

The BEYOND Guidelines for Preventing and Addressing Research Misconduct

Rosemarie Bernabe, PhD
Professor of Research Ethics and Research Integrity, UiO
Project Coordinator of BEYOND



FUNDING STATEMENT: This project has received funding from the European Union's Horizon Europe research and innovation programme under GA No 101094714 (University of Oslo). UK participants in BEYOND are supported by UKRI grant number 10062742 (Trilateral Research) and by UKRI grant number 10067440 (Heriot-Watt University).



Funded by
the European Union

SCAN ME



Funded by
the European Union

BEYOND BAD APPLES: Towards a Behavioral and Evidence-Based Approach to Promote Research Ethics and Research Integrity in Europe



Funded by
the European Union

- Imagine the typical case of data fabrication/falsification of a postdoc in a laboratory

How would you/your institution approach this?



Typically/traditionally...

- Whistleblower whistles and provides information on who is/are involved, what the matter at hand is, at which phase of research, if there are scientific publications involved, and if there are other matters that are relevant for the case.

The committee evaluates on the merits of the case and decides on it. In a report, the facts and background, relevant norms and regulations, assessment, conclusion (with a note at the end on whether there is anything systemic).



Typically/traditionally...

- Whistleblower whistles and provides information on who is/are involved, what the matter at hand is, at which phase of research, if there are scientific publications involved, and if there are other matters that are relevant for the case.

The committee evaluates on the merits of the case and decides on it. In a report, the facts and background, relevant norms and regulations, assessment, conclusion (with a note at the end on whether there is anything systemic).



However...

- There is more to the case than what was identified/isolated
- Myopia
- Misses an opportunity
- Neglects an equally important (if not more) ethical responsibility



Ecosystem factors

● **Systemic Factors:** Hypercompetitive funding environment • Pressure to publish in high-impact journals • Career insecurity for early-career researchers

Organizational Factors: • Lack of supervision or mentoring • Poor research data management practices • No routine replication or internal data audits

Epistemic Factors: • Research culture values novel positive results • Negative findings are rarely published • Replication studies are discouraged

Socio-technical Factors: Opaque data analysis pipelines • Informal code sharing without validation • Weak research data management infrastructure

Psychological Factors: • Early-career anxiety • Fear of losing employment • Pressure to “deliver results”



Recognising these interactions allows institutions to prevent misconduct by improving research environments, not only by sanctioning individuals.



Funded by
the European Union

- It is an ethical problem if we think that the research misconduct (RM) committed by one or few persons must be addressed immediately but do not extend that sense of urgency or level of importance on the ecosystemic factors which expose other researchers to the same risk.



BEYOND's Ecosystem Approach

Preamble:...it endorses the ECoC's emphasis on the importance of the research environment in sustaining RI.... adopt and further develop this perspective by explicitly advancing an ecosystem approach to research misconduct (RM), one that recognises how systemic, organisational, epistemic, socio-technical, and psychological factors interact to shape research culture and behaviour.

Rather than treating RM solely as an individual failure, the Guidelines recognise the institutional, socio-economic, and cultural contexts in which research is conducted.



Funded by
the European Union

From QRPs to CRPs

- **Contestable Research Practices (CRPs)** refer to research behaviours whose ethical acceptability is not universally agreed upon and may vary depending on the disciplinary, methodological, or epistemological context. These practices are not inherently unethical but may raise concerns about RI when used inappropriately. For example, HARKing (hypothesising after the results are known) is considered RM in quantitative approaches under most conditions, while inductive data-driven research is common in qualitative methodologies.



Today's Agenda

- BEFORE RM: Prevention and culture
- DURING A RM CASE: procedures and protection
- AFTER A CASE: learning and reintegration



Today's Agenda

- **BEFORE RM: Prevention and culture**
- DURING A RM CASE: procedures and protection
- AFTER A CASE: learning and reintegration



• **BEFORE RM: How
Universities/Research Performing
Institutions Should Organise
Themselves to Promote RI and
Discourage RM**



Fostering Responsible Research Culture

5.1. RPOs should actively foster a research culture that supports open discussion and shared understanding of RE/RI and RM. This includes *creating opportunities for researchers at all career stages to engage in dialogue about ethical issues, uncertainties, and the interpretation of RI principles.*

What is in place in our institutions to actively encourage dialogue about practicing RI and avoiding RM?



5.4. Changing the incentive structures within RPOs can have a profound impact on promoting best practices. These institutions should *consider revising their research assessment practices, moving away from solely quantitative metrics such as “publish or perish” and incorporating evaluations that recognise ethical research practices.*

Does your institution use qualitative metrics such as DORA/COARA and is ethics/integrity a part of research assessment?



5.5. RPOs should also consider strengthening the organisational/institutional ethical culture and increasing researcher awareness about RE/RI standards. *RPOs with honour codes, for example, have been shown to experience fewer incidents of plagiarism. Such codes, coupled with regular discussions on ethics and integrity, can cultivate a robust moral climate conducive to ethical research practices.*

Do you have such widely known moral codes in your university and are there avenues that actively promote open discussions about the codes?



Supportive and Safe Research Environments

3.5. RPOs should provide confidential mental health resources and promote a culture that fosters acceptance of help-seeking and prioritizes psychological safety. RPOs must actively promote empathy, openness, and responsibility through leadership, training, and **regular assessment of workplace climate**. A healthy research culture is essential to the prevention of RM and the protection of all researchers.



Does your institution's **ACTUAL** definition of research excellence allow space for researchers' well-being?

Does leadership signal that well-being and dignity are integral to research integrity?

Do researchers feel safe to seek help when they experience stress, burnout, or ethical pressure? Do they know where and how to seek help?



- Are confidential mental health resources available and accessible to all researchers?

Does the institution assess whether its research environment is psychologically healthy? How does it do it and how often?



Training and Ethical Competence

12.1. There is a notable *need for continued education and training in RE/RI to foster ethical reasoning and awareness. **Training should address knowledge, skills, values, and habits, and should be offered to everyone involved in research. RE/RI education should empower researchers to self-regulate behaviour, particularly in practices susceptible to ethical lapses, such as selective analysis.***



- Is RE/RI education offered systematically to everyone involved in research?

Does it address knowledge, practical skills, values, and research habits, rather than only policies and regulations?

Do researchers leave training better equipped to regulate their own behaviour in complex research situations?



Ethical Research Environments and Nudges

11.1. Nudges are **subtle, non-restrictive interventions** that alter the research environment to encourage ethical choices. RPOs should recognise the strategic use of behavioural nudges as a **preventive measure to foster responsible research**. When thoughtfully designed, nudges can help researchers navigate complex decisions by prompting reflection and reinforcing integrity in practice.

Universities should design environments that make ethical behaviour easier.



Funded by
the European Union

11.6. Nudges should be grounded in evidence-based understandings of behavioural factors that influence ethical conduct. *RPOs and RFOs are encouraged to introduce nudges that reshape the environment in which research occurs—such as ethical prompts, default transparency settings, or simplified paths to responsible actions. Nudges should be integrated into critical stages of the research process, such as data analysis, authorship decisions, and manuscript submission, in ways that make ethical behaviour easier, more visible, and more intuitive.*



	Good Nudges	Bad Nudges
Authorship Practices	Institutional authorship contribution templates used in research groups.	Lack of institutional guidance on authorship, leaving decisions to power hierarchies in labs.
Data Management	Default institutional tools for data documentation and reproducibility practices.	Institutional systems that reward rapid publication but provide little support for data management or reproducibility.
Supervision Structures	Structured supervisor–PhD discussion templates (authorship expectations, research roles, data ownership).	Informal supervision structures where expectations are unclear and early-career researchers depend entirely on supervisors.
Research Culture	Departments encouraged to discuss research dilemmas and integrity issues during meetings or retreats.	Silence around ethical challenges; misconduct discussed only when scandals occur.
Recognition Systems	Awards or recognition for responsible research practices (open data, reproducibility, mentorship).	Institutional recognition focused almost exclusively on high-impact publications or prestige grants.
Well-Being and Workload	Institutional signals that responsible research takes time (reasonable timelines, support services).	Research environments that normalize extreme workloads and unrealistic productivity expectations.
Reporting Concerns	Visible confidential reporting channels and ombudsperson services.	Lack of trusted reporting channels or fear of retaliation discouraging reporting of concerns.

- Do our current institutional systems and incentives subtly encourage responsible research behaviour—or do they unintentionally nudge researchers toward speed, productivity, and competition at the expense of integrity?



Today's Agenda

- **BEFORE RM: Prevention and culture**
- DURING A RM CASE: procedures and protection
- AFTER A CASE: learning and reintegration



SCAN ME



Funded by
the European Union



**It takes the whole community to
cultivate good research culture.**

<https://beyondbadapples.eu/>



Funded by
the European Union