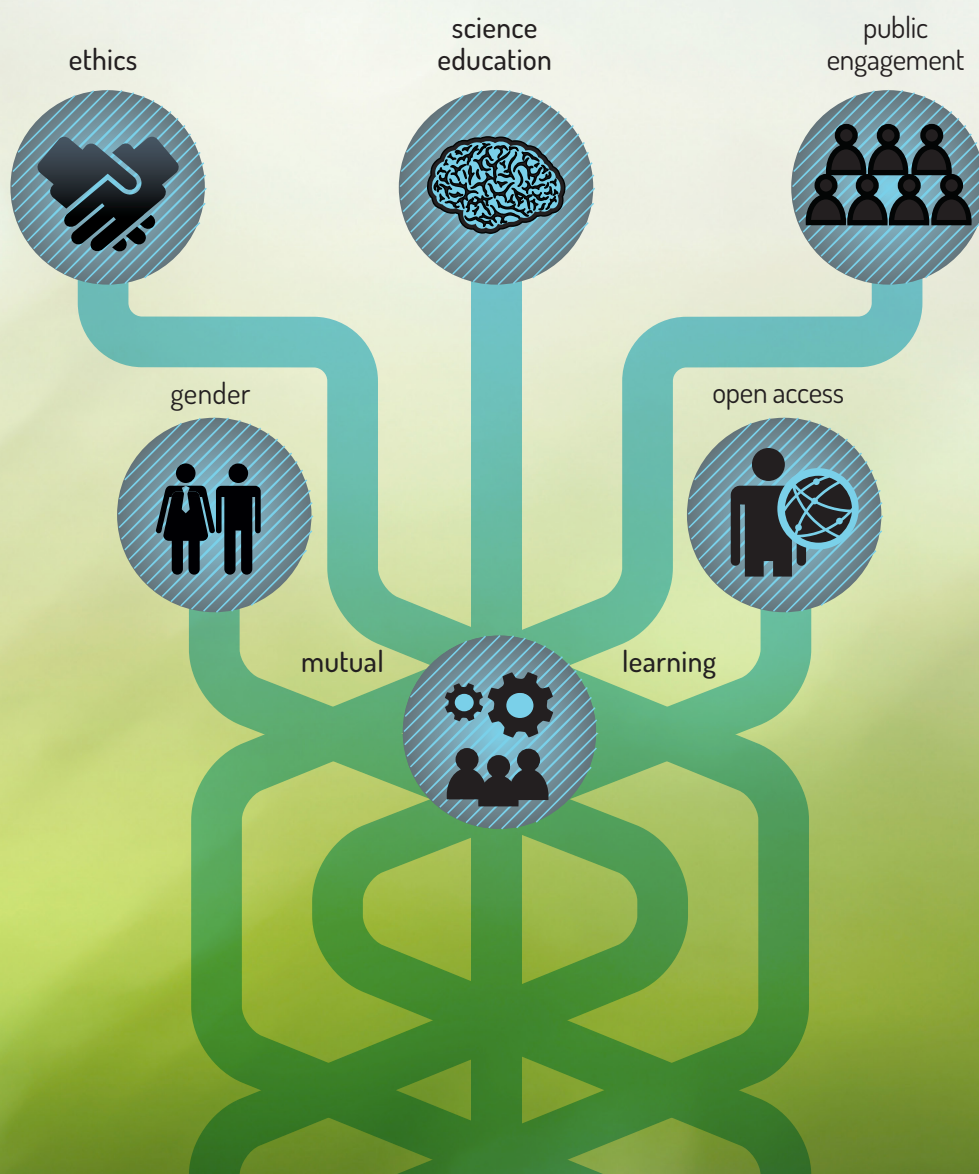




JOINING EFFORTS FOR RESPONSIBLE RESEARCH AND INNOVATION

Further Publications for specific target groups / User Briefs

DELIVERABLE D10.4



JERRI



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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.

1 Introduction

This report consists of three JERRI User Briefs. Each Brief summarizes the JERRI outcomes with a view on one specific target group. User brief 1 addresses policy makers and specifically those concerned with R&I policies in particular funders. User brief 2 targets actors from industry and user brief 3 engages with other RTOs. All three briefs present both the products generated by JERRI and lessons learned from the process but with different emphasis depending on the target group's main interest. A fourth brief which is presenting three concrete cases where JERRI practices are operationalised, is being developed and will be published after the project has ended.

Rather than repeating lengthy content from the reports we have kept the user briefs very short as in our experience actors from these target groups (and especially industry) will not spend much time on reading long documents. In addition, we learned in JERRI that institutionalising RRI needs to be tailored to each organisation so the usefulness of relating our specific experience is limited. The main impact pathway we envisage for our user briefs is alerting these actors for the need to embark into RRI change processes and engaging them into a dialogue on possible joint actions.

Across the three briefs runs the overarching theme of “pioneering coalitions” resulting from the insight that in order to achieve progress towards responsible innovation ecosystems pioneering actors need to collaborate around the inroads to RRI identified by JERRI such as new notions of excellence, new performance indicators, responsible value creation models and integration of RRI competences into curricula and trainings.

The content of these user briefs was generated by the whole JERRI team including dimension leaders at TNO and Fraunhofer with support from the JERRI advisory board in a number of workshops and project meetings. It builds on the experience made by Fraunhofer and TNO in the change process which we were able to interpret with the help of our theoretical framework developed by Sally Randles from MMU and the impact reflection facilitated by the IHS monitoring team. The members of the JERRI advisory board who were actively participating in these meetings have substantially contributed by providing in depth expertise and a highly useful external view.

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JOINING EFFORTS FOR RESPONSIBLE RESEARCH AND INNOVATION

USER BRIEFING FOR POLICY MAKERS AND FUNDERS

TODAY'S INNOVATION SYSTEMS STRUGGLE TO DELIVER SOLUTIONS TO SOCIETAL PROBLEMS

TOGETHER WE CAN ADVANCE INCLUSIVE RESPONSIBLE INNOVATION ECO-SYSTEMS THAT OPERATE FOR AND WITH SOCIETY!

POLICY MAKERS and **FUNDERS** can make a significant contribution to the emergence and stability of pioneering coalitions for responsible research and innovation (RRI).

This user brief highlights five key aspects based on our experiences in the JERRI project, which investigated the transition to responsible innovation ecosystems from the perspective of applied research organisations:

RRI EVIDENCE

There is scientific evidence that RRI practices such as ethical reflection, gender sensitivity, open sharing of data and citizen participation advance research and innovation excellence and relevance which are key drivers within our organisations. Funders can help change-agents within our organisations to foster the transition to RRI by funding studies that provide such evidence and promoting them in highly visible ways within their own funding portals.

RRI EVALUATION

RTOs depend on competitive funding and are

therefore highly receptive to the evaluation criteria for public funding. Funders should keep up the pressure by systematically linking their funding rules to RRI. Already, specific requests for RRI-related information, e.g. on data protection, gender and ethical aspects, have raised awareness. However, in order to foster deep changes, just ticking boxes is not enough. To inspire learning, contractors should be engaged in a constructive dialogue with qualified evaluators or dedicated contact persons. In addition, integrating RRI into the excellence part of research proposals rather than confining it to specific sections will help spread the perception of RRI as a natural component of research excellence. In any case, it is vital that evaluators are qualified in RRI.

RRI COMMUNICATION

RRI can make significant contributions to pressing issues in public debates and on policy agendas such as harnessing the benefits of emerging technologies in accordance with societal values or advancing progress towards the sustainable development goals (SDGs). Rather than emphasising RRI as such, policy actors should highlight the contributions it can make as a core competence for addressing these issues.

RRI ORCHESTRATION

On our JERRI learning journey, we realised that each RRI dimension makes a specific contribution to the overall goal of creating desirable impact for and with society. It is crucial that these specificities do not disappear under a fuzzy RRI umbrella concept. At the same time, **the full potential of RRI only unfolds when all dimensions interact**, e.g. societal engagement and science education go hand in hand with open data, while ethics reflection and gender perspectives reinforce each other. Funders should encourage such RRI orchestration wherever possible and actively counteract "RRI silos".

RRI MAINSTREAMING

Embedding RRI into organisational structures is an iterative process that requires patience, stamina and persistence. Projects like JERRI that **directly support institutional change** are extremely helpful as they provide space for experimentation that is not usually available in RTOs. Funders should be aware that organisational change can happen in unexpected ways and allow for deviations from project plans. Funding units with specialised RRI agendas are important enablers for advancing RRI knowledge and practices. In addition, however, **RRI practices should be**



embedded within all types of research and innovation activities. RRI approaches like the participation of society or impact reflection require skills, time and resources. Funders should provide specific funding for RRI-related activities within classical research projects (e.g. gender reflection workshop, citizen conference). Often the type of funding needed for RRI deviates from classical research contracting practices. Funders should work together with pioneering contractors to discuss solutions to critical issues such as, e.g. the payment of lay participants, or open contracts.

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BACKGROUND

Europe's two largest applied research organisations TNO in the Netherlands and Fraunhofer in Germany embarked on a joint learning process in JERRI to **create impacts together with society that are socially desirable, sustainable and ethically acceptable**. In short: responsible research and innovation (RRI). Our motivation is to renew our societal license to operate by aligning our research and innovation activities more closely with society's needs and values. To this end, both organisations working together over a period of 3 years:

- set goals for organisational change towards RRI within and across the key aspects ethics, gender, societal engagement, open science and science education
- identified barriers to and enablers for such a change

- implemented a number of pilot activities to advance towards these goals
- generated long-term transformation pathways to reach these goals
- documented and compared the lessons learnt

During this process, we realised that, in order to take RRI to the next level, pioneering R&I actors need to form coalitions to jointly advance systemic change. Due to their mediating role in innovation systems, Research and Technology Organisations (RTOs) can act as powerful facilitators in such coalitions, but real progress can only be made through aligned action.

Learn more at:

WWW.JERRI-PROJECT.EU



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JOINING EFFORTS FOR RESPONSIBLE RESEARCH AND INNOVATION

USER BRIEFING FOR INDUSTRY

PIONEERING ACTOR COALITIONS ARE EMERGING TO DELIVER SOLUTIONS TO SOCIETAL PROBLEMS USING RESPONSIBLE INNOVATION APPROACHES

Together **INDUSTRY** and applied research organisations like TNO and Fraunhofer can substantially contribute to and benefit from:

- Generating new ideas by engaging a greater diversity of perspectives
- Finding better solutions by systematically reflecting on impacts
- Creating new opportunities by harnessing open business models
- Strengthening internal governance by integrating ethical reflection
- Building reputation as responsible organisation by engaging with all societal actors

All in all, by being part of these coalitions we will secure sustainable long-term success and renew our collective social license to operate from society.

In JERRI, we have developed a set of tools and approaches supporting such coalitions to come together and co-create responsible research and innovation projects:

- A canvas tool for assessing societal impacts
- Guidelines for identifying ethical issues and gender aspects
- A workshop format for supporting value based decision making

- A Citizen-Cafe format supporting citizens to put societal needs forth to science
- An online game for thinking through ethical dilemmas
- A repository for the publication of research data
- A toolbox with good practice examples for advancing gender equality in research organisations
- Six business models for creating value through open science approaches,
- Fact sheets supporting researchers and their industry partners in integrating Open Access and Open Data into contract negotiations.

In addition, we have learned from the process success factors for institutionalizing RRI practices and mindsets that may well apply also to companies and industry organisations:

- Don't just add the new practices but proactively engage with established goals and narratives in the organization and position the new practices therein
- Frame the institutionalization of RRI as a process of organizational change
- Develop and use SMART¹ goals, to organize funding and support

- Establish support within the organization, both formal and informal
- Actively involve change agents, from both the inside and the outside
- Organize a flexible process, to seize opportunities and deal with contingencies
- Exchange lessons learnt within the project team and with others
- Adapt the process to your organizational context for each RRI aspect
- Create trusted spaces to allow deep diffusion of RRI mindsets and practices into the organizational culture
- Find the right balance between ambition and realism

Contact us to share experiences and discuss joint actions!

¹Specific, Measurable, Attainable, Realistic, Timely



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Learn more at:

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JOINING EFFORTS FOR RESPONSIBLE RESEARCH AND INNOVATION

USER BRIEF APPLIED RESEARCH ORGANISATIONS/RTOS

PIONEERING ACTOR COALITIONS ARE EMERGING TO DELIVER SOLUTIONS TO SOCIETAL PROBLEMS USING RESPONSIBLE INNOVATION APPROACHES

There is a huge opportunity for applied research organisations (RTOS) like TNO and Fraunhofer to become prime catalysts of this responsibility transformation and thereby boost their relevance in innovation ecosystem and renew their “license to operate from society”.

WHY IT IS IMPORTANT FOR RTOS

Because it boosts excellence

- Generating new ideas by harnessing a greater diversity of perspectives
- Finding better solutions by systematically reflecting on impacts
- Creating new opportunities by applying open business models
- Strengthening internal governance by integrating ethical reflection

Because our stakeholders request it

- Orienting research and innovation systems towards societal needs is fast becoming a dominant paradigm of **research and innovation policies**. Not only the EC but also many national governments have adopted RRI fostering measures e.g. to orient innovation towards the SDGs, requesting open access publications, ethical reviews or gender balanced perspectives.
- A growing number of **industry clients**

request our support in making positive contributions to societal challenges.

- **Citizens**, among them many of our employees expect tax funded research and innovation to address global challenges

Because our colleagues want it

Increasingly, our employees request and enjoy responsible practices

Because it is a unique opportunity

- RTOs can play a crucial role in fostering the emergence and stability of responsibility pioneering coalitions.
- Due to their close linkages to industry, policy, academia and other societal actors a shift in RTOs practices will “draw in” many others.

All in all, by being part of these coalitions we will secure sustainable long-term success and renew our collective social license to operate from society.

WHY WE NEED SPECIFIC APPROACHES FOR RTOS

RTOS face specific challenges in moving towards “science with and for society”. In JERRI, we found that we need to find RTO specific solutions that allow us to align RRI goals with

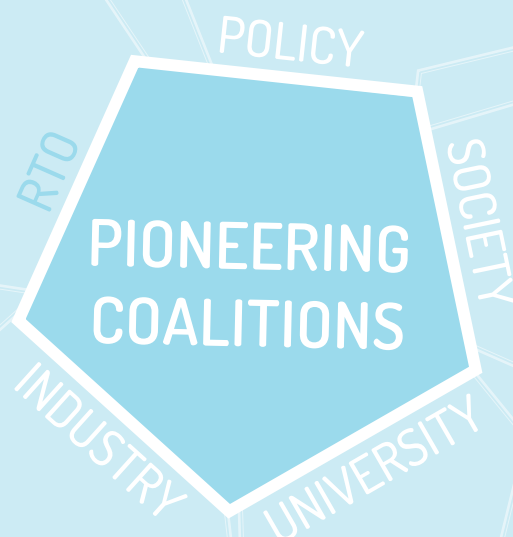
our traditional missions of contributing to research excellence and competitiveness in our respective innovation systems – goals which are also highly relevant to societies’ wellbeing. Also, as RTOs we cannot build our efforts on public funding alone. Rather we need to work together with our clients in industry and society to find “responsible business models” that are benefiting all sides. RRI paradigms such as “open science” and “citizen participation” need to be adapted to the RTO context to unfold their full potential.

Together we need to learn to create impact that is socially desirable, sustainable and ethically acceptable AND fits with our value creation models.

HOW YOU CAN BENEFIT FROM THE JERRI EXPERIENCE

1. Test and use the JERRI tools and approaches for co-creation of responsible research and innovation projects:

- A canvas tool for assessing societal impacts
- Guidelines for identifying ethical issues and gender aspects
- A workshop format for supporting value based decision making
- A Citizen-Cafe format supporting citizens to put societal needs forth to science



- An online game for thinking through ethical dilemmas
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2. Engage with us in a discussion on the lessons we learned in the process:

- Don't just add the new practices but proactively engage with established goals and narratives in the organization and position the new practices therein
- Frame the institutionalization of RRI as a process of organizational change
- Develop and use SMART ¹ goals, to organize funding and support
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