Code: QA514 (Revised)
Title: **Research Integrity**
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Approval: UMT/Academic Council

1.   Purpose

University of Galway (the "**university**" or "we") is committed to promoting and supporting the highest standards of integrity by all those engaged in the university's research mission and activities. In doing so, the university committed to supporting and promoting a culture of integrity. We will promote an understanding of research integrity through learning, training and mentoring opportunities and support the development of researchers in this regard.

The purpose of this policy is to:

- State the university's commitments to foster and ensure research integrity

- Set out the principles of good research practice and research integrity

- Characterise research misconduct, without giving an exhaustive definition of such misconduct

- Outline the principles that underpin transparent, fair and effective procedures for dealing with allegations of research misconduct when they arise.

2.   Description

University of Galway has a duty to promote responsible research conduct so that research integrity infuses academic culture. This Policy defines the principles underpinning the responsible conduct and management of research throughout the lifecycle of research activity, in line with best practice recommendations as set out in the National Policy Statement on Ensuring Research Integrity in Ireland (2019)[1] and the European Code of Conduct for Research Integrity (2017)[2]. This Policy provides a framework for the self-regulation of responsible research conduct by University of Galway's research community.

This Policy incorporates and supplements all the principles of conduct required by the university's other relevant policies and procedures, together with our commitments to Equality, Diversity, and Inclusion and safety and dignity at work. Nothing in this Policy can be understood to conflict or supersede any particular element of those policies, or any other policies.

If any conflict or ambiguity arises between the *National Policy Statement on Ensuring Research Integrity in Ireland (2019)* or the *European Code of Conduct for Research Integrity (2017)* and this Policy, the University of Galway Policy shall prevail. The setting of standards for professional behaviour in research is not intended to compromise the freedom, within the law, of Academic Staff to question and test received wisdom and to put forward new ideas and controversial or unpopular opinions (see section 14(2) of the Universities Act 1997).

3.   Scope

This Policy applies to all individuals carrying out research for the university or on behalf of the university, including, without limitation; all undergraduate and postgraduate students; university employees, irrespective of whether their current place of work is within or outside university premises; and all visiting researchers of the university, including persons with honorary or adjunct

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[1] Research Integrity National Forum (2019) - Research Integrity in Ireland.
[2] ALLEA (2017) - The European Code of Conduct for Research Integrity, Revised Edition.

positions. The term Researcher shall be used throughout this Policy to refer to any or all of the above categories, as appropriate.

4.   General Principles of Good Research Practice

Research is a process of enquiry, leading to insight, publicly shared. Research Integrity relates to the performance of research, across all disciplines, to the highest standards of professionalism and rigour. It demands accuracy and honesty, in the maintenance of research records and in all outputs from the research process. It demands adherence to ethical standards in relationships with stakeholders, participants, and research subjects.

Research Integrity is based on fundamental principles of good research practice. These principles guide researchers in the conduct of their research, as well as in their engagement with the practical, ethical and intellectual challenges inherent in research and in their dealings with research participants and the communities of use of the research, including stakeholders. University of Galway endorses the principles of good research practice as defined in both the *European Code of Conduct for Research Integrity* (2017) and the *National Policy Statement on Ensuring Research Integrity in Ireland (2019)*. These principles (further defined in Appendix 1) are:

- *Reliability* in ensuring the quality of research, reflected in the design, the methodology, the analysis and the use of resources.
- *Honesty* in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way.
- *Respect* for Researchers (including research students), research participants, 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 for its wider impacts.

All research conducted in the university must be consistent with the foregoing principles and with Irish law and policy and with all other related policies and procedures of the University. These include, but are not limited to Research Ethics, Open Access, Research Data Management, Intellectual Property, Data Protection, Conflict of Interest and Conflict of Commitment, and University of Galway's Policy and Procedures for Financial Accounting. The scope of each principle listed above is defined in more detail in Appendix 1.

In order to underpin this Policy and to embed the principles of good research practice into the conduct of research, University of Galway provides Research Integrity training for its Researchers, across the Research Career Pathway.

5.   Breaches of Research Integrity (i.e. Research Misconduct)

Failure to comply with good research practice violates professional responsibilities and poses a reputational risk to the university. It damages research processes, degrades relationships among Researchers, undermines society's trust in research, damages the credibility of the research record, wastes resources, and may expose research subjects, users, society or the environment to unnecessary harm.

Where the principles of good practice underpinning research integrity are not followed, a breach of Research Integrity (*i.e.* Research Misconduct) may arise. For the purposes of this Policy, Research Misconduct is defined as **Fabrication, or Falsification, or Plagiarism, or Persistent and/or Aggregated Unacceptable Practice(s)** (as further described below) in proposing, performing or reviewing research, or in reporting research results. 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. Research Misconduct may also be Misconduct and/or Gross Misconduct as defined by the University's *Disciplinary Procedure (QA112)*.

Research Misconduct takes many forms and can be of varying seriousness. The most serious examples of Research Misconduct are:

- *Fabrication* – making up results and recording or reporting them as if they were real and/or true.
- *Falsification* – manipulating research, materials equipment or processes, or changing or omitting data or results without justification such that the research is not accurately represented in the research record.
- *Plagiarism* – using other people's work, results, words or ideas without giving proper credit to the original source, thus violating the rights of the original author(s) to their intellectual outputs.

Fabrication, *Falsification* and *Plagiarism* comprise a breach of the integrity of the research record and as such, must be vigorously defended against.

In addition to these direct breaches of Research Integrity, examples of other unacceptable practices include, but are not limited to:

- Poor data management practices, *e.g.* not preserving primary data, poor data management and/or storage.
- Publication-related practice, *e.g.* claiming undeserved authorship, denying authorship to contributors, artificially proliferating publications, including authors without permission.
- Republishing substantive parts of one's own earlier publications, without duly acknowledging or citing the original (*self-plagiarism*).
- Citing selectively to enhance own findings or to please reviewers, editors or other Researchers.
- Withholding research results/data from the research community.
- Misrepresenting research achievements.
- Misusing seniority to encourage violations of research integrity.
- Personal behaviours, *e.g.* inadequate leadership/supervision/mentoring of next generation of Researchers and scholars, inappropriate personal behaviour.
- Financial and other malpractice, *e.g.* Peer review abuse, non-disclosure of a conflict of interest, misrepresenting credentials.
- Poor research procedures or in appropriate research methods *e.g.,* harmful, dangerous or unethical research methods, non-observation of health and safety standards.
- Exaggerating the importance and practical applicability of findings.
- Supporting 'predatory' journals
- Ignoring putative violations of research integrity by others or covering up inappropriate responses to misconduct or violations by institutions.
- Concealment of research misconduct.

Matters covered under the National Policy Statement on Ensuring Research Integrity in Ireland (2019) such as Research Fraud can also be considered a breach of Research Integrity and may amount to Research Misconduct for the purposes of this Policy.

More often than not, and unless the behaviour is persistent, the remedy for unacceptable practices resides within the research team. In their most serious forms, unacceptable practices may be investigated under the University's *Disciplinary Procedure (QA112)*, and may lead to disciplinary sanction, but at the very least every effort must be made to prevent, discourage and stop them through training, supervision and mentoring and through the provision of a positive and supportive research environment.

6.   Whistle-blowing

In circumstances where a matter(s) of concern relating to questions of Research Misconduct is raised,

and which may fall under the Protected Disclosures Act 2014, the university's *Protected Disclosure Policy (QA414)* will apply. However, as distinct from the university's Protected Disclosure, all allegations of Research Misconduct shall be reported to the Research Integrity Officer in the first instance in line with this Policy.

The university reserves the right that a matter of concern may be investigated jointly under this Policy, the university's *Fraud Policy (QA403)* and/or the university's *Protected Disclosure Policy (QA414)*.

7. Dealing with Allegations and Violations of Research Misconduct

Any Researcher, individual or external body (*e.g.* a funding agency) who believes that an act of research misconduct has occurred, or is occurring, should report this incident to the Research Integrity Officer. The university is committed to ensuring that all allegations of research misconduct are investigated.

Detailed procedures for the investigation of allegation of Research Misconduct are outlined in the *University of Galway Procedure for the Investigation of Research Misconduct.*

Investigations of Research Misconduct allegations will be undertaken in line with the following principles set out in the European Code of Conduct for Research Integrity and endorsed in the National Policy Statement on Ensuring Research Integrity in Ireland:

Integrity of the Process

- Investigations into research misconduct allegations must be fair, comprehensive and conducted expediently but without compromising accuracy, objectivity and thoroughness.
- Investigations will abide by the principals of nature justice and follow fair procedures.
- Those parties involved in the procedure and process must ensure that any interests they have that might constitute a conflict of interest are disclosed and managed. (in line with the University's *Conflict of Interest and Conflict of Commitment Policy- QA413*)
- 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 timely conclusion.

Uniformity

- Procedures for dealing with Research Misconduct should be spelled out in sufficient detail so that the transparency of the process and consistency from one case to another is ensured.

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 or disciplinary hearing.
- Proportionate action should be taken against persons found to have committed Research Misconduct.
- Any final decision that has adverse outcomes for a person shall be open to appeal on determinate grounds.

Confidentiality

- The procedure should be conducted as confidentially as possible, in accordance with the stated procedure, in order 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 and the safety of participants in research.
- If the university 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.
- Where possible, any disclosure to third parties should be made on a confidential basis.

No Detriment

- Anyone accused of Research Misconduct is presumed innocent.
- No person should suffer any unnecessary penalty when accused of Research Misconduct before the allegation is proven. Necessary action may include protection and other measures in alignment with law.
- No person should suffer any penalty before, during or after an investigation for making an allegation of research misconduct.
- Appropriate restorative action is taken when researchers are exonerated of an allegation of Research Misconduct, in consultation with the exonerated party.

The response to incidences of misconduct must be proportionate to the seriousness of the Research Misconduct. Specifically, as a principle, it must be demonstrated that the Research Misconduct was committed intentionally, knowingly or recklessly. Proof must be based on the preponderance of evidence.

8. Research Integrity Officer

The university/President shall appoint, for a fixed term, a research active senior academic to the position of Research Integrity Officer (RIO). The RIO shall report to the President and shall not be the Director of Human Resources or the Vice President for Research & Innovation.

The RIO shall be responsible for implementing this policy and promoting and supporting a culture that seeks to maintain the highest standards of research integrity in the University.

The RIO shall be responsible for receiving and acting upon allegations of misconduct in research in accordance with the principles outlined above (Section 7) and the *University of Galway Procedure for the Investigation of Research Misconduct (Dec 2021)*.

A deputy RIO may also be appointed. The Deputy RIO is the alternative Research Integrity Officer appointed if a conflict of interest arises such that the RIO cannot act in respect of a particular matter under this Policy or if for any other reason the RIO cannot act in respect of any particular issue under this Policy.

The RIO shall provide a regular report to UMT on the status of any investigations underway or concluded during the period of the report.

9. Responsibilities

It is the responsibility of the President, Registrar and Deputy President, Vice-President for Research & Innovation, Deans of College, Heads of School, Dean of Graduate Studies, and senior staff to maintain a research environment that develops and supports good research practice and nurtures a culture of research integrity. It is important to establish a research climate of mutual cooperation, in which Researchers at all levels are encouraged to develop their skills and in which the open exchange of ideas is fostered.

Researchers are required to make themselves familiar with this Policy and ensure that all legal obligations and relevant requirements of the university's Policies and Procedures are met.

Researchers have a responsibility to report any concerns about research misconduct to the university, whether this has been witnessed or for which there are reasonable grounds for suspicion.

Name	Responsibility
The University Management Team	Policy owner Academic Policy subject to the appropriate academic consultation.
Research Integrity Officer (Deputy Research Integrity Officer)	Policy implementation and review Receive and act upon allegations of research misconduct Provide annual report to UMT and the National Research Integrity Forum The Deputy RIO will act in the case where the RIO feels there is a conflict of interest, or similar.
The Vice President for Research	Provide Research Integrity Training Revisions to the policy
All University Members including all undergraduate and postgraduate students	Compliance with the Policy and Irish law and duty to report Researchers (*i.e.* all individuals carrying out research for the university within or on behalf of the university, including, without limitation; all undergraduate and postgraduate students; university employees, irrespective of whether their current place of work is within or outside university premises; and all visiting researchers of the university, including persons with honorary positions) must be alert to instances of research misconduct and have a duty to report such conduct to the Research Integrity Officer.
Deans of Colleges, Heads of Schools and all in positions of responsibility	Be alert to possibility and type of research misconduct in respective areas. Take corrective action(s).

10. Definitions

"Data" shall encompass information related to research data and research results in a form that may be processed, the methodology used to obtain results, the actual research results, and the analytics, and interpretations by the Researchers.

"Researcher" shall mean all individuals carrying out research for the university including, without limitation, all university employees, irrespective of whether their current place of work is within or outside university premises and all visiting researchers of the university, including persons with honorary positions, conducting research within or, on behalf of, the university, and all undergraduate and postgraduate students.

"Research Integrity" is defined as the performance of research, across all disciplines, to the highest standards of professionalism and rigour, and to the accuracy and trustworthiness of the research record in publications and elsewhere

"Research Integrity Officer" is the person nominated by the university to receive allegations of misconduct in research.

"Deputy Research Integrity Officer" - is the alternative Research Integrity Officer appointed if a conflict of interest arises such that the Research Integrity Officer cannot act in respect of a particular matter under this Policy or if for any other reason the Research Integrity Officer cannot act in respect of any particular issue under this Policy.

"Research Misconduct" is as defined in Section 5 of this Policy.

For the avoidance of doubt, any reference to any of the above definitions in the singular shall be capable of being construed as a plural.

Appendix 1. Principles of Good Research Practices

1. Reliability

- Researchers take into account the state-of-the-art in the design in developing research ideas.
- Researchers design, carry out, analyse and document research in a careful and well-considered manner.
- Researchers make proper and conscientious use of research funds.
- Researchers ensure that all publications and presentations arising from research are correct and accurate. Authors and publishers issue corrections or retract work if necessary; the processes for which are clear, the reasons are stated, and authors are given credit for issuing prompt corrections post-publication.
- The university expects anyone listed as an author on a paper to accept personal responsibility for ensuring that they are familiar with the contents of the paper, and that they can identify their contributions to it. The practice of honorary authorship is unacceptable.
- All authors agree on the sequence of authorship acknowledging that authorship itself is based on a significant contribution to the design of the research, relevant data collection, or the analysis or interpretation of results.
- Researchers publish results and interpretations of research in an open, honest, transparent and accurate manner; and respect confidentiality of data or findings when legitimately required to do so.
- Authors are responsible for the content of a publication, unless specified otherwise.
- Researchers report their results in a way that is compatible with the standards of the discipline and, where applicable, can be verified and reproduced.
- Throughout their work, Researchers shall keep clear and accurate records of the research procedures followed, approvals granted and of interim and final results. Data must be managed according to good practices for collection, curation, storage, management, retrieval, re-use, sharing, archiving, and access, and in line with University of Galway's Research Data Management Policy.
- Researchers shall adhere to the university's policies on Data Protection (QA400), Data Handling (QA401) and Data Classification (QA402) in order to classify data and keep data secure. The university expects such data to be securely held, unless otherwise stipulated within a funder term and condition or contract or other legal obligation, for a period of seven years after the completion of a research project, as required by several Research Funding Agencies. Some funding bodies may require data to be kept for longer periods and it is the responsibility of the PI to ensure that the data retention meets with the requirements of the funding body in such cases.
- If the Project Principal Investigator leaves the university, for whatever reason, before the required period of data retention expires, they have responsibility to put in place a plan to ensure that the data continues to be securely held by the university.
- If Post-Doctoral Researchers or postgraduate students leave the university, for whatever reason, before the required period of data retention expires, they must leave all research records with the Principal Investigator.
- All personal data collected and processed in the course of a research project is subject to the terms of the General Data Protection Regulation (2016), which safeguards the privacy of individuals regarding their personal data. All Researchers must adhere to the university's policy on Data Protection (QA400).
- Researchers collecting or accessing personal health data must be aware of the additional requirements covering sensitive personal data and all health research must conform to the

specific data protection regulations covering health research[3].

- Where Researchers are gathering data in another jurisdiction they must ensure that the relevant ethical approvals and permissions from the appropriate organisation are obtained. Researchers must comply with any data protection legislation from the respective jurisdiction where they are collecting, storing, transferring and archiving data.
- Publication of results should be undertaken at the earliest possible time, unless intellectual property considerations justify delay. The university expects that this period of deferral should not normally exceed six months.
- Where applicable, authorisation for publication of results must be sought from the Principal Investigator. Authorisation should cover both the content of the publication (integrity of results, adequacy of internal peer review, appropriate protection of intellectual property rights, appropriate authorship) and the intended place of the publication.
- In general, except where there is an alternative contractual arrangement, research findings must not be reported in the public media before they have been reported to a research audience of experts in the field of research - preferably by publication in a peer-reviewed journal, an authored book, published by a reputable publisher, or a conference presentation.
- At the time of publication, Researchers disclose any conflicts of interest and financial or other types of support for the research or for the publication of its results.
- Researchers should be aware that many journal editors seek assurances that all research has been approved by an appropriate research ethics committee or institutional review board. In addition, journal editors may also seek evidence regarding research practices and ethical aspects of the research.
- Once results have been published, where appropriate, the university expects Researchers to make available relevant data and materials to others, on request, provided that this is consistent with any ethical approvals and consents which cover the data and materials, and any intellectual property rights ("**IPR**") in them. In addition, where available and relevant to the research or individual Researcher in question, the university expects Researchers to observe the standards of practice set out in guidelines published by funding bodies, scientific societies and other relevant professional bodies.
- Researchers are required to adhere to the university's policy on *Open Access to Research Outputs (QA237)*.

2. Honesty

At the heart of all research endeavour, regardless of the discipline or institution, is the need for Researchers to be honest in respect of their own actions in research and in their responses to the actions of other Researchers. This applies to the whole range of activity associated with research, including but not limited to:

- Experimental design, generating and analysing data in an impartial manner independent from undue influence.
- Publishing results or in other ways making results publically available.
- Considering negative results to be as valid as positive findings for publication and dissemination.
- Acknowledging the direct and indirect contributions of Researchers, collaborators and others.
- Planning and design for funding applications.
- Managing a project. Principal Investigators ("**PI**") should take all reasonable measures to ensure compliance with sponsor, institutional, legal, ethical and moral obligations in

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[3] Data Protection Act 2018 (Section 36(2)) (Health Research) Regulations 201

managing projects. Researchers are expected to familiarise themselves with the terms and conditions of any research contract or agreement entered into by the university on their behalf.

- Management of funds. It is the responsibility of the PI to ensure that the expenditure on the grant is in accordance with the budget and the associated terms and conditions and that no penalties are incurred by failure to meet the sponsors' requirements.
- Grant and paper reviewing.
- Identifying and declaring to the university any conflicts of interest, whether legal, ethical, moral, financial, personal or other nature so that it does not become a complicating or actionable issue. In this regard, Researchers shall adhere to the university's Conflict of Interest and Conflict of Commitments policy.

3. Respect

- Researchers handle research subjects, be they human, animal cultural, biological, environmental, or physical, with respect and care, in accordance with legal and ethical provisions.
- Researchers have due regard for the health, safety and welfare of the community, of collaborators and others connected with their research.
- Researchers recognise and manage potential harms and risks relating to their research.
- Research protocols take account of, and are sensitive to, relevant differences in age, gender, culture, religion, ethnic origin and social class.
- Research in the medical, biological and social science and any other disciplines involving human and animal subjects raises particular ethical concerns. A system of ethical governance has been developed for research in these areas. Where prior ethical approval is required detailed information on institutional ethical approval process is available at the University's Research Ethics webpage.
- Researchers must obtain prior consent from participants, except where the absence of consent is permitted by law or governmental/institutional regulation, or is explicitly approved by the appropriate ethics committee or where applicable the Health Research Consent Declaration Committee. Informed consent must be sought in writing unless alternative means have been approved by the appropriate Ethics Committee.
- Researchers are obliged to ensure that the possible benefits to the participants will be maximised and possible harm minimised. Harm includes physical discomfort, psychological or emotional distress and social and economic disadvantages.
- Participants in research must be selected in a fair way. The selection process must be scrutinised to determine whether participants are selected in a fair and equitable manner and for reasons directly related to the problem being investigated and not for reasons such as availability or manipulation. Fair selection also requires that, as far as possible, those who bear the risks of research must be in a position to enjoy its benefits.
- Researchers have a duty of care for participants in and the subjects of research (human subjects, animals, the environment, cultural objects). The health, safety and welfare of people connected with research should not be compromised. Special consideration should be given to vulnerable groups and sensitivity given to age, gender, culture, religion, ethnic origin, social class, sexual orientation and disability research groups. Researchers should consult with the University Research Ethics Committee ("**REC**"), the Animal Care Research Ethics Committee, ("**ACREC**") and the Galway University Hospital Research Ethics Committee ("**GUH REC**") for specific information regarding research with human participants and animals, respectively.
- Researchers should consult with the GUH REC in respect of Clinical research in healthcare

settings.

- Researchers should consult with the REC in respect of non- clinical research involving human participants (including behavioural experiments, interviewing and surveying).
- Researchers should consult with the ACREC in respect of research involving animals. Researchers must ensure that they hold an appropriate licence and that their research is in conformity with the current statutory regulations regarding scientific animal protection as set out by the Health Products Regulatory Authority.
- Any research which requires ethical approval but does not come under the remit of GUH REC, REC or ACREC, must be referred to the University Research Ethics Committee. If Researchers are unsure which ethics committee is appropriate for their research, they should refer the matter to the University Ethics Committee for guidance.
- Research which requires ethical approval must not commence until approval has been granted.
- If a Researcher proposes to extend a research project or depart from the approved procedure, a fresh application for approval or an amendment to the original ethics application must be made and approved to the relevant ethics committee.

4. Accountability

- The culture and tone of procedures within any organisation must be set by individuals in authority. Within the university, it is the responsibility of the President, Vice-President for Research, Deans of College, Heads of School and senior staff to ensure that a climate is created which allows research to be conducted in accordance with good research practice.
- Research institutions provide clear policies and procedures on good research practice and transparent and proper handling of violations.
- Within a research group, responsibility for supervision and mentoring lies with the Group Leader. Group Leaders should create a research environment of mutual co-operation, in which all members of a research team (including contract researchers, students, technicians and administrative staff) are encouraged to develop their skills and in which the open exchange of research ideas is fostered. They must also ensure that the offer specific guidance and training to their research team to properly develop, design and structure their research activity and to foster a culture of research integrity.
- Researchers across the entire career path, from junior to the most senior level, shall undertake training in ethics and research integrity.
- There is a responsibility on supervisors to oversee the research projects of all team members and to ensure that good practices are followed. Research misconduct is least likely to arise in an environment where good open research practice is encouraged and where there is adequate supervision of team members at all relevant levels. It is the responsibility of Heads of School and Directors of Research Institutes to convey clearly the standards and protocols for research in their areas, and to ensure that adherence to those standards is a matter of course.
- In order to promote best practice in responsible research behaviour, the university also provides online training in Research Integrity to all Researchers. By the end of the course, Researchers should be able to:
    1. *Know, understand and explain the key responsibilities they have as a Researcher.*

2. *Identify the challenges they could face in meeting those responsibilities.*
3. *Be aware of strategies for dealing with pressure and difficult situations.*

- It is the responsibility of all Researchers to fully abide by the codes of ethics and standards of professional conduct relevant to their profession and any other existing guidance issued by their respective regulatory or professional bodies.

- Researchers are expected to be aware of and stay informed of governmental, institutional and any other regulations, standards or policies, including national, EU and international legislation, in proposing, conducting and reporting research.