

Higher Education Institutions & Responsible Research and Innovation



Context

The Research and Innovation (R&I) system is under pressure and a profound transformation. While society increasingly relies on R&I to address the challenges of our time -such as climate change, global health, sustainable development, scarcity of resources, or privacy and security issues-, the R&I system itself is required to respond to social demands on greater transparency, inclusion regarding gender and minorities, ethics, and broader societal participation. In other words, there is a clear call for more democratic research and innovation to contribute to social progress and wellbeing.

Education plays a critical role in this transformation. Embedding socioeconomic and ethical principles in science education, promoting critical thinking, empowering citizens to make their own decisions on science policy and training future scientists in sharing responsibility with all actors need to be rooted in the education system to foster and consolidate ongoing changes.

From this scenario emerges the concept of Responsible Research and Innovation (RRI), which tries to provide a holistic view of how the R&I system should respond and adapt to better align its processes and outcomes to the needs, values, and expectations of society.

Whatis HEI?

A Higher Education Institution, HEI, is a formal learning organism that is accessible after the secondary education, such as universities, academies, colleges, seminaries, and institutes of technology.

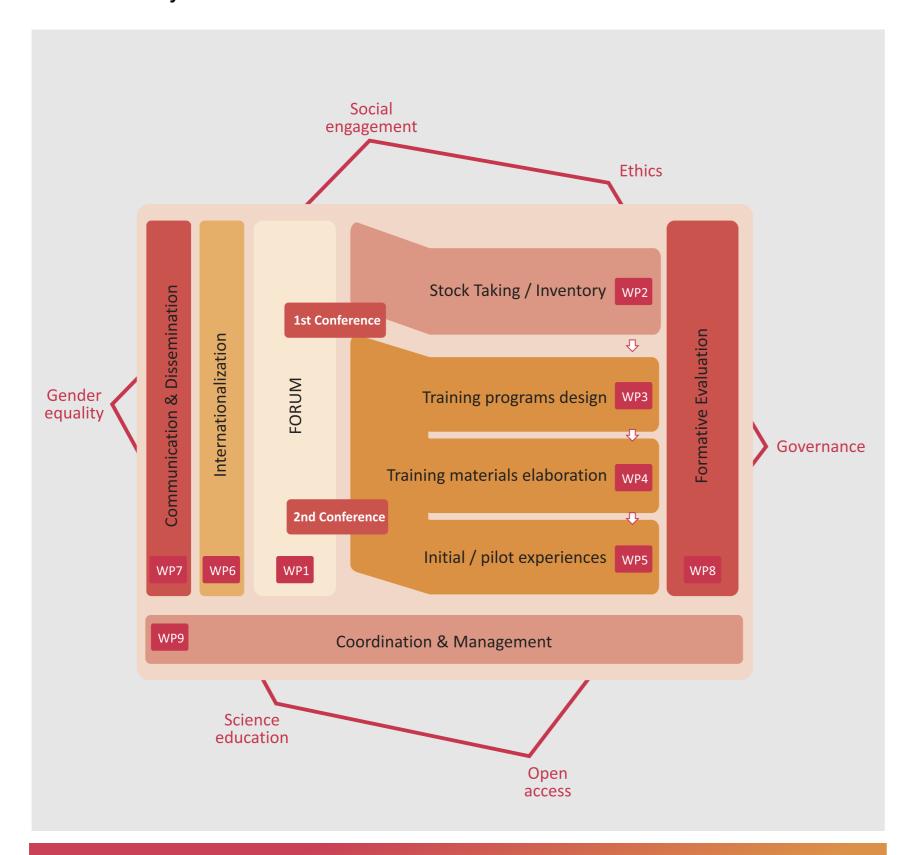
Whatis RRI?

Responsible Research and Innovation (RRI) is a concept under construction. According to René von Schomberg, "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)". Therefore, RRI seeks the alignment between R+D+i and the societal needs, values and expectations.

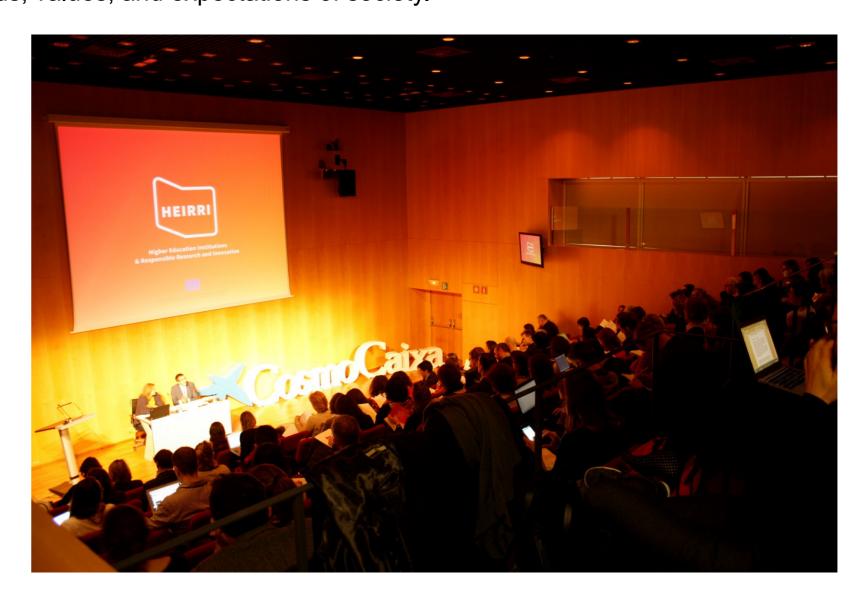
The <u>European Commission</u> has identified six key axes of RRI: **public engagement, science ethics, science education, gender equality, open access**, and **science governance**. Moreover, RRI has four more attributes: it is **anticipatory, inclusive, reflexive** and **responsive**.

This is HEIRRI

HEIRRI is a Horizon2020 project that aims to integrate the concept of Responsible Research and Innovation (RRI) at all stages of education of scientists and engineers, as well as other fields or professions working on or affected by R&I.



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Description of the project

During its three years duration, HEIRRI will develop:

Multi-stakeholder forum: actions to promote debates on the need to integrate RRI and advance towards the change that it implies. The forum includes two international conferences and a programme of online communication actions.

Stock taking: "State-of-the-Art" review about RRI (and its 6 key aspects) in higher education programmes, detecting practical examples and cases of good practice.

Training materials design, elaboration and pilot experiences:

- Different educational levels (undergraduate, postgraduate, PhD, Summer courses & MOOC)
- Focused on PBL (Problem-based learning) methodology
- · Multimedia formats and available on Open Access (through RRI Tools)
- · 10 pilot experiences around Europe (two pilots in each participating university)
- 3 local partnerships University-Science Museum

Internationalization, spread the voice and listen: public presentation of HEIRRI at international conferences and seminars and set up of 2 scholarships for universities outside Europe.

Communication and dissemination: to raise awareness of RRI and RRI Learning. Blog, social media, press review, newsletter and dissemination activities within the scientific community.

Formative evaluation: an independent company will internally monitor and evaluate the progress towards the project's objectives and goals.

Coordination and management: transversal actions throughout the project.

Consortium



