

Innovation refers to the development of new technologies. Responsible innovation refers to the development of new technologies, in a way that demonstrates social and ethical awareness. Responsible Innovation comes from the phrase “Responsible Research and Innovation”, an academic research area. This is why the acronyms RI and RRI are often used interchangeably. This page uses RI to indicate a more general type of responsibility that is not restricted to researchers and includes all innovators, regardless of their situation.

RI represents a change in culture, from tech-first-ask-questions-later, to an anticipatory, reflective, deliberative and responsive methodology centred on human problems and realistic solutions. RI is a holistic approach, a continuous, iterative process of learning integrating expertise from different stakeholder perspectives. There are 7 criteria for RI: public engagement, gender equality, science education, open access, ethics and governance. Strand et al (2015) provide a list of performance indicators that can be used to measure innovation processes, outcomes and perceptions.

### **Sources**

Owen, R., Stilgoe, J., Macnaghten, P., Gorman, M., Fisher, E., & Guston, D. (2013). A framework for responsible innovation. *Responsible innovation: managing the responsible emergence of science and innovation in society*, 31, 27-50.

Strand, Roger & Spaapen, Jack & Bauer, Martin & Hogan, Ela & Revuelta, Gema & Stagl, Sigrid & Paula, Lino & Guimarães Pereira, Ângela. (2015). Indicators for Promoting and monitoring responsible research and innovation. 10.2777/9742.

[The Keys of RRI | Orbit RRI \(orbit-rii.org\)](https://orbit-rii.org/)

[European Union priorities for 2019-2024](#)

[United Nations 17 sustainable development goals](#)