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?

February 2023

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 views 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 that are funding, performing or are 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 government. The implementation of the ETHNA System should also favour a more efficient relationship between existing structures within a given institution (e.g., ethics committees and gender equality offices) to better address societal needs. This document provides 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 Horizon Europe and, in a broader term, for the promotion of other policies within an R&I scope.

The ETHNA System Project has developed an institutional structure that enables ethical self-governance in four different contexts: higher education, research funding, innovation ecosystems and research centres. Its implementation contributes to ensuring that research and innovation processes generated by RPO's and RFO's in those four contexts are being ethically acceptable and socially desirable.

The analysis provided in this policy brief is based on findings from four different sources:

- A multi-stakeholder consultation process, aimed at validating and refining the ETHNA System concept, took place from April to December 2021. The consultation process included 25 interviews with experts, five workshops and an online survey of stakeholders working in different sectors (academic, business, policy) engaged with various RRI keys (ethics and research integrity, gender mainstreaming, open access and public engagement). Overall, over 900 experts from all around Europe participated in the survey and shared their views on the barriers, incentives and potential good practices on the institutionalisation of RRI (Szüdi, 2022).
- An analysis of the four trainings provided to the implementation teams (ETHNA Lab) in each of the implementing institutions. These trainings also used a co-creation methodology, and that allowed generating new information for the implementation of the ETHNA System process (Neuhaus et al, 2022). The training sessions took place on the following dates: 19th March 2021, 5th October 202126th November 2021and 28th January 2022.
- An analysis of the status of the ETHNA System implementation process and the overview of difficulties emerging from the processes based on two participatory evaluation workshops with the ETHNA System implementation partners held online on 15th and 16th September 2022 (Alves, 2022).
- An evaluation report about the implementation of the ETHNA System that includes identified barriers, drivers and good practices gathered from the piloting phase (Hajdinjak, 2023).

The main take-away of the whole consultation and evaluation was that similar problems (barriers) are present in different countries and organisations, but they cannot be solved by 'one-size-fits-all' solutions. We may formulate this as the 'journey is the reward itself', meaning that the implementers have benefited themselves from the processes initiated and facilitated as much as from the structures established during the implementation.

The ETHNA System implementation process in six organisations was administered by the appointed Lab Managers. Their responsibility was to plan, coordinate and facilitate the ETHNA Lab and to support all other participants in the process, for example the working groups tasked with the writing of the Code of Ethics or other relevant documents. They were responsible for the preparation of the Implementation Plan (or Action Plan) and for monitoring all stages of the process. The Lab Managers also recruited and engaged internal and external stakeholders for different activities (interviews, focus groups, workshops, webinars, trainings, etc.), maintained communication with the senior management, and reported to the project consortium on the process in their organisations.

The progress towards achieving institutional changes was monitored and measured through the application of relevant progress and performance indicators. Most of these indicators have been proposed by the implementation methodology and were therefore common for all implementers, but some were added to correspond with specific activities and goals of individual implementing organisations.

The implementing organisations identified different challenges and barriers for implementation of the ETHNA System and also proposed measures to overcome these barriers. Neither the barriers nor the measures are necessarily valid or applicable to all implementation contexts – the table below presents the overview of the most important ones.

Challenges and Barriers	Possible measures to overcome the barriers
If the methodology is applied too rigidly and 'to the letter', it might be perceived as imposed on researchers from the top.	A common understanding of the implementation plan should be established within the organisation. Implementation process should be flexible and allow for the necessary changes and adjustments.
The lack of resources (e.g., human resources, time, financing) necessary for the implementation can delay or prevent implementation despite the good intentions.	A group or a committee that meets regularly to discuss the implementation of the ETHNA System can be set up. The implementation can be linked with other activities or projects.
Insufficient understanding of the RRI concept and scepticism concerning its added value.	Simplification of the RRI concept and the ETHNA System methodology. RRI agenda should be applied in a way that does not impose limitations on researchers and their work. Support activities aimed at the internalisation and integration of RRI dimensions and keys in their daily work.
The lack of support from the senior management (no feedback or guidance).	Engage the upper management in the implementation workshops and convince about the efficiency of the method followed by regular meetings with the management.
Inadequate communication and cooperation between units (resistance based on hierarchy, experience, competition, professional 'jealousy', etc.).	Co-creation is crucial for changing the culture and the 'business as usual'. Stakeholders of the institution (staff and the management) need to take ownership and become engaged in the process.
Reluctance to implement changes and reforms in the organisation (can be present both among the staff and the management).	Use of awards and incentives (prizes and awards for best practices). The implementation may start as a top-down approach, but sustainability ultimately relies on the bottom-up approach.
Difficulties to engage the external stakeholders.	Building networks with external stakeholders. Establishing a systematic stakeholder engagement strategy and following steps to ensure effective participatory activities, e.g. avoiding stakeholder fatigue

POLICY IMPLICATIONS AND RECOMMENDATIONS

Several recommendations to policy-makers have been formulated for this document taking into account the evidence gathered and the analysis undertaken on the main issue: How to promote an ethical and effective self-regulation with and for society? Some of these recommendations had already been highlighted during the identification phase (state of the art and literature review), but have now been confirmed through the results of the implementation phase and multi consultation exercise.

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 support and understanding of RRI, relying on expert systems and committees", both in forward--looking as well as in backward-looking ways.

Specific recommendations:
- To incentivise that in Research Performance Organisations (RPOs) and Research Funding Organisations (RFOs) leadership leading figures need to be identified for them to lead the design of an action plan. This plan should define the specific objectives —linked to ethical governance in research— to be attained. The aforementioned action plan will also include the RRI keys that organisations will be working on. Senior management will also conduct the monitoring of the

progress in the implementation of the action plan and the launch of new formal structures within the organisation, while maintaining a constant dialogue with society.

- To stimulate the creation of codes of good practice for research and innovation, the ETHNA System will be taken as a reference, as it is flexible and can be adapted to the culture and structure of any organisation.
- To encourage RPO and RFO's staff to be trained on the system's mechanisms for their self-ethical governance, it is advisable to continue the provision of formative examples that are adaptable to each of the contexts. It is necessary for each organisation to specifically tailor the system to their specific idiosyncrasy. The final version of the ETHNA System responds to that objective thanks to its co-creative approach.
- To continue the support to pilots that use this very same system. This will enable RPO and RFO's having further implementation examples for their reference, and keep them advancing on the refinement of the system. On top of that, this will also enable the creation of documents that — through the use of infographics, presentations and guidelines— clearly show RPO and RFO's senior management the complexity of the issues tackled by this ethical governance system.
- To encourage the creation of evaluation systems applied to research projects, that include easy ways to tackle various of the RRI keys (such as ethical governance, integrity, gender perspective, open access and public engagement).
- In order to be successful in boosting ethical governance systems for RRI, it is vital to do it through a co-creation process. This way, the final result will guarantee a realistic establishment of the system that will bring large scope institutional changes.

SUSTAINABILITY AND LEGACY

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]

The project has and will continue to the creation of academic publications that are being and may be used by researchers, as well as by institutions interested in the implementation of an ethical governance system. Our communication and dissemination outputs are always published on the project website.

Finally, as ETHNA System is an implementation-based project, the ethics governance system will stay in place over time within all six implementing organisations. This is due to the fact that the process has generated institutional and governance related changes in them.

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).

The specific objectives that had been established from April 2021 up until February 2023, were the following:
- To redesign the ETHNA System implementation guide following the feedback received from the online workshops organised at a European level so that it can be applied in different contexts (universities, research centres, funding agencies and innovation ecosystems). At the same time, different guides were also designed: one for gauging the potential societal contributions of research and innovation", another one for "stakeholder involvement in ethical governance of R&I'', and a last one about the ''ETHNA System Implementation codesign requirements''. The guide for the

implementation of the ETHNA System, as well as for the rest of the guiding documents and the toolbox were used with the following objective (González-Esteban et al, 2022).

- To roll out the implementation in the six different HEFRCs institutions, using a co-creation methodology of living-labs in four of the different contexts. The work teams responsible for the implementation underwent training and participated in co-creation exercises in September. These actions allowed to publicise and refine the ETHNA Guide, as well as the rest of the support tools designed to facilitate the implementation process, the living-lab methodology based on co-creation processes and the Quadruple Helix Model (QHM) (Häberlein et al, 2021 and Neuhaus et al, 2022).
- The gathering of the lessons learnt during the implementation process in a way that evidence and learning are incorporated in the development of four specific documents: the "Blueprint for institutional change to implement an effective RRI governance", the "Evaluation report about of the implementation of the ETHNA System", the Final version of the ETHNA System, and the "Manual of trainers on the ETHNA System".

The **methodological process** for the implementation of the ETHNA System is based on a Living-lab co-creation process where the Quadruple Helix Model (QHM) has been used to involve all stakeholders in R&I. Moreover, the implementation of the ETHNA System and its institutionalisation 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].

COORDINATOR

Dr. Elsa González Esteban, Universitat Jaume I, Philosophy and Sociology Department, Castelló de la Plana, Spain – esteban@uji.es.

CONSORTIUM

Applied Research and Communications Fund,
Sofia, Bulgaria

BIOCOM
Berlin, Germany

EUREC Office gUG,
Bonn, Germany

Fonden Teknologirådet,
Hvidovre, Denmark

Fundación Española para la ciencia y la tecnología,
Alcobendas, Spain

HARNO,
Tallinn, Estonia

UNINOVA - Instituto de Desenvolvimento de Novas Tecnologias,
Caparica, Portugal.

Norges Teknisk-Naturvitenskapelige Universitet,
Trondheim, Norway.

Zentrum for Sociale Innovation – GMBH,
Wien, Austria

Further reading

Alves, Elsa (2022). Report on the ETHNA System Implementation Analysis - ETHNA System Project – Deliverable 5.4. Zenodo. https://doi.org/10.5281/zenodo.7501007

González-Esteban, Elsa, Feenstra, Ramón, Calvo, Patrici, Sanahuja, Rosana, Fernández-Beltrán, Fernando, & García-Marzá, Domingo. (2022). The ETHNA System. A Guide to the Ethical Governance of RRI in Innovation and Research in Research Performing Organisations and Research Funding Organisations. ETHNA System Project – Deliverable 4.2. Zenodo. https://doi.org/10.5281/zenodo.6532789

Häberlein, Lisa, Mönig, Julia Maria, & Hövel, Philipp. (2021). Stakeholder involvement in ethical governance of R&I. A guide for HEFRCs. ETHNA System Project – Deliverable 3.3. (Version 1). Zenodo. https://doi.org/10.5281/zenodo.6088546

Hajdinjak, Marko. (2023). Evaluation report about the implementation of the ETHNA System - ETHNa System D6.1. Zenodo. https://doi.org/10.5281/zenodo.7611766

Neuhaus, Sigrid Vedel, Holstener, Simon, Vestergaard Bidstrup, Maya, Kotnis, Sita Ramchandra, Rodríguez Coronel, Martha, González-Esteban, Elsa, & Eekhout, Xavier. (2022). ETHNA System Implementation Co-design Requirements Guiding Paper – The ETHNA Lab. ETHNA System Project – Deliverable 5.3. Zenodo. https://doi.org/10.5281/zenodo.6593696

Szüdi, Gabor (2022). ETHNA Validation Survey on Drivers and Barriers of Responsible Research & Innovation (RRI) [Data set]. Zenodo. https://doi.org/10.5281/zenodo.6616553