



Doing research right: how to ensure integrity in science

Research integrity is essential both for excellent science and for society to have trust in researchers and research institutions. Experts and stakeholders from all over Europe took part in a Horizon 2020 Policy Support Facility (PSF) Mutual Learning Exercise (MLE) on Research Integrity (RI) in order to share experiences and identify good practices to promote and ensure integrity in scientific research.

Setting out to ensure high-quality research that is relevant to society, the participants took stock of emerging challenges, current or planned policies and best practices at Member State level and beyond, in order to facilitate the sharing of experience among policy-makers and national authorities.

Some of the recommendations, good practice examples and experiences shared in their report include the work of national ethics committees and national research integrity forums, RI coaches, training and accreditation, and incentives such as badges awarded by research institutions.

In recent years, the policy debate on research integrity has matured and gained significant visibility on the European research agenda. Trends in research – with an increased emphasis on societal impact, relevance and valorisation – implies greater exposure of researchers to external pressures and tensions (outside the ‘ivory tower’). As a result, universities and other research organisations are increasing their societal interaction and rethinking their missions and responsibilities – bringing research ethics and integrity into greater focus.

The MLE brought together representatives of 14 countries’ research systems to debate the issues – working with four external experts in the field, covering ethics, philosophy, methodologies and medical research. Over the course of 11 months, the participants gathered examples of good practice and lessons learned on the ground during three country visits: to France, Greece and Norway.

During the course of these visits, the MLE facilitated discussions on the basis of four thematic reports focusing on the MLE’s four key topics: processes and structures, incentives, dialogue and communication, and training and education.

As a result of their discussions, their final report outlines the main challenges related to research integrity and responsible conduct of research (RCR) and provides concrete recommendations and tools for multiple contexts and settings. The recommendations address a range of stakeholders, from researchers and research-performing organisations (RPOs) to funding agencies and policy-makers, including the following:

- **Processes and structures** – Research organisations should define what RI means to them, why it is important and how they implement RI in their organisations, or how they aim to meet professional standards for conducting research. They should be encouraged to indicate how they value and safeguard RI – for example, through their organisational websites.

At the national level, creating a network of national RI structures would help to coordinate, monitor, educate, communicate and promote research integrity. Cooperation between different research ethics committees should balance independence and collaborative efforts in reaching decisions, and a system of appeal should be set up, while committee members should be carefully selected to avoid conflicts of interest.

Across Europe, professional RI standards, capacities and skills should be harmonised, and countries should join the European Network of Research Integrity Offices (ENRIO) to facilitate ongoing discussions, exchange of experience and collaboration.

In addition, academics should be encouraged to devote a special section of their CV to relevant RI experience or to develop an RI skills portfolio by obtaining RI training, contributing to RI promotion/dissemination at the institutional level, or in academic and public debate, or by providing RI training in their role as research manager or supervisor.

- **Incentives** – The group’s discussions suggested that soft measures can have broad effects, such as public recognition of significant institutional efforts to foster RI. Compulsory regulations and softer policy requirements should be complemented with positive incentives.

Inspirational rather than competitive forms of incentives or acknowledgements can be implemented, such as recognition of the quality and transparency of integrity policies, activities to promote RI and to foster an environment that supports RI, and activities in the realm of training, coaching and teaching. Awards, rankings and credit systems could also contribute. It would be welcome if universities and other RPOs shift their focus from 'reputation damage control' to transparency and sharing of best practices and mutual learning.

In addition, the effect of incentives should be closely monitored to ensure desired effects are achieved and to detect possible unintended consequences, in which case RI systems should be revised and adapted. Research on the impact of RI incentives and policies should be fostered and sustained.

- **Communication and dialogue** – The MLE's recommendations include the development of platforms for deliberation, where research communities address emerging challenges in a transparent and proactive environment based on mutual learning and where training material, good practice examples and other instruments are stored, curated and easily accessible.

The starting point is to establish productive dialogue among all stakeholders in RI: sharing experiences, ensuring transparency and confidentiality of communication regarding investigations. Policy-makers should provide clear legal and regulatory frameworks, promote public engagement, and communicate the importance of RI to all stakeholders.

Research councils and other national funding organisations, as well as ALLEA and academies, should be involved in RI dialogue and communication – and should take active steps to communicate their procedures and have structures in place for dealing with irresponsible research and research misconduct. Open dialogue and clear communication are crucial. Furthermore, other stakeholders, such as journals, media, business and industrial sectors should also be engaged.

- **Training and education** – RPOs need to invest in and care for their research culture. Fostering a supportive research ecosystem where responsible conduct of research is considered a joint responsibility of researchers, funding agencies and research managers is key. This includes establishing forms of research integrity coaching, where experienced colleagues may offer advice to individuals or teams, as RI needs a local voice and a face to become less abstract and more supportive.

Training programmes in the EU need to strike an optimal balance between coordination and diversity. Diversity across the EU and within countries must be preserved by encouraging institutional autonomy in the design and delivery of RI training and by discouraging an uncritical re-use of material from other institutions or countries. Meanwhile, coordination across the EU and within countries should be improved by sharing course materials, experience and data on RI training.

Overall, while codes and guidelines are important, attention should be given to the institutional research climate, which should be one of transparency, honesty, inclusiveness and fairness. Promoting integrity requires a holistic RI approach, seeing RI as an integral dimension of good research, embedded, realised and practiced in a resilient research culture.

The Mutual Learning Exercise on Research Integrity was carried out between July 2018 and June 2019 by a dedicated PSF panel of four independent experts with representatives of public research policy stakeholders from Austria, Bulgaria, Denmark, Estonia, Finland, France, Greece, Ireland, Lithuania, Luxembourg, Moldova, Norway, Spain and Sweden.

For further information:

The Final Report of the Mutual Learning Exercise (MLE) on Research Integrity:
<https://rio.jrc.ec.europa.eu/en/library/mle-research-integrity-final-report>

The PSF Mutual Learning Exercise (MLE) on Research Integrity:
<https://rio.jrc.ec.europa.eu/en/policy-support-facility/mle-research-integrity>

Seeking to improve the design, implementation and evaluation of research and innovation policies, the PSF provides expertise and practical support to Member States in a number of ways: Peer Reviews of national R&I systems, Specific Support to policy reforms, and project-based Mutual Learning Exercises to improve policy-making and implementation. It is funded under Horizon 2020 the EU's research and innovation programme with up to €20 million.