

# Responsible Research and Innovation (RRI)tools

TOOL NAME	SOURCES	RRI DIMENSION	RRI EU KEY	PHASE OF THE PROJECT	TIMEFRAME FOR IMPLEMENTATION	SKILLS AND FURTHER REQUIREMENTS	USED IN THE SGD EXPERIMENTS	NAME OF THE TOOL IN THE EXPERIMENT	TARGET GROUP IN THE SGD PROJECT:
<b>World Café</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a>	Inclusion	Public engagement	Project definition and development/ formulation of activities Experiment implementation	2-3 hours	Facilitation skills, Event organisation skills	Clean Energy	Community-based visioning workshops	research team; subcontractor; participants; broader public
<b>SHORT DESCRIPTION</b>	<p>A world café is a method for engaging groups, both within internal processes and in the public sphere that is variable depending on context, numbers, purpose, location, etc.</p> <p>How to:</p> <ul style="list-style-type: none"> <li>•Welcome and an introduction in the process and the “Café Etiquette”</li> <li>•Several rounds (ca. 20 minutes) of conversation for the small group at the tables, after the first round each member of the small groups moves to another table</li> <li>•Moderation and documentation: Person from the previous round is table host for the next round, giving briefly update</li> <li>•After the small groups: Sharing results in plenary</li> </ul>								
<b>Open Space Technology</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a>	Inclusion	Public engagement	Project definition and development/ formulation of activities Experiment implementation	depending on scale of the event	Skills: Facilitation skills; Project management skills; Event organisation skills	Clean Energy	Co-construction (of the social experiment)	research team; subcontractor; participants; broader public
<b>SHORT DESCRIPTION</b>	<p>Method to organize participation events basically of large and medium scale (5 to 1000 and more participants);</p> <p>The method is based on the principles of passion, responsibility and commitment, bearing in mind the assumption that the most productive way to work is to work on a topic for which one cares;</p> <p>Within the method participants can propose topics on the overall one and offer themselves sessions in which the participants can then take part.</p>								
<b>Round Table</b>	RRI Tools – A Practical Guide to Responsible Research and Innovation ( <a href="https://www.fosteropenscience.eu/node/2111">https://www.fosteropenscience.eu/node/2111</a> )	Inclusion	Public Engagement; Open access; Science education; Gender; Ethics	Monitoring & Evaluation		Skills: Facilitation skills; Event organisation skills			
<b>SHORT DESCRIPTION</b>	<p>Bottom-up participatory approach for addressing ethical issues of research and innovation. Based on the idea of mutual learning.</p> <p>Could be used as an interactive and deliberative teaching approach that brings together students and researchers from different disciplinary backgrounds as well as other societal groups (approach’s focus could be expanded beyond ethics to other dimensions of RRI).</p> <p>How to: Moderated, open format, promoting a dialogue between different actors;</p>								

TOOL NAME	SOURCES	RRI DIMENSION	RRI EU Key	PHASE OF THE PROJECT	TIMEFRAME FOR IMPLEMENTATION	SKILLS AND FURTHER REQUIREMENTS	USED IN THE SGD EXPERIMENTS	NAME OF THE TOOL IN THE EXPERIMENT	TARGET GROUP IN THE SGD PROJECT:
<b>Focus Groups</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a> ;	Inclusion; Reflexion	Public engagement	Experiment implementation	workshop time: 1-2 hours	Skills: Subject-matter expertise; Facilitation skills	Preserving Biodiversity	Focus Groups	participants
<b>SHORT DESCRIPTION</b>	Qualitative method which is used to determine the preferences of people or to evaluate strategies and concepts; <b>How to:</b> a planned discussion among a small group (4-12 persons, selected according to certain characteristics in common that relate to the research topic) of stakeholders facilitated by a skilled moderator; aim: identify user requirements specification, generate or evaluate hypotheses and ideas in conjunction with a quantitative method, or as a primary data-collection method.								
<b>Needs Survey among CSOs</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a>	Inclusion; Reflexion	Public engagement	Project definition and development/ formulation of activities	few months	Skills: Subject-matter expertise; Facilitation; Project management			
<b>SHORT DESCRIPTION</b>	Method to show which field they potentially have research questions and can lead to follow-up discussions to articulate research questions (see separate fact sheet). <b>How to:</b> A survey is sent to all registered CSOs/NGOs in a region. A more informal approach is to go and talk with umbrella organizations in a specific field (e.g. health; environment).								
<b>Inter-disciplinary/ Stakeholder Working Groups</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a>	Inclusion; Reflexion	Public engagement	Project definition and development/ formulation of activities	typically 6-8 months	Skills: Facilitation skills; Project management skills	Clean Energy	Co-construction (of the social experiment)	research team; subcontractor; participants
<b>SHORT DESCRIPTION</b>	The purpose of the method is partly to take professional stock of the situation and partly to propose possible courses of action to ensure, initiate, promote or check development in the area. The work of the group is rooted in the existing knowledge base. The interdisciplinary work group is independent, problem-oriented and focuses on solutions – not only assessment. The method is suitable for intersecting topics, traditional institutional and disciplinary lines and creates holistic robust recommendations. Useful for political/strategic development.								
<b>Science Shop</b>	<a href="https://project.scishops.eu/wp-content/uploads/2018/08/SciShops.eu_D4.2_Practitioner_roadmap_and_methodology_toolkits.pdf">https://project.scishops.eu/wp-content/uploads/2018/08/SciShops.eu_D4.2_Practitioner_roadmap_and_methodology_toolkits.pdf</a>	Inclusion; Responsiveness	Public Engagement	Project definition and development/ formulation of activities Experiment implementation	3-6 months with existing infrastructure	Skills: Facilitation skills; Project management skills			
<b>SHORT DESCRIPTION</b>	Science Shops (small entities based within universities and research institute or run by non-profit organisations/ companies) carry out independent, participatory scientific research in response to concerns experienced by citizens and local civil society; Involves researchers working closely with civil society organisations (CSOs) or other members of society to co-create new knowledge that can be used to better understand or tackle societal issues; varying degrees of community and other stakeholder involvement; wide range of disciplines and sectors								

TOOL NAME	SOURCES	RRI DIMENSION	RRI EU Key	PHASE OF THE PROJECT	TIMEFRAME FOR IMPLEMENTATION	SKILLS AND FURTHER REQUIREMENTS	USED IN THE SGD EXPERIMENTS	NAME OF THE TOOL IN THE EXPERIMENT	TARGET GROUP IN THE SGD PROJECT:
<b>(Reversed) Science Café</b>	<a href="https://rri-tools.eu/en/-/the-big-picnic-science-cafe-toolkit">https://rri-tools.eu/en/-/the-big-picnic-science-cafe-toolkit</a> ; <a href="https://www.ecsite.eu/sites/default/files/sparks_toolkit.pdf">https://www.ecsite.eu/sites/default/files/sparks_toolkit.pdf</a> , p. 5	Inclusion	Public engagement, Science education	Experiment implementation		Skills: Facilitation skills; Event organisation skills			
<b>SHORT DESCRIPTION</b>	<p><b>Science Café:</b> place for information and discussion for all who are interested in science and its broader implications for society; aim to encourage citizens to dialogue with scientist, by bringing science into the everyday life of citizens + democratising science by engaging citizens in the making and interpreting of science</p> <p><b>Reversed Science Café:</b> Public Engagement tool - Answering Research questions: A science café usually has experts giving a talk and answering questions from the public. We reversed this format by having experts ask questions to the public to get inputs on issues relevant to their work. Experts and citizens work together in small groups to formulate solutions to the challenge of making research and innovation more diverse, inclusive and open.</p>								
<b>Participatory Sensing</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a>	Inclusion, reflexivity	Public engagement	Experiment implementation	depending on complexity of data collection activities	Skills: IT skills; Subject-matter expertise; Project management skills			
<b>SHORT DESCRIPTION</b>	Participatory sensing projects involve volunteers in the gathering of data for research. This process is facilitated with ICT platforms which often include the use of hand-held devices such as smartphones.								
<b>Enrich by co-design</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a>	Inclusion	Public engagement	Experiment implementation	time consuming preparation; workshop time: half a day	Precondition: participants are familiar with prototyping; Skills: Subject-matter expertise; Facilitation skills; Event organisation skills; Project management skills	Circular Economy	Design Thinking approach	
<b>SHORT DESCRIPTION</b>	Design thinking and doing approach based on co-design: Among more usual participatory processes, this (facilitated) method includes a phase of prototyping, where the participants will try to envision, represent and visually create solutions.								
<b>Research Agenda Camp</b>	<a href="http://actioncatalogue.eu/method/7445">http://actioncatalogue.eu/method/7445</a>	Inclusion; Responsiveness	Public Engagement	Project definition and development/ formulation of activities	2 days	Subject-matter expertise; Facilitation skills; Event organisation skills; Project management skills			
<b>SHORT DESCRIPTION</b>	Aim of the method is to develop "research programme scenarios" i.e. suggestions for research programmes addressing the underlying societal needs, aspirations and commonalities developed in a previous phase; not a method on its own, it has to be integrated in a larger process (2-day co-creation workshop)								

TOOL NAME	SOURCES	RRI DIMENSION	RRI EU KEY	PHASE OF THE PROJECT	TIMEFRAME FOR IMPLEMENTATION	SKILLS AND FURTHER REQUIREMENTS	USED IN THE SGD EXPERIMENTS	NAME OF THE TOOL IN THE EXPERIMENT	TARGET GROUP IN THE SGD PROJECT:
<b>Group interview with a co-design session</b>	<a href="http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf">http://engage2020.eu/media/D3-2-Public-Engagement-Methods-and-Tools-3.pdf</a>	Reflexivity, Inclusion	Public engagement	Project definition and development/ formulation of activities; Experiment implementation	workshop time: one single event or several smaller successive events		Sustainable Food	Group interview	participants
<b>SHORT DESCRIPTION</b>	The group interview with a co-design session will provide feedback about the research scenarios presented.								
<b>Living Lab</b>	<a href="http://territoriaproject.eu/wp-content/uploads/2021/04/TeRRitoria_D3-3_Map_of_approaches_policies_and_tools_for_Territorial_RRI.pdf">http://territoriaproject.eu/wp-content/uploads/2021/04/TeRRitoria_D3-3_Map_of_approaches_policies_and_tools_for_Territorial_RRI.pdf</a>	Inclusion	Public engagement	Experiment implementation		Subject-matter expertise; Facilitation skills; Event organisation skills; Project management skills			
<b>SHORT DESCRIPTION</b>	Main objective: create new products, services and appropriate infrastructure to the real needs of society. This concept is used to refer to co-creation experiences characterised by some basic features, including: the engagement of users; the involvement of a plurality of stakeholders; the adoption of a real-life setting; the adoption of an approach combining different methods; the focus on co-creation								
<b>Technology Roadmap</b>	<a href="http://foresight-platform.eu/community/forlearn/how-to-do-foresight/methods/roadmap/">http://foresight-platform.eu/community/forlearn/how-to-do-foresight/methods/roadmap/</a>	Anticipation	Ethics	Project definition and development/ formulation of activities; Experiment implementation		Skills: Subject-matter expertise			
<b>SHORT DESCRIPTION</b>	Term referring to various kinds of Foresight studies (visions/ projections of future possible technological developmen etc.); function as forecasting methodology (graphical representation showing causal and temporal relations) + planning methodology								
<b>Scenario Method/ Workshop</b>	<a href="http://foresight-platform.eu/community/forlearn/how-to-do-foresight/methods/scenario/">http://foresight-platform.eu/community/forlearn/how-to-do-foresight/methods/scenario/</a>	Anticipation	Public engagement	Experiment implementation	time-consuming	broad base in strategic intelligence; familiarity with scenario technique; subject-matter expertise, facilitation skills			
<b>SHORT DESCRIPTION</b>	Analysis tool that helps describe a possible set of future conditions; purpose: help decision-makers acquire knowledge and understanding to anticipate the context; <b>How to:</b> there are different approaches to walk through the processes; possibility to combine it with a SWOT analysis (input) as well Roadmapping (testing consistence and plausibility)								

TOOL NAME	SOURCES	RRI DIMENSION	RRI EU KEY	PHASE OF THE PROJECT	TIMEFRAME FOR IMPLEMENTATION	SKILLS AND FURTHER REQUIREMENTS	USED IN THE SGD EXPERIMENTS	NAME OF THE TOOL IN THE EXPERIMENT	TARGET GROUP IN THE SGD PROJECT:
<b>System Analysis</b>	<a href="https://edepot.wur.nl/149471">https://edepot.wur.nl/149471</a>	Inclusion, Reflexion		Project definition and development/ formulation of activities Experiment implementation Monitoring & evaluation	collective analysis: 1/2 day	Facilitation skills (for larger groups of 10-15 people)			
<b>SHORT DESCRIPTION</b>	<p>Aim: providing insights into actors and factors working against the transformation; only worthwhile if participants want to contribute to the transition to a more sustainable system; It is based on discussions/ interviews with project participants or a collective workshop with the project team.</p> <p><b>How to:</b> preparation of the matrix (characteristics of the system like knowledge infrastructure x organisations perpetuate systems barriers), inventory of system barriers and opportunities (possible start of the workshop, can also be carried out alone via desk research), analysis, reflection</p>								
<b>Audiovisual learning history</b>	<a href="https://edepot.wur.nl/149473">https://edepot.wur.nl/149473</a>	Reflexion; Responsiveness		Monitoring & Evaluation; Dissemination		skills as filming and editing	clean Energy	Dissemination of research findings/ actions	research team; subcontractors; participants
<b>SHORT DESCRIPTION</b>	<p>Aim: creating an accessible and attractive product using an audiovisual approach.</p> <p><b>How to:</b> Expression of narratives not included in conceptual and management texts (challenges, choices, learned lessons) to let the participants (in the project/ in other comparable projects) learn from own experiences.</p>								
<b>Dynamic learning agenda</b>	<a href="https://edepot.wur.nl/149472">https://edepot.wur.nl/149472</a>	Reflexion		Project definition and development/ formulation of activities Experiment implementation Monitoring & evaluation	over the whole project time				
<b>SHORT DESCRIPTION</b>	<p>Aim: helping system innovation projects link long-term aims to concrete perspectives for actions by formulating, recording and keeping tracks of arising challenges;</p> <p><b>How to:</b> creation of a "learning agenda" i.e. document containing challenges summarised in learning questions that is modified over the course of the project; used as aid during project meeting.</p>								
<b>Learning mirror</b>	<a href="https://www.wur.nl/nl/show/Reflexive-Monitoring-in-Action-2.htm">https://www.wur.nl/nl/show/Reflexive-Monitoring-in-Action-2.htm</a>	Reflexion		Experiment implementation	meetings during the project implementation phase	facilitation skills			
<b>SHORT DESCRIPTION</b>	<p>Aim: The tool gives participants visual feedback during meetings supporting them to concert ideas and long-term goals into innovative collaborative actions and making action-oriented meetings more reflective/ reflection-focused ones more action-oriented.</p> <p><b>How to:</b></p> <p>part 1: visually documentation of contribution and blind spots (structured notes in three categories of content, actions and relations), little preparation required.</p> <p>part 2: inquiry framework relating proposed action to the changing context, only carried out if participants think it is essential (need for legitimacy for the monitor to operate effectively).</p>								

TOOL NAME	SOURCES	RRI DIMENSION	RRI EU KEY	PHASE OF THE PROJECT	TIMEFRAME FOR IMPLEMENTATION	SKILLS AND FURTHER REQUIREMENTS	USED IN THE SGD EXPERIMENTS	NAME OF THE TOOL IN THE EXPERIMENT	TARGET GROUP IN THE SGD PROJECT:
<b>Timeline and eye-opener workshop</b>	<a href="https://edepot.wur.nl/149474">https://edepot.wur.nl/149474</a>	Reflexion, Responsiveness		Experiment implementation; Dissemination	eye-opener workshop: >3 h in small groups				
<b>SHORT DESCRIPTION</b>	Aim: interactive transfer of learning experiences to “outsiders”; timeline method as format to express challenges, successes and learning experiences; eye-opener workshop as additional format to turn outsiders into project insiders (detailed narration of experiences and results, reflection on the events from different participants perspectives).								
<b>Social network/platform for exchange</b>	example: Patient Innovation Platform	Inclusion; Responsiveness	Public Engagement; Open access; Science education; Gender; Ethics	Political empowerment; Research activity		IT skills; project management			
<b>SHORT DESCRIPTION</b>	Aim: sharing solutions and ideas and doing networking. This is useful when participants can not physically get together. A specific platform is one who is engaging citizens. e.g. Platform for citizen science/ people powered science: <a href="https://www.zooniverse.org/projects">https://www.zooniverse.org/projects</a> ;								
<b>Self-reflection tools/questionnaires on RRI (collection of sources to introduce RRI in your project)</b>	different sources	Reflexion; Inclusion	Public Engagement; Open access; Science education; Gender; Ethics	Project definition; Monitoring & Evaluation		subject-matter expertise/ insights in required documents			
<b>SHORT DESCRIPTION</b>	The aim of all these questionnaire are for institutions/ researchers to survey and assess the their research process and output with regard to the implementation of RRI and/or individual aspects. Examples: <ul style="list-style-type: none"> <li>•GRACE reflection tool for RRI initiatives: <a href="http://grace-rr.eu/reflection-tool-2/">http://grace-rr.eu/reflection-tool-2/</a></li> <li>•NewHoRRizon/ Societal Readiness Thinking Tool: <a href="https://thinkingtool.eu/">https://thinkingtool.eu/</a></li> <li>•COMPASS self-check: <a href="https://innovation-compass.eu/training/3144-2/">https://innovation-compass.eu/training/3144-2/</a></li> <li>•RRI Navigator: <a href="https://responsibility-navigator.eu/">https://responsibility-navigator.eu/</a></li> <li>•ORION Open Science Checklist: <a href="https://www.orion-openscience.eu/index.php/publications/training-materials/201811/open-science-researcher-checklist">https://www.orion-openscience.eu/index.php/publications/training-materials/201811/open-science-researcher-checklist</a></li> <li>•EDGE tool (self-assessment questionnaire for universities, aims to trigger discussion and reflection regarding public engagement at the institutional, department, or faculty level: <a href="https://www.publicengagement.ac.uk/support-engagement/strategy-and-planning/edge-tool/interactive-edge">https://www.publicengagement.ac.uk/support-engagement/strategy-and-planning/edge-tool/interactive-edge</a></li> </ul>								