

# Libertà di ricerca e libertà del ricercatore: una ricontestualizzazione contemporanea

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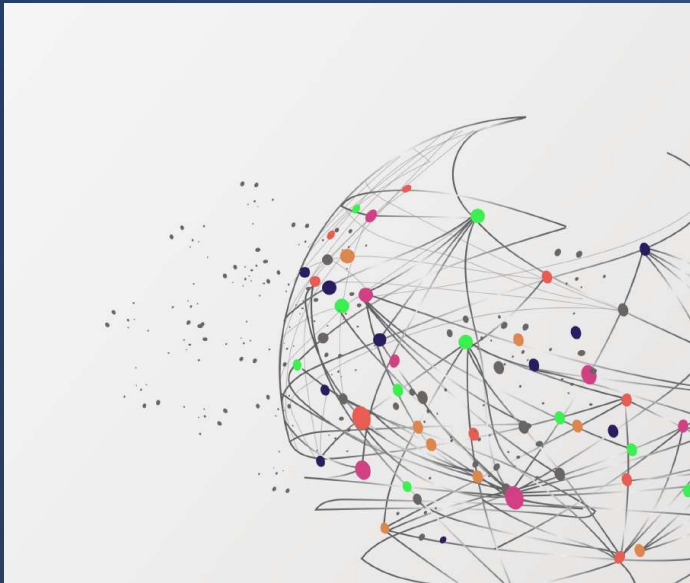
Freedom of research  
and researchers'  
freedom: revisiting the  
issue in the  
contemporary context

# Disclaimer



On my methodological approach

# Outline



0. Freedom/Autonomy as given

## 1. Freedom of research and/as research ethics

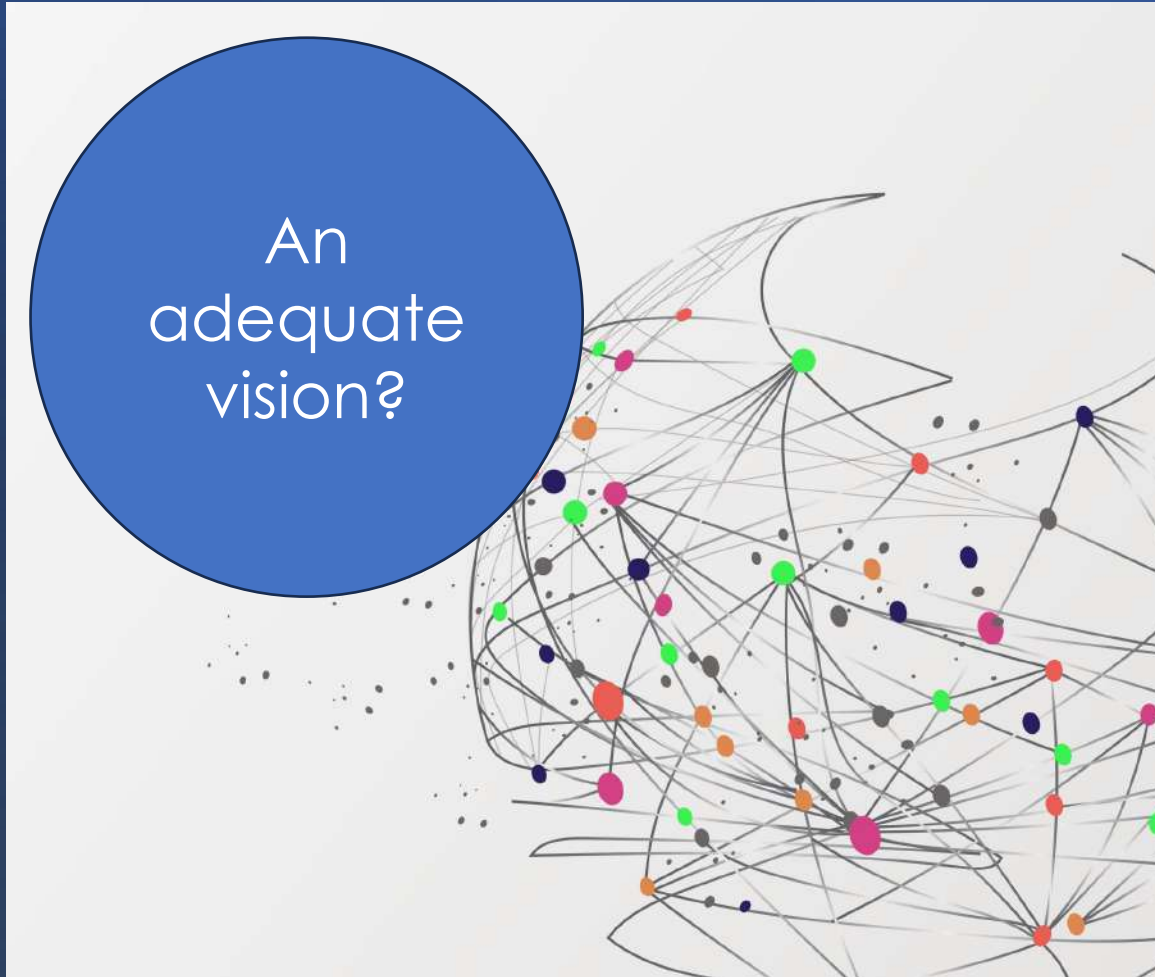
1.1 The scientific method as ethical gatekeeper: the self-referential scientific community

1.2 Building freedom and /as trust at the interface with society

1.3 Integrity as interdependence between individual freedom and institutional responsibility

2. A renewed call for freedom?

## 0. Freedom/Autonomy as given



# The Italian Constitution

## Articolo 9

La Repubblica **promuove** lo sviluppo della cultura e **la ricerca scientifica e tecnica**

## Articolo 33

L'arte e **la scienza** sono **libere** e libero ne è l'insegnamento.

# 1. Freedom of research and/as research ethics



Freedom of research is **constructed** with reference to certain ethical principles that are mandatory within certain communities, and technologies become publicly regulated by ethics and/or the law

Research Ethics – the determination, so far as that is possible, of what is “right” and “wrong”, good and bad, about scientists’ conduct in all practices related to producing and applying scientific knowledge and technologies in research contexts

(Resnik 2015)

# 1.1 The scientific method as ethical gatekeeper: the self-referential scientific community



For science, ethics is directly connected to, is embedded in, correct scientific practices (sound science).

There is a direct connection between knowledge/epistemology and ethics

# The connection between epistemology and ethics



ON BEING  
A SCIENTIST  
A GUIDE TO RESPONSIBLE CONDUCT IN  
THIRD EDITION

Committee on Science, Engineering, and Public Policy

NATIONAL ACADEMY OF SCIENCES,  
NATIONAL ACADEMY OF ENGINEERING, AND  
INSTITUTE OF MEDICINE  
OF THE NATIONAL ACADEMIES

The scientific enterprise is built on a foundation of trust. Society trusts that scientific research results are an honest and accurate reflection of a researcher's work. Researchers equally trust that their colleagues have gathered data carefully, used appropriate analytic techniques, and reported their results accurately, and treated other researchers with respect. When professional standards of science are personally affronted—they feel that their integrity is undermined. This would impact society.

Reliance on ethics is essential for the **validity/credibility of knowledge** both towards other scientists and citizens

US National Academies of Science 2009

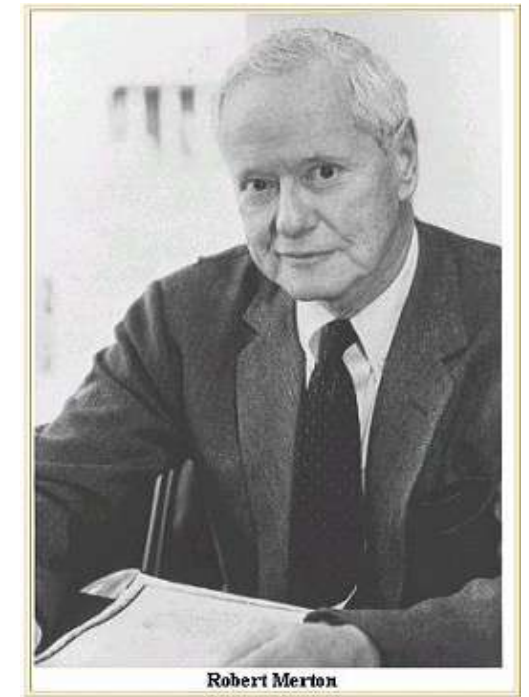


Scientific method builds the scientist's moral personality

The scientific community as a **self-referential, scientifically-and-ethically sound** and **democratic** community

## **Michael Polanyi** **The Republic of Science (1962)**

- Criteria for participation: plausibility, scientific value, originality
- Method of functioning: principle of independent coordination
- Authority: the community of peers



## **Robert Merton** **The ethos of science (1942)**

- **U**niversalism
- **D**isinterestedness
- **O**rganized Scepticism
- **C**ommunalism



**MIT Institute Archives & Special Collections**

# Photographs from Asilomar: International Conference on Recombinant DNA Molecules, February 1975



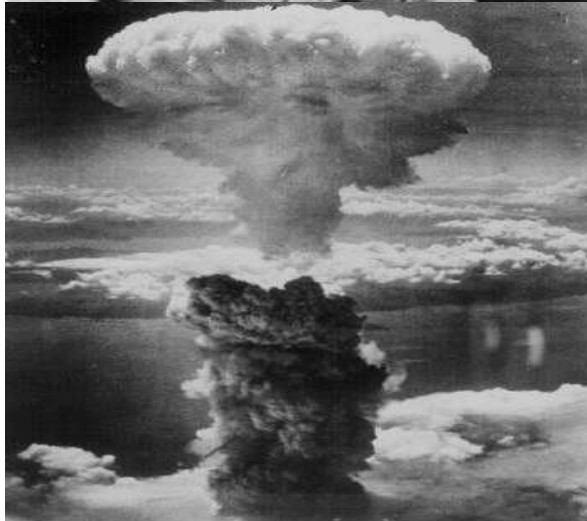
## 1.2 Building freedom and/as trust at the interface with society

- From internal to external ethics
- Need for social control on scientists and social agreement about goals and methods, and need to strengthen decision under conditions of uncertainties about the effects of new technologies

...through the post-WWII reflections on science and technology...



- **Unethical treatment of human subjects in research** (Nuremberg 1947; Tuskegee 1932-1974)
- **Uncertainties** and unforeseeable impacts of new technologies (Manhattan Project 1945)



# .....to research ethics as a public discourse, researchers accountable to institutions and society

- Shift **from paternalism to rights** (informed consent)
- New **requirements** (animal welfare, environmental protection, legality)
- Need to strengthen decision **under conditions of uncertainty** on new technologies (Precautionary Principle)
- **New institutions** to deal with ethical scrutiny on research (IRBs, ethics committees)

Pluralism and multiculturalism → which values may legitimately prevail ?

Pluralism about knowledge → which knowledge may legitimately prevail ? Which vision of innovation? Who should have a say ?

# Principles of research ethics

(in Western democracies?)

(Shrader-Frechette 2003; Shamoo and Resnik 2015)

- Honesty
- Accuracy
- Openness
- Freedom
- Duty to educate
- Duty to disseminate
- Social responsibility
- Legality
- Equal opportunity
- Mutual respect
- Efficiency
- Dual use
- Respect for human subjects
- Respect for animals
- Whistleblowing
- Objectivity in publications
- Peer-review
- Respect for intellectual property

# Principles of research ethics: from the oldest to the newest

(in Western democracies?)

(Shrader-Frechette 2003; Shamoo and Resnik 2015)

- Honesty

- Sustainability
  - Precautionary principle

(Norwegian Committee 2016)

- Peer-review

- Mutual respect

- Efficiency

- Respect for individuals

Relations with society (RRI)

- Legality

- Respect for human subjects

- Respect for animals

- Whistleblowing

- Duty to disseminate

- Social responsibility

- Equal opportunities

- Dual use

- Openness

- Open science
  - Duty to publish in open access journals (H2020)

# Uncertainties in science

Increased scrutiny over values embedded in research and researchers

**Objective** (dependent on epistemic limits) (Funtowicz, Ravetz 1990;2023; Wynne et al. 2007)

**risk** - variables knowns, probabilities knowns  
**uncertainty** - variables knowns, probabilities unknowns

**ignorance** - variables unknowns, probabilities unknowns

- Several forms of indeterminacy dependent on complexities, lack of knowledge, insufficient data, etc...

- Closed v. open systems: when several factors can influence the identified variables.

- Probabilistic causation

**Subjective** (dependent on scientists' personal values) (Longino 1990; Shrader-Frechette 1994; 2012)

Several forms of evaluation in scientific knowledge:

1. **Bias values** - omission of data, incorrect interpretation, fraud
2. **Contextual values** – preferences: personal, social, cultural, which tend to inform/orient judgment
3. **Methodological values** - favor towards specific theories or methodologies

# Science and Public Policy: the «rightful place» of science in democratic societies

**Vannevar Bush, Science,  
the Endless Frontier:  
A Report to the President  
(1945)**



“Scientific progress on a broad front results from the free play of free intellects, working on subjects of their own choice, in the manner dictated by their curiosity for exploration of the unknown”.



**John Steelman,  
Science and  
Public Policy (1947):**

“Science is power  
and all powers in a democratic  
society have to be limited”





Funded by European Union

## REGULATIONS

REGULATION (EU) 2021/695 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
of 28 April 2021

establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013

(Text with EEA relevance)



### Eligible actions and ethical principles

1. Without prejudice to paragraph 2 of this Article, only actions implementing the objectives referred to in Article 3 shall be eligible for funding.

The following fields of research shall not be financed:

- (a) activities aiming at human cloning for reproductive purposes;
- (b) activities intended to modify the genetic heritage of human beings which could make such modifications heritable <sup>(26)</sup>;
- (c) activities intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

2. Research on human stem cells, both adult and embryonic, may be financed depending both on the contents of the scientific proposal and the legal framework of the Member States involved. No funding shall be provided within or outside the Union for research activities that are prohibited in all Member States. No funding shall be provided in a Member State for a research activity which is forbidden in that Member State.

## 1.3 Integrity as interdependence between individual freedom and institutional responsibility

- **Why?**

- Scandals in universities
- Fake/irreproducible results, plagiarism (Falsification, Fabrication and Plagiarism)
- Unethical research
- Publications rejected or withdrawn

- **Research ethics:** individual doing research with responsibility, particularly towards participants, colleagues, employers, funders and society.



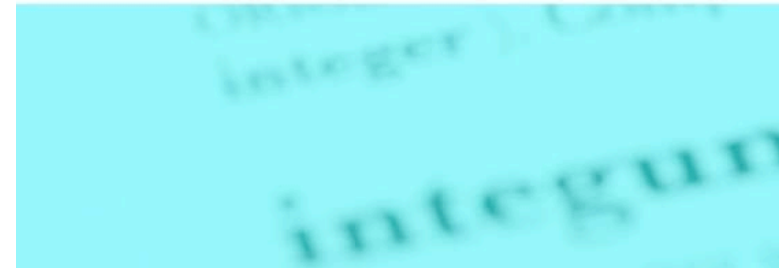
- **Research integrity:** institutional doing research in ways that underpin confidence in the results, the researchers, and the research community.

# Integrity: US and Europe



## The European Code of Conduct for Research Integrity

REVISED EDITION 2023



**Practicing integrity** in research means **planning, proposing, performing, reporting, and reviewing research** in accordance with the values described above.

These values should be upheld by **research institutions, research sponsors, journals, and learned societies** as well as by **individual researchers and research groups**.

- Objectivity
- Honesty
- Openness
- Accountability
- Fairness
- Stewardship



## 1. Principles



Good research practices are based on fundamental principles of research integrity. They guide researchers in their work as well as in their engagement with the practical, ethical and intellectual challenges inherent in research.

These principles are:

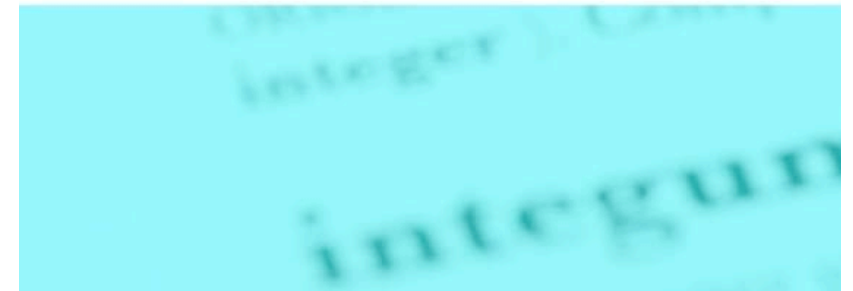
- **Reliability** in ensuring the quality of research, reflected in the design, the methodology, the analysis and the use of resources.
- **Honesty** in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way.
- **Respect** for colleagues,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

# The European Code of Conduct for Research Integrity



## The European Code of Conduct for Research Integrity

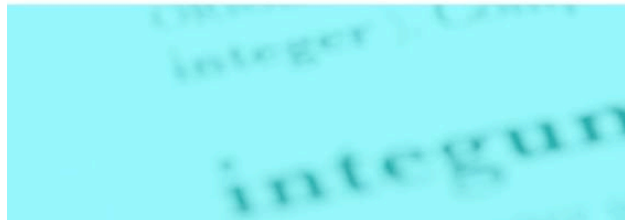
REVISED EDITION 2023



# Institutional responsibility



**The European  
Code of Conduct for  
Research Integrity**  
REVISED EDITION 2023



## 2.1 Research Environment

- Research institutions and organisations promote awareness and ensure a prevailing culture of research integrity.
- Research institutions and organisations demonstrate leadership in providing clear policies and procedures on good research practice and the transparent and proper handling of violations.
- Research institutions and organisations support proper infrastructure for the management and protection of data and research materials in all their forms (encompassing qualitative and quantitative data, protocols, processes, other research artefacts and associated metadata) that are necessary for reproducibility, traceability and accountability.
- Research institutions and organisations reward open and reproducible practices in

hiring and promotion of researchers.

## 2.2 Training, Supervision and Mentoring

- Research institutions and organisations ensure that researchers receive rigorous training in research design, methodology and analysis.
- Research institutions and organisations develop appropriate and adequate training in ethics and research integrity to ensure that all concerned are made aware of the relevant codes and regulations.
- Researchers across the entire career path, from junior to the most senior level, undertake training in ethics and research integrity.
- Senior researchers, research leaders and supervisors mentor their team members and offer specific guidance and training to properly develop, design and structure their research activity and to foster a culture of research integrity.

# Responsible Research and Innovation (RRI)



Responsible Research and Innovation (RRI) implies that societal actors (researchers, citizens, policy makers, business, third sector organisations, etc.) work together during the whole research and innovation process in order to align the process and its outcomes with the values, needs and expectations of society.

The complexity of the Individual and institutional research environment

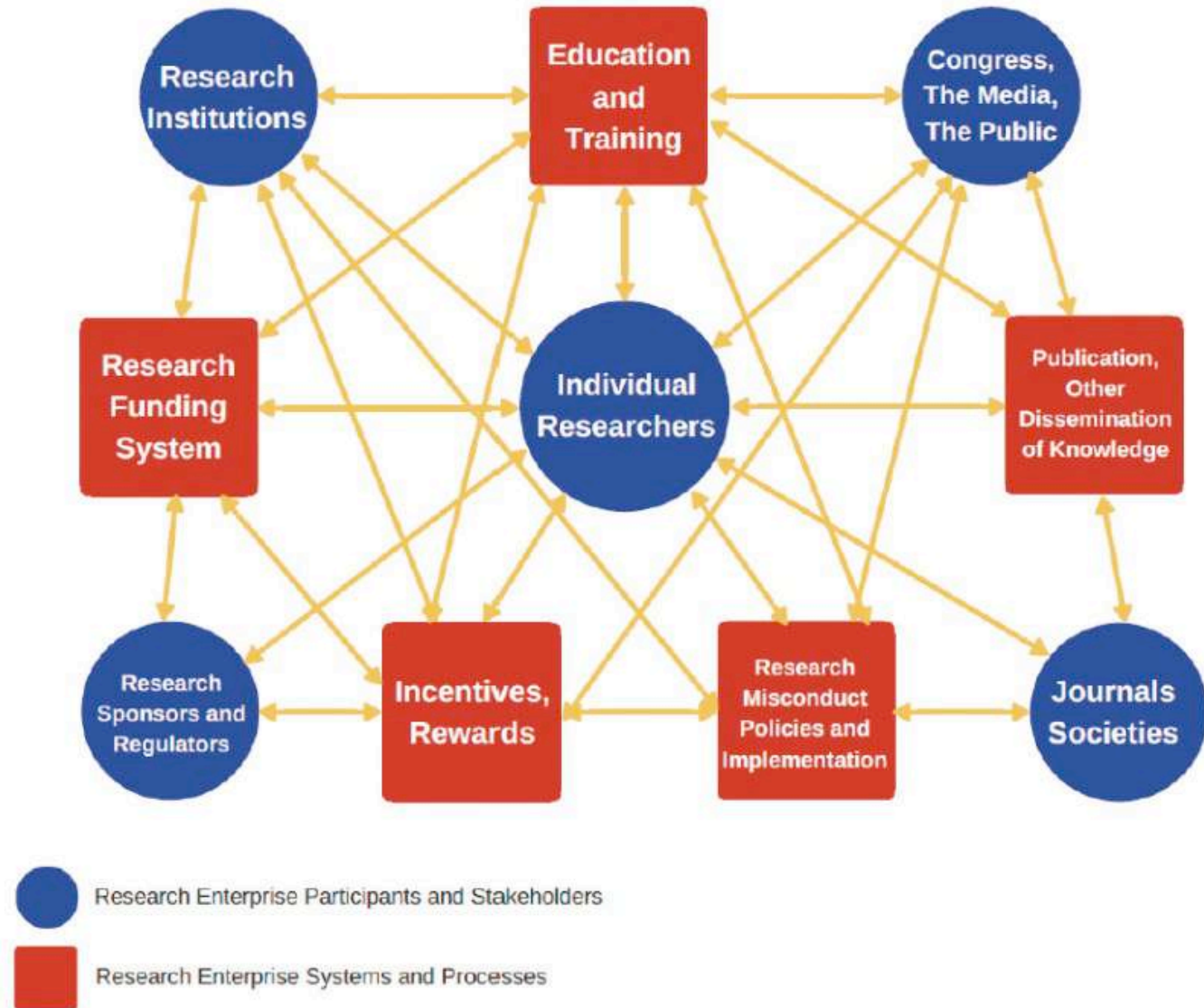


FIGURE 1-1 The research enterprise is a complex adaptive system.



## 2. A renewed call for freedom?

### CHARTER OF FUNDAMENTAL RIGHTS OF THE EUROPEAN UNION

(2016/C 202/02)

#### Article 13

*Freedom of the arts and sciences*

The arts and scientific research shall be free of constraint. Academic freedom shall be respected.



European Parliament  
2019-2024



*Committee on Industry, Research and Energy*

2023/2184(INL)

25.8.2023

### DRAFT REPORT

with recommendations to the Commission on Promotion of the freedom of scientific research in the EU  
(2023/2184(INL))

4. Is deeply concerned that the Commission, despite its strong words in the ERA Communication, is failing to use its legal authority to protect this freedom in the Union;
5. Reaffirms the Union's commitment to upholding fundamental rights, including the right to freedom of thought, conscience, and religion, academic freedom as well as the freedom of scientific research and the arts as enshrined in the Charter of Fundamental Rights of the European Union;
6. Urges the Commission to take all necessary steps to protect and promote the freedom of scientific research in the Union, including using its legal authority to prevent any further backsliding with regard to this fundamental right;
7. Calls on the Member States to fully respect and uphold the freedom of scientific research, and to ensure that any measures taken in the name of public interest do not unduly restrict the freedom of scientific research;

**European Parliament**

2019-2024



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*Committee on Industry, Research and Energy*

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**2023/2184(INL)**

25.8.2023

## **DRAFT REPORT**

with recommendations to the Commission on Promotion of the freedom of scientific research in the EU  
(2023/2184(INL))

## Freedom of scientific researchers

6. The rights of individual researchers include at least:
  - (a) the right to associate in representative professional or academic organisations;
  - (b) the right to access information, public or private, needed for scientific purposes, which is to be balanced with the rights of information holders;
  - (c) the right to keep specific information or data, as well as the source for that information or data confidential in order to abide by ethical and scientific standards, to achieve a scientific or other legitimate objectives;
  - (d) the right to publish, share, disseminate and communicate openly, both intramural and extramural, the results and data of their research.
7. Individual researchers should be able to enjoy these individual rights without fear of reprisal. The exercise of those rights since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by law and are necessary in a democratic society, in the interests of national security, territorial integrity or public safety, for the prevention of disorder or crime, for the protection of health or morals, for the protection of the reputation or rights of others, for preventing the disclosure of information received in confidence, or for maintaining the authority and impartiality of the judiciary.

### Defining the Freedom of Scientific Research

1. The freedom of scientific research is a constituent part of academic freedom in Europe, while also having an independent value, as exemplified by the specific reference in Article 13 of the Charter of Fundamental Rights of the European Union.

## Rights and obligations of scientific research organisations

12. Scientific researchers should have the right to participate in and contribute to the governing of scientific research organisations. This includes the rights to publicly comment on the governing of the organisation without fear of reprisal. This also includes the responsibility for research organisations to create a culture of open debate. It also includes having in effective procedures to report misconduct, to protect, in accordance with the standards set out in Directive (EU) 2019/1937 of the European Parliament and of the Council<sup>1</sup>, people reporting misconduct, breaches of academic standards or ethical standards, as well as discrete procedures, based on protecting privacy and the presumption of innocence, to handle misconduct reported.
4. Scientific researchers should be defined broadly in line with the Council Recommendation on a European framework to attract and retain research, innovation and entrepreneurial talents in Europe. It should not extend to researchers performing research in circumstances where the freedom of scientific research can clearly not apply, such as scientific research for a private, for-profit company where such research is conducted to give the company a legitimate competitive advantage compared to its competitors.

### General considerations

18. The legislative proposal should reflect that the freedom of scientific research has to be considered as a negative (free from interference) as well as a positive (ensure that enabling framework conditions exist) freedom. Scientific research should be free from undue government interference and there should a strong scientific community as well as a civic body receptive to scientific knowledge for the exercise of the freedom of scientific research.

# Bonn Declaration 2020

## Bonn Declaration on Freedom of Scientific Research

Adopted at the Ministerial Conference on the European Research Area on 20 October 2020 in Bonn



### The relevance of freedom of scientific research for the progress of our societies

The freedom of scientific research is a universal right and public good. It is a core principle of the European Union and as such anchored in the Charter of Fundamental Rights of the EU. It is also protected by the United Nations' International Covenant on Economic, Social and Cultural Rights ratified by more than 170 states. It has constitutional or legal status in most EU Member States. The freedom of scientific research applies to all types of research organisations and scholarship and to all academic disciplines. Freedom of thought and intellectual creativity require also freedom and security of individuals. Freedom of scientific research stands for openness, exchange, excellence, internationalism, diversity, equality, integrity, curiosity, responsibility and reflexivity. It is therefore a pillar of any democracy.

As well-founded scientific knowledge and perspectives are derived transparently and are refutable, they deserve our highest degree of protection. Consequently, we will continue to express our conviction that critical discourses are not disloyalty, but essential elements of a democratic society. Freedom of scientific research is inseparable from a plurality of voices. We recognise the importance of having strong legal frameworks in place based on the rule of law and guaranteeing and protecting the scientific freedom of research organisations as well as of individual researchers. We are committed to

### Conclusion

We see Europe as a guardian of freedom, equality and the rule of law ensuring democracy. We understand the European Research Area as the safeguard of freedom of scientific research, as the precondition for a dynamic research and innovation landscape which strives for the advancement of knowledge and the benefit of society.

# Some reflections



Freedom as a complex individual and collective ethical and social construction and education, a form of warrant for trust

But:

**Challenges** in performing research in specific fields (black-boxed values)

**Challenges** in black-boxed knowledge (to legitimize policy)



Grazie