FOSTERING RESEARCH ETHICS

A guide for research performing organisations





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Preface

The National Research Ethics Committees (NREC) assists the institutions in their work with research ethics. NREC does this by providing guidance, contributing to training, organising meeting places and developing research ethics guidelines and guides. NREC consists of five committees and commissions, and a secretariat:

- National Committee for Medical and Health Research Ethics (NEM)
- National Committee for Research Ethics in Science and Technology (NENT)
- National Committee for Research Ethics in the Social Sciences and Humanities (NESH)
- National Commission for the Investigation of Research Misconduct
- National Committee for Research Ethics on Human Remains

In addition, there is a separate system of Regional Committees for Medical and Health Research Ethics (REK), which pre-approve research in accordance with the Health Research Act.

In 2021, the NREC secretariat established a working group to prepare a guide on the institutions' work with research ethics. The purpose of the guide is to show how an institution can foster research ethics throughout the organisation. It is about creating awareness and culture among students and researchers as well as developing spaces for reflection and arenas for discussion both in the research communities, across different disciplines and between the research community, management and administration. Research ethics are managed by the research community, but the work at the institution must also be embedded in the management. The guide assumes that most questions and issues should be resolved in the research community, at the lowest possible level and as early as possible.

The guide consists of nine sections. The sections describe different levels and areas of responsibility and provide examples of relevant legislation (yellow box), good practice (green box) and selected resources. Given the differences between institutions and research environments, not all sections and examples will be equally relevant to everyone. Both the research community and institutional management must therefore assess which sections and examples are relevant to their work on good research ethics. The guide is a dynamic document that will be updated when necessary. We therefore welcome feedback on how the guide works in practice.



Introduction

The guide is intended to be a resource for institutions in fulfilling their responsibility for research ethics.

Research ethics consists of a set of fundamental principles and recognised norms developed over time and rooted in the international research community. These principles and norms are enshrined in research ethics guidelines both nationally and internationally. Research ethics encompasses good scientific practice, the responsibility of research and the relationship between science and society, including issues of freedom of research, conflicts of interest and open science. Research ethics contribute to the promotion of good research practices and the protection of science, society, nature and individuals.

According to the Research Ethics Act of 2017, both researchers and research institutions must ensure that research is conducted in accordance with recognised research ethical norms, and in this guide we look specifically at the responsibility of the institution (§ 5). The Act specifically emphasises training and the handling of misconduct cases, but the Office of the Auditor General's report on research ethics in the university

Research Ethics Act

§ 5 Requirements for research institutions Research institutions must ensure that the research at the institution is conducted in accordance with recognised research ethical norms.

and higher education sector from 2021 concludes that the institutions are not doing enough to comply with the Research Ethics Act:

- The research institutions have not established systems to ensure that all employees working with research receive adequate training.
- Research institutions do not have adequate systems in place to ensure that potential violations
 on recognised research ethical norms are detected, processed and reported.

At the same time, many institutions find it difficult to distinguish between the processing of misconduct cases and other research ethics issues and cases that do not involve violations. NREC therefore believes it is appropriate to distinguish between «research ethics issues», «research ethics cases» and «misconduct cases». Furthermore, NREC emphasises that the institutions' responsibilities include much more than establishing systems for training and handling potential violations.

This wider responsibility is explicitly stated in the preparatory work for the Research Ethics Act, which

Research Ethics Act, preparatory work

5.1 Promoting good research ethics

Research institutions must work actively and continuously to establish a culture and a practice of research ethics.

[...

This is done at research institutions through the daily practice of including ethics and creating awareness of ethics throughout education and research.

emphasises that the institution has two tasks: the first, and most important, is to promote good research ethics, while the second is to prevent, detect and handle cases of misconduct. Because



the handling of misconduct cases is already thoroughly described in the Act, this guide primarily focuses on reflection and accountability, as also stated in the preparatory work: «Research institutions must first and foremost ensure that they have an environment and a culture that promotes good research and good research ethics.» (Research Ethics Act, preparatory work 5.1)

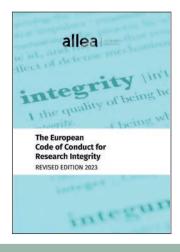
The work on research ethics must also be related to the institution's social responsibility. Research ethics is a prerequisite if society is to have confidence in research. It is the guarantee research provides for the freedom it is granted by society. The institution must safeguard the freedom and independence of researchers in order to maintain society's trust in research. The institution must balance control and freedom to ensure quality and responsibility.

International inspiration

This guide is based on Norwegian legislation and framework, but is also inspired by international developments, both in Europe and the rest of the world. For example, Norway has endorsed the *Bonn Declaration on Freedom of Scientific Research*, adopted by the EU in 2020.

Furthermore, several European resources for research ethics and research integrity have been developed, such as the *European Code of Conduct for Research Integrity* (2023, revised edition), prepared by ALLEA. These European guidelines supplement Norwegian legislation and national research ethics guidelines and are particularly relevant for projects that are interdisciplinary and international. However, the European Commission's *Mutual Learning Exercise (MLE) on Research Integrity* (2019) showed that there is also great variation across Europe in terms of concepts such as research ethics, research misconduct and research integrity. Therefore, more specific resources have also been developed, such as the *Toolbox for Research Integrity*, prepared by the EU-funded project SOPs4RI. The toolbox consists of various Standard Operating Procedures (SOPs) that demonstrate how the institution can work more systematically with research integrity. One recommendation is to develop a so-called Research Integrity Promotion Plan (RIPP) to systematise this work. Both the *European code of Conduct for Research Integrity* and the resources from SOPs4RI are highlighted in the Horizon Europe programme guide.

Also globally, there are many good resources, for example based on the World Conferences on Research Integrity (WCRI): *Singapore Statement* (2010) sets out general guidelines for research integrity; *Montreal Statement* (2013) is about collaboration across countries and disciplines and can supplement the national and discipline-specific guidelines in Norway; *Cape Town Statement* (2022) is about global justice and equity in research. These perspectives are in line with the social responsibility of research as expressed in UNESCO's *Recommendation on Open Science* (2021).







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World Conference on Research Integrity (WCRI):

- Singapore Statement (2010)
- Montreal Statement (2013)
- Cape Town Statement (2022)

UNESCO (2021), Recommendation on Open Science.



1. Teaching and training

Institutions must ensure that students and staff receive adequate training in research ethics.

According to the Research Ethics Act all candidates and employees must receive necessary training (§ 5). Ensuring good research practice is a continuous process, and competence must be maintained and regularly updated. It is therefore important to focus on research ethics in both teaching and training.

Research Ethics Act

§ 5. Requirements for research institutions

The institution is responsible for:
a. necessary training of candidates and staff in recognised research ethical

NREC's website (researchethics.no) provides a number of resources that can be used in teaching and training, primarily research ethics guidelines and guides. Here you will find the *Research Ethics Magazine*, as well as books, reports, statements and the Research Ethics Library (FBIB) with more than 70 articles on research ethics topics.

Students and PhD candidates must receive training in research ethics, adapted to their level and subject area. The Norwegian qualifications framework specifies different requirements for different levels of education, and the institutions must ensure that research ethics are adequately addressed. Research ethics should be integrated into all study programmes, and should be included in the teaching together with theory and methodology.

Several good introductions to research ethics are available in Norwegian. Also internationally, there are many resources for training in research ethics. A good textbook is *Responsible Conduct of Research* by Adil

Norwegian Qualifications Framework for Lifelong Learning

Bachelor's candidates should have *insight into* relevant academic and professional ethical issues.

Master's candidates can *analyse* relevant academic, professional and research ethical problems.

PhD candidates can *identify* new relevant ethical issues and carry out his/her research with scholarly integrity.

E. Shamoo and David B. Resnik. There are also many relevant digital teaching resources on The Embassy of Good Science, a European platform for research ethics and research integrity.

Institutions must ensure that all students and staff receive adequate training in research ethics. Therefore, everyone who teaches must have sufficient competence. Expertise in research ethics is also important for course coordinators and programme coordinators. In short, it is recommended to make teaching compulsory, fun, reflective, safe, relevant, proactive, blended, systemic, positive and a first step (Martinez-Campos 2022).

In teaching and training, it can be useful to use specific cases. FBIB has a number of cases linked to relevant articles, and Forskningsinstituttenes fellesarena (FFA) has developed a resource for dilemma training covering many topics. Other examples can be found on the app *Dilemma game*.

When developing teaching programmes, it is important to consider responsibilities and purpose. Responsibility for the organisation of the work lies with the management, but the content of research ethics lies with the research community. This can lead to tensions between control and freedom. Also the purpose of the teaching may differ, for example to promote good research practice or to prevent misconduct. Therefore, it is important to distinguish between law and ethics, and to safeguard research ethics in a broad sense.

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2. Supervision and mentoring

Research ethics must be integrated into all supervision. Institutions must ensure that supervisors fulfil their responsibilities.

Supervisors play an important role in establishing a responsible research culture built on respect and collegiality. Supervisors must ensure that students and PhD candidates are trained to reflect on research ethics. Supervisors must ensure that research ethics is integrated into all projects, together with theory and methodology, based on research ethics guidelines.

Supervisors must introduce students and PhD candidates to laws and regulations relevant to their project, such as data protection regulations or requirements for ethical pre-approval where relevant.

Research Ethics Act, preparatory work

3.1 What is research ethics?

Both supervisors and their leaders have a responsibility to clarify roles and responsibilities for supervisors and mentors to avoid unfortunate dependencies and unnecessary conflicts.

5.1 Promoting good research ethics Through training, supervisors play a particularly important role in the work of research institutions to establish a culture and a practice of research ethics.

Supervisors must be aware of the asymmetrical power relations and not use their academic authority to their own advantage or in ways that violates the candidate's integrity, for example in close professional and private relationships.

Supervisors must ensure compliance with norms for good citation practice and co-authorship. This also applies when publishing or using the candidate's material. Supervision is not in itself a sufficient contribution to be listed as co-author.

Institutions must ensure that supervisors are aware of their responsibilities and able to fulfil them. However, it is also important to emphasise that both students and PhD candidates have an independent responsibility for their work.

The European Code of Conduct for Research Integrity (2023)

2.2 Training, Supervision, and Mentoring Senior researchers, research leaders, and supervisors mentor their team members, lead by example, and offer specific guidance and training to properly develop and structure their research activities.

Many international resources are related to institutional responsibilities, such as those developed by the US *Office for Research Integrity* (ORI) and the European SOPs4RI project.

Institutions must ensure that all supervisors receive sufficient training to fulfil their responsibilities. Systematic training and follow-up of supervisors is important to ensure that research ethics is safeguarded at the institution. Institutions should also consider whether training in research ethics should be mandatory for those who wish to be supervisors.

Several institutions already have training programmes for supervisors. The University of Agder has included research ethics in its guidelines for supervisors. The University of Tromsø has a development programme in research supervision that includes research ethics (DocEnhance). Several faculties at the University of Oslo have focused on the supervisor's responsibility for research ethics. It can be useful for both supervisors and candidates to attend courses or meetings together to clarify roles and responsibilities.

Institutions should develop resources or guidelines on supervisors' responsibility for research ethics and enable supervisors to act as role models and sources of inspiration. Many students and young researchers experience pressure from supervisors related to publication and co-authorship, or they have material and results «stolen» by the supervisor (cf. *pleasedontstealmywork*). Such guidelines should therefore address issues of publishing, criteria for co-authorship and intellectual property rights.

Institutions should develop contract templates and routines clarifying mutual expectations, so the candidate and the supervisor have a shared understanding of their responsibilities from the beginning of the project.

References

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3. Research community

Most research ethics issues should be resolved in the research community. All disciplines must take responsibility for and manage research ethics in their area.

The Norwegian Research Ethics Act assigns significant responsibility to the individual researcher (§ 4). However, many research ethics questions must be discussed and resolved together. The research community therefore plays a key role in fostering good research practices (cf. Research Ethics Act, preparatory work, 5.1).

The research community is international and encompasses various disciplines and research cultures across institutions and national borders. They have their own methods and norms for ensuring scientific quality and responsibility, and many have field specific research ethics guidelines at national and international level. The anchoring of research ethics in the research community ensures self-regulation and accountability at the institution. The research community defines recognised norms within their field, and most research ethics issues are best resolved in the research community. In this way, the research community can balance responsibility and autonomy, while also avoiding unnecessary bureaucratisation of research ethics questions and issues. (Tranøy 1986)

Research Ethics Act, preparatory work

5.1 Promoting good research ethics
The most important task is to include research ethics in all education and all research. Research ethics is an integral part, not an add-on

[...]

The institutions must create a culture providing spaces to address all ethical issues and dilemmas, where it is permissible to raise questions for ethical discussions both on general issues and on specific topics - in one's own research and in the research of others.

The institutions must provide space for discussing research ethics, and both time and resources must be allocated for such meeting places. Responsibility for research ethics applies to all phases and all parts of a research project. Institutions must ensure that all researchers and project managers are aware of their responsibilities and able to fulfil them. Questions about publishing and co-authorship must be clarified early, especially with regard to students, PhD candidates and young researchers.

A relevant resource for embedding research ethics in the research community is the *Integrity in practice toolkit* (2018), developed by The Royal Society and UKRIO.

Institutions can facilitate the handling of research ethics questions in various ways and at different levels. There may be joint discussion arenas within specific fields and disciplines. There may be separate arenas for research fellows, supervisors or project managers respectively where they can address various issues. In some cases, it can be constructive to meet across disciplines and roles to discuss more general questions. The key point is that the research community helps to clarify research ethics questions and issues.

All disciplines, professions and academic communities must take responsibility and manage research ethics in their own field. One example in Norway is the field of anthropology, which, following the introduction of the new Personal Data Act (including GDPR), produced a special issue of the *Norwegian Anthropological Journal* (2020) on research ethics and freedom of research. Another example is the National Research School of History, which in March 2023 organised a two-day seminar for supervisors on ethics in historical research. Professions and fields of practice-orientated research can also develop their own research ethics resources and frameworks. For example, the <u>Union of Education Norway</u> has developed its own fact sheets on research ethics for the teaching profession.

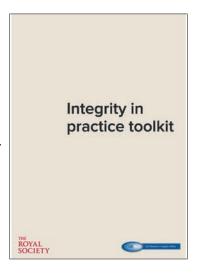
Some disciplines have their own international guidelines, which supplement the Norwegian guidelines from FEK. One example is the <u>Declaration of Helsinki</u> developed by the World Medical Association (WMA). Another example is the guidelines of the <u>Association of Internet Researchers</u> (AOIR). Several disciplines have their own guidelines, such as the <u>American Physical Society</u> or the <u>British Sociological Association</u>. Norwegian academic environments should actively develop a responsible research culture in line with both national and international guidelines.

References

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World Medical Association (1964 [2013]), *Declaration of Helsinki*.





4. Research administration

Institutions must facilitate dialogue between researchers and administrative staff, based on respect and recognition of each other's expertise.

Administrative staff provide important support to research. They have specific competence and can assist researchers in their projects. They play an important role in the institutions, facilitating the work with research ethics at all levels. Institutions must ensure that administrative staff have the time, resources and expertise to fulfil their duties.

Research administrators can provide an overview of internal procedures and external requirements related to research ethics, as well as privacy, data storage, open science, collaboration and funding. They can also be involved in drafting applications and reporting from projects. And they can assist in planning educational programmes and courses in research ethics. Researchers must recognise the competence and contribution of administrative staff.

Different groups of administrative staff may be involved in fostering research ethics, such as research advisors, librarians, lawyers, project economists and data curators, as well as advisors in research education, data protection, dissemination, communication, open science and international co-operation. It may be useful to establish research administration networks across the institutions, to coordinate and quality-assure the work on research ethics.

One national arena is NARMA, a Norwegian network for research managers and administrators, which has research ethics as one of its topics. Similarly, EARMA at European level, has its own group for ethics and integrity in research (ERION). The PRIDE network (Professionals in doctoral education) and the European University Associations Council for doctoral education (EUA-CDE) focus on research training.



Institutions must have administrative staff with competence in research ethics. It may be appropriate to create specific positions in this area. Western Norway University of Applied Sciences, for example, has a dedicated research ethics officer.

Institutions must facilitate good dialogue between researchers and administrative staff. This requires mutual respect and recognition of each other's competence.

The institutional responsibilities for research ethics encompasses both the administrative work and the research content, and there must be continuous interaction between the administration and researchers to facilitate a responsible research culture.

Institutions must ensure that administrative staff have the time and opportunity to develop their competence. An important meeting place for them is NREC's annual Research Ethics Forum in September.





5. Research leaders

Research leaders must foster a responsible research culture in the research community.

Research leaders are responsible for academic activities in a department or a basic unit, such as deans, heads of department, heads of research, directors or members of governing bodies. They all manage institutional power close to the research activity. They have a major responsibility to ensure that research is conducted in accordance with recognised research ethics norms. Therefore, research ethics must be included in the requirements for all research leaders.

Research leaders must provide space for handling different research ethics questions and issues and ensure that relevant resources and procedures are known among students and staff. Further as many questions and issues as possible must be resolved at the appropriate level and the stage. Research leaders must also ensure that misconduct cases in their unit are handled in line with institutional guidelines.

Research leaders must safeguard research ethics throughout the organisation, for example in connection with assessment, recruitment and promotion.

Research ethics is a prerequisite for academic freedom and trust in research. Research leaders at all levels must support employees who are subject to undue pressure from commissioners, partners and funders, or to harassment, threats and sanctions in the public sphere (cf. NOU 2022:2).

In connection with accusations of research ethics issues or misconduct cases, leaders must protect whistleblowers. A relevant resource in this context is ENRIO's *Handbook on Whistleblower Protection in Research* (2023).

The European Code of Conduct for Research Integrity (2023)

2.1. Research environmentResearch institutions and organizations [...]

- promote awareness and resource incentives to ensure a culture of research integrity.
- create an environment of mutual respect and promote values such as equity, diversity, and inclusion.
- create an environment free from undue pressures on researchers that allows them to work independently and according to the principles of good research practice.
- demonstrate leadership in clear policies and procedures on good research practice and the transparent and proper handling of suspected research misconduct and violations of research integrity.
- actively support researchers who receive threats and protect bona fide whistleblowers, taking into account that early career and short-term employed researchers may be particularly vulnerable.
- support appropriate infrastructure for the generation, management, and protection of data and research materials in all their forms that are necessary for reproducibility, traceability, and accountability.

Institutions must ensure that all research leaders at all levels receive customised training. They must be able to handle research ethics issues and resolve research ethics questions. Therefore research ethics must be a formal requirement for research leaders, included in job descriptions and employment contracts.

Many research leaders have worked systematically to establish a responsible research culture. One example is the Center for Research on Extremism (C-REX) at the University of Oslo, which has highlighted research ethics in teaching, training, data processing and dissemination. Other examples are the Norwegian Institute for Nature Research (NINA), the Nordic Institute for Studies in Innovation, Research and Education (NIFU), the Norwegian Police University College and the Christian Michelsen Institute (CMI), where research leaders have initiated seminars and meetings focusing on research ethics.

Research leadership also includes policies for publishing and career assessment. An important resource in this context is the *Norwegian Career Assessment Matrix* (NOR-CAM), which also refers to the *Hong Kong Principles for Assessing Researchers* (2019). In Europe, there is a similar Coalition for Advancing Research Assessment (CoARA).

The *Integrity in practice toolkit* (2018), developed by The Royal Society and UKRIO, contains reflections and measures for the development of a responsible research culture. Research leadership is also crucial in the *European Code of Conduct for Research Integrity* (2023), promoting a culture of research integrity.

References

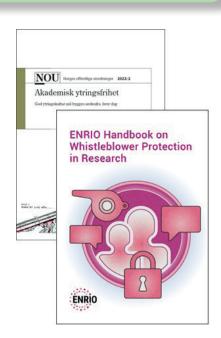
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6. Research ethics committees

Institutions may consider setting up research ethics committees, at different levels, to fulfil the broad responsibility for research ethics.

According to the Research Ethics Act, institutions must have a misconduct committee. However, it can also be appropriate to establish other research ethics committees with different tasks and degrees of formalisation. These tasks may include fostering a responsible research culture, developing training programmes, answering research ethics questions or handling research ethics issues. Such

Research Ethics Act

§ 6. Treatment of misconduct cases at research institutions
Research institutions must have a
Commission for the Investigation of
Research Misconduct.

committees may supplement a statutory misconduct committee and help fulfil the broad institutional responsibilities for research ethics.

Institutions must consider whether it is appropriate to establish ethical committees to advice, assess or approve research projects. This may be particularly relevant for research involving high risk to people, society or nature. Such committees are more common in other countries, often referred to as *Ethical Review Board* (ERB) or *Institutional Review Board* (IRB).

Research ethics committees can also fulfil external requirements, for example to provide pre-approval when required by other countries. Another example is to provide a research ethics assessment or approval when required for publication. A third example is in connection with applications for funding, for instance in relation to Horizon Europe, which has extensive procedures for ethical assessments. Here, a research ethics committee can provide expertise and ethical reflection that strengthens the application.

Research Ethics Act, preparatory work

13.2.1 Research institutions' duty to handle misconduct cases

The institutions may decide whether the committee will also deal with other cases and whether it will also have a preventive role, for instance through counselling researchers, supervisors and students, or as an advisory body.

Institutions can establish research ethics committees at various levels to fulfil the broad responsibility for research ethics. Institutions must consider which organisation is appropriate based on their specific needs and requirements. It is important that research ethics committees have sufficient professional expertise.

Many institutions, such as NMBU and UiO, have misconduct committees with a broader mandate than handling misconduct cases, for example including training or reflection. Østfold University College has established a separate Research Ethics Council, in addition to the misconduct committee, to fulfil the broad responsibility for research ethics. An international example is the Research Integrity Advisory Panel (RIAP) at the University of Cambridge, which provides informal and subject-specific advice on good research practice.

Some committees have been established to assess research on humans in projects not covered by the Health Research Act and the REC system. Inland Norway University of Applied Sciences has established a Local Research Ethics Committee to assess projects involving vulnerable groups or risk of harm. At the University of Oslo, the Department of Psychology has established a Research Ethics Committee, which assists with ethical assessment prior to publication.

References

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Elin Fugelsnes (2022), «Flere godkjenner forskningen selv» («<u>Many approve the research themselves</u>»), *Magasinet Forskningsetikk*, no. 2.



7. Resource persons

Institutions may consider having an ombudsperson, or other resource persons, to fulfil the broad responsibility for research ethics.

An ombudsman is an independent and impartial body that safeguards the interests and rights of individuals and groups in society. Institutions may consider having an ombudsperson, or other resource persons, to fulfil the broad responsibility for research ethics. Such a body may have different names, such as ethics ombudsman, science ombudsman or research ombudsman. The work may include counselling, guidance, mediation and handling of research ethics questions and issues.

In some countries, such as Germany, science ombudsmen are more widespread and play a key role in promoting good scientific practice, research integrity and research ethics. All German research organisations are required by law to have an independent science ombudsman in addition to misconduct committees. Further, the national research funding organisation, Deutsche Forschungsgemeinschaft (DFG), has a science ombudsman at the national level. In other countries, institutions have a so-called Research Integrity Officer (RIO).

Institutions may also appoint other resource persons, with a more informal role. The University of Glasgow has «Research Integrity Champions» who advise on good research practice in their academic community. The online resource Embassy for Good Science has a network of Ambassadors who promote good research practice. Such positions should be encouraged and rewarded as meritorious by the institution.



Research Ethics Act, preparatory work

13.4.1 Research institutions' duty to handle misconduct cases
Ethics ombudsmen, science ombudsmen and the like can be useful for dealing with different research ethics issues.
However, these cannot replace a misconduct committee which, among other things, requires an external member.

Research Ethics Act, preparatory work

6.1 Handling of misconduct cases
The German system is decentralised and structured around statutory research ombudsmen and misconduct committees at each research institution. These are intended to ensure that cases of possible misconduct and other possible violations are handled locally. The DFG has its own ombudsman who deals with possible misconduct in research funded by the DFG. There is also a central research ombudsman who primarily has a mediating role in cases involving several institutions.

Norway already has a system for promoting research ethics at the institutions, supplemented by national and regional ethical committees. Ombudsmen and other resource persons can be an important supplement to safeguard the needs and interests of researchers when difficult questions and issues arise. Ombudsmen must have a clear mandate that ensures independence and confidentiality, and a clearly defined relationship with other research ethics bodies. Ombudsmen should not act as a party representative.

The University of Oslo has chosen to divide the ombudsman function in two different areas, one for the social sciences and the humanities and one for the natural sciences. In addition, there is a separate research ombudsman for the Institute of Clinical Medicine, Oslo University Hospital and Akershus University Hospital. The University of Stavanger has established a science ombudsman for the entire institution, while the Faculty of Health Sciences at OsloMet has established a science ombudsman at the faculty level. Both SINTEF and NIBIO have opted for a different approach with an ethics officer who works with both corporate ethics and research ethics.

Institutions should recognise and reward individual researchers who voluntarily takes responsibility to promote research ethics in their research community. Such efforts should also be rewarded as meritorious in connection with the assessment of academic careers, cf. NOR-CAM.

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Embassy of Good Science, Ambassadors of Good Science.



8. Handling misconduct cases

Institutions must handle possible violations of recognised research ethics norms. Institutions must develop appropriate routines and resources for handling misconduct cases.

The Research Ethics Act sets out institutional responsibilities (§ 6): Institutions must handle possible violations of recognised research ethics norms; they must have a misconduct committee; they must establish guidelines for handling possible violations; and they must report possible serious violations to the National Commission for the Investigation of Research Misconduct (GRU).

The Research Ethics Act also defines «scientific misconduct» (§ 8): «Scientific misconduct means falsification, fabrication, plagiarism and other serious violations of recognised research ethics norms committed intentionally or through gross negligence in the planning, conducting or reporting of research.»

Research Ethics Act

- § 8. Statements in misconduct cases
 In statements from research institutions
 pursuant to § 5, institutional misconduct
 committees pursuant to § 6 second
 paragraph, and the national misconduct
 commission pursuant to § 7 in cases of
 possible violations of recognised research
 ethics norms, a decision must always be
 taken on:
 - a. whether the researcher has committed scientific misconduct or not,
 - b. whether there are system errors at the institution and
- c. whether the scientific work should be corrected or withdrawn.

VITENSKAPELIG

(U)REDELIGHET

The National Commission for the Investigation of Research Misconduct assists with guidance and is the appeals body for cases where the institution has concluded that a researcher has committed scientific misconduct. The institutions must report cases of possible serious violations to the GRU.

The National Research Ethics Committees (NREC) receive many questions and cases uncovering unclarity concerning institutional responsibilities. This is often related to interpretations of key concepts in the 2017 Research Ethics Act. This is also discussed in the anthology *Vitenskapelig (u)redelighet* (2019), published by NREC.

Also internationally, there is a lack of clarity regarding concepts such as research ethics, research misconduct and research integrity.

In addition, different countries have developed different practices for handling different types of cases. An unfortunate consequence may be that many research ethics issues are incorrectly treated as misconduct cases. Lack of clarity can also lead to unequal treatment across institutions. Therefore, in international co-operation it may be appropriate to consult relevant international resources, such as ENRIO's *Recommendations for the Investigation of Research Misconduct* (2019).

Institutions must develop good resources and procedures for handling misconduct cases. If a case concerns a possible violation, it must be treated as a misconduct case.

Institutions must avoid mishandling and discrimination. Only a small number of research ethics issues are misconduct cases, and only a small number of misconduct cases involve scientific misconduct. «Scientific misconduct» is defined as serious violations, while «misconduct» encompasses less serious violations, also referred to as grey zone cases, small-scale cheating and questionable research practices. These are all violations, and the key question is whether they are serious or less serious. Other research ethics issues and cases not involving violations should be handled differently than misconduct cases.

Institutions in Norway have organised the handling of different cases in different ways. The University of Agder (UiA) has developed a good model: A research ethics issue must first be addressed in the research community. If necessary, the dean is notified, and attempts to resolve the issue through dialogue. If this is not feasible, the dean must attempt to resolve the issue as a formal case. If this fails, the case is referred to UiA's misconduct committee in line with the statutory requirements for handling misconduct cases. This procedure ensures that the research ethics issue is first addressed in the research community before it is elevated to the institutional level as a misconduct case.

References

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UKRIO (2023), *Procedure for the Investigation of Misconduct in Research*.



9. Institutional management

Institutional management must ensure a responsible research culture.

According to the Research Ethics Act, institutions must ensure that research is conducted in accordance with recognised research ethics norms. The institutional management is responsible for safeguarding research ethics at all levels (cf. this guide, sections 1–8).

Research Ethics Act

§ 5. Requirements for research institutions Research institutions must ensure that the research at the institution is conducted in accordance with recognised research ethical norms.

In addition, institutional management must ensure that research ethics is safeguarded in a broad sense, including to protect academic freedom, support researchers against pressure, prevent perverse incentives and develop fair assessment criteria. Institutional management must also ensure systems, procedures and contracts that safeguard research ethics.

According to the preparatory works to the Act «Research organisations must work actively and continuously to establish a culture of research ethics and practice». This includes teaching and training, but also responsible leadership, adopting a systematic approach, ensuring expertise and integrating research ethics in all phases of research: «The most important task is to include research ethics in all education and all research. Research ethics is an integral part, not an add-on.»

Research Ethics Act, preparatory work

5.1 Promoting good research ethics Research institutions must work actively and continuously to establish a culture and a practice of research ethics.

[...]

This is done at research institutions through the daily practice of including ethics and creating awareness of ethics throughout education and research.

According to the Act, institutions must have misconduct committees and guidelines for handling misconduct cases. Institutions must also have procedures for addressing research ethics questions and handling research ethics issues not involving violations. This is explicitly stated in the preparatory work to the Act: «The institutions must create a culture providing spaces to address all ethical issues and dilemmas, where it is permissible to raise questions for ethical discussions both on general issues and on specific topics – in one's own research and in the research of others.»

Internationally, a number of resources are relevant to institutional management, for instance developed by the League of European Research Universities (LERU) and the UK Research Integrity Office (UKRIO)/Association of Research Managers and Administrators (ARMA).

All national bodies representing researchers and research institutions must support the work on research ethics. For instance, the joint arena of research institutes (FFA) has developed specific resources for research institutes. In Sweden, a specific expert group for research ethics was established in 2018 within the Swedish Association of Universities and University Colleges (SUHF).

Institutions must facilitate good research practice. This requires systematic and continuous efforts to develop a responsible research culture. The institutional management is responsible for safeguarding research ethics throughout the institution.

Many institutions have established arenas to put research ethics on the agenda. The University of Oslo has established a «Forum for Research Ethics», the University of Bergen has established an «Ethics Breakfast» and the Norwegian University of Life Sciences (NMBU) has established a «Research Ethics Forum». These arenas provide spaces where institutional management and researchers together can create a responsible research culture. NREC also organises an annual Institutional Management Forum in November where leaders of institutions can share experiences and discuss current issues.

All contracts, internally as well as with external actors, must safeguard research ethics and academic freedom. One example is the official standard agreement for research (SSA-F), which should be used in commisioned research.

The EU-funded project SOPs4RI has developed resources that research institutions can use to promote a responsible research culture. One recommendation in their <u>Toolbox for Research Integrity</u> is to develop a Research Integrity Promotion Plan (RIPP) to systematise the work on research ethics and research integrity. This is elaborated in an <u>article in Nature</u> from 2020. Institutions in Norway should consider developing similar frameworks for research ethics and research integrity.

References

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UKRIO and ARMA (2020), <u>Research Ethics. Support and Review in Research Organizations</u>.









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