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ABSTRACT: This deliverable includes the Policy Brief “How to promote an ethical and effective Self-regulation with and for society?”.

Versioning and contribution History

Version	Date	Modified by	Reason for Modification
1.0	16/04/2021	Elsa González	
1.1.	26/04/2021	Elsa González	Introduce the comments and suggestions made by the partners and internal reviewers of the deliverable: EUREC (Julia Mönig) ARC Fund (Marko Hajdinjak) ZSI (Gabor Szudi)

Abbreviation

HEFRCS	Higher Education, Funding and Research Centres
QHM	Quadruple Helix Model
EC	European Commission
EU	European Union

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EXECUTIVE SUMMARY

The first Policy Brief conducted by the RTHNA System Project with the template established by the European Commission is included below as an annexed document. The Policy Brief is based on findings from the RRI literature review, interviews with 22 European-based experts on R&I governance in different dimensions and keys of RRI, a survey among European networks and projects involved in the matter of ethical governance of R& and two European level workshops following the QHM (Quadruple Helix Model). After this first Policy Brief, the second one is scheduled to be presented in month 36.



EUROPEAN POLICYBRIEF



ETHICAL GOVERNANCE OF R&I IN HIGHER EDUCATION, FUNDING, AND RESEARCH CENTRES.

HOW TO PROMOTE AN ETHICAL AND EFFECTIVE SELF-REGULATION WITH AND FOR SOCIETY?

April 2021

INTRODUCTION

Institutional changes are required to respond to the increased interactions between R&I stakeholders in society. Through institutional changes, Higher Education, Funding and Research Centres (HEFRCs) become more open and accept inputs from citizens and organisations that used to be considered outsiders to the world of R&I. Some examples include citizen science, extended peer review in funding agencies, co-creation of public policies, agenda setting in research and innovation programmes, co-production of research and innovation content, and co-evaluation of proposals, activities, or other R&I funding decisions.

Good practices are widespread in Europe in terms of citizens' and citizens' associations engagement in science; formal and informal science education; gender equality in science; research ethics and integrity and open access to research results. The good practices in these five fields are much more easily, efficiently, and sustainably implemented when the organisations funding, performing or associated to R&I have significantly adapted their governance frameworks to open up through a process of institutional change.

Results of the projects should contribute to a greater involvement of all stakeholders in R&I, and a better and more sustainable engagement with citizens and society as a whole. Achieving this goal will depend on joint work between academia research, business and industry, civil society and also government. This paper aims to provide policy recommendations to relevant policy makers on how to promote ethical and effective self-regulation with and for Society. These pointers can be useful for the upcoming Horizon Europe and, in a broader term, for the promotion of other policies with R&I scope.

The ETHNA System Project aims to develop a governance structure that can contribute to ensuring that research and innovation processes are responsible, in the sense of being ethically acceptable and socially desirable, in Higher Education, Funding and Research Centres (HEFRCs).

The analysis provided in this policy brief is based on findings from: the RRI literature review, with a particular focus on the governance and public engagement of research and innovation process; interviews with 22 European-based experts on R&I governance in different dimensions (anticipation, inclusion/deliberation, reflexivity and responsiveness) and keys (research integrity, governance, gender equality, public engagement, scientific education and open access) of RRI [DOI <https://doi.org/10.5281/zenodo.4564290>]; a survey among European networks and projects involved in the matter of ethical governance of R&I [SIS.net, ECsite, GenPort, EUCYS, ENRIO, ENERI, among others]; and two European level workshops following the QHM (Quadruple Helix Model) that took place. The first integrative workshop took place in two days, due to the pandemic in online format it was split: 23th and 26th de February. The “Research and Innovation in and for good society” in which the first results of the Project were shown publicly, took place on 25th March also in online format.

The analysis of the state of the art and the best practices in R&I governance from an ethical point of view shows that a proactive impulse is needed from HEFRCs and that the traditional tools for the management of ethics in institutions (e.g. codes of ethics, codes of conduct, codes of good practice and ethics, bioethics, animal welfare or biosafety committees) need to be reassessed and accompanied with tools for compliance, monitoring and updating (e.g. ethical lines, progress systems). The analysis of the findings also helps to identify some of the obstacles that need to be considered in order to implement the institutional changes that will allow for an ethical and effective governance of R&I following RRI.

More specifically, the analysis shows that HEFRCs should:

- Design R&I governance mechanisms that allow for both contributing to solve great societal challenges, like AI, climate change or economic inequality, among others, as well as avoiding harmful outcomes of R&I, in terms of harms to research participants, environmental harms, etc.
- Raise awareness and spread knowledge among its researchers and managers regarding the importance of the ethical aspects involved in research and innovation activities.
- Create an administrative structure or an ethics officer position who is in charge of coordinating the design and implementation of the adequate tools (code of ethics, committee, ethical line and monitoring indicators) for an effective and ethical governance.
- Facilitate and coordinate stakeholder network interaction to align science with the needs and expectations of society at large, and thus be positioned to create technologies that are not harmful, but moreover also socially beneficial.
- Make R&I more reflexive and anticipate potential negative social, environmental, and economic consequences of new technology through soft law mechanisms that facilitate self-governance, like codes of conduct, guidelines, sets of indicators, etc.

ETHNA System is defined as an ethical and effective “meta-governance” that organisations can embrace to self-regulate their decisions and practices in the R&I scope so that they live up to ethical standards and to social needs and expectations, while respecting the existing legislative framework. The implementation of this system should be carried out based on 6 core implementation principles: flexible, adaptable, integrative, responsive/proactive, networking and direct.

Concerning the mechanisms that make this ethical and effective "meta-governance" possible in HEFRCs, the analysis of best practices and their discussion with QHM agents in the R&I space indicate that:

- An institutional ethical code on R&I should be suited to accommodate dialogue on ethical questions related to broader, societal issues.
- An R&I ethics committee should involve the possibility for public engagement and societal needs alignment. That means that top-down and bottom-up approaches should go hand-in-hand to achieve an ethical and good practice code in R&I for each HEFRC.
- An R&I ethical hotline should be adequately designed to include all kinds of legitimate reports.
- R&I progress indicators should avoid shortcomings in the inclusion of stakeholders in the deliberative process of arriving at the indicators.

The main identified obstacles to the development of an ethical and effective "meta-governance" are:

- Lack of incentives and knowledge in the funding programmes.
- A dominant culture of "publish or perish" in the research and innovation structures, where science is funded based on results, publications and patents without considering key ethical issues.
- Little knowledge of how to assess and evaluate social, ethical, economic, and environmental impacts in all areas of knowledge.
- The lack of transdisciplinary culture in research teams as well as in science funding calls.

POLICY IMPLICATIONS AND RECOMMENDATIONS

Taking into account the evidence and analysis on the main issue: How to promote an ethical and effective self-regulation with and for Society, our key recommendations to the policy-makers are:

General recommendation:

- Promote governance structures of RRI that combine "democratic and bottom-up understanding of RRI, engaging stakeholders, including lay people" and "expert and top-down understanding of RRI, relying on expert systems and committees", both in forward-looking as well as in backward-looking ways.

Specific recommendations:

- Facilitate a space where the HEFRCs could easily find examples, good and best practices on ethical and effective governance of R&I from the different points of views: funding and performing. E.g. a virtual platform promote and maintain by European Commission.
- Set out procedures and develop guidance to carry out an ethical and effective governance of R&I activities in HEFRCs following a stakeholder engagement and social needs assessment.
- Provide funds and incentives for institutional changes that make achieving an effective and ethical governance possible: the adaptation or creation of codes of ethics and good practice, the adaptation or creation of research and innovation ethics committees, the establishment of ethical guidelines or the development of indicators for the monitoring of an effective and ethical governance.
- Provide funds and incentives for institutions to develop stakeholder engagement and social needs assessment in the HEFRCs, e.g. through the evaluation of the proposals and specific budgets to do it.
- Introduce explicitly in the calls the stakeholder engagement and social needs assessment by asking for co-creation, public engagement and taking into account ELSI (Ethical, Legal and Social Issues).
- Promote initiatives which contribute to the communication between the broader public, stakeholder groups, funding research & innovation and researchers, e.g., through providing funds and organize events or opportunities to publish.
- Encourage transdisciplinary teams to carry out an ethical reflection on the whole process of the projects (from the design and development, to the implementation and/or exploitation and dissemination of the results).

SUSTAINABILITY AND LEGACY

The results obtained to date are available on the ETHNA System Project website [<https://ethnasystem.eu>]. Among them, the D.2.2. "Report on the state of the art and best practices", on which this document is based, is worth being highlighted. It includes a **Literature review and state of the art description**. Mapping examples of good governance of research and innovation (R&I) related to responsible research and innovation (RRI), in Higher Education, Funding and Research Centres (HEFRCs) in Europe.

During this first year of its life ETHNA System has developed **joint efforts** with GEECCO [H2020 – Grant Agreement 824585] in a Webinar on “Gender Equality in Responsible Research & Innovation” [<https://ge-academy.eu/gender-equality-in-rri/>].

ETHNA Project is publishing all the information on the progress and results on its own homepage [<https://ethnasystem.eu>] and the data that can be useful to R&I researchers is managed in **ZENODO** [<https://zenodo.org/search?page=1&size=20&q=ethna>]

PROJECT OBJECTIVES AND METHODOLOGY

The **overall goal** of the ETHNA System project is to define and implement a “meta-governance” system in HEFRCs that align the research and Innovation spaces, within the organisations that implement it, along with the dimensions (anticipation, inclusion/deliberation, reflexivity, and responsiveness) and key areas of RRI (research integrity, governance, gender equality, public engagement and open access). This main objective is divided into **5 specific goals**:

- Specific goal 1: To undertake a comparative analysis, dissemination, and exploitation of research results on RRI systems that will serve to the promotion of similar ethical governance systems in European countries.
- Specific goal 2: To define and implement a number of core ethical orientations and/or guiding principles that the HEFRCs themselves may recognise, incorporate and promote, so that R&I actors can carry out their activity in line with the RRI.
- Specific goal 3: To implement advice structures to all the stakeholders involved in R&I activities in the HEFRC from the highest ethical standards about the paths that they can undertake.
- Specific goal 4: To help raise the ethical standard of the science infrastructure across Europe including under-represented countries and new beginners of RRI as well as to bring closer future generations of European researchers, an ethical management structure of RRI.
- Specific goal 5: To guarantee ethics or fairness in the activity of Research and Innovation, as well as an open and inclusive dialogue with all identified stakeholders where the public engagement with citizens and Civil Society Organisations and citizens' associations in science will be pursued and always in line with the SDGs. A way to promote science with and for society.

The **methodological process** to define ETHNA System is based on Quadruple Helix Model (QHM) where the involvement of all stakeholders in R&I and the implementation of the ETHNA System and its institutionalization require a sustainable engagement with citizens and society as a whole. Moreover, ETHNA System includes the evaluation of the activities in order to communicate with transparency and publicity its achievements and points of improvement.

PROJECT IDENTITY

PROJECT NAME Ethics Governance System for RRI in Higher Education, Funding and Research Centres [ETHNA System].

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WEBSITE <https://ethnssystem.eu>

**FOR MORE
INFORMATION**

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FURTHER READING

. ETHNA System: Literature review and state of the art description. Mapping examples of good governance of research and innovation (R&I) related to responsible research and innovation (RRI), in Higher Education, Funding and Research Organisations (HEFRs) in Europe. Link: https://ethnasytem.eu/wp-content/uploads/2021/02/ETHNA_Report_state-of-the-art-2021-1.pdf

- ETHNA System: SWOT analyses of current and future HEFRC RRI initiatives. Link: https://ethnasytem.eu/wp-content/uploads/2021/04/20210226-D2.2-SWOT_NTNU-1.pdf