

Policy Statement on Ensuring Research Integrity in Ireland

Revised Edition 2024

The logo for the Research Integrity National Forum is a white speech bubble with a black outline, containing the text "RESEARCH INTEGRITY NATIONAL FORUM". It is surrounded by various scientific and educational icons: a flask, a book, a DNA helix, a graduation cap, a computer mouse, and an atom symbol. The background of the logo area is a mix of blue, orange, and pink circles and shapes.

**RESEARCH
INTEGRITY**
NATIONAL
FORUM

Introduction

This national policy statement aims to commit the main organisations in Irish research to the highest standards of integrity in carrying out and disseminating their research so that partners, the public and other stakeholders, and the international research community can have full confidence in the Irish research ecosystem.

A secondary aim is to guide knowledge users, the health system, industries and organisations in the broader research community to help them achieve the highest standards of integrity when conducting research or using research evidence in their work.

Research integrity relates to the performance of research to the highest standards of professionalism and rigour, and to the accuracy and trustworthiness of the research record in publications and elsewhere [1]. Research integrity shares many of the same principles with academic integrity [2]. However, there are distinctions between the two. While academic integrity applies to everyone pursuing responsible scholarly activities as higher education providers and professionals, research integrity applies specifically to those in the research community and, as such, focuses on best practices for responsible conduct of research. The Irish research ecosystem must protect its reputation for the quality and integrity of its research activity and outputs [3]. Therefore, research integrity is best ensured when all stakeholders in the research ecosystem work together to create effective processes.

The Irish public research ecosystem comprises not just individual researchers, research teams, and research support staff. It also includes research institutions and organisations that enable research: mainly traditional universities, Technological Universities, other higher education institutions (HEIs), research funding organisations, publicly funded research in the private sector, governmental research organisations, the charity sector, and Public and Patient Involvement actors. The members of the National Research Integrity Forum (hereafter, the Forum), which collectively represents many stakeholders in this ecosystem (see Appendix 1), have long been committed to the highest standards of research conduct and integrity, and individual research institutions and organisations have policies and procedures in place to underpin this [4].

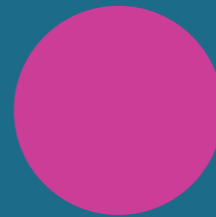
The transparency of policy and practice is enhanced by this national policy statement, which sets out agreed good practices in promoting and ensuring research integrity. This revised policy statement builds on the second edition of the "National Policy Statement on Ensuring Research Integrity in Ireland" (2019) [5], which has been adopted by all its signatories. It reflects changes in the national and international research ecosystems and growing recognition of the importance of research culture and its influence on these ecosystems [6]. Such ecosystem changes include the use and impact of social media to share and disseminate research outputs, the development and application of technologies, including artificial intelligence (AI), in research in new ways, and changes in how researchers are assessed.

To ensure consistency and alignment with accepted international norms and best practices in managing research integrity, the Forum endorses the international definitions and principles agreed by the ALLEA "European Code of Conduct for Research Integrity" 2023 [1] (hereafter, the European Code). While making this endorsement, we recognise that an Irish research integrity policy statement is appropriate to our specific national circumstances, existing guidelines and the Irish legal situation. The structure of the Statement is also influenced significantly by "The Concordat to Support Research Integrity" 2023 in the UK [7].

Implementing the policy statement is the collective responsibility of the members of the Forum.

¹The Irish research community encompasses a broad range of stakeholders, including individual researchers, research teams, and research support staff. It also includes the institutions and organisations that enable research, such as HEIs, research funders, academics, learned societies, editors and publishers, and other relevant bodies such as the health system, knowledge users, publicly funded research in the private sector, governmental agencies, charity sector, which helps to enable participatory research, and Public Patient Involvement (PPI) actors.

Commitments to foster and ensure research integrity



Research institutions and organisations adopting this policy statement make the following commitments:

1

To ensure the highest standards of rigour and integrity in all aspects of research in Ireland, founded on internationally recognised principles and good research practices to be observed by members of the Irish research community. This includes conducting research in accordance with appropriate ethical, legal, regulatory and professional frameworks, obligations and standards.

2

To support a national culture that embraces a positive, proactive approach to promoting research integrity. This will include developing our research community through education, promoting good research practices, and allocating resources and necessary infrastructure to support research integrity.

3

To work together to reinforce and safeguard the integrity of the Irish research ecosystem and to review progress regularly and openly.

4

To use transparent, robust, fair, and timely processes to deal with allegations of research misconduct when they arise.

In the sections that follow, we expand on these commitments and show how we intend to fulfil them.



COMMITMENT 1

Standards

We are committed to ensuring the highest standards of rigour and integrity in all aspects of research in Ireland, founded on internationally recognised principles and good research practices to be observed by members of the Irish research community. This includes conducting research in accordance with appropriate ethical, legal, regulatory and professional frameworks, obligations and standards.

The European Code [1] includes four basic principles that underpin all research integrity and good practices in carrying out research. These are principles that the research community should observe directly in performing their own research, and in dealings with research partners and the audiences that receive their research results. The principles are:

Reliability in ensuring the quality of research, reflected in the design, methodology, analysis and use of resources.

Honesty in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way.

Respect for colleagues, research participants, research subjects, society, ecosystems, cultural heritage and the environment.

Accountability for the research from idea to publication, for its management and organisation, for training, supervision and mentoring, and for its wider societal impacts.

We recognise that research must always be designed and conducted in accordance with ethical principles, with appropriate review processes in place to ensure adherence to those principles, and that it is allowed to develop independently of pressure from commissioning parties and from ideological, economic or political interests. Where interests exist that could present a real or perceived conflict of interest, these should be declared and managed appropriately.

These principles are well aligned nationally with the Higher Education Authorities "Principles of Good Research Practice in Research within Irish Higher Education Institutions (2022)" [8]. They are also aligned internationally with policy statements developed by the World Conferences on Research Integrity, which are intended to support a global approach to the responsible conduct of research [9].



COMMITMENT 2

Good Research Practice



We are committed to supporting a national culture that embraces a positive, proactive approach to promoting research integrity. This will include developing our research community through education, promoting good research practices, and allocating resources and necessary infrastructure to support research integrity.

2.1 Training, Supervision and Mentoring

Effective education leads to enhanced awareness of research integrity issues, a positive approach to research integrity as central to the research mission, a positive research culture that enhances the reputation and public image of Irish research, and a proactive approach to preventing research misconduct. Where misconduct does arise, a transparent, objective approach is needed to deal with it, and this is addressed in Section 4.2.

To embed the principles and practices of research integrity into the fabric and culture of research institutions and organisations, there should be an emphasis on providing appropriate and sufficient education and training programmes in research integrity and ethics that promote responsible research. This is recognised in Section 2.2 of the European Code [1], where it is recommended that there be:

- **Research integrity training for all researchers across their entire career path.**
- **Training in rigorous research design, methodology, analysis, dissemination and communication, especially for new researchers.**
- **Training in the relevant codes, guidelines and regulations that apply to research integrity and ethics, and how to apply these in their research.**

Offering research integrity modules as part of undergraduate and postgraduate education is a useful means of laying the foundations for promoting integrity in research practice. There is already a strong emphasis on the detection and prevention of plagiarism in coursework assessment, legislative support for the prevention of contract cheating in coursework [10] and guidelines for educators on the use and abuse of AI in coursework [11]. However, these are only a few aspects of research integrity.

Developing a common approach to training in research integrity principles and practices that can be applied across all research institutions and organisations is addressed through national access for all researchers to an online research integrity training platform. This should be enhanced with face-to-face training and awareness raising at an institutional level. There should be specifically tailored ongoing education and support for senior researchers and academics in a mentorship role who may not be fully aware of issues and responsibilities and who are key influencers in defining responsible research practice for the next generation of researchers.

Arguably the most important period for instilling research integrity is during doctoral training. This is recognised in the relevant national policies and guidelines: the "National Framework for Doctoral Education" [11] and "Ireland's Framework of Good Practice for Research Degree Programmes" [13]. The "National Framework for Doctoral Education" [12] recommends that there be an integrated programme of personal and professional development for all research students. "Ireland's Framework of Good Practice for Research Degree Programmes" [13] recommends that procedures are in place to make students aware of appropriate professional standards, including with respect to research integrity, and that they should be supported to exercise those professional standards via, for example, appropriate induction, training, and mentoring. Appropriate and sufficient training and guidance should be provided in topics such as research ethics, health and safety, good research practice (including avoidance of plagiarism and research fraud), equality, diversity and inclusion, responsible publication practices (including intellectual honesty in authorship, and avoidance of predatory journals and paper mills), management of copyright and intellectual property, export controls, good data management, and the responsible use of AI in research.

The "Irish Universities Doctoral Skills Statement" [14] emphasises the skills that PhD graduates should have acquired during their PhD (either through formal training and/or research experience). Specifically, PhD graduates should understand and apply ethical principles and good research practices in their research, including the use of appropriate methodologies, correct allocation of credit and authorship, and avoidance of research misconduct.

Continuing education on research integrity should also be provided through good mentorship by senior investigators, research leaders and those responsible for the supervision of postdoctoral and early-career researchers. Mentors should lead by example, offer specific guidance and training to properly develop, design and structure their team members' research activity, and foster a culture of research integrity.

Competent supervisors and mentors play a key role in providing a supportive pathway to researchers over their careers. They help the people they are supporting to reflect on their current roles and identify areas for personal and professional development to enable them to deliver to their potential. "Ireland's Framework of Good Practice for Research Degree Programmes" emphasises that staff education in research integrity should be facilitated as an integral component of continuous professional development, through relevant courses as they become available and should be repeated periodically, at least every five years, to take account of changes in the research landscape and new research integrity challenges [13].

Ultimately, HEIs should assume primary responsibility for delivering education and training programmes to their research staff. However, courses offered through them could usefully be made available to those in other state-funded organisations who do research. Individual HEIs should monitor the uptake of education and training by their researchers and staff.





2.2 Research Data Practices and Management

Research data is a valuable resource that should be organised, curated and appropriately stored. As used here, the term 'research data' generally encompasses the methodology used to obtain results, the actual research results and the analysis and interpretations by the researchers. Primary responsibility for observing good practice in the use, stewardship, curation, storage, retention and preservation of data sits with the individual researcher, supported by their institution.

The "National Action Plan for Open Research" [14] guides the development of Open Research policies in Ireland. Each principle outlines the responsibility of different parties. The principles underline the importance of good research data management across all stages of the research process and recommend the use of Data Management Plans (DMPs) by researchers and research teams. They also recommend the adoption of the FAIR (Findable, Accessible, Interoperable and Reusable) [19] data principles in Ireland.

In line with the National Action Plan for Open Research [14] and the European Code [1], the following principles apply:

- Researchers, research institutions and organisations, and the wider research community need to acknowledge data, metadata, protocols, code, software and other research materials as legitimate and citable research products.
- Research data should be recorded in a clear and accurate format. Particular attention should be paid to the completeness, integrity and security of these records.
- Research data should be stored in a secure and accessible form and must be retained for a length of time in accordance with national, institutional, funder and/or publisher requirements and in compliance with General Data Protection Regulations (GDPR) requirements [17].

- As part of the consenting process, researchers should inform research participants about how their data will be used, reused, accessed, stored, shared and deleted in compliance with GDPR requirements [17].
- Researchers should publish research results and interpretations in an open, honest, transparent, and accurate manner, and respect the confidentiality of data or findings when legitimately required to do so.
- Research data and records may be discoverable in the event of legal proceedings. This means that the research data and records can be accessed by the HEI (or other research institution or organisation) and its legal advisers, to determine their relevance to any legal proceeding.
- The "National Action Plan for Open Research" [14] underlines the importance of making research data "as open as possible, as closed as necessary." In that context, researchers and their institutions should ensure that any contracts or agreements relating to research results include equitable and fair provisions for managing their use, ownership, and protection under intellectual property rights.
- Open access to research data should lead to greater integrity in the gathering, analysis, stewardship, curation, and presentation of data, as it may be open to scrutiny by peers globally. It should also facilitate the re-use of data for further research, contribute to public knowledge and inform policy and practice. In doing so, data must be used, reused, accessed and stored in compliance with GDPR requirements [16].
- Datasets should be made easily identifiable through persistent identifiers, accompanied by standardised metadata, including funder names and grant numbers.
- Clear and transparent governance and protocols should be developed about how to access and gain permission to use data, metadata, protocols, code, software, and other research materials, and should take into account the applicability of relevant data protection [17], export controls [18], and intellectual property regulations [19].

Proposals developed to enable Ireland to deliver on the European Union (EU) Open Science agenda and to meet our EU objectives need to be achievable, sustainable, and appropriately resourced where necessary to facilitate research institutions and organisations supporting the proper management and protection of data and research materials (encompassing metadata, protocols, code, software and other research artefacts). Experience in Europe indicates that this should be a substantial national investment in infrastructure and people within long-term budgetary cycles.

2.2.1 Statutory Obligations

Research institutions, organisations, and funders should remain abreast of current national and international legislation and regulations pertinent to research and should ensure that they and their staff always comply with the legal and ethical provisions and codes relevant to their discipline. Researchers should be aware that under Freedom of Information legislation, a research institution or organisation is required to allow persons access to documents of the institution (documents that are in the institution's possession) under defined circumstances.

Researchers must always be aware of the provisions of and operate in accordance with General Data Protection Regulation [17], which sets out the conditions for usage of sensitive and personal data. In Ireland, the Health Research Regulations set out the conditions for using sensitive and personal data in health research [21]. The Control of Exports Act 2023 [18], which enacts Regulation (EU) 2021/821 [21], sets out the legal obligation of Irish researchers for the control of exports, brokering, technical assistance, transit and transfer of dual-use items that can be used for civil or military purposes.



2.3 Safeguards

The European Code sets out a number of recommendations on safeguards that researchers should be aware of when planning and conducting their research [1]. These are:

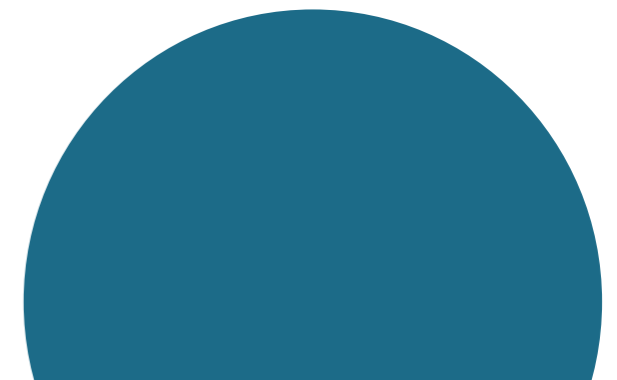
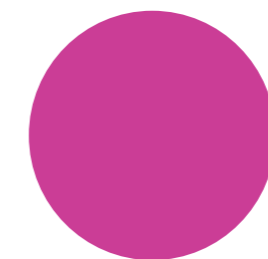
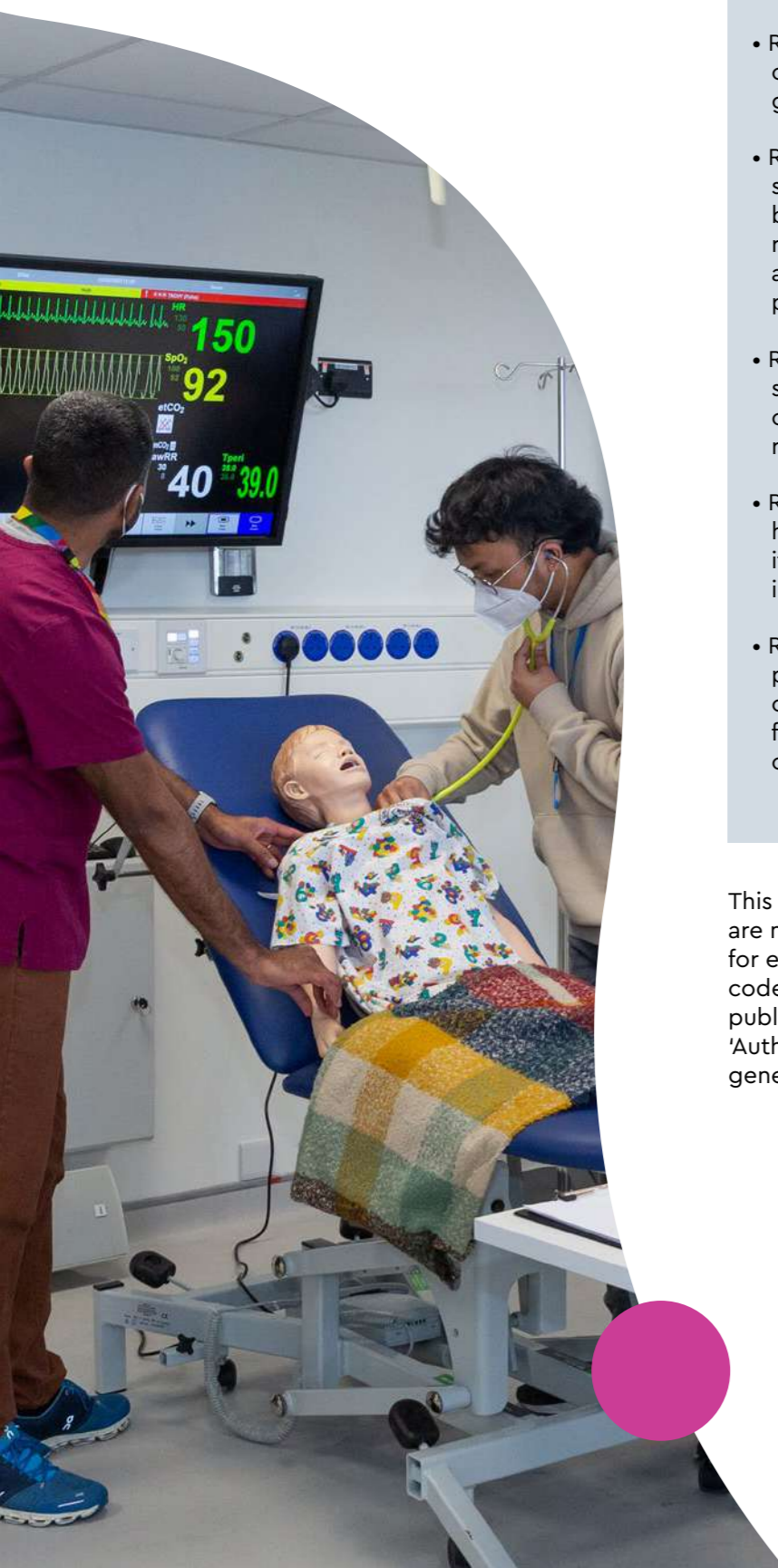
Box 2: Safeguards (Section 2.4 of the European Code)

- Researchers, research institutions, and organisations comply with relevant codes, guidelines, and regulations.
- Researchers handle research participants and subjects (be they human, animal, cultural, biological, environmental, or physical) and related data with respect and care, and in accordance with legal provisions and ethical principles.
- Researchers have due regard for the health, safety and welfare of the community, of collaborators and others connected with their research.
- Researchers recognise and weigh potential harms and risks relating to their research and its applications and mitigate possible negative impacts.
- Researchers overseeing projects that cross professional boundaries, such as citizen science or participatory research, take responsibility for ensuring research integrity standards, oversight, training, and safeguards.

This policy statement recognises that research results are not confined to journal publications but include, for example, research data, metadata, protocols, code, software, and other materials, presentations, public engagement, and performance and exhibition. 'Authors' in this context refers to the persons generating the results in whatever form they take.

Box 3: Publication, Dissemination and Authorship (Section 2.7 of European Code)

- Authors agree on the sequence of authorship, acknowledging that authorship itself is based on: (1) a significant contribution to the design of the research, relevant data collection, its analysis, and/or interpretation; (2) drafting and/or critical reviewing the publication; (3) approval of the final publication; and (4) agreeing to be responsible for the content of the publication, unless specified otherwise in the publication.
 - Authors include an 'Author Contribution Statement' in the final publication, where possible, to describe each author's responsibilities and contributions (e.g. Contributor Roles Taxonomy (CRediT)).
 - Authors acknowledge important work and contributions of those who do not meet the criteria for authorship, including collaborators, assistants, and funders, who have enabled the research.
 - Authors disclose any financial and non-financial conflicts of interest as well as sources of support for the research or the publication.
 - Authors and publishers promptly issue corrections or retract publications, if necessary, the retraction processes are clear and the reasons stated, and authors are given credit for issuing corrections post-publication.
- Authors, research institutions, publishers, funders, and the research community acknowledge that negative results can be as relevant as positive findings for publication and dissemination.
 - Authors are accurate and honest in their communication to colleagues, policymakers, and society at large.
 - Authors are transparent in their communication, outreach, and public engagement about assumptions and values influencing their research as well as the robustness of the evidence, including remaining uncertainties and knowledge gaps.
 - Authors adhere to the same criteria as those detailed above whether they publish in a subscription journal, an open access journal, or in any other publication form, including pre-print servers.



A broader perspective on research results also aligns with international moves away from narrow bibliometric measures of quality and productivity as a basis for career progression and funding. This movement is exemplified by the principles of CoARA [23] on reforming the methods and processes by which research, researchers, and research organisations are evaluated to recognise the diverse outputs, practices and activities that maximise the quality and impact of research. Similarly, research institutions and organisations should consider open and reproducible practices and evidenced good research practices when hiring and promoting researchers.

Box 4: Reviewing and Assessment (Section 2.8 of the European Code)

- Researchers take seriously their commitment and responsibility to the research community through refereeing, reviewing, and assessment, and this work is recognised and rewarded by research institutions and organisations.
- Researchers, research institutions, and organisations review and assess submissions for publication, funding, appointment, promotion, or reward in a transparent and justifiable manner, and disclose the use of AI and automated tools.
- Reviewers and editors declare any actual or perceived conflicts of interest and, when necessary, withdraw from involvement in discussion and decisions on publication, funding, appointment, promotion, or reward.
- Reviewers maintain confidentiality unless there is prior approval for disclosure.
- Reviewers and editors respect the rights of authors and applicants, and seek permission to make use of the ideas, data, or interpretations presented.
- Researchers, research institutions, and organisations adopt assessment practices that are based on principles of quality, knowledge advancement, and impact that go beyond quantitative indicators and take into account diversity, inclusiveness, openness, and collaboration where relevant.



COMMITMENT 3

Collaboration for continuous improvement

We are committed to working together to reinforce and safeguard the integrity of the Irish research ecosystem and to reviewing progress regularly and openly.

To ensure continual development and adoption of good research practices, the responsibilities of the Forum are to:

- Support the implementation of research integrity policies and processes in a coherent manner across the research institutions and organisations.
- Support national research funders in implementing harmonised research integrity statements in grant conditions and associated assurance processes.
- Support the development and implementation of research integrity training programmes for staff and students in the research institution or organisation and the wider research community.
- Monitor international developments and policy in research integrity, and periodically review the terms of reference of the Forum and research integrity policy and practice in Ireland in this context.
- Communicate the importance of research integrity to the Irish research community and to the public.
- Share experiences on the number and type of instances of research misconduct that have been dealt with through formal mechanisms within the research institution or organisation.
- Engage nationally and internationally in forums that consider research integrity and related issues, and make recommendations that are appropriate for policy development, review, and implementation.

"Impact 2030", Ireland's Strategy for Research & Innovation, Science and Technology [3] tasks the Forum with facilitating and coordinating research integrity activities amongst signatory organisations. The Forum does this through a focused Steering Group and a broader Community of Practice [24]. The purpose of the Steering Group is to consider strategic issues related to the conduct of research and research integrity among key stakeholders at a senior level. The purpose of the Community of Practice is to share information and good practices on training, policies, and operational matters between a large group of stakeholder organisations and to

facilitate implementation activities in the National Statement and guidelines. Representatives of the Irish Universities Association and the Technological Higher Education Association co-chairs both groups. The Department of Further and Higher Education, Research, Innovation and Science provides support to the Steering Group.

The Forum's work includes collecting and public dissemination of annual consolidated statistics on integrity investigations in Ireland, taking into account existing regulations relating to misconduct and discipline in the research institutions and organisations and the Terms and Conditions of grants awarded by research funding agencies.

The work and outputs of the Forum to date are available at: www.iua.ie/research-innovation/research-integrity.



Action to address misconduct



We are committed to using transparent, robust, fair and timely processes to deal with allegations of research misconduct when they arise.

4.1 Definitions of Research Misconduct

Research integrity is intrinsic to excellence in research and forms the basis for researchers to trust each other as well as the research record. Research integrity also underpins society's trust in research evidence and expertise. Where the principles and good practices underpinning research integrity are not followed, issues of research misconduct may arise.

At the outset, it should be said that research misconduct does not include honest error or honest differences in the design, execution, interpretation or judgement in evaluating research methods or results, or misconduct unrelated to the research process. Similarly, it does not include poor research per se unless this encompasses an intention to deceive.

As regards the substance of research misconduct, we are guided by the European Code [1]. Violations of research integrity take many forms and can be of varying seriousness along a continuum. The most serious are:

- Fabrication: making up data or results and recording or reporting them as if they were real.
- Falsification: manipulating research data, materials, equipment, images or processes, or changing, omitting or suppressing data or results without justification.
- Plagiarism: using another person's work or ideas without giving proper credit to the original source.

Each one of these comprises an attack on the integrity of the research record and, as such, must be vigorously defended against. Fabrication and falsification are the most serious offences that can be committed, as the development of knowledge itself is undermined. Plagiarism may be seen as marginally less egregious since the knowledge core is not in itself damaged. However, the corrupting effect on the principle of open communication and sharing of knowledge for wider benefit means that repeated, significant plagiarism must be regarded as extremely serious.

While Fabrication, Falsification, and Plagiarism (FFP) represent the most serious examples of research misconduct, there are other types of unacceptable research practices which, while not as serious as FFP in individual instances, are more prevalent and therefore (in the aggregate) potentially as damaging to the overall research process, the credibility of research and the reputation of the research community.

Examples of misconduct and unacceptable research practices include but are not confined to the behaviours described in Table 1.

²"Unacceptable research practices" (URP), as defined here and in the European Code [1] were traditionally referred to as 'questionable research practices' (QRPs), and this terminology persists in the USA and other jurisdictions.

Table 1: Description and examples of research misconduct and unacceptable research practices*

Core "Research Misconduct"

- Fabrication of data and results
- Falsification of data and results
- Plagiarism of others' work or words

FFP includes, for example:

- Selectively excluding data from analysis
- Misinterpreting or altering data to obtain desired results
- Manipulating images and figures in publications
- Producing false data or results under pressure from a sponsor
- As a reviewer, appropriating ideas from applications or manuscripts

Unacceptable research procedures, for example:

- Using inappropriate (e.g., harmful or dangerous) research methods
- Poor research design
- Experimental, analytical or computational errors
- Violation of human participant protocols (e.g. not seeking ethics approval)
- Hypothesising after the results are known (HARKing) and collecting more data after seeing results
- Failing to meet legal, ethical and professional obligations
- Allowing others to jeopardise independence and impartiality in the research process or reporting of outputs
- Misusing statistics to inappropriately suggest statistical significance (e.g., p-hacking)
- Grossly exaggerating the importance and practical applicability of findings

Unacceptable behaviour in the research setting, for example:

- Inappropriate personal behaviour,
- Harassment, bullying
- Inadequate supervision, mentoring, counselling of researchers
- Insensitivity to social or cultural norms
- Misusing seniority to encourage violations of research integrity
- Delaying or inappropriately hampering the work of other researchers.

Unacceptable data*-related practices, for example:

- Bad stewardship, curation, storage or preservation of primary data
- Withholding data from the research community without justification
- Not being transparent with other researchers about how data may be accessed and used
- Not informing research participants about how their data will be used, reused, accessed, stored and deleted in compliance with GDPR
- Not seeking consent for the use or secondary use of sensitive personal data

*: Also applies to metadata, protocols, code, software and other research materials

Unacceptable publication-related practices, for example:

- Claiming undeserved authorship
- Denying authorship to contributors
- Artificially proliferating publications ("salami-slicing" and "self-plagiarism")
- Failing to correct the publication record
- Hiding the use of AI or automated tools in creating content or drafting publications
- Including authors without permission
- Citing selectively or inaccurately
- Establishing or supporting journals, publishers, events or services that undermine the quality control of research ('predatory journals', paper mills etc.)
- Not submitting a valid negative study for publication
- Re-publishing substantive parts of one's earlier work without citing the original ('self-plagiarism')
- Participating in reviewers/authors cartels to artificially enhance publication rates
- Unfair reviewing of manuscripts or grant applications

Unacceptable financial, and other practices, for example:

- Peer review abuse e.g., non-disclosure of conflict of interest, unfairly holding up a rival's publication
- Misrepresenting credentials or publication record
- Misuse of research funds for unauthorised purchases or for personal gain
- Making an unsubstantiated or malicious misconduct allegation
- Ignoring or concealing research misconduct by other researchers or by institutions

4.2 Addressing Research Misconduct

Institutions will make best efforts towards nurturing a research environment supportive of integrity through education, promotion of good research practices and prevention of misconduct and unacceptable research practices. Institutions or organisations also protect the integrity of research by dealing properly with instances of misconduct where these arise.

In some cases, the boundaries between unacceptable research practices and serious misconduct may be quite thin, especially if the unacceptable practice is carried out repeatedly by an experienced senior researcher. For example, the misuse of research funds or intimidation of junior staff may be extremely serious and should be dealt with by appropriate procedures within law. However, the offence itself may not constitute research misconduct, since it does not affect the integrity of the research record itself.

For many unacceptable research practices, the internal mechanisms of the research institution or organisation will provide effective remedies without the need for formal investigative actions. However, there are also intermediate categories of unacceptable research practices that may warrant more significant intervention. Where a case of misconduct arises, an appropriate process of investigation and determination of the offence must be carried out.

The following principles for investigations are substantively based on those set out by the European Code [1] and are endorsed here as guidance for organisations that will undertake investigations in accordance with their own detailed and individual procedures.

*After the OECD publication "Best practices for ensuring scientific integrity and preventing misconduct." [26].

Integrity of the process

- Investigations into research misconduct allegations must be fair, comprehensive, and expedient without compromising accuracy, objectivity, and thoroughness.
- Those parties involved in the procedure must ensure that any interests they have which might constitute a conflict of interest are disclosed and managed.
- Detailed and confidential records should be maintained on all aspects of the procedure.
- Measures should be taken to ensure that investigations are carried through to a conclusion.

Uniformity

- Procedures for dealing with misconduct should be spelled out in sufficient detail to ensure transparency and uniformity of the process within one domain of jurisdiction from one case to another.
- Procedures for making allegations and dealing with misconduct should be available on the websites of research institutions and organisations.

Fairness

- Investigation of research misconduct allegations should be conducted in a manner that is fair to all parties and in accordance with relevant laws.
- Persons accused of research misconduct must be given full details of the allegation(s) in writing and allowed a fair process for responding and to have a representative or work colleague present for any meeting or interview associated with the investigation.
- Proportionate action should be taken against persons found to have committed research misconduct.
- Any action(s) taken should be subject to right of appeal.

Confidentiality

- The procedure should be conducted as confidentially as possible to protect those involved in the investigation. Such confidentiality should be maintained provided this does not compromise the investigation of the allegation, health and safety, the safety of participants in research.
- Where possible, any disclosure to third parties should be made on a confidential basis.

- If the organisation and/or its staff have legal obligations to inform third parties of research misconduct allegations, those obligations must be fulfilled at the appropriate time through the correct mechanisms.

No detriment

- Anyone accused of research misconduct is presumed innocent until proven otherwise.
- No person should suffer any unnecessary penalty when accused of research misconduct before the allegation is proven.
- No person should suffer any penalty to their career before, during or after an investigation for making a bona fida allegation of research misconduct in good faith, but action should be taken against persons found to have made allegations in bad faith.
- When researchers are exonerated of an allegation of misconduct, appropriate restorative action is taken in consultation with the exonerated party.

4.3 Process for Addressing Research Misconduct

Responses to incidences of misconduct must be proportionate to the seriousness of the misconduct. As a principle, it should be demonstrated that the misconduct was committed intentionally and/or knowingly and/or recklessly, although these behaviours may prove difficult to establish. Therefore, proof must be clearly supported by the evidence.

The Forum provides guidance on the procedures for conducting an investigation, including the role and reporting structure of a Research Integrity Officer in each institution [27], to encourage consistency within the sector in incorporating the principles for raising complaints and conducting investigations. This guidance can be found at <https://www.iaa.ie/research-innovation/research-integrity/>.

Each organisation is responsible for creating its own policies and procedures for dealing with allegations of research misconduct, in line with the Forum guidance for investigating misconduct in research [27] and the commitments outlined in this national policy statement.



Annex 1: National Research Integrity Forum Members

This revised policy statement has been developed by the members of the National Research Integrity Forum, which comprises the following organisations:

- Atlantic Technological University
- Department of Further and Higher Education, Research, Innovation and Science
- Department of Agriculture, Food and the Marine
- Dublin City University
- Dublin Institute for Advanced Studies
- Dún Laoghaire Institute of Art, Design and Technology
- Dundalk Institute of Technology
- Enterprise Ireland
- Environmental Protection Agency
- Health Research Board
- Health Services Executive
- Higher Education Authority
- Irish Cattle Breeding Foundation
- Irish Manufacturing Research Limited
- Irish Universities Association
- Mary Immaculate College
- Marine Institute
- Marino Institute of Education
- Maynooth University
- Munster Technological University
- National College of Art and Design
- National Institute for Bioprocessing Research and Training
- National Research Ethics Committees
- Quality and Qualifications Ireland
- Research Ireland (formerly Science Foundation Ireland and Irish Research Council)
- Royal College of Surgeons in Ireland
- Royal Irish Academy
- South East Technological University
- Teagasc
- Technological Higher Education Association
- Technological University Dublin
- Technological University of the Shannon: Midlands Midwest
- Trinity College Dublin
- Tyndall Institute
- University College Cork
- University College Dublin
- University of Galway
- University of Limerick

Annex 2: Glossary of Abbreviations

ALLEA	All European Academies
CoARA	Coalition for Advancing Research Assessment
COPE	Committee on Publication Ethics
EU	European Union
FAIR	Findable, Accessible, Interoperable and Reusable
FFP	Fabrication, Falsification and Plagiarism
GDPR	General Data Protection Regulation
HEA	Higher Education Authorities
HEI	Higher Education Institutions
IP	Intellectual Property
NRIF	National Research Integrity Forum
NORF	National Open Research Forum

OECD The Organization for Economic Cooperation and Development

Annex 3: Bibliography

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