



Towards Promoting an Inclusive Approach in Science Education

D2.1 – Questionnaire design and implementation on RRI dimensions and Vulnerable Communities for Gap Analysis and Strategy

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REGION: XX (please fill in accordingly)

Partner/Institution: XX (please fill in accordingly)





RRI-Introduction

This self-awareness/assessment tool revolves around the different RRI (Responsible Research and Innovation) dimensions: governance, ethics, gender, public engagement, open access and science education. RRI seeks to bring issues related to Research and Innovation into the open in order to anticipate their consequences, and to involve society in discussing how science and technology may help us create the world we want. RRI addresses societal challenges, opens R&I to all actors at all levels and aligns with societal values, needs and expectations. Each dimension focuses on important aspects to fulfill on the road to Responsible Research and Innovation. Please watch this introduction video, if you are new to the topic of RR&I: https://www.youtube.com/watch?v=SlvuAfnvOBU&feature=emb_rel_end.

<u>Ethics Dimension</u> focuses on (1) research integrity: the prevention of unacceptable research and research practices; and (2) science and society: the ethical acceptability of scientific and technological developments. Watch this video for more information: https://www.youtube.com/watch?v=ptuOvzGk7dg.

Gender Equality Dimension is about promoting gender balanced teams, ensuring gender balance in decision-making bodies, and considering the gender dimension in R&I in order to improve the quality and social relevance of results. With C4S we extend the gender equality aspect with intersectionality. Watch this video for more information: https://www.youtube.com/watch?v=IWz4qqATmbU.

Governance Dimension: arrangements that lead to acceptable and desirable futures have to be (1) robust and adaptable to the unpredictable development of R&I (de facto governance); (2) familiar enough to align with existing practices in R&I; (3) share responsibility and accountability among all actors; and (4) provide governance instruments to actually foster this shared responsibility. Watch this video for more information: https://www.youtube.com/watch?v=bXv-y8Pf5wU.

Open Access Dimension addresses issues of accessibility to and ownership of scientific information. Free and earlier access to scientific work can improve the quality of scientific research and facilitate fast innovation, constructive collaboration among peers and productive dialogue with civil society. Watch this video for more information: https://www.youtube.com/watch?v=F13EEdlg7WY.

<u>Public Engagement Dimension</u> fosters collaborative and multi-actor R&I processes: all societal actors work together throughout the entire process in order to align its outcomes with the values, needs and expectations of society. Watch this video for more information: https://www.youtube.com/watch?v=5pxQP1AJPvc.





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<u>Science Education</u> focuses on (1) enhancing the current education process to better equip citizens with the necessary knowledge and skills to enable their participation in R&I debates; and (2) increasing the number of researchers (promoting scientific vocations). Watch this video for more information: https://www.youtube.com/watch?v=ySnAuCQJJCI.

Source: rri-tools.eu

In addition to this Blind Spot Detection, there will be **RRI** literature compiled for you. These resources will help you understand & implement the RRI dimensions better.

Instructions

What is it:

This questionnaire will serve as a guide in order to be more aware of and self-evaluate the C4S consortium blind spots on critical areas requiring more expertise in our project implementation. This Self-Assessment will be filled out by **every partner institution**. It will be filled out prior to the start of the pilot phase of C4S and the second time -if feasible- towards the end of the project. The results will lead into 1.) important decisions for the advisory board regarding which expertise the C4S consortium needs most, as well as 2.) analyzing and identifying strategies on how to close those gaps. Closing our gaps in knowledge will be promoted through e.g. training with expertise within our consortium, reading more about it or increasing our knowledge by asking for practical experience from outside.

How does it work:

There will be eight sections to fill out, divided in the different RRI dimensions and two extra sections on vulnerable communities. Within these dimensions, there will always be a table to fill out and open questions to be answered.

For the Table to fill out:

- 1. The first column gives you an oversight of the different categories
- 2. The second column is filled with **self-evaluating statements**, where you rank your knowledge level by coloring it according to the colour scheme found below.





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How: Click on each cell and mark it (

) with the colour representing the degree of knowledge (4 different levels).

Green	Yes we do/ have sufficient knowledge about this
Yellow	Mostly, but we need to go more into depth
Orange	Partly, however we don't really know much about it
Red	No, this is new to me

3. Third column is the **priority for regional hub implementation**:

Please evaluate how important you think this is on a regional level by filling in the cell: **high/medium or low**. The priorities are based on the project's needs and the micro-objectives of implementing the <u>regional</u> hub.

4. Fourth column is **Idea for action plan:**

if 1. your statement is marked green, meaning you already know how to e.g. do something and you don't need an extra action, or 2. if your priority of regional implementation is low, please fill this section in with **n/a** (not applicable).





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If your statement is not colored green, or the priority medium/high, please choose one out of the four options as your action plan otherwise:

- -Read up on it
- -Exchange within the C4S consortium
- -Ask our target group
- -Find external expertise

If you have something more specific to write here, please use the 5th column to leave your comment and choose what fits best.

5. Fifth column is **comments**: Here you can leave your personal comment. E.g. if the statement is colored red and as action you suggest: external expertise, you could leave a comment if you already have someone in mind to help us fill this gap.

Example:

Category	Statement	Priority for regional hub implementation High / Medium / Low	Idea for Action Plan: -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise -n/a	Comments
Understanding & Knowledge	We understand the concept of RRI	high	-Exchange within the C4S consortium	

For the open questions:

Please make sure to link your knowledge to literature or with extensive personal knowledge.





A. The RRI Dimensions

A1: Governance

Category	Statement	Priority of regional hub implementation High / Medium / Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise -n/a	Comments
Understanding & Knowledge	We understand the concept of RRI			
	We understand bottom-up & top-down approaches and their connection			
In Practice/ Know How	We know some of the main recommendations on how to promote a responsible conduct in research within our regional implementation			
	We know regional actors and how to reach them regarding joint activities to implement the project			
	We know how to facilitate responsible governance of R&I within our regional implementation			
	We know how to and when to implement both bottom- up and top-down approaches			





on the difference communications	oup / marysis and strateg	y	
We know how to integrate SDG16 -Peace, Justice and Strong Institutions- in our work			
We know how to include societal actors with their varying experiences and knowledge in a participatory way			

Open Question:

What aspects are important for a useful, responsible and harmonious governance process within your regional implementation of the C4S project?	





A2: Ethics

Category	Statement	Priority of regional hub implementation High /Medium /Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise -n/a	Comments
Understanding & Knowledge	We understand the different aspects involved in the RRI Dimension "Ethics"			
	We know the specific ethics requirements for the project, described in WP 6			
	We know how different areas of expertise in science and in every phase of research interconnect and we consider their ethical implications			
	We know of our ethical responsibility to listen to our participants & local community to understand their viewpoints and engage them as relevant co-designers in the project			
	We know about the legal rights and freedoms of our target group (e.g. Human/Children Rights, National and regional laws, GDPR-Data)			
	We know and understand the social realities of our target group			





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How tary We and to describe with	e know how to consider the rights and freedom of our get group within our regional implementation know how to transparently communicate the goals d intended outcomes of our regional implementation our participants, stakeholders and the communities know how to enforce an informed consent process th children and their communities within our regional		
and to d We wit	d intended outcomes of our regional implementation our participants, stakeholders and the communities know how to enforce an informed consent process		
wit			
· · · · · · · · · · · · · · · · · · ·	plementation		
pei	e know the EC specific ethics requirements including rsonal data protection/ privacy and confidentiality for e project, described in WP6.		
pen Questions:		•	
low do you intend to pron	note your activities following the RRI Ethical principle?		





A3: Gender & Intersectionality

Category	Statement	Priority of regional hub implementation High / Medium /Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise -n/a	Comments
Understanding & Knowledge	We understand the different aspects involved in the RRI Dimension "Gender"			
•	We understand the concept of intersectionality			
	We understand the concept of gender (including the distinction between gender/sex, the concept of "doing gender", etc.)			
	We know about different gender-stereotypes & forms of discrimination and how they are reinforced (eg.in our society, at work, in our local communities,)			
	Gender and intersectionality are part of our team's educational background (e.g. lectures, workshops, training, etc.)			
Experience	We have worked on gender/ intersectional -related topics in the past			





on RRI dimensions and Vulnerable Communities for Gap Analysis and Strategy In Practice/ Know We know how to implement a gender sensitive and intersectional approach in regional implementation (e.g. How different measures like language, imagery, tools & methods, workshops, etc.) We know how to integrate SDG5 -Gender Equality- in our work and research activities We know how to involve gender-balanced actors We know different strategies on how to tackle genderstereotypes & equality discrepancies in our daily work with the participants We know different strategies on how not to reproduce (gender and intersectional) discrimination within our regional implementation **Open Questions:**

How will you ensure a gender/intersectional-sensitive approach within your regional implementation?





A4: Public Engagement

Category	Statement	Priority of regional hub implementation High /Medium /Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise -n/a	Comments
Understanding & Knowledge	We understand the different aspects involved in the RRI Dimension "Public Engagement"			
•	We understand the concept of "Citizen Science"			
	We have an overview of relevant societal actors from different areas based on a regional analysis (e.g. communities, policy makers, civil society organizations, research & educational communities, etc.)			
	We know what information can and should be shared with whom (e.g. about the participants)			
Experience	We have experience with other (science related) Public Engagement practices			
In Practice/ Know How	We know which relevant societal actors to engage with and how to deal with the public needs & realities.			





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	We know how to align the development of our regional project aims and activities with societal needs and challenges			
	We know how to include diverse actors and the public to ensure diversity of voices in our regional implementation (e.g. profession, gender, Social status, members of minorities, LGBTIQ+, etc.)			
	We know how to engage citizen science practice to improve public engagement within our regional implementation			
Open Questions: How can you ensure society's needs?	that your regional strategies and activities -implemented to fulfill the	project aim- will be i	relevant for your region	on and for the
How do you want to pimplementation?	promote opportunities to foster communication with different actors a	and the public throug	hout your regional pr	oject





A5: Open Access

Category	Statement	Priority of regional hub implementation High / Medium / Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise -n/a	Comments
Understanding & Knowledge	We understand the different aspects involved in the RRI Dimension "Open Access"			
	We understand what the term "Open Access" means and implies in our country and in the EU			
	We understand the terms "Science Democratization"/ "Democratization of Knowledge"			
Experience	We have experience with Open Access-practices			
In Practice/ Know How	We know how to include our participating community as co-authors if we publish articles on C4S topics			
•	We know how to disseminate our research findings and make it transparent to the science community			





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We know how to make our outcomes accessible to interested actors within and outside of the traditional science community			
We know how to ensure a discrimination-free language, imagery, etc. within our Open Access practices			

Open Questions:

How will you ensure a discrimination-free practice (concerning descriptions, assumptions, language, imagery, etc.) within your Open Access practice?	





A6: Science Education

Category	Statement	Priority of regional hub implementation High / Medium /Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise - n/a	Comments
Understanding & Knowledge	We understand the different aspects involved in the RRI Dimension "Science Education"			
	We know examples of stereotyped/ racist/ sexist/ ethnocentric materials, games, toys and images within the pedagogical world			
	We know how to use methodologies to promote curiosity, playful and experimental science			
Experience	We have worked on science education related topics in the past			
'	We have experience within the pedagogical field of science education			
In Practice/ Know How	We know how to prevent the usage of stereotyped/ racist/ sexist/ ethnocentric materials, games, toys and images within our pedagogical work			





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	We know how to engage young people and their communities to co-create the educational work (eg. with specific tools, methods, etc.)			
	We know how to integrate the interests of children and their communities in our pedagogical work			
	We know different strategies on how to integrate SDG 4 - Quality Education- in our work			
	We know how to facilitate an experience-based and problem -oriented learning environment			
	We know different strategies on how to use our pedagogical work to make the voices of our target groups heard and seen			
	We know of social actors/ role models from minority backgrounds who are experts in science that we can involve in our pedagogical work			
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Open Questions:

How do you want to tackle the interests of your participants in your pedagogical and science educational work?





B: Inclusion & Vulnerable Communities

B1: Inclusion

Category	Statement	Priority of regional hub implementation High / Medium / Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise -n/a	Comments
Understanding & Knowledge	We understand the concept "Inclusion"			
	We know the difference between Inclusion & Integration			
	We understand the practices of personal and institutional discrimination and exclusion of our target group			
	Inclusion is part of our team's educational background (e.g. lectures, workshops, training, etc.)			
Experience	We have already worked with inclusive approaches in the past			





In Practice/	Know
How	

We know how to involve our target group as co- designers and co-creators		
We know how to use an understandable, inclusive, gender- balanced and people's first language		
We know different strategies how to prevent practices of discrimination and exclusion within our regional implementation		
We know how to integrate SDG 10 -Reduced inequalities- in our work		
We know how to ensure information to be clear for our target group (e.g. about the project aims, activities, etc.)		

Open Questions:

How would an inclusive approach look like in practice, when it comes to your regional implementation?





B2: Vulnerable Communities

State your Target Group: Roma /Persons with migration background/ Persons with specific needs (cancel out the incorrect target group)

Category	Statement	Priority of regional implementation High /Medium /Low	Idea for Action Plan -Read up on it -Exchange within the C4S consortium -Ask our target group -Find external expertise n/a	Comments
Understanding & Knowledge	We understand the realities and needs of our target group and their communities			
•	We know of the potential paternalistic implications of using the term 'vulnerable communities' that might be provoked, hence we will use the term in a reflective and sensitive way.			
	We know how our target group and their community can benefit from our project			
	"Community work"/ "Community building" is part of our team's educational background (e.g. lectures, workshops, training, etc.)			





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	Working with "vulnerable communities" is part of our team's educational background (e.g. lectures, workshops, training, etc.)		
	We know how to use alternative communication and assistive communication (e.g. braïlle, other non-EU languages or minority languages such as Roma, etc.)		
Experience	Our team has previous experience in working with our target group		
In practice/ Know How	We know how to create a structure of co-creation and co-design with our target group and their communities		
•	We know how to identify the interests & needs of our target group and their communities		
	We know how to involve & engage our target group with their resources and strengths as important agents of social change		
	We know of strategies on how to get direct information from the communities regarding their needs, expectations & doubts of the project		
	We have gathered direct information from the participants on their expectations, needs, doubts etc. of the project		
	We know how to mitigate potentially negative outcomes and challenges for our target group		





Open Questions:

How do you ensure to engage your target group as subjects- not objects- and as social agents within your regional implementation?
How can you mitigate potential challenges and negative outcomes for your target group within your regional implementation?