

EVALUATION REPORT 1

DELIVERABLE D8.2



JERRI – Joining Efforts for Responsible Research and Innovation

Deliverable D8.2

Evaluation report I

Project Name	Joining Efforts for Responsible Research and Innovation (JERRI)
Project No.	709747
Project Type	Coordination and Support Action
Project Duration	01.06.2016 – 31.05.2019 (36 months)
Project Coordinator	Benjamin Teufel, Fraunhofer ISI
Funded under	Horizon 2020, Call ISSI-5-2015
Work Package	WP8 Monitoring and Evaluation
Deliverable	D8.2 Evaluation report I
Dissemination Level	PU (Public)
Planned Date	Month 15 (August 2017)
Actual Submission	31.08.2017
Version	Draft version
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This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 709747.



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PURPOSE

JERRI Workpackage 8 (WP8) aims to monitor and evaluate the different steps of the JERRI project in order to assess the suitability and success of JERRI activities and to provide continuous formative feedback to improve the quality of the JERRI processes and the significance of their outcomes.

Deliverable 8.2 summarises the activities and results of JERRI WP8 “Monitoring and Evaluation” between June 2016 (project month 1) and July 2017 (project month 14). It

- outlines the methods used to assess the quality and success of the activities within this period;
- gives an overview of the examined JERRI workpackages and related activities within this period laying a focus on the process of RRI goal development in FhG (WP2) and TNO (WP3);
- describes the monitoring and evaluation results;
- and gives recommendations to improve the progress of the JERRI project.



EXECUTIVE SUMMARY

JERRI Deliverable 8.2 Evaluation report I is the first of three JERRI evaluation reports. It contains the formative evaluation of project activities and work packages conducted by Fraunhofer Gesellschaft (FhG) and the Netherlands Organisation for Applied Scientific Research (TNO) from the beginning of the JERRI project until July 2017. This includes a state of the art review of RRI in conceptual as well as concrete form at the two organisations as well as other European RTOs (WP1), the development of RRI goals at FhG (WP2) and TNO (WP3), multi-level upscaling and learning between the organisations and other stakeholders, and a dissemination and data management plan (WP10). The evaluation of the international mutual learning process (WP9) was moved to the next evaluation report due to the shifted schedule for completion of the first deliverable report.

For this purpose, several methods were applied. Document reviews were conducted in all of the work packages under evaluation, including first and foremost the (draft) deliverables, but also other working documents produced by the JERRI partners. In the goal development process of WP2 and WP3, members of the evaluation team participated in several workshops conducting participant observations and facilitated a participant survey in all workshops. Qualitative interviews were conducted with the workshop facilitators and the responsible RRI dimension leaders within the organisations. Additionally, informal exchanges with the project team via phone, Skype, e-mail or personally at meetings fed into the evaluation.

The assessment of WP1 showed a strong interlinkage of the two different parts of the work package, the development of a concept and typology of deep institutionalisation of RRI in RTOs on the one hand, and the assessment of the current state of RRI at FhG, TNO, as well as other European RTOs on the other hand, connecting a theoretical and empirical perspective and thus enhancing the quality and outcome of both parts.

The conducted survey, interviews, and participant observations regarding the goal development workshops of WP2 and WP3 yielded different perspectives from workshop participants, workshop organisers and facilitators, participating dimension leaders, as well as an outside observers (i.e. the evaluation team).

The workshops were assessed predominantly very positive by the participants concerning their design, content and results, as well as the openness and the



atmosphere of the discussions. Only minor uncertainties concerning their contribution and role in the overall goal development process existed with some participants, and for some of them the developed goals were not concrete enough. However, in the view of the majority of the participants, relevant stakeholders were missing in the composition of some of the workshops, wishing for more researchers from different disciplines, key decision makers, and external stakeholders.

These compositions were also owed to the fact that the recruitment of participants proved to be challenging with a lot of declined invitations especially amongst external stakeholders, as became clear in the interviews with the workshop organisers. Furthermore, the different approaches and designs of the workshops and participant recruitment rationales were linked to the different organisational hierarchies and processes at FhG and TNO.

The dimension leaders were mostly satisfied with the outcome of the workshops for their dimensions. For them it was important to find a common understanding of the dimension itself, to get diverse perspectives on their subject, to learn about new ideas and also to reflect on the future development of their dimensions in within the organisations. In their view a future vision could be developed.

The observation done by the evaluation team mostly supports the findings from the survey and the interviews, especially the positive and open atmosphere as well as the appropriateness of the workshop methods. They critically viewed the not always comprehensive consideration of RRI dimensions and the sometimes not entirely clear communication of workshop goals and further steps. However, it has to be considered that observation took place only in three of the workshops.

The dissemination activities undertaken in WP10 relate to the dissemination plan and go even beyond it. They contain press releases and tweets, presentations at several scientific conferences and the set-up of a JERRI project website.

Drawing from the results of the evaluation so far, three recommendations were formulated for the further process of the JERRI project:

- Further aligning the project activities with the developed RRI concept and considering the broad RRI perspective and comprehensive view of the key dimensions as far as possible.
- Continuing the effort to involve different types of stakeholders, also from outside the organisations and from civil society.

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- Making the workshop organisation more concise in expectation management of the participants, the explanation of purpose, goals and further steps, as well as also here considering the RRI dimensions comprehensively.



DELIVERABLE REPORT

1 Introduction

Since the start of the JERRI project in June 2016, the project partners have invested considerable effort and time to drive forth the various interlinked workpackages (WPs) and activities therein to promote the concept of RRI and appropriate practices in the Fraunhofer Gesellschaft (FhG) and the Netherlands Organisation for Applied Scientific Research (TNO). The JERRI project consortium has

- identified existing good practices with regards to RRI (WP1),
- conceptualised and utilised the RRI concept for the JERRI project (WP1),
- initiated and implemented the process of RRI goal development, both, at FhG (WP2) and TNO (WP3),
- taken first steps in an international mutual learning process (WP9),
- and organised multi-level learning and communication processes (WP10).

In parallel and connected to these efforts, JERRI WP8 has developed and implemented a monitoring and evaluation design in order to conduct a formative evaluation and improve the JERRI project in general and its various activities in particular. After finalising the monitoring and evaluation concept (see Frankus et al., 2016), the WP8 team used various methods to collect empirical data and analysed various internal paper and official deliverables in order to assess the success of various activities on a process level, comment on and give feedback with regards to the different (planned) steps and activities. Furthermore, the data can be used for the summative evaluation to assess the success of the project and its individual activities.

The report at hand outlines the process and results of the monitoring and evaluation: First, the overall objectives of WP8 and the evaluation design will be elaborated with a focus on measures taken from the beginning of the project until July 2017. Then, the empirical methods to collect and analyse relevant data used as well as the different types of data collected in the first fifteen months of the JERRI project will be presented.

Second, the report will present the different evaluation steps as well as the JERRI activities and documents assessed through them to date (July 2017).

Third, the results of the monitoring and evaluation activities will be presented and recommendations given on how to improve the further progress of the JERRI project in general and of individual activities in particular.

2 Objectives and design of WP8

JERRI WP8 monitors and evaluates the JERRI project implementing a formative and summative evaluation approach. From the project's start in June 2016 to July 2017, the JERRI consortium has already conducted several activities to pursue its goal of promoting the institutionalisation of RRI in the participating RTOs. Several activities were designed and implemented – for example stakeholder workshops to develop RRI goals for FhG and TNO – that will affect the next steps and the overall direction of the JERRI project.

In monitoring and evaluating, WP8 has focused its efforts on accompanying the core project team providing a critical and constructive outside view on proposed plans and procedures as well as on their actual implementation. Thus, the appropriateness, quality, and effectiveness of the JERRI activities should be improved. Through continuously monitoring and analysing the progress of the project and its various parts, it has also been possible to collect valuable data and insights which can be used as reference point for evaluating the implementation of following JERRI activities. Furthermore, the output of the various activities themselves can be subjected to a summative evaluation, which estimates the success of these individual steps by contrasting it with the initial plans as well as the principles of RRI. It is of interest, if and how the activities not only considered RRI as conceptualised by the project content wise (Randles, 2017), but also how the JERRI team managed it to align their own activities towards being more “responsible” as understood by the concept of RRI.

As outlined in D8.1 (Frankus et al., 2016, pp.14–15), the evaluation criteria used in the first project months have been:

- Correspondence of description of work/design documents and actual implementation of tasks and activities.
- Alignment of activities with basic principles of RRI given the available resources and limiting barriers.
- Inclusiveness with regards to the participation in engagement activities conducted by JERRI.
- Openness regarding the direction of the process, the issues raised, and results (open-ended, non-directive, unbiased).
- Quality of research methods and processes including the clarity and comprehensibility of deliverables, the declaration of basic assumptions, the empirical basis of results, etc.

In monitoring and evaluating the JERRI activities from June 2016 to July 2017, WP8 combined various approaches:

- WP8 reviewed preliminary versions of project deliverables and internal working documents (e.g. workshop designs) and gave feedback to the responsible JERRI project members in order to improve the final output and activities.
- WP8 team members participated in several JERRI meetings and workshops where they observed and analysed the processes and their outputs; the insights were shared with the project partners in a timely manner in order for them to be able to further adapt their proceeding.
- A survey of those participating in the JERRI RRI goal development workshops was conducted.
- Several interviews and discussions with those responsible for planning and implementing certain actions within JERRI were conducted and then analysed.

By linking these approaches it has been possible to obtain a multi-layered picture of the steps taken in JERRI so far:

- Through participant observation of the RRI goal development workshops, WP8 team members got first hand insights into the actual implementation of JERRI activities and experienced their positive as well as negative aspects. The awareness of the origin of the different aspects of the final output (then present as Deliverable) also helps to assess if and how the stakeholders' perspectives have been considered and transferred into the final results.
- By asking the participating stakeholders for their opinion anonymously, it was possible to hear about their expectations as well as their satisfaction with the workshop design and implementation.
- By talking to the other project members and those responsible for implementing certain tasks, it was possible to collect background information on the rationale and ideas behind their design and specific requirements that affect their realisation. The WP8 team developed a better understanding, both of the direction the different strands of JERRI are heading towards as well as how these are embedded in particular institutional and organisational contexts.

In the following section, the empirical methods applied in line with these approaches will be described more in-depth before outlining the type and quality of data gathered.

2.1 Methods

JERRI WP8 uses a variety of methods to collect and analyse data. In the first 13 months of the project, documents produced by the other JERRI project members were reviewed, a survey of the participants of the RRI goal setting workshops in FhG and TNO conducted, participants observations made at several of these workshops, and qualitative interviews with those JERRI members responsible for certain RRI dimension or for organising the workshops held. Furthermore, the WP8 team has been in close contact by email, via voice-over-ip, or in face-to-face meetings with the other JERRI consortium members.

2.1.1. Review of documents

The JERRI project and its different WPs produce different types of documents which contain theoretical deliberations, outlines and designs of JERRI activities to be conducted, and/or the results of these activities. From the onset of the project, WP8 has reviewed various types of draft working documents and has been giving feedback to improve the quality of their content and the appropriateness of the planned activities. Furthermore, to keep track of the conceptual framework, the practical approaches, and the overall direction of the JERRI project. The overview on as well as the detail knowledge of the planned steps, their theoretical embedding, and the time schedule are critical, since the JERRI project and its activities will, among others, be measured by its own “promises” as written down in these documents.

Overall, six documents have been reviewed until July 2017, some of them as draft versions before submittal. In these cases, the JERRI WP8 team sent feedback to the authors in time to contribute to the final output (see Table 1 for overview).

Table 1 Reviewed JERRI documents between June 2018 and July 2017

Organisation	WP	Document	Feedback on draft version	Submission Date (Planned)
FhG-ISI, TNO	WP10	Deliverable 10.1 Final Dissemination Plan	-	30.06.2016 (06/2016)
FhG-ISI, TNO	WP1	Deliverable 1.1 Synthesis on existing good RRI practices (final).	-	29.10.2016 (09/2016)
MMU	WP1	Deliverable 1.2 Deepening 'Deep Institutionalisation' (final).	-	12.01.2017 (11/2016)
FhG-ISI	WP2	Design for stakeholder identification (internal document)	12.01.2017	-
FhG-ISI	WP2	Deliverable 2.1 Fraunhofer concept on organizational RRI goal development (draft).	16.02.2017	24.02.2017 (02/2017)
TNO	WP3	Deliverable 3.1 TNO concept on organizational RRI goal development: 'How we set goals' (draft).	06.02.2017	24.02.2017 (02/2017)
FhG-ISI	WP2	Deliverable 2.2 Fraunhofer description on specified RRI goals (draft).	07.2017	31.07.2017 (07/2017)
TNO	WP3	Deliverable 3.2 Description of specified RRI goals at TNO (draft).	10.07.2017	31.07.2017 (07/2017)
FhG-ISI	WP9	Deliverable 9.1 Case study part 1: RRI goals and practices	-	not submitted yet (12/2016)

The formative evaluation of and feedback on the documents focused on two main aspects:

- On the one hand, WP8 assessed the documents with regards to the clarity and comprehensiveness in order to make them more easily understandable to the outside reader. Thereby, the authors of these documents were from time to time requested to specify certain aspects and to bring more and better arguments for their design choices.
- On the other hand, in the review of the conceptual papers (D2.1 and D3.1) the main focus was on assessing the appropriateness of the outlined design for the goal development processes, i.e. the stakeholder workshops in FhG and TNO.



2.1.2. Survey of RRI goal setting workshop participants

Besides analysing documents drafted by the other JERRI project members, WP8 also produced primary data. In order to directly learn about the opinion of the stakeholders participating in the RRI goal setting workshop, the WP8 team developed a short survey and asked the participants of the workshops to complete it. Compared to face-to-face interviews, the survey had several advantages:

- It was less time consuming and resource intensive and thus offered the possibility to inquire the perspective of a larger number of people involved in the RRI goals development process at FhG and TNO.
- Answering the questionnaire only took several minutes and could be done as part of the workshop; thus, the respondents had lower expenses and the willingness to cooperate might have been higher than in more extensive and time-consuming face-to-face interviews.
- By asking the participating stakeholders for their opinion anonymously, the participants might have been more open in criticising and raising negative points regarding the implementation and results of the workshops.

The questionnaire focussed on the expectations of participants regarding the workshop and how these expectations were met, on positive and negative aspects of the workshop organisation and implementation, on how the stakeholders were involved in the workshops and how the workshop dealt with the respective RRI dimension.

The questionnaire comprised of 14 ordinal scale questions (1: Yes, 2: to some extent, 3: No), nine open ended questions (in most cases) following up on previously touched topics, and one question each on gender and the relationship to the organisation, i.e. if the respondent was an external or internal stakeholder¹. The full questionnaire can be found at the end of this document (Annex II: Survey of Workshop Participants Questionnaire).

The questionnaires were distributed as “offline” hardcopy and collected either by WP8 team members or organisers of the RRI goal setting workshops. The data was entered

¹ Internal stakeholders: employee/member of the RTO which the workshop conducted; external stakeholders: member of an organisation related to the topic or the RTO, but not a member/employee.



manually into IBM SPSS Statistics 24[®] and analyses by the IHS team using descriptive statistics. Answers to open questions were extracted from the data and interpreted².

Table 2 Survey overview: number of completed questionnaires, distribution of gender, return rate

	FhG	TNO	Total
Male	22	2	24
Female	30	5	35
Other	1	0	1
Missing	2	1	3
Total	55	8	63
Return rate	87,3%	47,06%	

Overall, 63 completed questionnaires were received, 55 from participants in workshops conducted by FhG and 8 from participants in workshops conducted by TNO. In TNO’s workshop on gender equality, it was not possible to distribute the questionnaire. This imbalance has several reasons:

- The workshops at TNO had fewer participants than the workshop conducted by FhG. While the goal setting workshops at TNO had between four and eight participants and in sum around 30, the workshops conducted at FhG brought together between seven and fifteen internal and external stakeholders, in sum 63 participants. However, apart from this difference in total numbers, at FhG a higher share of participants completed the questionnaire.
- The workshops at TNO were designed in a different way than in FhG: while at FhG the workshops were implemented as full day events, the workshops at TNO were shorter meetings of about two hours (further information on the differences in the workshop design see 3.2 & 3.3). Thus, to fill in a questionnaire after a short, more commonplace meeting might not be assessed

² Due to the low number of cases and answers to open questions it was not necessary or expedient to categorise and quantify the free answers to these open questions.

as pressing or relevant by the participants at TNO than by workshop participants in the FhG workshops, who often had to travel to the location and spend the whole day in the workshop.

- For the WP8 team, it was only possible to participate in workshops conducted by FhG as part of WP2 (see 2.1.3); in these workshops, the WP8 team members explained the aim and importance of the evaluation, distributed, and collected the questionnaires, resulting in a very high response rate of up to 100% in some workshops.

More women (n=35) than men (n=24) participated in the workshops and filled in the questionnaire; one participant identified itself as not matching male or female gender, three refused to give any information on gender.

2.1.3. Participant observation

Participant observation is a method which has been used in the social sciences for decades now, but has its origin in anthropology and ethnology. In ethnographic studies, participant observation is a main means for gaining an insider perspective on societal phenomena and the social construction of reality which cannot be obtained through the analysis of interviews. Instead of interpreting a narration of an experience (interview), which might leave out or reconfigures certain aspects, the researchers can themselves be present in these situations (Lüders, 2004). Thus, the researcher is able to develop a better understanding of a certain situation, a social network, or a social phenomenon or to collect data not collectable by other means. Thereby, it can complement other types of data collected, e.g. through interviews (Kawulich, 2005).

In the case of JERRI, participant observation allowed the WP8 team to co-experience the social situations and events of the RRI goal development stakeholder workshops. It was possible to observe how the workshop design was put into action, how discussions and development processes unfolded, and how the social dynamics within the participants' group worked and affected the results of the workshops. Furthermore, through attending the workshops it was also possible to speak to other participants in informal settings (e.g. over lunch) and to directly hand out and collect questionnaires for the participants' survey.

In WP8, the method of participant observation has particularly been used as a means to collect qualitative data on the co-constructive development of RRI goals in FhG (WP2), but also of two consortium meetings and a mutual-learning workshop (WP9).

The JERRI WP8 team took part in three of five RRI goal development workshops at FhG (WP2); due to data protection and corporate secret issues it was not possible to participate in the RRI goal development workshops at TNO (WP3). Table 3 gives an overview of workshops and meetings attended and observed by one or more WP8 researchers.

Table 3 Overview of participant observations

Date	Location	Type of meeting	Topic
29.09.2016	Karlsruhe	Project meeting	State of the art meeting and formal kick-off
15.12.2016	Munich	WP9 Workshop	Mutual learning
15.03.2017	Munich	WP2 Workshop	Science Education at FhG
23.03.2017	Stuttgart	WP2 Workshop	Open Science in FhG: Open Access for publications and research data
27.04.2017	Stuttgart	WP2 Workshop	Gender, Diversity and Equity at FhG
10.05.2017	Den Haag	Project meeting	1 st JERRI Advisory Board meeting

In the workshops, the WP8 team members took an “observer as participant” (Kawulich, 2013, p. 9) role³. This means, the other stakeholder participants were aware that the researcher participated in order to collect data and not to be actively involved in the different workshop activities. In the beginning of each workshop, this role was made clear: the WP8 researchers were introduced by the workshop organiser and they introduced themselves as part of the monitoring and evaluation team. They underlined, that they are not part of the “core” JERRI team involved in the development and implementation of RRI activities in FhG and TNO, but that they want to 1) improve the activities and success of the JERRI project by bringing in a critical outsider perspective and to 2) assess the output and outcome of the project. The WP8 researchers then were present throughout the workshop, but did not actively contribute to it, but rather

³ Other than in observation roles, were, e.g., the researcher really becomes a close member of a group and participates in all different actions („complete participant“) or the researcher is hidden from the observed group or the individuals are not aware that they are being observed („complete observer“) (Kawulich, p. 8–9).

observed how the other participants engaged with each other and took part in the different activities. If participants agreed, they joined small group sessions (discussions, elaborations of presentations) and closely listened to the deliberations of the participants. Sometimes in breaks, sometimes in-between certain activities, the WP8 researchers took notes.

The participant observation was guided by several central questions that also structured the so-called observation protocol. Besides information on the workshop conditions (e.g. number and gender of participants, location, etc.), this protocol comprises several guiding questions on the workshop agenda and goals, the methods and materials used, the quality of discussion, and on the WP8 researchers' own position and role as well as their influence in the workshop (see Table 7 in Annex I). Besides that, the protocol left room for own observations and comments.

The focus of the observation protocol was manifold:

- It was important to get an idea of the conditions that framed the deliberations and discussions of the participants. Especially, if and how the participants could freely voice their own opinion and present their perspectives without any barriers, such as a lack of time and space, methods closing down discussions on certain issues, or moderation, and without being pushed in one or another direction.
- One aspect closely linked to this first interest was if and how the participants understood the purpose of the workshop and the project as well as of individual activities.
- The protocol comprises questions to check whether or not the workshops were implemented according to the workshop design and in an appropriate manner.
- The presence of the WP8 team members as observers should be reflected and if and how they might have affected the progress and content of deliberation in the workshop.

The workshop observation protocols were collected and analysed together in a WP8 working meeting. The insights from the observation protocols were compared with the findings from interpreting the other types of data (survey, qualitative interviews). The findings and recommendations from the first workshops were shared with the organisers in order for them to be able to improve the workshop design and implementation.



2.1.4. Qualitative interviews with JERRI project members

Interviews are a basic method of collecting data in qualitative empirical research. They allow the researcher to investigate the experiences, motivations, understandings, values, etc. of cooperative actors (see e.g. Hopf, 2004). In evaluation research, different types of qualitative interviews are used to “enter into the other person’s perspective” (Patton 2015, p. 426), to investigate things that cannot be observed because they are not visible, such as “feelings, thoughts, and intentions” (p. 426), happened in the past, or in non-accessible situations. Thereby, different styles of qualitative interviewing can be used, from very open “conversational” to “standardized open-ended” (Patton 2015, p. 437) interviews. Despite differences regarding the way of asking questions, they all have in common to use questions that are open-ended, that do not prescribe a set of answers or direct the interviewed in one direction or another. Thus, the interviewed have the opportunity report about their experiences using their own words and report on those aspects of a topic they deem relevant (Patton 2015, p. 442).

In JERRI, the qualitative interviews aimed to bring forth information about the progress and perceived success of different activities. They shed light on the perspective of those responsible for certain JERRI tasks and how they planned and then conducted an activity, what expectations they had and how these were met or disappointed, how they dealt with arising challenges, how the activities contributed to the goals of the JERRI project, etc. Thus, it was possible to not only evaluate if they assess their activities as successful, but also to compare their expectations and assessment with those of other actors involved or affected by the activity. Furthermore, it was possible to gain background information on the different steps and activities in order to better understand their design and appearance and the rationale behind those. In analysing the degree of success or failure of the implementation and outcomes of the various JERRI activities, it was important to understand the given resources available and limitations, as well as different strategies to deal with them in in order to deliver a fair and balanced assessment.

In the first year of the JERRI project, semi-structured qualitative interviews have been used to collect the expectations, plans, and experiences of those responsible for designing and implementing different workpackages and tasks of the JERRI project. Thereby, the main focus was on the RRI goal development process, both, in FhG (WP2) and TNO (WP3), namely, the workshops conducted for this purpose. WP8

applies semi-structured qualitative interviews using an interview guide with mostly open-ended questions (Patton 2015, p. 439). Thus, it was possible to talk about topics relevant for monitoring and evaluating the JERRI project and to receive comparable insights from different interview partners without limiting their opportunity to raise new issues and point to topics not yet considered by the WP8 team.

The WP8 team developed an interview guideline which was slightly adjusted depending on whether the interviewee was a RRI dimension leader or the organiser of a workshop. The questions were formulated as neutral, clear, and only dealt with one topic at a time. Most of the questions were open-ended; the few which were not had an open-ended additional question depending on the answer to the closed question before (for the full interview guidelines see Table 8 in Annex III).

The interviews were conducted either face-to-face (e.g. before or after an internal JERRI consortium meeting), via voice-over-IP solution or landline. They were audio-recorded after gaining permission by the interview partners and the audio recordings have been stored securely ever since. Due to the small number of interviews and the clear division of labour in the JERRI project (responsibility for certain work packages, tasks, RRI dimensions) and the small number of interviewees, the anonymity could not be guaranteed in general; recognition of individuals by members of FhG or TNO and/or of the JERRI consortium might be possible. However, to preserve anonymity in the best possible way, the analysis conducted operates on a more aggregated level (e.g., dealing with the workshops in general and not highlighting particular workshops) and the transcripts and analysis sheets will not be made public now or in the future. Overall, eight interviews between 30 and 45 minutes with ten interview partners were conducted between December 2016 and July 2017. Four interviews were conducted with members of FhG, most of them on WP2, but also on WP9 and the overall development of the project. Four interviews were conducted with members of TNO responsible for activities in WP3.

By talking to the other project members and those responsible for implementing certain tasks, it was possible to collect background information on the rationale and ideas behind their design and specific requirements that affect their realisation. The WP8 team developed a better understanding, both of the direction the different strands of JERRI are heading towards as well as how these are embedded in particular institutional and organisational contexts.

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In order to analyse the interviews in an efficient manner, an analysis template following the main focus points of the interviews was developed and then applied to each interview. The audio recordings were listened to and the information extracted and organized along the template; key citations were transcribed verbatim. Then, in a team analysis and interpretation session, the findings of the different interviews were compared and similarities as well as varieties identified and their significance interpreted.

3 Formative evaluation of JERRI (June 2016–July 2017)

Between June 2016 and July 2017, the JERRI project designed, conducted, and completed various activities that have been subjected to monitoring and formative evaluation. While in the previous chapter the methods applied for this purpose were described and an overview of the evaluated activities and outputs was given, the coming sections will outline how the formative evaluation and monitoring were put into practice, how challenges were dealt with, and what the formative evaluation brought forth.

3.1 JERRI WP1 State of the art

WP1 State of the art was the first step undertaken in the JERRI project and laid the groundwork for the following work packages. It set out to identify existing good RRI practises within and outside of Europe, assessed the state of the art of (de facto) RRI within the project organisations FhG and TNO, as well as elaborated on the concept and typology of deep institutionalisation of RRI/rri in RTOs. Thus, it established a common understanding of the idea of RRI for the project consortium, on which will be built during the JERRI project.

In Task 1.1, the state of the art of RRI at the JERRI partner organisations FhG and TNO, as well as at other European and international RTOs, was reviewed. For that purpose, existing good practices were identified, analysed, and synthesised in a good practice report D1.1. In Task 1.2, consortium partner Manchester Metropolitan University (MMU) elaborated on the concept of “deep institutionalisation” of RRI and developed a typology to be used in analysis and contrast of the process, especially adapting it for application in RTOs.

Owed to the fact that the IHS was itself setting up and writing down their evaluation concept in the first months of the project, and that the draft deliverables of D1.1 and D1.2 were distributed short-term before the submission date, IHS did not give formative feedback but decided to conduct the evaluation of WP1 in retrospect in the first evaluation report D8.2.

The evaluation of WP1 was thus done via desk research and (informal) communication with project partners. The main evaluation materials are the two deliverables D1.1 (Teufel at al., 2016) and D1.2 (Randles 2017), supported by communication between the project partners, presentations and documentations from the JERRI State of the art



meeting held on 29 September 2016 in Karlsruhe, as well as documents exchanged between organisations such as work and coordination plans of the two tasks, conceptual elements of an analytical framework, or the draft interview guidelines for the state of the art review. Finalised versions of some of those documents can also be found in the annexes of the deliverables.

3.1.1. Assessment of D1.1 Synthesis on existing RRI practices

In Deliverable 1.1, a synthesis of the state of the art of good RRI practices in the two participating organisations and further European and international RTOs was conducted by FhG and TNO respectively. This was done employing different methods: desk research, qualitative interviews and a group work at the JERRI State of the art meeting. The analysis was done along conceptual categories (Teufel et al., 2016).

In two separate chapters, the state of the art at Fraunhofer and TNO was described respectively, first giving basic facts and mission statements of the organisations, then describing RRI and the state of the art of RRI-related practices at the two RTOs, and finally specifically describing the five key dimensions at the organisations.

In order to get insight into seven other European RTOs nine interviews with representatives were conducted and analysed. A comparison of the different RRI-related rationales and practices concludes the report.

The submission date of D1.1 has been pushed back in order to include the contributions and discussions from the State of the art meeting into the deliverable. On 18 October, the IHS received a preliminary structure of the report by the project lead, including the input by TNO, with the plan to have a final draft report on 24 October. Final submission was planned for 28 October. Due to the short notice of the draft version, IHS could not review the draft but instead reviewed the submitted deliverable.

IHS did review and give feedback and their expertise on the interview guidelines for the “State of the art on existing practices and attitudes in the field of Responsible Research and Innovation” interviews that took place in July to October 2016, as well as reviewed the interviewee selection process.



3.1.2. Assessment of D1.2 Advanced concept on deep institutionalisation of RRI

In deliverable 2.1, conducted by MMU, a concept and typology for analysing and contrasting the institutionalisation of RRI and de-facto RRI in RTOs was developed. Apart from theoretical background of organisational institutionalism, the proposed concept of deep institutionalisation (Randles et al., 2014) built upon prior research and literature, as well as on different theoretical concepts. The concept of deep institutionalisation was especially adapted for RTOs.

The content of 2.1 is very specific as developed by experts on the field from MMU, therefore IHS did not intervene or assess the quality of the substance, but will use the concept themselves in the evaluation of JERRI workpackages. The work done in D2.1 is the conceptual groundwork for the whole JERRI project. Other work packages and activities have to be linked to that and will also be assessed in the evaluation for their consideration and feedback to the developed concept. Interlinkage of Tasks 1.1 and 1.2

In order to coordinate the two tasks of the work package, a plan has been sketched on how the two parts of WP1 are interlinked and where they can/have to speak to each other. The conceptualisation and the work in the state of the art analysis, especially concerning the interviews conducted, were mutually receptive and coordinated. For example, the interview guidelines were worked out according to an analytical framework provided by MMU, which was based on their conceptual work in task 1.1. The analytical framework was tested with five pilot interviews and then adjusted accordingly (see e-mail exchange in June 2016). This framework was also employed in the interpretation of the interviews. Exchange and coordination took place via email and documents, as well as on the phone. This exchange early on in the project and strong interlinkage of the conceptual and empirical work in WP1 was very important and the whole project can build on and profit from this.

3.2 JERRI WP2: Development of RRI goals at FhG

WP2 – Development of RRI goals at FhG – was dedicated to the stakeholder-based development of the FhG organisation-specific goals that guide the development and institutionalisation of RRI at FhG. This was done through a participatory approach involving relevant FhG internal and external stakeholders in one workshop for each of the five RRI key dimensions (Ethics, Gender Equality and Diversity, Open Access, Societal Engagement and Science Education). For these so called Goal Setting



Workshops a concept was developed between December 2016 and January 2017 that describes workshop methods for a stakeholder-based identification of demands, vision development and goal formulation. The concept is described in the Deliverable 2.1 - Concept on organizational RRI goal development (Teufel & Lindner, 2017), in which peculiarities of each RRI dimension are taken into account.

According to this concept, a one-day Goal Setting Workshop for each RRI dimension was carried out between March and May 2017. The conversation was structured by a Foresight visioning methodology ensuring long term perspective and alignment of diverse viewpoints. The so developed goals derived from the visions were specified on an operational level. Also the international good practices uncovered in WP9 served as inspiration and orientation. In each key dimension, the workshop was prepared and carried out by the project manager together with at least one person in charge for the dimension within FhG, who will also be responsible for the implementation of the action plan in WP4.

The so developed and defined RRI goals are described in Deliverable 2.2 - Description on specific RRI goals at Fraunhofer (Teufel & Röss, 2017).

In the course of WP8 the monitoring and evaluation team was looking at which goals were developed for FhG and how this happened. The concept for organisational RRI goal development was carefully considered and was compared to the outcome of the goal development. Not only the different stakeholder groups of the workshops were analysed (FhG internal and external stakeholders), but also the openness of the debate was assessed. Furthermore, the process and results of the workshops were evaluated as well as the description of specified RRI goals at FhG.

Therefore the following was carried out:

3.2.1. Assessment of the FhG concept for goal development (D2.1) – see also chapter 2.1.1

The evaluation team assessed the draft concept and suggested to define the term stakeholder, to ask contacted stakeholder to recommend further important organisations and/or departments or persons inside and outside FhG (snowball effect), to describe institutional limitations and ways how to deal with them and to clarify the relationship between the short-term goals, long-term goals and the JERRI visions.

With regard to the practical implementation of the Goal setting Workshops in FhG the IHS suggested to illustrate the single steps planned in the workshops.

This feedback was considered in the final version of the Deliverable, which was compared with the evaluation results of Goal Setting Workshops at FhG:

3.2.2. Assessment of the Goal Setting Workshops

For evaluating the Goal Setting Workshops at FhG, the following four different approaches were applied:

- Survey of workshop participants (see also chapter 2.1.2): Feedback of the workshop participants was gathered with the help of paper based questionnaires (see Annex II) to get an impression how they assessed the workshops. At FhG 52 questionnaires were returned. Results were analysed and edited with the help of the statistic program SPSS.
- Participant observation (see also chapter 2.1.3.): Team members of WP8 participated in in three Goal Setting Workshops: Science Education goal Setting Workshop in Munich (15.03.2017), Open Access Goal Setting Workshop in Stuttgart (23.03.2017) and Gender Goal Setting Workshop in Stuttgart (27.04.2017), where observations according to the template Annex I were noted.
- Interview with the workshop organizer (see also chapter 2.1.4): Directly after the Open Access Goal Setting Workshop an interview with the workshop organizer was conducted along the questions in the respective interview guideline (see Annex III) to get information on how he assessed the workshops from the organizational point of view. The data were analysed in the style of the content analysis.
- Interviews with the dimension leaders (see also chapter 2.1.4): Three telephone interviews were conducted with dimension leaders of Gender Equality and Diversity, Ethics and Societal Engagement along the questions in the respective interview guideline (see Annex III). The dimension leader from Science Education refused to make an interview, contact with the Open Access dimension leader could not be established by the evaluation team. The interviews aimed at gaining insights on issues such as expectations, achievements, benefits for the dimension leaders for the future, etc.. The data were analysed in the style of the content analysis.

Results of the assessment of the Goal Setting Workshops at FhG are described in detailed in chapter 4.

3.2.3. Assessment of the Description on specific RRI goals at Fraunhofer (D2.2) – see also chapter 2.1.1

Regarding the structure of the deliverable 2.2 – Description on specific RRI goals at Fraunhofer (Teufel & Röss, 2017) the IHS team suggested to describe first the process of the Goal Setting Workshops and then to deal with the practice experiences made in each dimension workshop. Further on it was recommended to precisely illustrate how the selection of the JERRI pilot activities took place. In order to avoid too much redundancy between Deliverable 2.2 and Deliverable 10.2 (Lessons learned for goal development), FHG together with TNO (concerns D3.3 - - Description on specific RRI goals at TNO (Nauta et al., 2017b)) decided to keep the process description in D2.2 short and reflected it more deeply in D10.2.

The evaluation team also proposed to characterise the attending stakeholders in the workshops.

Comparing the concept of the Goal Setting Workshops (D2.1) with the practice of the RRI goal setting (D2.2) it becomes clear, that the planned activities have been carried out as planned.

3.3 JERRI WP3: Development of RRI goals at TNO

WP3 – Development of RRI goals at TNO – similar to WP2 (see chapter 3.2), aimed at developing RRI organisation-specific goals at TNO. Although four out of five workshops for the RRI key dimensions were carried out so far (the workshop for Open Access was postponed due to TNO internal issues), the process of goal formulation at TNO differed from FhG as TNO has a relatively higher degree of centralization. This but also the fact that TNO has different research and development disciplines, and not least different levels of RRI institutionalization in each RRI dimension was addressed in the deliverable D3.1 - Concept on organizational RRI goal development: 'How we set goals' (Nauta et al., 2017a). Moreover a TNO internal reorganization process started at the beginning of the JERRI project that influenced also the RRI goal developing process.



Similar to FhG, the four RRI goal setting workshops took place between April and May 2017 at TNO. Due to the different structure of the relevant organisation units, staff and stakeholder system in each RRI key dimension, TNO chose another methodological approach as FhG: Workshop participants received not only a power point of the JERRI project and available budget for piloting activities in advanced, but also a pre-selection of topics related to the dimension. This way of proceeding aimed at saving time during the workshops. In the workshops participants were invited to discuss these topics and to develop new.

These RRI goals are described in Deliverable 3.2 - Description on specific RRI goals at TNO (Nauta et al., 2017b).

Like for FhG, the JERRI evaluation team inquired into the process of RRI goal development at TNO by comparing its concept (D3.1), practice and outcome (D3.2). Therefore the IHS team carried out the following steps:

3.3.1. Assessment of the TNO concept for goal development (D3.1) – see also chapter 2.1.1

The WP8 team evaluated the draft concept while considering the methodology of the stakeholder identification and of the goal development process at TNO. The IHS suggested to make a clear distinction between ongoing/past TNO goal setting activities and planned JERRI goal setting activities as well as to connect explicitly the JERRI project and its activities successfully to the current organizational structure. The approach of inviting stakeholders that are affected by the work of TNO but that would normally not be involved in strategy discussions and goal settings was valued very positive because it gives voice to societal actors otherwise not included. Nevertheless it was recommended by the IHS to make the stakeholder identification process more explicit.

Related to the design of the Goal Setting Workshops it was proposed to elaborate it a bit more comprehensively and in-depth. However, the concept of RRI encompasses a broader definition of ethics including, e.g., the alignment of R&I developments with societal values and norms and an anticipatory reflection on the possible outcomes of R&I developments. It was further recommends detailing a strategy on how to bring in these issues into the Goal Setting Workshops, how to open up the debates of the internal and external stakeholders in order to discuss the goals using a broader perspective.



This feedback was considered in the final version of D3.1.

3.3.2. Assessment of the goal setting workshops

For assessing the goal setting workshops at TNO, the JERRI evaluation team applied the following three different approaches:

- As for FhG, a survey for the workshop participants was developed (see also chapter 2.1.2): Feedback was gathered with the help of paper based questionnaires (see Annex II) to get an impression on how they assessed the workshops. At TNO 7 questionnaires were returned. Results were analysed and edited with the help of the statistic program SPSS.
- Interview with the workshop organizer (see also chapter 2.1.4): In the course of an Advisory Board meeting in Den Haag, a member of the WP8 team conducted an interview with the workshop organizer together along the questions in the respective interview guideline (see Annex III). The aim of this interview was to get information on how the workshops were assessed by the workshop organiser. The data were analysed in the style of the content analysis.
- Interviews with the dimension leaders (see also chapter 2.1.4): Three telephone interview and one face-to-face interview were conducted with TNO dimension leaders of Gender, Ethics, Science Education and Societal Engagement along the questions in the respective interview guideline (see Annex III): These interviews aimed at gaining insights on the dimension leaders assessed the workshops, their expectations and corresponding achievements as well as benefits for the dimension leaders for the future. The data were analysed in the style of the content analysis.

Due to language barriers the evaluation team did not participate in the goal setting workshops.

Results of the assessment of the goal setting workshops at TNO are described in details in chapter 4.



3.3.3. Assessment of the Description on specific RRI goals at TNO (D3.2) – see also chapter 2.1.1

The IHS team recommended TNO to explain certain TNO related terms or organizational aspects if they are relevant for the reader to understand coherences in the text (e.g. the “Mayor Game”) in Deliverable 3.2 - Description on specific RRI goals at TNO (Nauta et al., 2017b). Further on it was suggested to summarise the development process including its purpose and goals, steps taken, methods applied, etc. Also it was recommended to explain, why the chosen Goal Setting approach is appropriate for TNO. Related to the RRI goals the evaluation team advised including some statements on the expected or desired mid-term and long-term effects of the individual activities. In some dimension (e.g. Societal Engagement or Science Education) the societal benefits that will arise out of the planned activities are not clear. It was recommended to explain why these activities are good for TNO and the wider public.

3.4 JERRI WP9: International mutual learning process

In JERRI WP9, mutual institutional learning concerning RRI-related practices between the project organisations FhG and TNO, and two selected international organisation – the Chinese Academy of Sciences (CAS) and the Arizona State University (ASU) – is envisaged. For that purpose, in-depth case studies have been conducted by FhG, involving interviews, desk research and mutual learning workshops.

IHS participated in the first mutual learning workshop in Munich on 15 December 2016 and on this occasion did an interview with the two case study conductors. Since submission of the first deliverable D9.1 was moved back and this deliverable was not available at a feasible time for consideration in this report, it was decided to move the first review of WP9 to the second evaluation report in June 2018, apart from formatively giving feedback during the progress of the WP if necessary.

3.5 JERRI WP10: Multi-level learning and upscaling

JERRI WP10 aims to promote mutual-learning between FhG, TNO, and relate stakeholders with regards to the activities and results of JERRI’s WP1 to WP7. Thereby, the RRI goal development processes in FhG (WP2) and TNO (WP3) are analytically compared and good practices identified for similar development processes

in RTOs. Furthermore, a manual for organisational transformation in RTOs towards RRI will be developed in parallel to WP4 to WP7 (Deliverable 10.3, due in month 34). WP10 also comprises dissemination and exploitation activities, including participation in scientific conferences, elaboration of policy briefs, peer-reviewed open access journal articles, etc. The JERRI project proposal highlights open access to project deliverables and publications under CC-BY or CC-0 licence as intention of the JERRI project⁴.

Until July 2017 WP10 took the first steps aimed to develop the concepts for successfully achieving its objectives:

- Deliverable D10.1 outlines the JERRI dissemination plan. It adapts the dissemination plan from the description of work to the actual timing of the JERRI project.
- Deliverable D10.5 describes the JERRI data management plan.

These deliverables were reviewed by the IHS team, but due to the nature and elaboration of these deliverables, no feedback was necessary.⁵

The process of multi-level learning was started through continuous exchange between FhG and TNO and the analysis of the RRI goal development processes within these organisations. Deliverable D10.2 describes the lessons learned for goal development and is the result of a comparative analysis of the RRI goal development processes conducted in FhG and TNO. It gives procedural good practices for initiating the institutionalisation of RRI in RTOs. Due to its submission date (month 14, July 2017) close to that of the report at hand (month 15, August 2017), it was not possible to review it in-depth. Thus, the evaluation of D10.2 and with it the will be part of the next monitoring and evaluation report due in month 25 (June 2018).

Thus, the monitoring and evaluation of JERRI WP10 in the given timeframe focused on first dissemination activities, first, collecting the dissemination activities, and, second, assessing their appropriateness.

⁴ Considering questions of anonymity, data protection, business secrets, etc., especially regarding results of monitoring and evaluation activities in WP8.

⁵ The deliverables only concretises and refines activities already outlined in the JERRI description of action, but do not add anything substantially.

4 Main evaluation results

This chapter will summarise the main evaluation findings with regards to the different key activities and processes of the JERRI project and give recommendations to further improve the project. First, the evaluation results regarding the state of the art and conceptualisation of RRI in JERRI (WP1) will be outlined before turning to the RRI goal development process (WP2 and WP3). There, the findings from assessing both, the RRI goal development at FhG and TNO, will be described, outlining and interpreting different perspectives on the goal setting workshops. Finally, the JERRI dissemination activities will be assessed (WP10).

4.1 State of the art and conceptualisation of RRI (WP1)

A comprehensive literature review was conducted as starting point in both parts of the work package, the inquiry of the state of the art of RRI practices in FhG and TNO, as well as the concept and typology development of deep institutionalisation, profoundly basing it on prior research and theory. Different existing understandings and concepts of RRI were elaborated on and incorporated into the concept, which is important to consider as a background to the five RRI key dimensions the JERRI project focuses on, relating to the conceptualisation of RRI by the EC at the time of the applications outlined in the JERRI proposal.

The two parts of the work package (D1.1 Synthesis on existing RRI practices and D1.2 Advanced concept on deep institutionalisation of RRI) were strongly interlinked, which enhanced its quality and outcome. The interview guidelines used in the different organisations for the state of the art review were conceptually underpinned by work done by MMU in task 1.2, and by several theoretical concepts resulting in a rich and well-informed question catalogue and structuring the interviews. The analytical framework by MMU was in turn tested in these interviews. The results of the interview programme and desk research conducted in D1.1 fed back into the concept and typology development of deep institutionalisation of RRI and was further elaborated on in group work at the State of the Art meeting in Karlsruhe.

The selection of interviewees was done along the RRI key dimensions and positions within the organisations, continuing the recruitment via snowball system at FhG. At TNO, a different approach of interviewee recruiting was applied, owing to the differences in organisational structures: potential interviewees were selected in consultation of the related working groups or committees, ensuring the most relevant

persons were chosen. That way, comprehensive information from different levels of the organisations and the different RRI domains could be gathered. Also the RTOs to be included in the interview programme were selected according to certain criteria, systematising the selection process. In total 40 interviews were conducted, 14 at FhG, 18 at TNO and 9 at other RTOs. Rightly considering the evolving RRI discourse, a representative of the EC's DG RTD was interviewed as well in order to reflect the findings of task 1.1.

The interview analysis was also conceptually underpinned by and linked to D1.2. A (critical) and realistic analysis and presentation of the state of the art and the (partly differing) understanding of RRI key, RRI in general, and RRI-related concepts and ideas existing in the two organisations were presented in the report. The state of the art and institutionalisation of RRI is at very different stages in the organisations, but also within the organisation in the different RRI keys.

4.2 RRI goal development process: stakeholder workshops (WP2 & WP3)

The meaningful design and successful implementation of the RRI goal development process in FhG and TNO were important milestones in the first 14 months of the project. Much time and effort were spent on organising workshops bringing together various stakeholders from within and outside the respective organisation to deliberate on appropriate goals for the institutionalisation of RRI.

Overall, nine RRI goal development workshops were conducted in FhG and TNO (see Table 4).

Table 4 RRI goal development workshops in FhG and TNO and applied data collection approaches⁶

Date	Organisation	RRI dimension	PO	QI	Surv
14.03.17	FhG	Ethics		X	X
15.03.17	FhG	Science Education	X		X
23.03.17	FhG	Open Science and Open Access	X		X
04.04.17	FhG	Public Engagement		X	X
18.04.17	TNO	Ethics		X	X
27.04.17	FhG	Gender, Diversity and Equity	X	X	X
01.05.17	TNO	Science Education		X	X
04.05.17	TNO	Societal Engagement		X	X
18.05.17	TNO	Gender Equality		X	

In the next three sections, the assessments of the different actors and actor groups involved in the stakeholder workshops will be outlined and interpreted: first, the perspective of the workshop participants (internal and external stakeholders), second, of the workshop organisers (RRI dimension leaders and workshop facilitators), and, third, of the WP8 team members as participant observers and reviewers of key documents (design papers, deliverables). Then, conclusions will be drawn on the overall success of the workshops and possibilities to improve further similar approaches and the next steps in JERRI.

4.2.1. The participants' perspective

As outlined in 2.1.2, the perspective of the RRI goal development workshops' participants was considered by means of a survey consisting of questions about their

⁶ PO: participant observation; QI: qualitative interview; Surv: survey of workshop participants

expectations regarding the workshop, how these were met, and their overall assessment of the workshop design and implementation.

Overall, the participants evaluated the workshops in a positive way: The majority was satisfied with the results of the workshop (68%; 24% “to some extent”) and would like to participate in similar workshops in the future (78%; 14% “to some extent”).

From the participants’ perspective, the workshop design and implementation considering certain aspect were appropriate and functioned well: The workshop formats, both, that at FhG and TNO, seem to fit the schedules and work contexts of the participants: only around ten percent stated, that they encountered difficulties in order to participate in the workshop. However, there is a bias in this and the numbers should be interpreted with caution: since only stakeholders who in the end found time to participate in the workshop could reply to this question, and those who encountered challenges that could not be resolved were not asked. The activities in the workshop were evaluated as appropriate for the purpose of the workshop by 69,84% and from 25,40% to some extent. Some comments in the open sections point to the necessity of a stronger structure of the workshop and better time-management.

The purpose of the workshop and the participants’ tasks within the workshops were clear to most participants (see survey questions 1 & 5 in Table 5). Participants felt that they contributed to the achievement of the workshop (56%; 37% to some extent). Only some of the participants stated in the open questions, that they were not entirely clear about their own role in and possible contribution to the goal development process.

One important aspect in evaluating the RRI goal development was to assess how open the process was with respect to the perspectives and opinions of the involved stakeholder. Those stakeholders participating in the goal development workshops reported a very positive assessment in this regard: the overwhelming majority stated that the views of all participants were listened to and respected (98%), that also they were able to openly share their opinion (97%), and to also freely voice concerns (90%) (See survey questions 6–8 in Table 5). However, if and how the inputs of the different stakeholders will be considered in the end can only be assessed at a later stage of the project employing a comparative analytical perspective.

One aspect of the RRI goal development workshop implementation that was reviewed more critically by the participants is the composition of the workshop group: Most respondents (57%) stated, that in their view the relevant stakeholders were only to

some extent present at the workshop (see question 4 in Table 5). Mostly, they perceived researchers and key decision makers as missing, as they stated in the commentary section to this question. The short answers do not always make clear the exact characteristics of those stakeholders, e.g. researchers from which disciplines, who is a key decision maker and on what level, etc.. And although in every workshop certain stakeholders were identified as missing, not all different types were identified in each and every workshop. In some workshops, participants would have liked to have more researchers and/or researchers from a broader range of disciplines present who are (potentially) confronted with questions of RRI in their everyday work, or entrepreneurs of certain RRI practices. Other participants wished for more key decision makers and managers from the organisation, as well as more external stakeholders from research, industry, or civil society. The workshop organisers highlighted, that in some cases those stakeholders were invited and wanted to attend, but in the end were unable to do so, or did decline their participation in the first place.

Considering the results of the workshops, the survey data shows a positive assessment of the workshop participants: 68% of respondents were satisfied with the results, 24% to some extent (see question 12 in Table 5). However, some respondents answering to the open part of this question stated that they perceived a lack of concreteness with regards to the developed goals.

Table 5 RRI goal development workshops at FhG and TNO: Participants' survey - closed assessment questions (row % rounded to full number⁷, n=63)

#	Question	Yes	To some extent	No	Missing
1	Was the purpose of the workshop clear to you beforehand?	62%	32%	6%	0%
2	Did you encounter any difficulties in order to participate in the workshop?	5%	6%	86%	3%
3	Did you deal with the topic in your professional life before the workshop?	60%	30%	8%	2%
4	Do you think the relevant stakeholders were present at the workshop?	29%	57%	8%	6%
5	Were the tasks you had to do in the workshop clear to you?	68%	22%	10%	0%
6	Were the views of all participants listened to and respected?	98%	0%	0%	2%
7	Were you able to openly share your opinions?	96%	2%	0%	2%
8	Were you able to freely voice your concerns?	90%	10%	0%	0%
9	Did your input contribute to the achievement of the workshop goals?	56%	37%	0%	8%
10	Is the developed vision of relevance to your own work?	48%	43%	8%	2%
11	Were the activities in the workshop appropriate to achieve its purpose?	70%	25%	2%	3%
12	Are you satisfied with the results of the workshop?	68%	24%	3%	5%
13	Would you like to participate in similar workshops in the future?	78%	14%	5%	3%
14	Are the further steps of the JERRI project clear to you?	51%	43%	5%	2%

In principle, the data allows a differentiation of FhG and TNO workshops and their comparison. However, due to the very different workshop designs and the small number of respondents filling in the questionnaire at TNO a comprehensive in-depth analytical comparison does not seem expedient.

⁷ Due to rounding, numbers might not always add up exactly to 100%.

4.2.1. The organisers' perspective

As described in 2.1.4. JERRI consortium members responsible for organising the workshops were interviewed with regards to the implementation of the RRI Goal Setting Workshops.

The workshop organiser at FhG is at the same time the JERRI project leader and the facilitator of all five Goal Setting Workshops. His aim was to provide a good understanding of the JERRI project and its benefits for the organisation. Therefore he briefly presented the aims of the JERRI at the beginning of every workshop. From his perspective responsible persons from FhG attended the workshops that also have the legitimation to speak for bigger groups. In spite of this he estimated the general number of participants as low. He mentioned the difficult recruitment process of the participants as a reason for the low number. The workshop organiser had the impression that it was in particular hard to motivate external stakeholders to participate in the workshop. Many, but not all of the participants were recruited in proximity to the workshops. Some participants mentioned this approach as one possible reason why FhG external stakeholders did not take part in the workshops. Further on the workshop organiser stated, that many invited external stakeholders declined the invitation.

In the Goal setting Workshops at TNO, only TNO internal stakeholders took part. Although the workshop organiser tried to acquire different types of stakeholders, sometime last minute cancellations because of illness or time issues took place which lead to dissatisfaction with the number of participants. People that were invited, but didn't come were directors of research, team organisers, managing directors and business developers. As in FhG many invited external stakeholders declined to come to the workshops.

Beside of participant acquisition problems, the workshop organiser of the TNO said that the big reorganisation process, which TNO is going through at the moment, has an impact on the JERRI project and visa versa: this means that on the one side JERRI has potential to peruse in terms of goal setting and to help starting the deep institutionalisation process. On the other side, the lack of management time for deep discussions about RRI and its implementation during this time of reorganisation had an impact on the workshops and the numbers of participants.

Most of the actions and activities need to be coordinated with the management also in order to achieve institutionalisation of those activities and with it RRI. Otherwise it would be single actions dependent on single persons only.

As mentioned before, four out of five workshops took place at TNO. Only the Open Access Goal setting Workshop was postponed because – according to the workshop organiser - the top level of the organisation is not fully aware what needs to be done according to this topic. This missing commitment prevents the preparation of a successful workshop which results can be realistic for the organisation. Before inviting stakeholders to discuss about Open Access at TNO it has to be worked out how the topic can be made important for the whole organisation.

The workshop organiser, who emphasised that the JERRI project is more than a project as it has potential to promote organisational change, also explained that from the results of the workshops five draft goals for each dimension were defined and approved by the managing directors and the board of directors. For promoting the project throughout TNO an internal communication tool called YAMMER is used that reaches up to 1000+ employees in TNO, including decision makers.

4.2.2. The dimension leaders' perspective

The three interviewed dimension leaders at FhG had different expectations regarding the Goal Setting Workshops in WP2. Some had the idea that the pilots of the JERRI project and their implementation would be defined and discussed in detailed during these events. But all of the dimension leaders anticipated drawing a common definition of the respective dimension among the participants during the workshop. In general the dimension leaders at FhG expected to meet internal and external stakeholder related to the topic. Learning from others, gaining new perspectives and insights as well as creating new ideas was also anticipated as well as reflecting on the dimension for the future at FhG. The dimension leaders at FhG wanted qualified people to participate, through which further stakeholders could be reached.

The dimension leaders stated that their expectations regarding the definition of the topic and the next steps for pilot activities were not reached. Even though some had the impression that hardly any new ideas were created during the goal setting workshops, it turned out that a future vision was agreed on (the roadmap of the JERRI project within FhG). This was possible due to heterogenic and comprehensive discussions related to the group structure. Nevertheless a concretisation of the vision

did not take place. It was stated that in some cases the topic had to be dealt with very broadly, so no details were discussed. As a consequence very concrete aspects could not be picked, the focus was put on more basic question related to the dimension.

The development of the far reaching vision for the topic was supported by different modes: First people brainstormed on their own what the vision of the dimension could be in FhG. Then they built pairs of two to discuss their ideas before they exchanged their visions in bigger groups. At the end in most of the workshops a vision was agreed upon, which was also traced back to the good facilitation, as the moderator was much strived to encourage participants to also voice their concerns, and the mandate of the organisation. Only once a dimension leader had the impression, that a clear definition of the vision was not found.

In general some dimension leaders had the impression, that different aspects related to the different dimensions were tackled during the workshops. A benefit for dimension leaders of the JERRI project and the goal setting workshop in particular was seen in the development of a roadmap of the activities that contributes to bringing forth the dimension within FhG: One person emphasised that a concrete measure was in preparation for years and is now boosted by the project. It will be implemented soon. Another value of the workshops for FhG were the new ideas for the different dimensions that came from scientists participating in the workshops. Only one dimension leader did not see the benefit of the workshop for the dimension, since in his eyes sufficient activities already exist.

In comparison to FhG most of the dimension leaders at TNO expected not only to develop a better understanding of the dimension within the organisation but also a comprehensive discussion of the topics, whereby some aspects of these topics were predefined. Further on it was anticipated that good examples of the different dimensions within TNO would be identified during the Goal Setting Workshops. Responsible persons were also looking for discussions on how to improve existing approaches related to the different dimensions and how to implement them across the organisation. Due to some missing stakeholders, discussions were not experienced as very profound. According to the dimension leaders some aspects related to the single dimensions were not tackled at all.

The formulation of realisable und realistic goals within the existing structure and context of TNO was defined as one main goal of the workshops beside of developing new ideas. Therefore participants received a power point presentation about the JERRI

project and the available budget so that they could consider this information in their ideas. This preparation allowed focus discussions about the impact, actions and a prioritisation of most essential next steps and goals in the Goal Setting Workshops. During the workshop ideas were developed respectively further developed. Further on approaches were discussed and drafted for implementing these different concepts and ideas.

Dimension leaders indicated on the one hand the clear structure and the overall design of the workshops as well as energising exercises during the workshops as reasons for the workshops' success. But it seems that different methodologies were applied in the workshops: some used only brainstorming, others a mixture of different approaches such as a "two by two matrix", a light version of an appreciative enquiry or brainstorming. Maybe depending on the methodology a dimension leader had the impression workshops participants were not "thinking out of the box", hence no new ideas were developed. Not only the low number of participants was criticised but also that brainstorming exercises were not appropriate for all participants, especially not for higher ranked manager. This made some dimension leaders think that with the help of the FhG approach other results might have been achieved. Especially the long-term perspective was not considered properly for the dimension leaders, but it was stated in the interviews, that the Integrity Commission, which is institutionalised at TNO, will be involved in this task in the future.

All workshop participants were TNO internal stakeholders. Some of the dimension leaders consulted external stakeholders either before or after the workshop to gain further perspectives related to his topic. If possible, their views and ideas were presented during the workshops, which helped participants to understand the external perspective of a logical position for an organisation as TNO.

An outlined benefit was the promoted communication and learning during the process of goal development: within the workshop it became clearer, how TNO deals with the dimension in different departments and that synergies between the dimensions within TNO have to be created. Therefore new aspects of the dimensions were discussed among the participants that helped to clarify misunderstandings related to the dimension (e.g. ethic is not about some people in the organisation knowing what is right or wrong, but rather an improvement of capabilities to reflect on ethical issues and to have processes in place to consider and make balanced decisions on issues). The gender dimension leader emphasised that the workshop not only opened the debate on



the general gender research at TNO (How much gender is in the TNO research program?), but it also made clear that action related to the gender topic in TNO is needed. Moreover, the Gender Goal Setting Workshop was used to prioritise goals that were already defined in the Diversity Steering Committee: The Goal setting workshop for the Gender dimension differed compared to the other workshops as goals had already been defined in the TNO Steering Committee two weeks before the initial JERRI Gender goal setting workshop took place. These goals included on the one hand the improvement of the current HR database to make qualified women more visible within TNO and trainings for TNO managers on female balance on the other hand. During the JERRI Goal Setting Workshops these goals were discussed and confirmed by the participants. Further on a debate on additional other short-term and long-term goals (the latter related to the “general goal setting plan of TNO”) took place.

In general it turned out that there are things that concern several or even all dimensions as new developments in society take place: hence, organisations need to do trust building so that the society regains trust into science and to be more open in regarding research. This concerns not only Ethics but also Science Education and Science Communication.

Overall, dimension leaders are of the opinion that TNO benefits from the JERRI project as it boosts things that were already in the line but due to missing capacity were not implemented. Therefore the interviewees think that it has to make sure that the developed goals will be transformed into action plans as a next step. Nevertheless, due to the reorganisation of TNO, some of the participants as well as the dimension leaders were uncertain what the future in TNO will bring and how the single dimensions will be further developed and extended.

The results of all workshops will be reported and disseminated throughout TNO via an internal communication (YAMMER) tool to inform people about what will happen in JERRI on the one hand and to get feedback on the other hand.

4.2.3. The observers’ perspective

The JERRI WP8 team members participated in three RRI goal development workshops in FhG and thus were able to get first hand insights into the implementation of selected stakeholder workshops. Participating in TNO workshops was not possible because of language barriers and its more enclosed nature, bringing together standing working groups and specific actors from within TNO.

The participant observation approach has already been described (see 2.1.3) and the observation protocol can be found in the Annex (see Table 7). The insights from the participant observations add to the findings derived from analysing the survey of participants and the interviews with JERRI members responsible for organising the workshop and dealing with specific RRI dimensions. In total, three participant observations were conducted by the WP8 team (see Table 6).

Table 6 Participant observations at RRI goal development workshops

Date	Location	Participant observer	Workshop
15.03.17	Munich	Milena Wuketich	Science Education at FhG
23.03.17	Stuttgart	Elisabeth Frankus	Open Science in FhG: Open Access for publications and research data
27.04.17	Stuttgart	Alexander Lang	Gender, Diversity and Equity at FhG

The insights gained from participating in the workshops are in accord with many of the above described findings, but also made certain nuances better visible and add some further aspects not grasped by the other data collection methods.

- Timing issues: more time needed for certain tasks. Emotional discussions had to be cut short to keep in time. At the same time one day seemed to be too long to work concentrated and intensively on one dimension.
- Very open atmosphere: participants could raise concerns, were free to voice their opinions, not much interruption by other workshop participants, etc. Facilitator very encouraging, open and non-directive. At some point, stronger moderation would have been necessary.
- Workshop methods were accepted and worked very well (e.g. thrashing barriers, different formats of brainstorming activities, introductory rounds).
- The goal of the visioning was not entirely clear, especially, how encompassing and broad a vision should be or what timeframe should be considered: a concretisation of the vision did not take place. To some extent the topic had to be dealt with very broadly. As a consequence very concrete aspects could not be picked, but the focus was on more basic question related to the dimension.
- RRI dimensions: not encompassing discussion of different aspects of dimensions, but closing down on specific dimensions (by participants). E.g.:

gender = gender equality, breaking of glass ceiling, etc. but gender as issue in research not a topic.

In looking at these insights it is important to bear in mind that it was only possible to participate in three out of ten workshops and only in workshops conducted at FhG.

4.3 Dissemination activities (WP10)

First dissemination activities have been conducted up to date (see Table 9 in Annex IV for a full list), including

- press releases and related Twitter tweets,
- various presentations at scientific conferences,
- and the set-up of a preliminary JERRI website.

The dissemination activities correspond to the initial dissemination plan as outlined in Deliverable 10.1 Final Dissemination Plan (Teufel & Nauta, 2016) and the description of action. Most of the scheduled activities have been conducted as planned, with exception of communicating project activities and results on the EARTO⁸ website initially set for November 2016, which is supposed to be published in August 2017. The reason for this is, according to the project coordinator, a lack of appropriate content at the early stage of the project in November 2016.

The dissemination activities dealt with the JERRI project in different ways and highlighted certain aspects of it:⁹

- The overall project including the project consortium, objectives, and methods as well as the overall relevance of RRI (initial press release on 05.07.2017 and the JERRI website).
- JERRI as project applying results of previous RRI projects (webinar presentation by FhG-ISI on 29.11.2016).
- Discussing a certain RRI dimension or aspect (e.g. public engagement) also referring to the JERRI project (conference presentations by TNO on 18.05. and 21.06.2017).

⁸ European Association of Research and Technology Organisations; <http://www.earto.eu/>.

⁹ References in Table 9.

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The scientific conferences at which the JERRI project was presented, the Eu-SPRI¹⁰, the 3rd European Technology Assessment Conference¹¹, the RRI Tools final conference¹², and the ISPIM conference can be assessed as appropriate events to distribute information about the JERRI project, discuss its activities, and raise awareness of concepts and practices of RRI in RTOs. The total number of presentations is, given the duration and progress of the project as well as the size of the consortium, very good.

In addition to the initial plan, a preliminary JERRI website under the domain <http://www.jerri-project.eu/> has been set up in January. Up to date it consists of a short description of the project and contact information (see Figure 1) and will be further developed and maintained with the JERRI project's progress. The final website will be an appropriate first contact point for people interested in the JERRI project and might become an important asset for the JERRI project if well maintained.

¹⁰ European Forum for Studies of Policies for Research and Innovation

¹¹ This conference grew out of the EU FP7 project PACITA (<http://www.pacitaproject.eu/>).

¹² RRI Tools was an EU FP7 funded project aiming to help put RRI into practice by collecting, developing, and providing training and training materials (<https://www.rri-tools.eu>).



JERRI - Joining Efforts for Responsible Research and Innovation

Aim

Joining Efforts for RRI – JERRI – makes a substantial contribution to deeply institutionalizing practices and attitudes of Responsible Research and Innovation (RRI) in the European Research Area. For this purpose JERRI is orchestrating a deep RRI transition process within the two largest European Research and Technology Organizations (RTOs), the German Fraunhofer Gesellschaft and the Netherlands Organization for Applied Scientific Research. The process is conceptualized as an intense mutual learning process between the two organizations, a wider circle of RTOs, and stakeholders across Europe. Thus, JERRI will exploit the unique mediating function of RTOs to catalyze RRI transition processes in industry, society and policy across the European research and innovation landscape.

Process

- › development of specific RRI goals within Fraunhofer and TNO, based on existing good practices, and in close interaction with stakeholders, for the following five key dimensions: Ethics, Societal Engagement, Gender Equality and Gender in Research and Innovation Content, Science Education, Open Access
- › set up of action plans for each key dimension followed by the realization of RRI practices in pilot cases
- › distribution of good practices among internal and external stakeholders and further RTOs
- › international mutual learning on good RRI practices at both the Chinese Academy of Sciences (CAS) and the Arizona State University (ASU)

The project runs from June 2016 until May 2019 under the European Commission's Horizon 2020 / Science with and for Society programme, as a response to the call "Supporting structural change in research organisations to promote Responsible Research and Innovation (ISSI5-2015)".

Partners

- › Fraunhofer-Gesellschaft, Germany
- › TNO Netherlands Organisation for Applied Scientific Research, Netherlands
- › Institute for Advanced Studies IHS, Austria
- › Manchester Metropolitan University, UK

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More information on the JERRI project will be available soon.

Figure 1 JERRI website screenshot (28 July 2017)

5 Conclusion and recommendations

JERRI WP8 aims to monitor and evaluate the JERRI project's activities in order to improve the project as it is progressing. In the following sections, key conclusions will be drawn from the results (see 4) of the JERRI WP8 activities (see 3) and recommendations on how to proceed and what issues to consider in the upcoming tasks (especially the development of RRI action plans in FhG and TNO), will be given.

5.1 Aligning the JERRI activities with the RRI concept

The JERRI project started by putting forward a comprehensive yet nuanced concept of RRI (Randles, 2017). The then following activities connected to this understanding of RRI and the five key dimensions and structured their actions accordingly (WP2 &

WP3). However, in implementing the goal development process, certain aspects of the different RRI dimensions were less considered than others. For example, the discussions around the gender equality dimension revolved around questions of gender balance in the two organisations or structural and cultural obstacles for women within the organisations and in R&I in general. The issue of gender as a research topic or important category in different research projects was not discussed to a major extent in the workshops although the organisers tried to also raise issues related with this aspect of gender and RRI. Several reasons for this blind spot might be possible, from the specific perspective

We recommend the following steps in order to consider the concept of RRI and the various aspects of the different RRI dimensions more comprehensively:

1. Comparison of identified goals and linked activities (WP2 & WP3) with the RRI concept outlined by WP1 and identification of gaps.
2. Reflection and identification of possibilities to incorporate previously less considered aspects of RRI.
3. Adjustment of RRI goals/activities according to the gained insights or explicit rationale for not considering certain RRI aspects.

Bearing in mind the specific organisational structures and limited resources (of the organisation as well as the JERRI project) it is clear that priorities have to be made across and in each dimension and that some aspects cannot be translated into RRI goals and activities. However, it needs to be explained how and why this prioritisation happened. Here, the assessed state of the art and level of institutionalisation of the different RRI key dimension in D1.1 can help and should be consulted for further prioritisation – some dimensions might need less attention and effort than others. Another recommendation is to check back with the results of the group work of the state of the art meeting.

5.2 Involvement of different types of stakeholders

The concept of RRI, as outlined in D1.2 (Randles, 2017), emphasises the necessity of public engagement thereby furthering the alignment of R&I with societal values, needs, and demands. In its efforts of institutionalising RRI in FhG and TNO, the JERRI project also aims at involving different internal and external stakeholders into the process of identifying goals and developing activities to promote RRI. Thus, in its implementation the JERRI project itself adheres to the concept of RRI.

In the RRI goal development processes at FhG (WP2) and TNO (WP3) the inclusion of organisation-external stakeholders happened in different ways, but was not done systematically or to a greater extent. External stakeholders were only present at some workshops (at FhG) or consulted before or after workshops (by TNO). The perceived absence of certain stakeholders (e.g. researchers from different disciplines) was also noticed and brought up by workshop participants (see 4.2.1) as well as dimension leaders (see 4.2.2). Although the responsible JERRI consortium members tried to involve more external stakeholders in the goal development process, this proved to be a challenge. We acknowledge the efforts made by the workshop organisers, but still recommend further incentivising their participation in the process, thus adapting the participatory approach to suit the needs and demands of external stakeholders.

One important group which should be addressed by the JERRI project are key decision makers in R&I in general and within the organisations in particular. This was already done to various extents by both, FhG and TNO and should also be further pursued in order to increase the chance of deep-institutionalisation of RRI. In this regard, TNO made strong efforts to facilitate institutional buy-in by already involving different strategic intra-organisational stakeholders collecting “feedback from influencers and decision makers within TNO” (Steen et al., 2017, p. 12) and discussing interim reports with the Chief Operating Officer of TNO and TNO’s CSR steering committee. Thereby, the different organisational structure and decision making processes of TNO and FhG have to be taken into account.

These recommendations should not only be considered in designing and implementing future goal setting workshops, but also in the activities in WP4 and WP5, which also employ a workshop approach in developing the transformative action plans for FhG and TNO.

5.3 Workshop organisation

The workshop evaluation showed that the workshop approach worked well overall and was positively assessed by the participants (see 4.2.1.). Still, there is room for improving the workshop design and implementation according to the feedback, which can especially be valuable for the workshops planned in WP4 and WP5:

- Expectation management: The purpose and goals have to be made clearer to the participants before the workshop.

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- The design of the workshop including separate tasks and the overall procedure and how the workshops fit into the overall JERRI project (e.g. How are the results used? What are the next steps in the JERRI project?) have to be better explained.
- Time management and moderation have to ensure enough room for discussing various aspects of RRI and the RRI dimensions under consideration.

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ABBREVIATIONS

FhG	Fraunhofer Gesellschaft
IHS	Institut für Höhere Studien (Institute for Advanced Studies)
ISSI	Integrating Society in Science and Innovation
JERRI	Acronym for the project Joining Efforts for Responsible Research and Innovation
MMU	Manchester Metropolitan University
NGO	Non-governmental organization
R&I	Research and Innovation
RRI	Responsible Research and Innovation
RTO	Research and Technology Organization
TNO	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek

ANNEX I

Table 7 Participant observation protocol: RRI goal development workshops (WP2)

Workshop conditions:

- Number and gender of participants
- Number of facilitators, who are they?
- Workshop venue (space, conditions)

Agenda and goals:

- Is the workshop implemented according to the set agenda?
- Is the workshop agenda clearly communicated?
- Are the goals of this particular workshop made clear to the participants?

Methods and materials:

- Which methods are employed in the workshop and for the participants' contribution and input in particular?
- Which materials are used in the different activities?
- Is there enough/appropriate time for the different tasks?
- Do participants have enough time to voice their opinions and thoughts?

Discussion:

- Are the participants' opinions and thoughts considered in the workshop/by the other participants/by the facilitators?
- Description of the nature of the discussions (vivid, stagnant, hesitant, democratic or dominated by certain persons).
- Do you have the impression that the discussions steered into one or another direction by the facilitator or single participants?

Self-reflection and other observations:

- Self-reflection of our role in the workshop and participants' awareness of our presence.
- Recap: did the overall workshop design fit the initial idea of the deliverables (D2.1, D2.2)?
- Other observations/comments:

ANNEX II: SURVEY OF WORKSHOP PARTICIPANTS QUESTIONNAIRE

Table 8 Survey of Workshop Participants Questionnaire

	Yes	To some extend	No
Was the purpose of the workshop clear to you beforehand?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If no, what was not clear to you:</i>			
Did you encounter any difficulties in order to participate in the workshop?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If yes, which difficulties:</i>			
Did you deal with [topic of the workshop] in your professional life before the workshop?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you think the relevant stakeholders were present at the workshop?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Who was missing in your opinion:</i>			
Were the tasks you had to do in the workshop clear to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If no, what was not clear to you:</i>			
Were the views of all participants listened to and respected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were you able to openly share your opinions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were you able to freely voice your concerns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If not, what prevented you from doing so:</i>			



	Yes	To some extend	No
Did your input contribute to the achievement of the workshop goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the developed vision of relevance to your own work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Please elaborate:</i>			
Were the activities in the workshop appropriate to achieve its purpose?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If no, why:</i>			
Are you satisfied with the results of the workshop?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Please elaborate:</i>			
Would you like to participate in similar workshops in the future?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the further steps of the JERRI project clear to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Further comments and recommendations:			
Personal information			
Fraunhofer employee <input type="checkbox"/>		External stakeholder <input type="checkbox"/>	
Female <input type="checkbox"/>	Male <input type="checkbox"/>	Other <input type="checkbox"/>	

ANNEX III: INTERVIEW GUIDELINES

Table 9 Interview guidelines

Interview guidelines for workshop organisers

- In your perspective, what were the goals of the workshop?
 - Which goals were reached in the workshop?
 - i. How were they reached?
 - Which goals were not reached in the workshop?
 - i. Why were they not reached?
- In your opinion, how does the workshop contribute to the JERRI project?
- Which possible effects does the workshop have on TNO? Why? How?
- How satisfied are you with the implementation of the workshop?
- Did everything go as planned? Did something unexpected happen? If yes, what?
- Would you do something differently if you did the workshop again?
 - What? How?

Interview guidelines for dimension leaders

- What did you expect from the workshop beforehand?
 - Were your expectations met? How?
 - Which expectations were not met? Why?
- In your perspective, what were the goals of the workshop?
 - Which goals were reached? How were they reached?
 - Which goals were not reached? Why?
- Were the different aspects of the topic xxx (ethic, gender...) dealt within the workshop? How? If not: what did you miss?
- Which benefit could you gain from the workshop for your dimension?
- Could you get new perspectives on your dimension from the workshop? Which ones?

ANNEX IV

Table 10 JERRI dissemination activities

Date	Organisation	Type of activity	Title	Conference/ Journal/Site
05.07.16	FhG-ISI	Press release (English, German)	Responsible Research and Innovation on a broad scale - Fraunhofer and TNO send a joint signal	http://www.isi.fraunhofer.de/isi-en/service/presseinfos/2016/press-release-23-2016-jerri-responsible-research.php
05.07.16	FhG-ISI	Twitter tweet	Project: JERRI RRI on a broad scale	https://twitter.com/fraunhofer_ka/status/750247075900715008
22.11.16	FhG-ISI	Conference presentation	Session: Breaking walls, changing structures	RRI in Action: RRI Tools Final Conference
29.11.16	FhG-ISI	Webinar presentation	Navigating towards RRI: Facilitating strategic reflection	European Network of Innovation Agencies (http://www.taftie.org/sites/default/files/TAFTIE-Webinar_11-2016_RRI_Lindner.pdf)

18.05.17	TNO	Conference presentation	Improving RRI through connecting to citizens' 'utnamed participation'	3 rd European Technology Assessment Conference
21.06.17	TNO	Conference presentation	Pros and Cons of Organizing Dialogues with Stakeholders in Responsible Research and Innovation: How to involve 'unusual' stakeholders, e.g., NGOs, civil society initiatives, etc.	XXVIII ISPIM Conference Vienna
07.17	MMU	Conference presentation		ESOF
06.17.	FhG-ISI	Conference presentation		Eu-SPRI