

RRI

INTRODUCTION

GORAZD WEISS, CENTRE FOR SOCIAL INNOVATION

2. RRI – RESPONSIBLE RESEARCH AND INNOVATION

RRI – some definition

“Responsible Research and Innovation is a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society).”

Source: von Schomberg, 2011:9

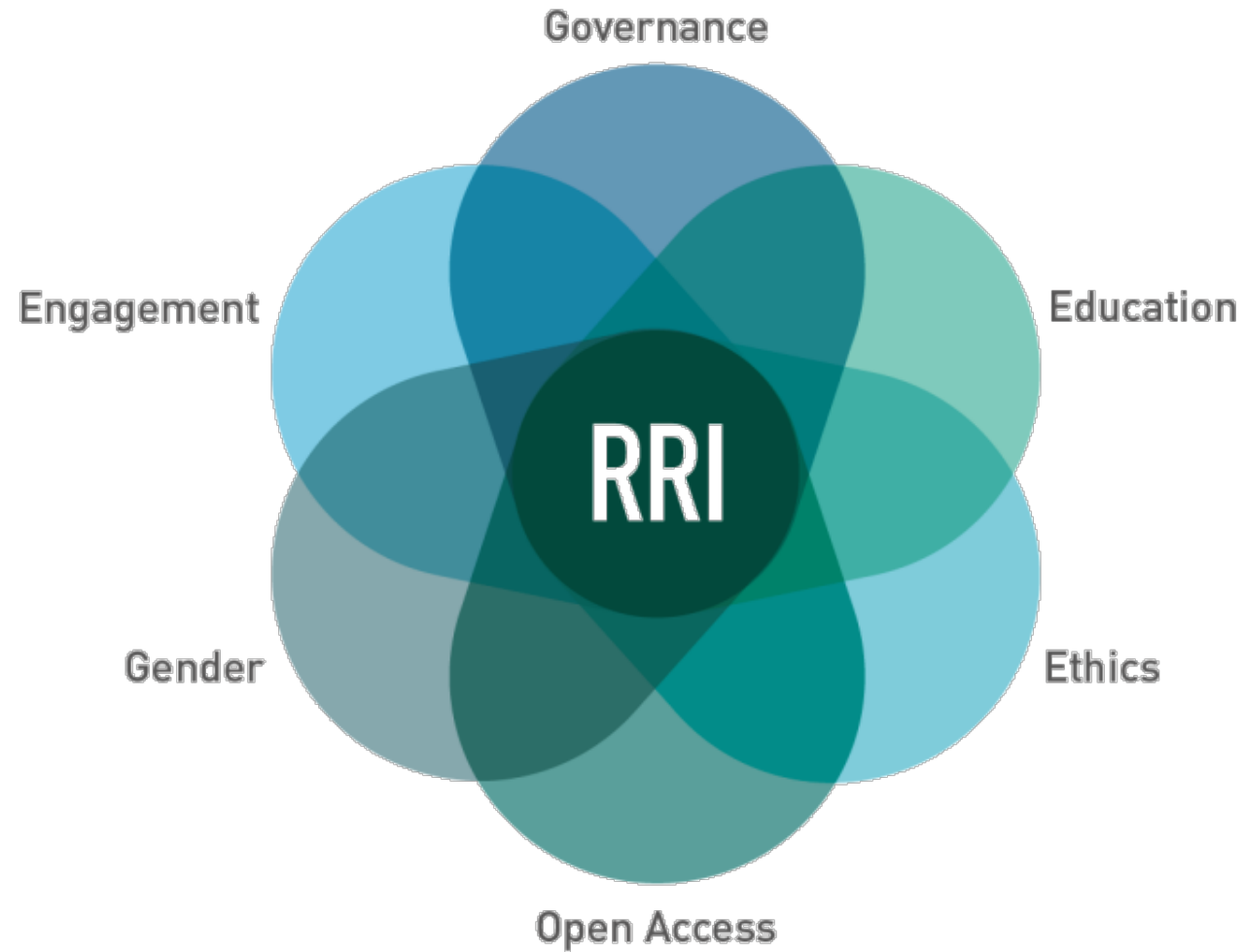
RRI is an inclusive approach to research and innovation (R&I), to ensure that societal actors work together during the whole research and innovation process. It aims to better align both the process and outcomes of R&I, with the values, needs and expectations of European society.

Source: <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-societ>

In practice, RRI consists of **designing and implementing R&I policy that will:**

- **engage society** more broadly in its research and innovation activities,
- increase **access** to scientific results,
- ensure **gender equality**, in both the research process and research content,
- take into account the **ethical dimension**, and
- promote formal and informal **science education**.

RRI DIMENSIONS



1. ETHIC

- **Ethics is an integral part of research from the beginning to the end.** It is only by getting the ethics right that research excellence can be achieved. Ethical research conduct implies the application of fundamental ethical principles and legislation to scientific research in all possible domains of research – for example biomedical research, nature sciences, social sciences and humanities.



- Focuses on (1) **Research integrity**: the prevention of unacceptable research and research practices; and (2) **Science and society**: the ethical acceptability of scientific technological developments

The most common ethical issues include:

- ↗the involvement of children, patients, vulnerable populations;
- ↗the use of human embryonic stem cells,
- ↗privacy and data protection issues,
- ↗research on animals and non-human primates.



2. OPEN ACCESS

- Addresses issues of accessibility to and ownership of scientific information. **Free and earlier access to scientific work might improve the quality of scientific research and facilitate fast innovation, constructive collaborations among peers and productive dialogue with civil society.**

European Open Science Agenda



- Fostering and creating incentives for open science
- Removing barriers for open science
- Mainstreaming and further promoting open access policies
- Developing an open science cloud
- Embedding open science in society more responsive to societal and economic expectations

3. GENEDR EQUALITY

- The ideal of gender equality in RRI is a society where the **representation of feminine and masculine** values in research and innovation **are balanced**.



- Fostering gender balance in research teams, in order to close the gaps in the participation of women.
- Ensuring gender balance in decision-making, in order to reach the target of 40% of the under-represented sex in panels and groups and of 50% in advisory groups.
- Integrating the gender dimension in research and innovation (R&I) content, helps improve the scientific quality and societal relevance of the produced knowledge, technology and/or innovation.



4. Science Education

- Focuses on (1) **enhancing the current education process to better equip citizen with the necessary knowledge and skills, so they can participate in research and innovation debates**; and (2) **increasing the number of researchers** (promote scientific related jobs).



- **Innovative formal and informal science education teaching and learning** is important in order to raise both young boys' and girls' awareness of the different aspects encompassing science and technology in today's society and to address the challenges faced by young people when pursuing careers in Science, Technology, Engineering and Mathematics (STEM).

5. PUBLIC ENGAGEMENT

- Public engagement in Responsible Research and Innovation is about **co-creating the future with citizens and civil society organisations**, and also bringing on board the **widest possible diversity of actors that would not normally interact with each other**, on matters of science and technology.



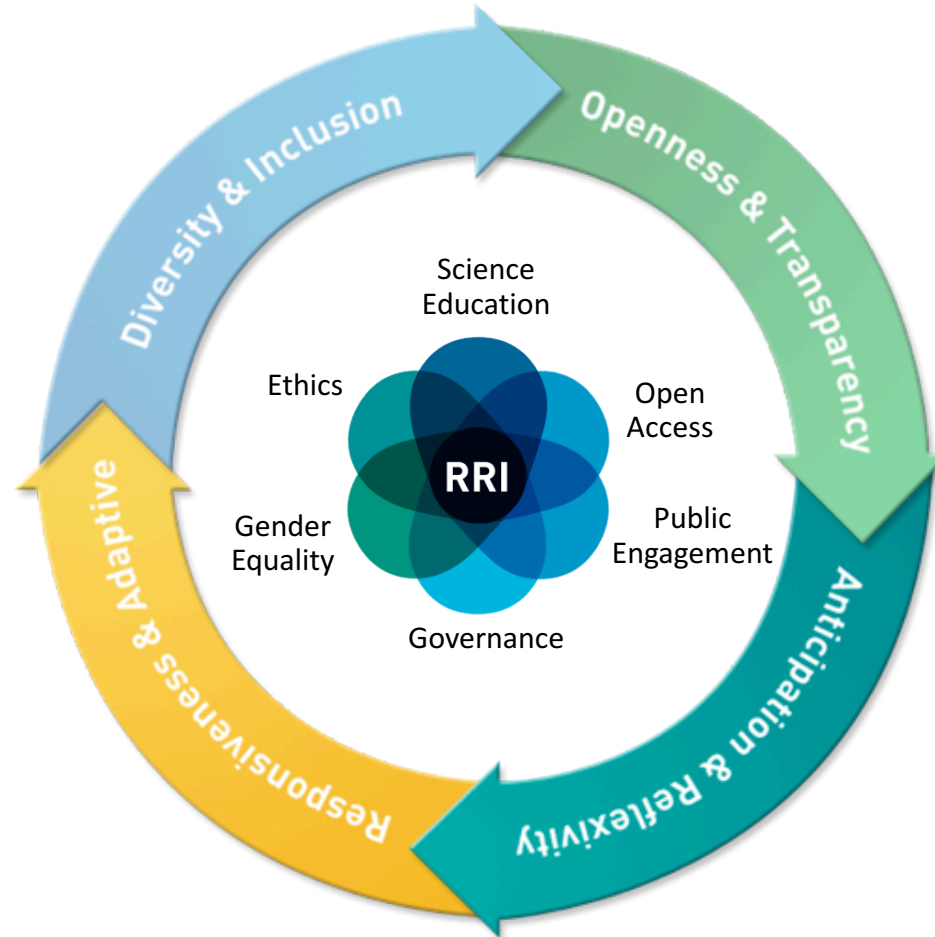
The process of **R&I** is **collaborative and multi-actor**:

= > all **societal actors** (researchers, citizens, policymakers, industry, educators, etc.) **work together during the whole research and innovation process** in order to align its outcomes to the values, needs and expectations of European society.

Implementing public engagement in Horizon 2020 => Building participatory Research & Innovation (R&I) actions

RRI RING

PROCESS REQUIREMENTS



OUTCOME REQUIREMENTS

LEARNING Outcomes

- Engaged publics
- Responsible actors
- Responsible Institutions

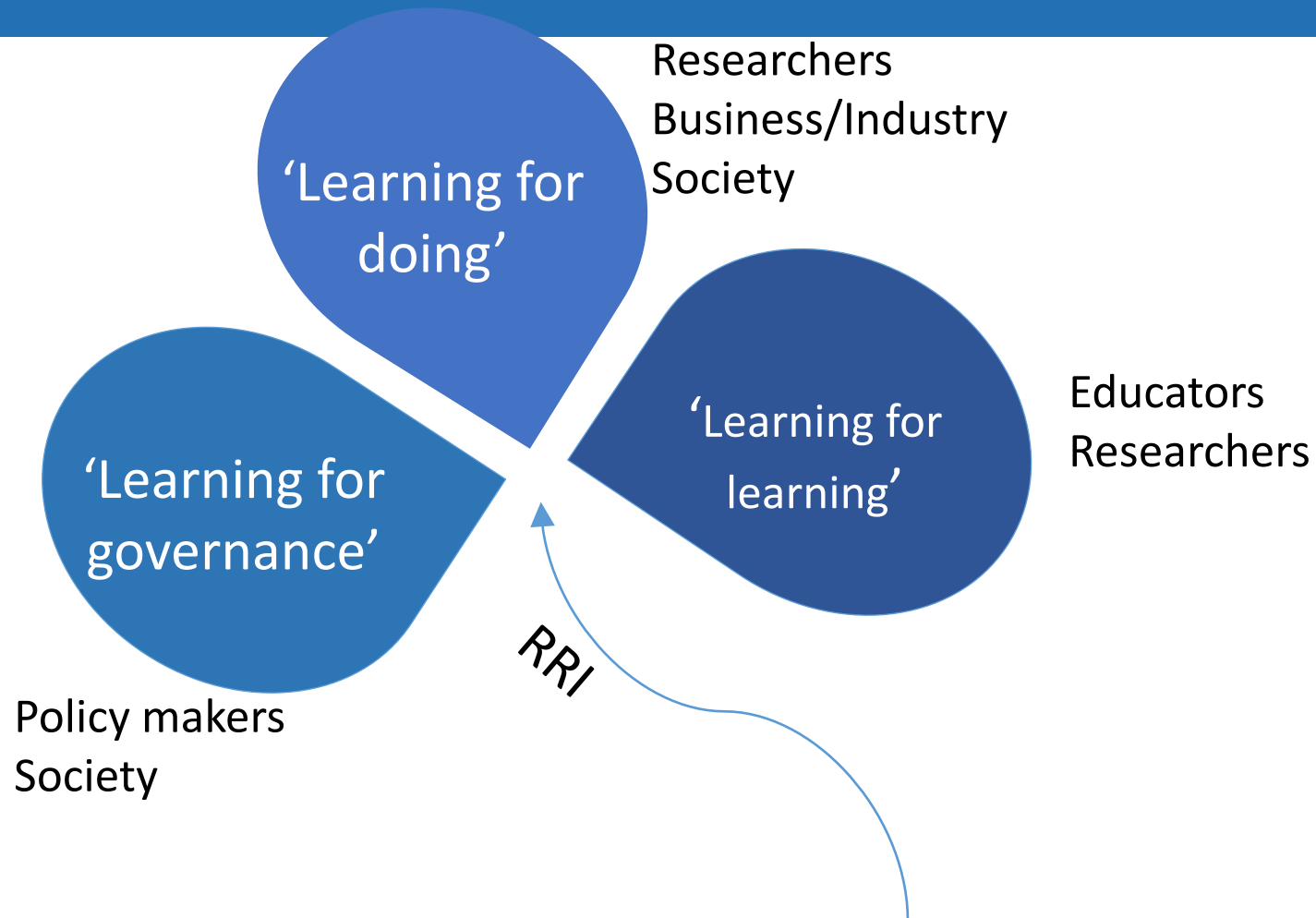
R&I SYSTEM Outcomes

- Ethically acceptable
- Sustainable
- Socially desirable

Solutions to Societal challenges

- Health & demographics
- Innovative & reflective societal
- Food & water
- Climate & resources
- Energy
- Transport
- Security

RRI as a learning process



RRI as a societal learning process

Stakeholder integration

Co-design & Co-creation

Responsible Research and Innovation

Societal actors work together to **align** research and results with the values, needs and expectations of society.

Public engagement

Iterative/participatory **multi-actor dialogues** to **co-create** research and innovation outcomes and policy agendas.

Trans-disciplinarity

Methodologies that **integrate scientific** disciplines, and non-academic **and non-formalized knowledge**.

RESOURCES:

[TOOLKIT](#)[I WORK IN...](#)[ABOUT RRI](#)[REGISTER / LOG IN](#)[Home / Self assesment tool](#)

Self-reflection Tool

What is RRI? What aspects of RRI are important in your work and already taken into account?
Which aspects need more reflection and consideration?

The self-reflection tool provides a questionnaire including questions and statements addressing all stakeholder groups (policy makers, education community, civil society organisations, industry an business and researchers).

This questionnaire is divided into six question blocks, according to the RRI Policy Agendas (Ethics, Gender, Equality, Governance of RRI, Science Education, and Open Access). This tool **aims to support you in starting a reflection process** on RRI and to **find appropriate resources** helping you to improve your research and innovation projects.

[START](#)

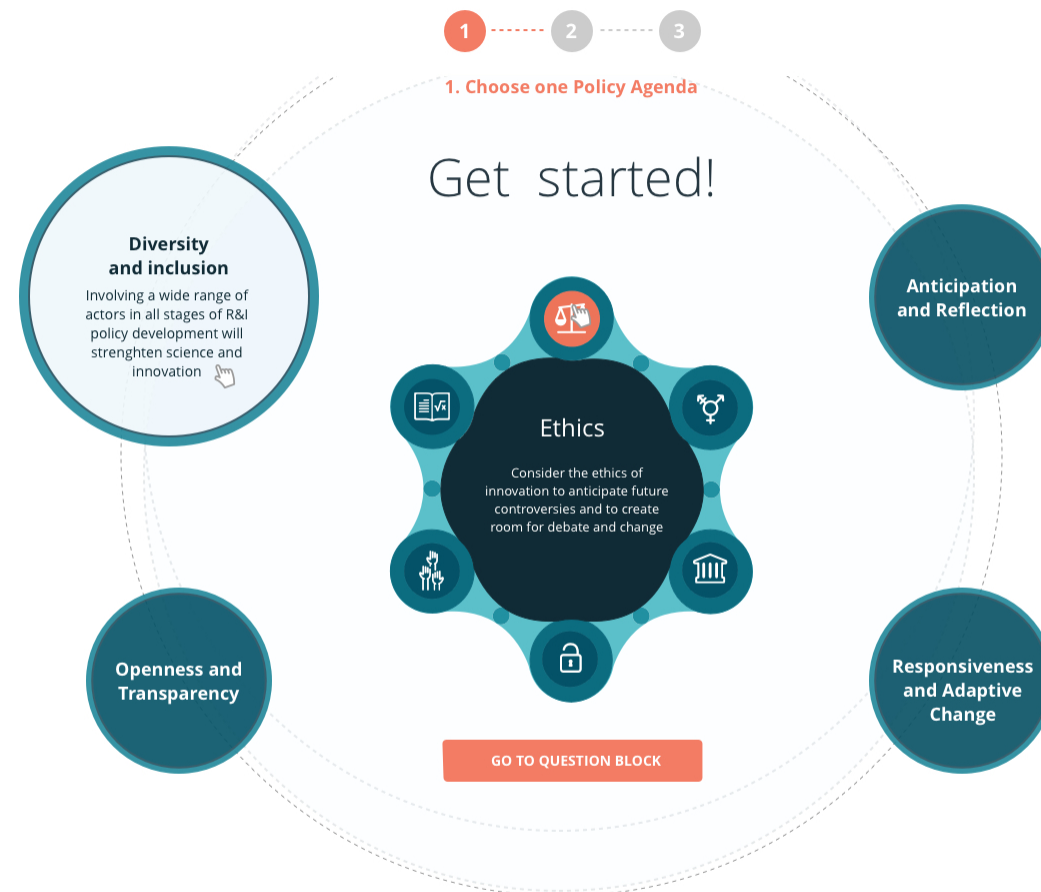
How to use this tool? A [guideline](#) to get best results



<https://www.rri-tools.eu/self-reflection-tool>

[Questions?](#)[Contact | Questions & Answers](#)[Follow us:](#)

Home / Self assesment tool



Questions?

Contact | Questions & Answers

Follow us:



Training courses & guides

WILLIAM MITCHELL
COLLEGE OF LAW

A Law School for the Real World

[Home](#) / [About](#) / [Prospective Students](#) / [Faculty](#) / [Library](#) / [Career](#) / [Alumni](#) / [Giving](#)

News & Events Faculty & Staff Web Current Students Web Email Access

Expert Witness Training Academy HOME

Expert Witness Training Academy

Faculty

News

Resources for EWTA Fellows

Expert Witness Training Academy

The Expert Witness Training Academy (EWTA) provides innovative workshops and training materials to scientists on how best to communicate scientific information in legal proceedings and other adversarial forums.

Effective communication of scientific expertise is particularly important in adversarial settings. Scientists must understand how to communicate effectively in courtrooms, legislative hearings, and related proceedings in which understanding complex scientific principles is critical.

Through the EWTA, scientists will learn and improve their skills to effectively communicate scientific principles in multiple forums. They will walk in the shoes of attorneys and expert witnesses through simulations and other hands-on

Collaborative Institutional Training Initiative
at the University of Miami

Search Knowledge Base

[Home](#) | [About Us](#) | [Courses](#) | [Become a Subscriber](#) | [CE Credits](#) | [News and Events](#) | [Contact Us](#)

Courses > Responsible Conduct of Research (RCR)

- Animal Care and Use (ACU)
- Biosafety and Biosecurity (BSS)
- Export Control (EC)
- Good Clinical Practice (GCP)
- Information Privacy & Security (IPS)
- Human Subjects Research (HSR)
- Responsible Conduct of Research (RCR)

Responsible Conduct of Research (RCR)

CITI Program's Responsible Conduct of Research (RCR) series includes disciplinary courses for the biomedical sciences, engineering, the humanities, the physical sciences, and the social, behavioral and education sciences. A course that is specifically tailored to research administrators is also available.

Each of the RCR course offerings covers the core norms, principles, and rules governing the practice of responsible research. RCR training is now part of funding requirements of both the National Institutes of Health (NIH) and the National Science Foundation (NSF). RCR is increasingly viewed as an essential component of research training, regardless of a researcher's source of funding.

Conflicts of Interest (COI)

A separate course covers the revised Public Health Service (PHS) regulations associated with financial conflicts of interest and an investigator's responsibilities relating to the disclosure of "Significant Financial Interests" is also available.

Content and audience

Teaching GeoEthics Across the Geoscience Curriculum

Teaching GeoEthics Across the Geoscience Curriculum: Workshop 2014

June 10-13, 2014
Chico Hot Springs, Pray, Montana

Application Deadline: extended to March 1, 2014

This workshop will explore the many dimensions of ethics education for the geosciences (GeoEthics). A major goal of this workshop is to begin to develop a community of scholars interested in developing a GeoEthics curriculum for use in geoscience courses at all levels. The workshop is designed to bring together innovators and early adopters to: a) survey, aggregate, organize and disseminate the instructional resources that are currently available, b) create a collection of case studies on GeoEthics that can be used in introductory courses, embedded into "core" courses for geoscience majors, or in dedicated courses on GeoEthics, and c) expand the network of colleagues who are interested in including a GeoEthics component in their own course work. The workshop is limited to 35 participants and we encourage those from the geoscience research and education communities, as well as the STEM ethics education community to apply.

Workshop Conveners
David Mock, Montana State University
Sue Kieffer, University of Illinois, Urbana-Champaign
John Geissman, University of Texas, Dallas
Daniel Vallerio, Duke University
Shaun Taylor, Director of Course Development at Educurious.org
Michael Reidy, Montana State University

Staff
Monica Bruckner, Science Education Resource Center (SERC)

Workshop Program and Tentative Schedule
Workshop activities will include presentations, demonstrations of teaching activities, large and small group discussions, and working group sessions. Instructional materials and other information will be organized and compiled as collections of digital resources and case studies on ethical issues for use across the geoscience curriculum.

- GeoEthics
- Overview
- Participant Checklist
- Participants Program
- End of Workshop Survey
- Case Studies Collection
- Professional Societies
- References and Resources
- Contribute a Case
- Contribute a Course
- Contribute a Resource
- Teaching GeoEthics Across the Geoscience Curriculum
- How to Teach GeoEthics
- What to Teach About GeoEthics
- Selected GeoEthics Resources
- Participant Workspace





RI-LINKS2U is funded by EU under the Horizon 2020 - Framework Programme for Research and Innovation /grant agreement no. 692476.

THANK YOU FOR YOUR ATTENTION!

CONTACTS:

Gorazd Weiss, Project Coordinator

Email: weiss@zsi.at

CENTRE FOR SOCIAL INNOVATION (ZSI)

Linke Wienzeile 246

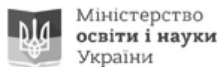
A - 1150 Vienna

AUSTRIA

Tel. ++43.1.4950442-39

Fax. ++43.1.4950442-40

[/www.zsi.at](http://www.zsi.at)



<https://ri-links2ua.eu/>

