Guideline for Promoting Research Integrity in Research Performing Organisations

SOPs4RI

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The European Code of Conduct for Research Integrity lays out *reliability*, *honesty*, *respect*, and *accountability* as fundamental principles of research integrity. Most researchers aspire to translate these principles into responsible research practices to achieve high quality, trustworthy results. It is crucial that Research Performing Organisations (RPOs) empower and enable researchers to act responsibly and minimise the risk of violations to research integrity. To nurture responsible research practices and to identify and deal with breaches of the standards outlined in the European Code of Conduct for Research Integrity, RPOs in both the public and private sector need to ensure that appropriate policies and supporting governance arrangements, facilities, and procedures are put in place. Specifically, RPOs must develop, implement, and maintain a Research Integrity Promotion Plan (RIPP). A RIPP describes on a general level how the RPO promotes research integrity and refers to the concrete methods that the organisation employs or is developing to foster research integrity. A RIPP should be aligned with national and international regulations, and should be flexibly tailored to the mission, disciplinary focus, and organisational needs of the RPO. Based on extensive document reviews and consultations through interviews, focus groups, and Delphi surveys, this guideline points to nine topics that must be addressed in a RIPP.

Research Environment: To foster research integrity and minimise research misconduct and questionable research practices, RPOs need to nurture a supportive environment. Hyper-competition, harmful publication pressure, detrimental power imbalances, and conflicts should be explicitly addressed and adequately handled. Fair, transparent, and responsible policies for assessing, appointing, and promoting researchers must be in place. Diversity and inclusion must be actively promoted. Collegiality, openness, reflection, and shared responsibility are vital elements of a working environment where the risk of major and minor breaches of research integrity is minimised.

Supervision and Mentoring: Competent supervision and mentoring must be offered to researchers at all stages of their career development. The RIPP should specify procedures and criteria for qualifying as a supervisor or mentor and should include guidelines for supervision and mentoring of researchers at different career stages, with due attention to responsible research practices.

Research Integrity Training: Adequate training in research integrity must be provided to researchers at all career stages by qualified trainers. Specific training and opportunities for exchanging experiences should be offered to staff handling research integrity issues and to those teaching research integrity courses. The RPO should also ensure that researchers have access to adequate online information about research integrity and responsible research practices.

Research Ethics Structures: To ensure that researchers in the organisation can adhere to research ethics requirements, RPOs must develop and maintain suitable supportive mechanisms. Research ethics structures should include dedicated and adequately trained research ethics committees reflecting the character of research activities within the organisation. The RIPP should include procedures for ethics reviews relevant to the various research areas and disciplines within the organisation.

Data Practices and Management: RPOs must provide guidance, training, and adequate infrastructures related to data management and ensure that practices are compliant with legislation and applicable codes of conduct. Specific policies and procedures included in the RIPP must address legitimate concerns such as data protection, privacy, and Intellectual Property Rights, and ensure compliance with national and international regulations such as the General Data Protection Regulation (GDPR) of the European Union. The organisation must provide adequate infrastructures for secure data collection, storage, retention, archiving, and sharing. Moreover, RPOs must facilitate data management and curation procedures aligned with FAIR principles with a view to making data findable, accessible, interoperable, and reusable.

Research Collaboration: Collaboration across disciplines, sectors and countries is an integral part of research. RPOs must have policies and procedures for ensuring that research collaboration can be done responsibly in situations that demand specific attention, e.g. when researchers from different disciplines or with different professional backgrounds collaborate, when EU-based researchers collaborate with researchers from countries not covered by the GDPR and the European Code of Conduct for Research Integrity, or when RPOs collaborate across sectors.

Publication and Communication: RPOs must specify their expectations about procedures related to the publication and communication of research results. Specific policies and procedures to be included in the RIPP should address the use of preregistration, preprints, and online repositories, guidelines for the attribution of authorship, procedures for handling authorship disputes, the organisational approach to open access, FAIR data curation, expectations about the use of reporting guidelines, procedures for avoiding predatory journals, strategies for responsible peer review practices, and mechanisms to support and acknowledge public communication of research findings.

Declaration of interests: It is important that RPOs enable researchers to provide transparent declarations of interests and ensure that conflicts of interests are handled adequately. Researchers must be supported by policies and procedures in the RIPP that specify the organisation's approach to declaring interests and handling conflicts of interests in relation to research conduct, funding, peer review, evaluation, assessment, promotions, and collaboration across different sectors. In relation to commissioned research and consultancy work, the RIPP must outline the steps that the organisation takes to be transparent and clear about potential conflicts of interests.

Dealing with Breaches of Research Integrity: Even in environments with a strong research integrity culture, breaches of responsible research practices occur. RPOs must set up transparent procedures to receive, detect, handle, and sanction research integrity breaches. Procedures to ensure that researchers can consult research integrity officers or councillors in confidence should be part of the RIPP. To ensure that whistle-blowers as well as those accused of research misconduct are protected and that allegations are investigated fairly, RPOs should establish research integrity bodies and standardised procedures within the organisation or draw on national arrangements. The RIPP should also outline remedies following detection of breaches of research integrity, such as correction or retraction of papers, sanctioning of researchers who engaged in misconduct, and appropriate steps towards prevention in the future.
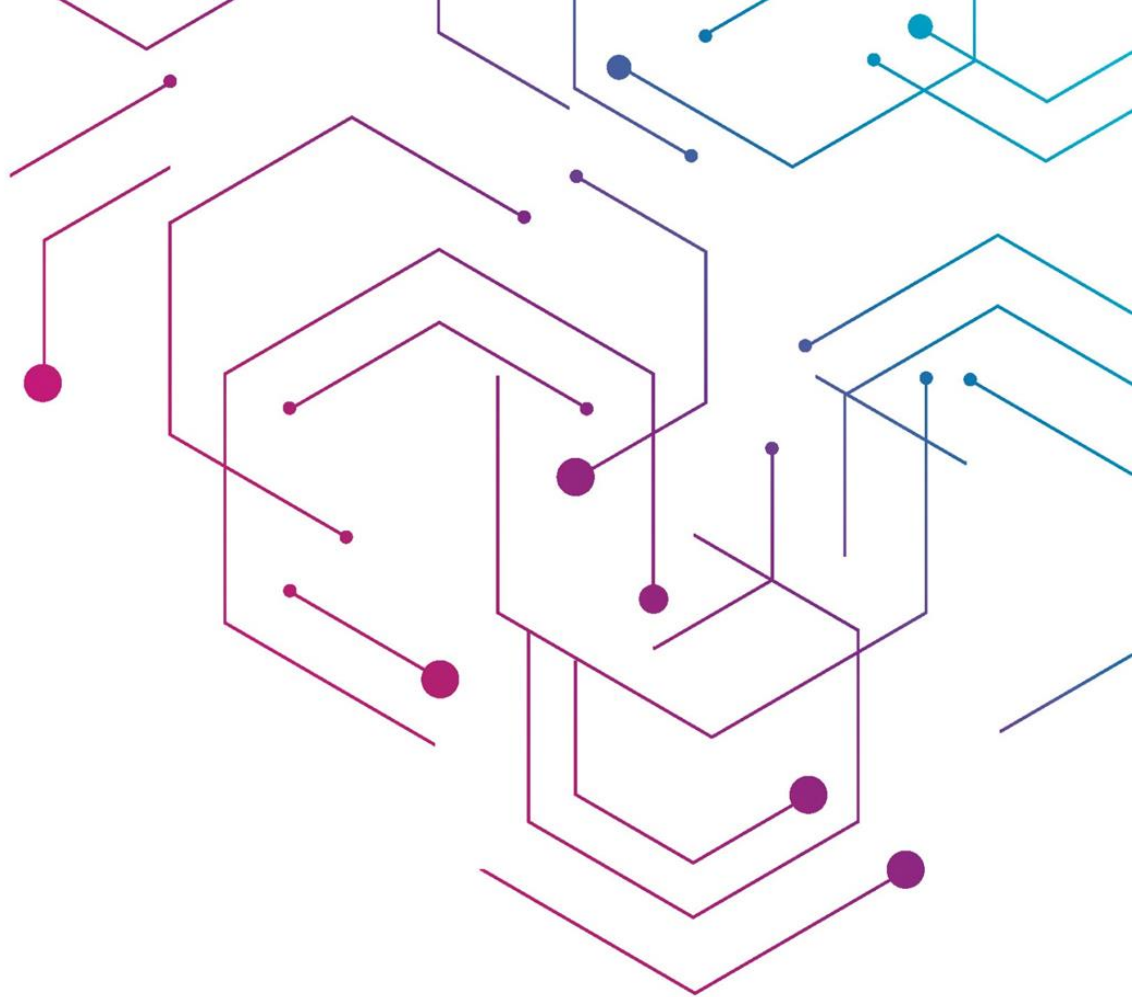
Resources and Inspiration for Developing a RIPP

The SOPs4RI project will identify existing and co-create novel Standard Operating Procedures and Guidelines relevant towards each of the topics presented in this document. These will be provided in an easily navigable toolbox that RPOs may be inspired from when developing policies, governance arrangements, facilities and procedures to be included in their RIPP (see www.sops4ri.eu). Importantly, the tools will be diverse and be relevant across a large range of disciplines, institutional profiles, and countries. This enables RPOs to extract tools that meet their specific organisational needs.

About this Document

This Guideline for Promoting Research Integrity in Research Performing Organisations was developed by the SOPs4RI consortium. The nine topics to be addressed in the organisational RIPP were identified on the basis of scoping reviews (see here), expert interviews (see here), and a Delphi survey study (see here). To examine disciplinary differences, 30 focus groups were also conducted across Europe (see here).

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