communication regarding the course and results of the project.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
+	+				+	

Participation of science journalists and social media activists in BEYOND stakeholder and public engagement activities

3.12. Research policymakers and advisory bodies

Research policymakers and advisory bodies include international bodies, national agencies and other institutions involved in the regulation of research activities. The advisory bodies provide expert advice and legal guidance with the aim to advance scientific knowledge and the development of research ecosystems, and policymakers work to develop policies for implementation of best practice. In the context of BEYOND, research policymakers and advisory bodies are seen as a stakeholder group that possesses significant influence on most of the other stakeholder groups yet are

positioned relatively far from the on-ground practices. While the most obvious function of the policymakers is the formulation of research-related policies, they, together with advisory bodies, also encourage collaboration and engagement between the various stakeholders involved in RE/RI. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, contextual interventions to address research misconduct, measurement instruments for short-, medium-, and long-term training effects, best-practice manual and 2030 RE/RI Roadmap.

This stakeholder group will be invited to participate in interviews and in co-creation of the best practice manual and roadmap. The findings and results will be communicated to research policymakers and advisory bodies throughout the course of the project.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of guidelines, a best practice manual and roadmap	Target audience for outgoing communication	Utilization of project results
	+			+	+	+

Participation of research policymakers and advisory bodies in BEYOND stakeholder and public engagement activities

3.13. Industry associations

Industry is a unique stakeholder group, as it is driven by the necessity of growth which leads to rapid development of knowledge and technologies. At the same time there is a risk that this development may be more driven by commercial interests rather than a goal to advance knowledge. These risks have made it increasingly important for industries to pay attention to RE/RI in the context of their work. The main interests of this stakeholder group in the context of BEYOND are access to new tools and approaches to strengthen RI/RE, contextual interventions to address research misconduct, measurement instruments for short-, medium-, and long-term training effects, best-practice manual and roadmap.

Representatives of industry associations will be invited to participate in interviews, engaged in the Stakeholder Advisory Board, involved in the work of the Stakeholder Advisory Board, as well as become co-creators of the best practice manual and roadmap, to ensure that the output resonates with industry-related research. BEYOND foresees that industries will use the results of the project, so it is important that this group of stakeholders is updated about the progress of the project and that their use case is kept in mind when preparing project outputs and communication activities.

Online public consultation	Qualitative interviews	Participation in BEYOND research studies	Stakeholder advisory board	Co-creation of a best practice guidelines, manual and roadmap	Target audience for outgoing communication	Utilization of project results
	+		+	+	+	+

Participation of industry and industry associations in BEYOND stakeholder and public engagement activities

4. Recruitment Strategy for Public Consultation

BEYOND aims at involving at least 200 participants in public consultations and conducting a minimum of 30 in-depth interviews with representatives of different groups of stakeholders. The recruitment activities for public consultation and for interviews will be organized and implemented by WP2.

Stakeholder group	Recruitment strategy	Recruitment channels
1. General public	<ul style="list-style-type: none"> Translating the public consultation survey and open-ended questions in languages of EU member states to ensure inclusivity and reach a wider audience (at least in languages of countries represented in BEYOND consortium). Implementing a comprehensive public outreach campaign using various channels, including social media. Providing easily accessible online platform for the public to share their perspectives, experiences, and concerns related to RE/RI and research misconduct. Promoting gender balance and inclusivity, e.g., ensuring availability of the online response form for citizens who are visually impaired. 	<ul style="list-style-type: none"> Social media channels directing users to project website and public consultation online platform
2. Researchers and academic personnel	<ul style="list-style-type: none"> Collaboration with academic institutions, organizations and networks to reach out to researchers and academic personnel and 	<ul style="list-style-type: none"> National research councils Project partner networks (national and international)

	<p>encourage participation in public consultation.</p> <ul style="list-style-type: none"> Utilizing social media platforms and online communities of researchers to disseminate information about public consultation and encourage participation. Inviting all BEYOND partners and Stakeholder Advisory Board members to circulate the information about public consultation activities among their networks. 	<ul style="list-style-type: none"> Social media platforms, e.g., LinkedIn
3. Students	<ul style="list-style-type: none"> Conducting targeted outreach through student organizations and networks to engage students in public consultation. Utilizing social media platforms and online student communities to disseminate information about public consultation and encourage participation. Organizing student-focused online events and/or webinars to generate interest, address student-specific concerns related to research misconduct and invite to participate in public consultation. 	<ul style="list-style-type: none"> European Students' Union Project partner HEI networks, e.g. UH PhD training programme
4. Citizen scientists	<ul style="list-style-type: none"> Collaboration with citizen science platforms, organizations, and online communities to reach out to citizen scientists and encourage participation in public consultation. Utilizing social media platforms and online forums frequented by citizen scientists to raise awareness about public consultation. Organizing online events and/or webinars for citizen scientists to generate interest, address specific concerns of citizen scientists and 	<ul style="list-style-type: none"> European Citizen Science Association (ECSA)

	invite to participate in public consultation.	
5. Research managers	<ul style="list-style-type: none"> • Collaboration with organizations of research managers and online communities to reach out to research managers and encourage participation in public consultation. 	<ul style="list-style-type: none"> • European Association of Research Managers and Administrators (EARMA)
6. Research performing organizations	<ul style="list-style-type: none"> • Collaboration with RPOs platforms, organizations, and online communities to reach out to RPOs. • Reaching out directly to research performing organizations, such as universities, research institutes, and industry research facilities to circulate information about stakeholder engagement activities and public consultation. • Inviting input for best practice manual and roadmap. 	<ul style="list-style-type: none"> • European University Association (EUA) • European Association of Research & Technology Organisations (EARTO)
7. Research funding organizations	<ul style="list-style-type: none"> • Reaching out to research funding organizations, both public and private to circulate information about stakeholder engagement activities. • Inviting input for best practice manual and roadmap. 	<ul style="list-style-type: none"> • National research funding organisations • Private research funding organisations
8. Publishers and journal editors	<ul style="list-style-type: none"> • Collaboration with editors' and publishers' organizations to reach out to this stakeholder group. • Engaging with publishers and journal editors through direct emails, professional networks, or industry conferences • Inviting input for best practice manual and roadmap. 	<ul style="list-style-type: none"> • Council of Science Editors • Committee on Publication Ethics (COPE)
9. Research ethics committees	<ul style="list-style-type: none"> • Collaborating with umbrella organizations to reach out to research ethics committees and national research integrity offices. 	<ul style="list-style-type: none"> • European Network of Research Ethics Committees (EUREC) • ENRIO

and research integrity offices	<ul style="list-style-type: none"> • Inviting input for best practice manual and roadmap. 	
10. Civil society organizations and non-governmental organizations	<ul style="list-style-type: none"> • Identifying relevant civil society organizations and NGOs and inviting their representatives via direct emails to share their views in interviews. • Inviting input for best practice manual and roadmap. 	<ul style="list-style-type: none"> • Patient, environmental, human rights etc. organizations at national and EU level
11. Science journalists and social media activists	<ul style="list-style-type: none"> • Identifying science journalists, bloggers, and social media influencers involved in RI/RE and contacting them through direct communication to invite them to share their views in interviews. • Share project updates, news, and resources through social media platforms and encourage science journalists and social media activists to amplify the message and promote public engagement. • Inviting input for best practice manual and roadmap. 	<ul style="list-style-type: none"> • Social media channels
12. Research policymakers and advisory bodies	<ul style="list-style-type: none"> • Identifying key research policy institutions, government bodies, and advisory committees and contacting their representatives through direct communication to invite them to share their views in interviews. • Inviting input for best practice manual and roadmap. 	<ul style="list-style-type: none"> • ALLEA • National science policymaking bodies
13. Industry associations	<ul style="list-style-type: none"> • Identifying relevant industry associations and engaging with their representatives through direct communication, industry conferences, and networking events and contacting them through direct communication to invite them to share their views in interviews. 	<ul style="list-style-type: none"> • EFPIA • Medicines for Europe • EPE - European Partners for the Environment • ERT - European Round Table of Industrialists

	<ul style="list-style-type: none"> Inviting input for best practice manual and roadmap. 	
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5. Implementation of Stakeholder and Public Engagement Strategy

Stakeholder and public engagement in BEYOND will be a result of collaboration between all WPs. While WP2 will implement the public consultation and stakeholder interviews and coordinate the stakeholder and public engagement, each WP will carry out stakeholder and public engagement activities that are relevant to the scope of the particular WP.

Regarding the Informative function, WP1 will share research results on the socio-economic consequences of research misconduct, as well as results from the literature review of RE/RI with stakeholders. WP3 intends to produce publications on the research on behavioral interventions, while WP4 will create publications on methodologies for measuring effects of RE/RI training. WP6, working on the RE/RI training and education, will share the outputs of their work in different formats - both as publications, and as training guides and materials on relevant platforms. WP5 will deliver the guidelines, best practice manual and the 2030 roadmap, developed in co-creation process with different stakeholder groups. WP7 and WP8 will work on ensuring proactive and timely communication with all stakeholders. While WP7 will do so via public communication channels online, WP8 will be in close touch with Stakeholder Advisory Board members.

In the Consultative dimension, WP1 will utilize the input from stakeholder interviews when preparing the review of the socio-economic consequences of research misconduct, as well as seek stakeholder input on research misconduct cases. WP3 will invite different stakeholder groups (students, researchers, academic personnel) to participate in research studies, while WP4 will ask the stakeholders to participate in research for assessing RE/RI training effectiveness. WP5 intends to ensure that stakeholders act as co-creators of the guidelines, best practice manual and 2030 roadmap, improving the coverage, acceptability and recognition of the final output of BEYOND. Similarly, WP6 will involve stakeholders in the co-creation of training guides. Additionally, WP6 will organize stakeholder consultations when mapping the existing training materials and tools for RE/RI education. WP7 will coordinate horizontally, ensuring cooperation with other EU projects and particular stakeholders, such as the Embassy of Good Science and ENRIO.

Three WPs will also be involved in the Educational component of stakeholder engagement. In the form of recommendations, WP4 will equip the training providers and trainers with results of research on measurement methods of RE/RI training

effectiveness. WP6 will invite the stakeholders to participate in BEYOND online training sessions, while WP7 will hold BEYOND webinars, relevant for various stakeholders.

Overall, the highly collaborative nature throughout all stages of the work of BEYOND WPs will ensure constant stakeholder and public engagement, as well as enhance the consortium's understanding of the context, perspectives and needs of the stakeholders.

6. Public Consultation: Consultation Paper

1.1. Scope and aim of Public Consultation

The aim of the BEYOND public consultation is to explore and integrate public and stakeholder views on research ethics, research integrity and research misconduct.

The objectives of the BEYOND public consultation are as following:

- 1) to define the most important RE/RI aspects from the point of view of society and different stakeholders;
- 2) to define the most important consequences of research misconduct for society from the point of view of society and different stakeholders;
- 3) to explore the society's and stakeholders' views on the prevention of research misconduct;
- 4) to explore different stakeholders' views on their involvement in promoting RE/RI and in the prevention of research misconduct;
- 5) to evaluate effectiveness of the existing RE/RI policies and interventions from the point of view of stakeholders;
- 6) to identify gaps in the existing RE/RI policies;
- 7) to identify gaps in RE/RI governance of citizen science;
- 8) to explore the existence of safe spaces to express RE/RI concerns;
- 9) to explore how research misconduct influences mental health and well-being of researchers and how are these problems addressed;
- 10) to identify best-practice examples of building RE/RI culture, prevention of and reacting to research misconduct;
- 11) to identify best practices for reintegration of researchers after research misconduct.

The weight of different stakeholder views and opinions may be various for these objectives, depending on interests and expertise of each stakeholder group, e.g., the views provided by the general public may have different implications for the BEYOND than the information retrieved from RE/RI professionals.

1.2. Methodology of Public Consultation

BEYOND public consultation will apply two main methods of data collection:

- 1) online public consultation including closed and open-ended questions;
- 2) qualitative interviews with stakeholders.

The online public consultation includes closed and open-ended questions grouped in question blocks and aimed at different groups of participants to make the consultation targeted towards different groups of stakeholders (see Appendix 1). For quantitative analysis, the results of online public consultation collected via multi-choice questions

included in the responders' form will be statistically analysed. For qualitative analysis, data collected via answers to open-ended questions included in the online responders' form and transcripts of stakeholders' interviews, will be analysed by applying content analysis and using the qualitative analysis software Atlas.ti. The data analysis will be followed by a consortium workshop, involving the Stakeholder Advisory Board, aimed at the analysis of the results and attaining a reflective equilibrium.

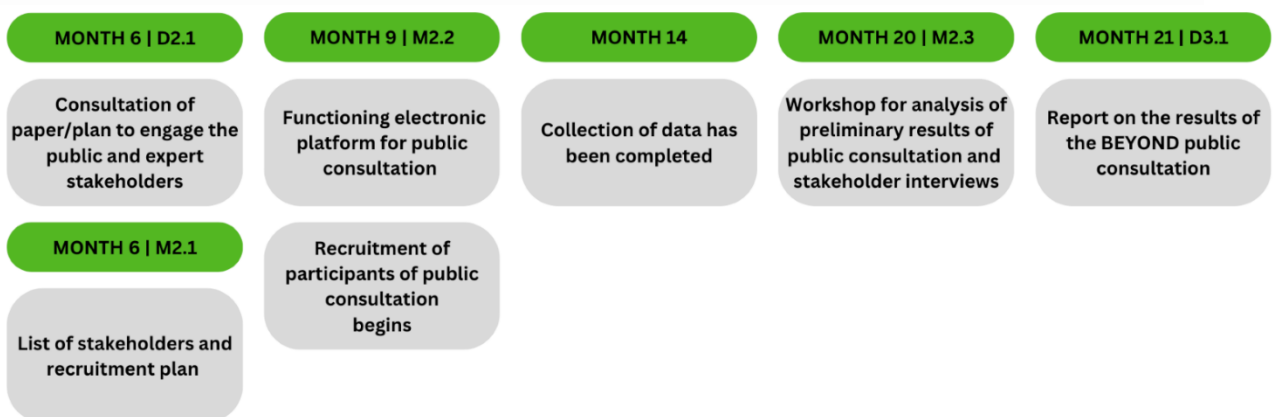
For qualitative interviews, we aim to include representatives of those stakeholder groups which are usually not closely involved in discussions on RE/RI issues. Representatives of the following groups of stakeholders identified during the stakeholder mapping will be invited to participate:

- 1) journalists and social media activists,
- 2) representatives of CSOs and NGOs,
- 3) representatives of industry associations.

Additionally, we will invite for interviews representatives of research policy makers and advisory bodies because they form a stakeholder group that possesses significant influence on most of the other stakeholder groups yet are positioned relatively far from the on-ground practices:

- 4) research policy makers and advisory bodies.

The results of the public consultation will be used to develop the BEYOND best practice manual, guidelines, and roadmap (WP5), interventions towards ethical research (WP3), and training materials (WP6). The participants of the public consultation will have an opportunity to share their contact information if they would like to participate in the co-creation of the best practices manual, guidelines and roadmap (WP5).



Timeline of the public consultation

Additionally, BEYOND aims to ensure a reciprocal connection with the participants of the public consultation, putting emphasis on the general public, as this stakeholder group is presumed to have the most remote relationship with the topic of research misconduct. This will be achieved by sharing the results on the appropriate BEYOND communication channels online, in the form of short, accessible and easily perceivable news items and an infographic.

Throughout the consultation process, particular attention will be paid to gender aspects, including identifying and analysing impact of issues such as discrimination, sexual harassment and other forms of gender-based violence, uncertain work conditions, experiences of early career researchers, students, etc., and psychological well-being of stakeholders.

Appendix 1: Online response form

This public consultation is central to [BEYOND project](#) for building a dialog with society and stakeholders on research ethics and research integrity and exploring individual and institutional views, attitudes and responsibilities. In particular, the public consultation provides an online response form including both multichoice and open-ended questions where we aim to explore research ethics and research integrity practice and research misconduct from the point of view of the general public and different stakeholders.

We are inviting responses from citizens of European Union (EU) and the European Economic Area (EU countries and Iceland, Liechtenstein and Norway), both from those citizens not directly involved in scientific research and those involved in research practice. At the beginning of the response form, you will be asked whether you are involved in research practice and which group of respondents you belong to (e.g., are you a researcher, student or member of the general public). Then you will be directed to the respective set of questions. It will take around 15-20 minutes to answer the questions. Participating in the public consultation is voluntary and you may stop answering questions at any moment without providing reasons for your decision.

We kindly encourage you to provide concise answers to the open-ended questions, because the results of the public consultation will be used to develop the BEYOND best practice manual, guidelines, and roadmap, interventions towards ethical research, and training materials.

This public consultation data collection is managed by the University of Latvia for the BEYOND project. Your answers to the questions will be anonymous. The answers to open-ended questions will be anonymised before data analysis in case they might include identifiable information. Raw data will only be available to the BEYOND research team for the purposes of this public consultation. The collected data will be stored in a secure server at the University of Latvia, with only the members of the project having access. Aggregated responses to this public consultation will inform a project deliverables and scientific publications.

If you have any questions pertaining to the public consultation, please contact Assoc. prof. Signe Mežinska: signe.mezinska@lu.lv. Thank you for considering participating in the BEYOND public consultation!

ONLINE RESPONSE FORM

- 1) I have read and understood the information above and agree to take part in the survey for BEYOND project public consultation purposes.
 yes
 no

- 2) Which of the following best describes you?
 - a. I am directly involved in research practice (e.g., as a researcher, PhD student, research manager, academic personnel, editor of a scientific journal etc.) *(go to Part I)*
 - b. I am currently a student at a higher-educational institution *(go to Part II)*
 - c. I am a member of the general public (I am neither directly involved in scientific research practice, nor a student at a higher-educational institution) *(go to Part III)*

Demographic questions (for all):

- 1) What is your gender?
 - a. Female
 - b. Male
 - c. Other
 - d. Do not wish to disclose

- 2) What is your country of residence?
Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Iceland, Liechtenstein, Norway

- 3) What is your age group?
 - a. 18-24
 - b. 25-34
 - c. 35-44
 - d. 45-54
 - e. 55-64
 - f. 65-74
 - g. 75+

Part I – questions for respondents involved in the research practice

- 1) Which best describes your main role in research process?
- Junior researcher
 - Senior researcher
 - Research manager
 - Research policymaker
 - I work for a research funding organization
 - I work for a scientific publisher
 - I work for a research integrity office
 - I am not involved in the research practice (*go to Part III*)
 - I am a student at a higher-educational institution (*go to Part II*)
 - Other _____

- 2) Which field of science are you (mostly) associated with?
- Social and behavioral sciences
 - Arts and humanities
 - Natural sciences and engineering
 - Life sciences and medicine

- 3) In your view, how effective are the existing research ethics and research integrity policies in preventing research misconduct at your research institution?
- Very effective
 - Effective
 - Neutral
 - Ineffective
 - Very ineffective
 - Hard to say

OPTIONAL Please, comment on the effectiveness of the existing research ethics and research integrity policies in preventing research misconduct at your research institution. _____

- 4) In your view, what are the most important consequences of research misconduct (e.g. plagiarism, falsification and fabrication of data) for society:
- Loss of public trust in science
 - Misguided policies and decisions
 - Wasted public resources
 - Adverse impact on public health and safety
 - Other (please specify) _____

OPTIONAL Please, comment on the consequences of research misconduct for society

- 5) How common are research misconduct cases in your country?
- Very rare
 - Occasional cases
 - Moderately common
 - Widespread issue
 - I do not know

OPTIONAL Please, comment on the prevalence of research misconduct in your country

- 6) How transparent should be an investigation of research misconduct cases?
Information about the investigation process and results should be available:
- Only to the investigation committee
 - To the scientific community/ scientists
 - To the journalists, media and society
 - Hard to say
 - Other (please specify) _____

OPTIONAL Please, comment on the investigation of research misconduct cases

- 7) Do you feel safe to express concerns on research ethics and research integrity or report suspected research misconduct in your research institution?
- Yes
 - No
 - I do not know

OPTIONAL Please, comment on expressing concerns on research ethics and research integrity or reporting suspected research misconduct.

- 8) In your view, how important are gender differences for building research ethics and research integrity culture, prevention of and reacting to research misconduct?
- Very important
 - Important
 - Neutral
 - Not very important
 - Not important at all
 - Hard to say

OPTIONAL Please, comment on importance of gender differences for building research ethics and research integrity culture, prevention of and reacting to research misconduct. _____

- 9) In your view, are there risks of research misconduct in citizen science³?
- Yes
 - No
 - I do not know

OPTIONAL Please, comment on research misconduct risks in the context of citizen science _____

- 10) What are the best-practice examples of building research ethics and research integrity culture, prevention of and reacting to research misconduct in your organization or country?

-
- 11) In your opinion, what are the most important gaps in the existing research ethics and research integrity policies in your organization or country?

-
- 12) How do you see the role of the general public and citizens in the promotion of research ethics and integrity and in prevention of research misconduct?
-

³ UNESCO defines citizen science as «[...] models of scientific research conducted by non-professional scientists, following scientifically valid methodologies and frequently carried out in association with formal, scientific programmes or with professional scientists with web-based platforms and social media, as well as open source hardware and software (especially low-cost sensors and mobile apps) as important agents of interaction.» *UNESCO Recommendation on Open Science (2021)*

Part II – questions for students

- 1) At what level are you currently studying at a higher-educational institution:
 - a. I study for Bachelor's degree
 - b. I study for Master's degree
 - c. I study for higher professional qualification
 - d. I study for doctoral degree - PhD studies (*go to Part II*)
 - e. none of above (*go to Part I*)

- 2) What is your field of study?
 - a. Social and behavioral sciences
 - b. Arts and humanities
 - c. Natural sciences and engineering
 - d. Life sciences and medicine

- 3) In your view, how effective are the existing research ethics and research integrity policies in preventing research misconduct at your institution?
 - a. Very effective
 - b. Effective
 - c. Neutral
 - d. Ineffective
 - e. Very ineffective

OPTIONAL Please, comment on the effectiveness of the existing research ethics and research integrity policies in preventing research misconduct at your higher-educational institution. _____

- 4) In your view, what are the most important consequences of research misconduct (e.g. plagiarism, falsification and fabrication of data) for society:
 - a. Loss of public trust in science
 - b. Misguided policies and decisions
 - c. Wasted public resources
 - d. Adverse impact on public health and safety
 - e. Other (please specify) _____

OPTIONAL Please, comment on the consequences of research misconduct for society

- 5) How common are research misconduct cases in your country?
 - a. Very rare
 - b. Occasional cases
 - c. Moderately common
 - d. Widespread issue
 - e. I do not know

OPTIONAL Please, comment on the prevalence of research misconduct in your country

- 6) How transparent should be an investigation of research misconduct cases?
Information about the investigation process and results should be available:
- Only to the investigation committee
 - To the scientific community/ scientists
 - To the journalists, media and society
 - Other (please specify) _____

OPTIONAL Please, comment on the transparency and other aspects of investigation of research misconduct cases

- 7) Do you feel safe to express concerns on research ethics and research integrity or report suspected research misconduct at your university, college etc.?
- Yes
 - No
 - Other (please specify) _____

OPTIONAL Please, comment on expressing concerns on research ethics and research integrity or reporting suspected research misconduct.

- 8) In your view, how important are gender differences for building research ethics and research integrity culture, prevention of and reacting to research misconduct?
- Very important
 - Important
 - Neutral
 - Not very important
 - Not important at all

OPTIONAL Please, comment on importance of gender differences for building research ethics and research integrity culture, prevention of and reacting to research misconduct. _____

- 9) In your view, are there risks of research misconduct in citizen science⁴?
- Yes
 - No
-

⁴ UNESCO defines citizen science as «[...] models of scientific research conducted by non-professional scientists, following scientifically valid methodologies and frequently carried out in association with formal, scientific programmes or with professional scientists with web-based platforms and social media, as well as open source hardware and software (especially low-cost sensors and mobile apps) as important agents of interaction.» *UNESCO Recommendation on Open Science (2021)*

f. I do not know

OPTIONAL Please, comment on research misconduct risks in the context of citizen science _____

10) In your opinion, what are the most important gaps in the existing research ethics and research integrity policies in your higher-educational institution and country?

11) How do you see the role of students in the promotion of research ethics and integrity and in prevention of research misconduct?

12) How do you see the role of the general public and citizens in the promotion of research ethics and integrity and in prevention of research misconduct?

Part III – questions for the general public

- 1) In your view, what are the most important consequences of a following research misconduct case for society?

A researcher well-known for her research on cancer, has been exposed by a whistleblower for fabricating data in one of her published research studies, shattering her reputation and casting doubt on her previous scientific contributions.

- a. Loss of public trust in science
- b. Misguided policies and decisions
- c. Wasted public resources
- d. Adverse impact on public health and safety
- e. There are no consequences for society
- f. Other (please specify) _____

OPTIONAL Please, comment on the consequences of this type of research misconduct for society

- 2) In your view, what are the most important consequences of a following research misconduct case for society?

A public health researcher has come under media scrutiny after it was revealed that he had undisclosed financial ties to the tobacco industry. The journalists have proved that his work is biased, potentially trying to influence the public's perception of the risks associated with smoking.

- a. Loss of public trust in science
- b. Misguided policies and decisions
- c. Wasted public resources
- d. Adverse impact on public health and safety
- e. There are no consequences for society
- f. Other (please specify) _____

OPTIONAL Please, comment on the consequences of this type of research misconduct for society

- 3) In your view, what are the most important consequences of a following research misconduct case for society?

A prominent politician has faced a serious controversy when it was revealed that significant portions of his doctoral thesis written 5 years ago were plagiarized from various sources. The discovery led to an academic investigation and concerns raised about the politician's integrity, casting a shadow over his political career.

- a. Loss of public trust in science
- b. Misguided policies and decisions

- c. Wasted public resources
- d. Adverse impact on public health and safety
- e. There are no consequences for society
- f. Other (please specify) _____

OPTIONAL Please, comment on the consequences of this type of research misconduct for society

- 4) How common are research misconduct cases in your country?
- a. Extremely rare
 - b. Occasional occurrence
 - c. Somewhat common
 - d. Widespread
 - e. I do not know

OPTIONAL Please, comment on the prevalence of research misconduct in your country

- 5) How transparent should be an investigation of research misconduct cases?
Information about the investigation process and results should be available:
- a. Only to the investigation committee
 - b. To the scientific community/ scientists
 - c. To the journalists, media and society
 - d. Other (please specify) _____

OPTIONAL Please, comment on the investigation of research misconduct cases

- 6) Have you ever participated in citizen science⁵ activities?
- a. Yes
 - b. No
 - c. I do not know

- 7) In your view, are there risks of research misconduct in citizen science?
-

⁵ UNESCO defines citizen science as «[...] models of scientific research conducted by non-professional scientists, following scientifically valid methodologies and frequently carried out in association with formal, scientific programmes or with professional scientists with web-based platforms and social media, as well as open source hardware and software (especially low-cost sensors and mobile apps) as important agents of interaction.» *UNESCO Recommendation on Open Science (2021)*

- a. Yes
- b. No
- c. I do not know

OPTIONAL Please, comment on research misconduct risks in the context of citizen science _____

8) How do you see the role of the general public and citizens in the promotion of research ethics and integrity and in prevention of research misconduct?

Appendix 2. Interview guidelines for journalists and social media activists

Introduction

What is your role in research misconduct discovery and prevention?

Experience

What are the most important cases when you have been involved in discovery of research misconduct? Why do you engage in discovery and prevention of research misconduct? What kind of difficulties have you faced when engaging in the prevention and discovery of research misconduct? How journalists/social media activists can promote research ethics and research integrity?

Framing research misconduct

What are the consequences of research misconduct for society? What do you think – why do scientists get involved in research misconduct? What should be the consequences for those scientists who have committed research misconduct? Do you know any good practices for the reintegration of researchers after research misconduct?

RE/RI policies

How effective are the existing RE/RI policies and interventions from your point of view? What are the most important RE/RI issues currently from your point of view? What are the gaps in the existing RE/RI policies and interventions? What are the best-practice examples of building RE/RI culture, prevention of and reacting to research misconduct?

Public involvement

How do you see the role of general public and citizens in the promotion of research ethics and integrity and in prevention of research misconduct? How can society meaningfully be engaged in the promotion of research ethics and integrity and in the prevention of research misconduct?

Appendix 3. Interview guidelines for representatives of CSOs and NGOs

Introduction

How is your organisations' work connected to scientific research? Do you use research results in your work? Do you communicate with scientists? Are you involved in citizen science activities?

Framing research misconduct

What is trustworthy science? Have you discussed research misconduct cases in the context of the work of your organization? What are the consequences of research misconduct for society/for your organization/for the group of society your organization is representing? What do you think – why do scientists get involved in research misconduct? What should be the consequences for those scientists who have committed research misconduct?

RE/RI and citizen science (for organizations involved in citizen science)

How do you ensure compliance with RE/RI when practising citizen science? Have you ever faced research misconduct cases in the context of citizen science? If yes, what has been the reaction to these cases? What should be the reaction? How to prevent research misconduct in the context of citizen science? How should RE/RI governance of citizen science be organized and implemented?

RE/RI policies

How effective are the existing RE/RI policies and interventions from your point of view? What are the most important RE/RI issues currently from your point of view? What are the gaps in the existing RE/RI policies and interventions? What are the best-practice examples of building RE/RI culture, prevention of and reacting to research misconduct?

Public involvement

How do you see the role of general public and citizens in the promotion of research ethics and integrity and in prevention of research misconduct? How can society meaningfully be engaged in the promotion of research ethics and integrity and in the prevention of research misconduct?

Appendix 4. Interview guidelines for research policy makers and advisory bodies

Introduction

How is your work connected to RE/RI and prevention of research misconduct?

RE/RI policies

How effective are the existing RE/RI policies and interventions from your point of view? What are the most important RE/RI issues currently from your point of view? What are the gaps in the existing RE/RI policies and interventions? What are the best-practice examples of building RE/RI culture, prevention of and reacting to research misconduct? How can policy makers and advisory bodies promote the implementation of RE/RI policies?

Mental well-being of scientists

In your experience, does the existing RE/RI governance ensure enough safe spaces for scientific community members to express RE/RI concerns? How does research misconduct influence the mental health and well-being of researchers and students and how are these problems addressed in the framework of the existing RE/RI governance?

Public involvement

How do you see the role of general public and citizens in the promotion of research ethics and integrity and in prevention of research misconduct? How can society meaningfully be engaged in the promotion of research ethics and integrity and in the prevention of research misconduct?

RE/RI and citizen science

Have you ever faced research misconduct cases in the context of citizen science? If yes, what has been the reaction to these cases? What should be the reaction? How to prevent research misconduct in the context of citizen science? How should RE/RI governance of citizen science be organized and implemented?

Knowledge and skills

What knowledge and skills are lacking in the scientific community to successfully prevent research misconduct? What kind of educational activities and training materials are lacking?

Appendix 5. Interview guidelines for representatives of industry associations

Introduction

How is your work connected to RE/RI and prevention of research misconduct?

RE/RI policies

How effective are the existing RE/RI policies and interventions from your point of view? What are the most important RE/RI issues currently from your point of view? What are the gaps in the existing RE/RI policies and interventions? What are the best-practice examples of building RE/RI culture, prevention of and reacting to research misconduct? How can industry organizations promote the implementation of RE/RI policies?

Mental well-being of scientists

In your experience, does the existing RE/RI governance in the industry ensure enough safe spaces for scientists and employees to express RE/RI concerns? How does research misconduct influence the mental health and well-being of researchers and employees and how are these problems addressed in the framework of the existing RE/RI governance?

Public involvement

How do you see the role of general public and citizens in the promotion of research ethics and integrity and in the prevention of research misconduct? How can society meaningfully be engaged in the promotion of research ethics and integrity and in the prevention of research misconduct?

Knowledge and skills

What knowledge and skills are lacking in the industry community to successfully prevent research misconduct? What kind of educational activities and training materials are lacking?