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The Res-AGorA Co-construction Method

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6.1 Objective of the Res-AGorA RRI workshop design

A small team within the Res-AGorA consortium¹ developed a workshop design that aims at facilitating and encouraging reflective processes between diverse and often opposing stakeholder groups. It is centered on the conceptualization and implementation of Responsible Research and Innovation (RRI) in organisations and elsewhere. The workshop design offers a unique process for organisations which want to steer research-related decision-making processes towards more responsible research and innovation. It provides an open space for reflection without normatively predefining what “responsibility” is. Rather, it is designed to “walk the talk”, making it possible for stakeholders to gain firsthand experience on how to possibly promote RRI in organisations and elsewhere.

The workshop design itself resulted from extensive deliberative co-construction work within the Res-AGorA team and has been tested in real life settings. Five two-

day stakeholder workshops demonstrated a model for a governance framework for RRI while reflecting upon and further developing findings of Res-AGorA. This process evolved to have unique generic workshop qualities for stakeholder co-construction and reflection on responsible research and innovation, thus the Res-AGorA “Co-construction method” came about.²

The workshop design merges default conceptual dimensions and principles of RRI with a rigorous bottom-up approach of bringing in stakeholders’ everyday experiences in implementing measures for the responsabilisation of research and innovation (R&I) processes. The dimensions and principles of RRI are based on in-depth theoretical deliberations and field investigations conducted within the Res-AGorA project. The conceptual and empirical insights were consolidated into a preliminary governance framework for RRI and comprised a set of principles and dimensions of RRI, illustrations, and questions to deliberate upon when striving to reach higher levels of responsibility. The series of workshops further developed the preliminary framework into the Responsibility Navigator (Chapter 11). In the subsequent sections, the Responsibility Navigator constitutes the input for further possible

¹ The team consisted of Erich Griessler and Alexander Lang, Institute for Advanced Studies, Vienna, Bart Walhout, University of Twente, Christoph Mandl, Mandl, Lüthi and Partner. It was led by Bjørn Bedsted, Nina Bryndum & Morten Velsing Nielsen, The Danish Board of Technology Foundation.

² For more information please visit: <http://res-agora.eu>.

workshops aiming at making research and innovation more responsible. It may be useful to supplement this with the manual for the Co-construction Method, as the detailed generic version of the workshop design³ has been made available on-line.

As a point of departure, Section 6.2 presents the process, assumptions and considerations in developing the workshop design. Section 6.3 offers a short practical introduction on how to make use of the workshop design in your own context and culminates in important conclusions in Section 6.4.

6.2 Producing the workshop design

Prior to constructing the workshop design, the Res-AGorA consortium held a number of arduous yet productive academic conversations concerning the prospective design of the workshops, which included discussions on how to select stakeholders, how to decide which domains to cover and how to approach relevant stakeholders and encourage them to participate, etc. The efforts and difficulties the Res-AGorA consortium underwent are comparable to those that a stakeholder might face when participating in the RRI workshops such as experiencing provocative discussions, demanding working groups and plenary sessions, and the collaborative production of output.

Explaining RRI

Subsequently, numerous feed-back sessions regarding the workshop design were established via face-to-face meetings and through video conferences within the small Res-AGorA team which developed the design. One of the most difficult aspects faced by the team was the indeterminate notion of RRI per se. An important aim of the stakeholder workshops was to refrain from imposing a certain definition of RRI. The question arose how to inspire very busy stakeholders with packed schedules for months ahead to participate in the workshops. How could we explain the topic of the workshop and the importance of RRI for their work? And how could stakeholders, who had hardly any preconceived notions of RRI, be expected

to understand the importance of their feedback and the need to be involved in a co-constructive process aimed at building a governance framework for RRI?

Selecting stakeholders

The collaborative processes lay the grounds for the selection of stakeholders which resulted in the following guidelines for broad-based stakeholder nominations:

- The nominees should be involved in the governance of responsible research and innovation.
- They should be derived from both governance bureaucracies and from industry with extensive knowledge of the use of responsibility-related issues in R&I.
- They should be recruited from diverse non-governmental organizations (NGOs) and international organisations concerned with responsibility in R&I.
- They should have some record of or reputation for critical / reflective thinking and action in relation to R&I governance.
- Geographically they should be recruited from the east, west, north and south of Europe.
- Gender representation should be balanced.

Producing openness and depth

Key in this process was an increase in our awareness concerning the elements of unclarity and uncertainty intrinsic to the concept of RRI and the aim of the workshops. In order to deal with these circumstances, the team made the following decisions:

- The uncertainty of the vaguely defined RRI concept was openly stated in both the invitation and the workshop design itself as well as in the information material on the Res-AGorA governance framework for RRI, which was used as a basis for discussion among the participants.
- The diversity of the many and often contesting interpretations of RRI already booming in academia should be embraced and presented.
- The workshops should be kept open-ended regarding the type of output ultimately produced.

The amazing openness amongst the participants and the deep level of discussion contributed to an utterly instructive experience for all involved throughout the five workshops. The strength exhibited by the workshops in

³ The Res-AGorA Co-construction Method is available at <http://responsibility-navigator.eu/co-construction-method/>.

so openly defining responsible research and innovation in combination with the carefully designed workshop process was noteworthy.

Producing flow and dynamic interaction

Our preconception of the stakeholders we invited was that they would be professionally socialised to be viewed as “owners” of expert knowledge. Thus, it was presumed they would be inclined to inform others and share their knowledge, rather than opening up to listen and learn from others. However, such a mental model creates an unintended communication pattern among experts regarding who is right and who is wrong and thus disables collective learning. As a result, groups of experts often act less intelligently than each of them would as an individual (Argyris 1991). The underlining dilemma was that we ideally wanted to have participants with a high level of expertise who do not necessarily behave as experts. That was the challenge. The balance of acknowledgement and willingness to honor all participants as experts with their willingness to behave as learners and listeners was required in the workshops. In order to disrupt the prevailing communication patterns, a couple of elements were carried out differently than what is typically done when organising workshops with experts:

- Workshop invitations made clear that the Res-AGorA team wanted primarily to listen to participants’ expertise rather than to convince participants of Res-AGorA findings.
- During workshops, participants had the freedom of choice which parallel working groups they wanted to join.
- Moderation of working groups by Res-AGorA team members was performed by listening and asking questions rather than by making judgmental statements about what participants said. The careful facilitation supported the ability of participants to behave similarly and created a role model for everyone.
- The plenary was facilitated in such a way that neither the facilitator nor a “first come first serve rule” decided the order of who would speak. Rather, the participants themselves decided who would speak and who would listen by using what is known as a “talking stick”.
- Time slots for presentation by the Res-AGorA consortium were very limited.

- Seating was arranged in a circle-style setting and not as in a classroom setting.
- The alteration between groups and plenary enabled participants to experience both learning from others in plenaries and sharing their own respective thoughts in groups with others.

6.3 The workshop design

Figure 6–1 is an attempt to visualize the iterative process we designed to merge a bottom-up process with a top-down approach in the workshop design. The aim was to generate a process that assures everything said and done during the workshop contributes to the deepening and contextualisation of the participants’ perception of responsible research and innovation in relation to their respective organisations / work-situations, while simultaneously bringing about all the invaluable real-life experiences of “doing” responsible research and innovation that the participants carried with them. These entailed mainly initiatives labelled very differently across the diverse institutional settings participants came from.

Thus their experiences and ideas were merged with suggestions made by the Res-AGorA researchers for a comprehensive set of principles to guide informed and deep thinking processes on RRI among contesting stakeholder groups.

The “works” of the design

The workshop design is divided into four phases informing one another iteratively:

1. **Exploration phase:** Exploring stakeholders’ experiences with RRI
2. **Presentation phase:** Presenting dimensions and principles of RRI
3. **Investigation phase:** Making effective use of the Responsibility Navigator’s dimensions and principles
4. **Concretisation phase:** Effectively practicing RRI

The two first phases of the two-day workshop method form the basis for reflection and inform the in-depth work in phase 3 and 4. These phases are presented roughly but systematically one at a time. The following describes what to do (*Description*), why to do it this way (*The reasoning*

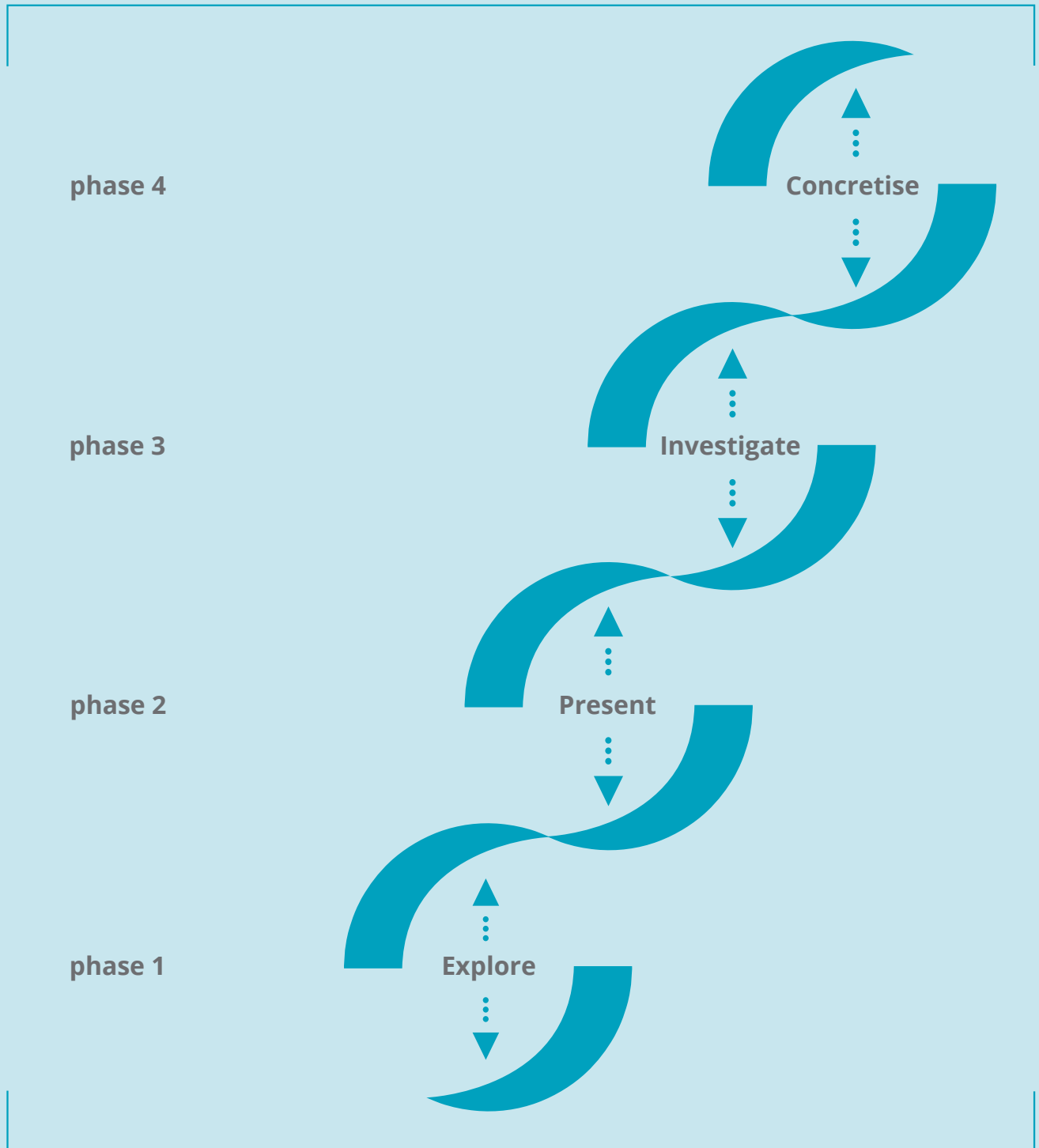


Figure 6-1: The iterative process: merging bottom-up and top-down approaches

behind), and provides some overall ideas on how to copy the process into different contexts (*To-do*). If you want to implement the process yourself, however, you should also consult our more detailed manual online, which includes further information for flow, facilitation and questions for the individual sessions.⁴

There are some general *To-do*'s with regard to procedural aspects that should be considered throughout the workshop; it is essential to:

- create an explorative atmosphere in the group, invoking openness, trust, curiosity and engagement;
- harvest, save and broker the knowledge produced in the groups, e.g. via flipcharts, notes, group presentations, joint plenary sessions;
- maintain a continuous feedback process that allows the organising team to adjust the workshop design "on the go";
- realize the art of active listening on behalf of the organising team members, thus not interfering too much in discussions.

PHASE 1 – EXPLORATION PHASE

Exploring the stakeholders' experiences with RRI

Description:

Phase 1 warms up the group, whose members do not necessarily know each other beforehand, and introduces the notion of RRI. In small groups, consisting of workshop participants and one organising team member, participants deliberate on and discuss RRI in relation to their own experiences practicing responsible research and innovation within their fields. In phase 1, it is crucial to create an open and confident atmosphere that encourages participants to share challenges, conflicts and barriers they experienced when implementing responsible research and innovation. The challenges, conflicts and barriers collected in this phase create the basis for discussions in the next phases of the workshop, and are continuously addressed and expanded throughout the workshop, as will be shown in the next three sections. In order to be able to do so, it is necessary to put down the collected experiences in writing, e.g. on a flipchart, cards, on (digital)

slides, etc., and have these notes present in the following phases. A rapporteur is chosen for each working group to present the findings in the following sessions, either to the plenary or the continuously changing members of the working groups.

Reasoning behind:

The workshop participants should be encouraged to share their ideas openly. They should not be pushed into one direction or another by presenting a definitive concept or idea. For Res-AGorA it is important to emphasize that the notion of RRI is in a state of flux and its development is open to change. Participants should be invited to explore together what RRI is all about while feeling welcome and safe in an atmosphere of mutual trust and understanding as well as being challenged in their positions.

To-do:

- Choose your area of focus for the workshop and find inspiration from our suggestions which broad-based stakeholders to involve (see Section 6.2 above on selecting stakeholders).
- You need to ensure that your process becomes seriously inclusive of diverse views and opinions. Thus, make sure the participants in your workshop are met with an open and encouraging approach.
- Be open about your own uncertainties and present them to the participants in a non-directive way. However, do not present and talk too much, but be ready to listen carefully and let the discussion unfold.
- Participants should present and discuss their experiences in the small working groups and then write down their findings, however, without the need to find consensus within or between the working groups. Make sure each group writes down its findings so as to encourage them to create ownership of the process.

PHASE 2 – PRESENTATION PHASE

Presenting dimensions and principles of RRI

Description:

The aim of phase 2 is to take a step back, leave the intense bottom-up group work for a while, and make way for an introduction to the various principles and dimensions of the Responsibility Navigator. First, the core objective, principles and dimensions of the Responsibility Navigator are presented in a short and effective visual way.

⁴ Please visit <http://responsibility-navigator.eu/co-construction-method/>.

Afterwards the participants share and discuss first impressions with each other seated in small groups, together with a member from the consortia. This phase is concluded by a plenary session together with the participants, summing up the first workshop day by sharing and deepening the insights gained regarding how their own experiences of RRI relate to the presented dimensions and principles.

Reasoning:

To recap, for Res-AGorA the objective of the workshops was to test findings of the project on the governance of RRI without imposing certain ideas and directions on the participants by immediately presenting them with the findings directly. Rather than imposing dimensions and principles of the Responsibility Navigator, it is essential to make sure that the participants' experiences are brought to the fore immediately (phase 1) and written down extensively. In such a way, the presentation of the Responsibility Navigator does not form the backdrop of the participants' experiences, but the other way around. At the same time, the participants should be provided with space for discussing and challenging the dimensions and principles, and get immediate reactions and criticisms off their chest.

The discussion about the overall idea of the Responsibility Navigator should be out in the open, without focussing on a broad and general discussion for too long. And last but not least, we wanted to give the participants the possibility to digest their impressions of the first day together with a meal and a good night's sleep, before beginning to work in-depth with the Responsibility Navigator in phase 3 the following day.

To-Do:

- Know your reasons for presenting the objectives, dimensions and principles of the Responsibility Navigator; however, make sure that the presentation of your objective is not done in a patronising way.
- Provide enough space for the participants to criticise and discuss their ideas directly with you. Air their immediate reactions to your objective, but do not linger on this level of discussion. Dive deeper into the discussion exploring different elements through discussing their feasibility and practicability in certain settings.

PHASE 3 – INVESTIGATION PHASE

Making effective use of The Responsibility Navigator's dimensions and principles

Description:

Phase 3 aims at deliberating on the usability and effectiveness of the Responsibility Navigator's dimensions and principles in-depth and with regard to the identified challenges, conflicts, and barriers to practicing RRI (day 1, phase 1). Therefore, the findings from day 1 are discussed in light of the various Responsibility Navigator dimensions and principles. The crucial take in this phase is to have the group rapporteurs from the previous day introduce thoughts and ideas on challenges, conflicts, and barriers to RRI to a different group of participants. This forms the basis for their thorough work with the Responsibility Navigator in phase 3. In this way, participants again communicate their experiences, open up and engage with experiences of other groups while discussing these in relation to the Responsibility Navigator.

Following this approach was the applicability of the dimensions and principles of the preliminary governance framework which were tested and further developed in the Res-AGorA workshops. This proved essential for the detection of gaps, advantages and shortcomings which further co-developed the framework which then became the Responsibility Navigator.

Reasoning:

By making a "de-tour" into the challenges, conflicts and barriers outlined in phase 1, the participants are inspired to include other perspectives than their own findings from the previous day, and they have to work on these with a new group of participants. The upcoming issues are then discussed through the filter and directions stemming from the Responsibility Navigator. This adds new perspectives on how to use the Navigator and at the same time develops the participants' own ideas on challenges, conflicts and barriers into a broadened, hopefully sharpened perspective.

To-Do:

- Make sure to mix up groups so that participants are encouraged to engage in discussions with a new set of people. Only one rapporteur should stay to explain observed findings on challenges, conflicts and barriers from phase 1 to a new group.

- Work with the Responsibility Navigator in the light of the participants' collected experiences in order to keep the discussion as tangible as possible.
- The participants in your workshop should not discuss the Responsibility Navigator dimension as such, but use the Responsibility Navigator dimensions to facilitate reflections on their own organisation / field in terms of RRI.
- Provide enough space for people to share their experiences and confusions gained during the workshop days. These experiences are valuable reflections and encourage the participants to sum up for themselves, what worked and what did not work. This develops their personal level of reflection on RRI.

PHASE 4 – CONCRETISATION PHASE

Effectively practicing RRI

Description:

The aim of phase 4 is to make RRI tangible and closely relate it to concrete practices and institutional settings. At this stage it is important to deliberate on how to implement RRI in specific fields and institutions. Participants should think about how to address the issue of RRI in their respective organisations and fields, what expertise and resources are necessary to support RRI, how RRI strategies could be developed and what they could look like, etc.

This final phase of the workshop also includes reflections on the participants' assessment of the workshop and their learning outcome. Questions could include: What did they learn? What did they find confusing? What could be done differently in the future? These considerations are not only helpful for the participants' own learning processes, but indeed for the organising team of the workshops that may choose to further pursue RRI.

Reasoning:

Even if the workshop in itself provides a thinking process for responsible research and innovation, which is challenging, because of the many views and opinions brought into the same space and processed, this last phase is crucial for provoking and providing concrete recommendations and ideas for changes and strategies when RRI is implemented directly in the organisation. It again reconnects the possibly more abstract deliberations from phases 2 and 3 with the more concrete descriptions from the first phase by co-constructing solutions for real problems identified by the different stakeholders.

To-do:

- Encourage the participants to be as specific and precise as possible in spelling out how to implement RRI.

6.4 Conclusion

The workshop design offers a coherent process aligned with a governance framework for RRI, the Responsibility Navigator. It offers a unique combination of flow, input, reflection, iteration and discussion, that per se, walks the talk of "making RRI happen". There are countless considerations underpinning this method and the carefully designed ways to approach stakeholders, to help them open up, to provide a serious space for reflection, and to bring forth invaluable knowledge into the enhancement and implementation process of RRI. The institutional settings in which it could be constructive to apply this design are characterized by actors who are directly concerned with R&I, such as funding institutions, universities, industry and companies conducting research, public administrations, international organisations and policy-makers concerned with developing research and innovation agendas. It is crucial to invite actors without research units and / or who are inactive in decision-making processes affecting R&I processes such as Civil Society Organisations (CSO), international organisations, and industry associations into the workshop process as important stakeholders, though tackling their core issues in this particular workshop process is of less relevance for them.

It is equally important to underline the importance of the timing of the reflective process. The workshop process should take place prior to the production or implementation of new strategies or even as part of revising old plans for R&I. The workshop design process is in essence an instrument for upstream reflection on research and innovation.