RESPONSIBLE RESEARCH AND INNOVATION IN PRACTICE

This policy brief provides insight into

→ The concept of Responsible Research and Innovation (RRI)
→ The relevance for RRI in Brazil
→ The RRI-Practice project

The RRI-Practice project

The main aim of RRI-Practice is to analyse RRI related discourses and pathways to implementation, including barriers and drivers, in 22 research conducting and research funding organisations, in 12 European and non-European countries, in order to identify, understand, disseminate and promote RRI implementation best practices that can be scaled up at European and global levels.

The Brazilian case study has included the University of Campinas (UNICAMP) and the São Paulo Research Foundation (FAPESP) and is now concluded.

The project is funded by the European Commission, in the period 2016 – 2019

Interpretations of RRI

The University of Campinas understands 'responsibility' as promoting positive social impact through excellence in teaching, research and outreach.

The European Commission emphasises five policy keys for RRI: ethics, gender, open access, societal engagement and science education (see https://ec.europa.eu/programmes/horizon2020/en/h2020-section/responsible-research-innovation).

The main project contact person in Brazil

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POLICY BRIEF

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Responsible research and innovation (RRI) has emerged in recent years, especially in Europe, as a science policy framework that seeks to achieve a) engaged publics and responsible actors in the science and innovation field; and b) ethically acceptable, sustainable and socially desirable research and innovation outcomes that are aligned with societal needs and challenges.

In February 2017 the UNICAMP/FUNCAMP team organised a workshop with key stakeholders in the Brazilian research and innovation system. In this workshop, responsibility in science and innovation was linked to the need to promote development and wider social impacts through excellence in research and through promoting innovation. There was general debate about the absence of innovation in the private sector, but also optimism about RRI principles as aligned with local missions of public research institutions.

Studies in the project show that in Brazil, there is little knowledge of the European RRI framework, but there are many practices that align with the values promoted by RRI. There is also great interest in promoting greater debate between science institutions and wider society, through better communication and wider engagement. Although there is a disinterest in the private sector for investment in innovation, stakeholders in research are deeply concerned with promoting development and social inclusion, albeit how that can be achieved is a disputed notion.

Brazil has several good practices related to responsibility in science, including: the **Scielo open access platform**, which allows for access to much of the country's scientific output; it has achieved a measure of gender equality in some levels of public research; **transparency in access to information** in the public sector; and there is a strong sense of **being accountable** to society through **being publicly funded research institutions**.

In Brazil, some important barriers are: resistance to any framework from the outside which can be seen as interfering with institutional autonomy, pressuring institutions already pressed from lack of long-term funding stability and sustainability.

Brazilian RRI workshop (Feb 16th, 2017, at FUNCAMP)

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[Paula Xavier, Information and Communication Officer, Fiocruz]

Paula, what are the main challenges in research and innovation in Brazil and how can RRI as an approach help to address these?

"RRI is a mechanism which tries to present solutions to critical questions on Science and its relation to society, including scarcity of resources, the productivist logic based in quantitative evaluation criteria for publications, the lack of alignment between Science and societal demands. In this perspective, it is a relevant alternative which should be critically appropriated in the agendas for science in countries like Brazil, as a way to contribute to the scientific and technological development without reinforcing asymmetry between countries. Mechanisms like RRI, which align with an idea of science as more open and collaborative, present an opportunity to rethink models of innovation so as to align them better with the national interest."

Do research and innovation create societal problems or solve them?

RRI can help open a conversation about challenges faced by Brazilian research institutions, including the need to be more accountable to society's broader goals and challenges, and to keep providing positive impacts in a context of political and economic crisis. Brazil faces many deep challenges, where science and technology can participate in seeking innovative solutions:

- Zika, Dengue and other diseases, coupled with public health challenges
- Environmental impacts from natural resource extraction (Belo Monte Dam, the Marana mining waste spill, among many others)
- Monitoring and curbing deforestation in the Amazon and mitigating climate change
- Building a more sustainable agricultural sector through technology
- Mapping biodiversity in order to promote better uses and control its destruction
- Promoting more inclusiveness and growth in a deeply unequal society

Do we have the tools for being responsible?

RRI provides an approach for addressing responsibility in research and innovation. We have identified several practices and policies in use in Brazil, which can help enable greater responsibility:

- **Public research ethics**: researchers already understand their need to be accountable to broader societal goals and see this as central to participating in publicly funded research. This institutional culture can be an ally to building more responsible science and technology
- Public research systems' drive for **transparency, accountability and diversity**: in general, institutions in Brazil have policies in place (or seek to develop and implement them) to be accountable and transparent, which can also help promote RRI
- A perception in the scientific community that the public research system, in order to become stronger and more consolidated, needs to **deepen its engagement to society and its broader challenges**, and thus an already existing desire to engage with the problems posed by RRI.

You can read the Brazilian National Case Study Report on https://www.rri-practice.eu/knowledge-repository/publications-and-deliverables/

Partners:

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The RRI-Practice consortium