



ERIC

EUREGIO RESEARCH INTEGRITY CODE



In 2023, the Euregio Mobility Fund Call provided funding for the ERIC project, an acronym for the collaborative workplace which aimed to develop the Euregio Research Integrity Code. The proposal wished to increase awareness of research integrity principles in academic institutions of the Euregio area. The University of Trento, the Free University of Bolzano, and the Universität Innsbruck participated in this initiative, as the project involved nearly thirty participants, approximately ten students from each university enrolled in various study programs such as law, philosophy, economics, and biotechnology. Additionally, several professors with expertise in research integrity were involved.

During the ERIC project meetings, the students worked collaboratively to develop ethical and deontological values for responsible and proper conduct in scientific research. Since students are direct beneficiaries of academic and research activities, they were able to fully comprehend the importance of research integrity principles in establishing public trust in scientific research and promoting the value of scientific progress.

The project spanned the 2024 Spring term and consisted of three workshop days. The first workshop, held in Trento on March 22nd, was a Kick-Off Workshop that featured a seminar on research integrity principles presented by three experts, after which students worked in teams to apply the principles they had learned.

The second workshop, held on April 22nd in Bolzano, was a full-day workshop where students worked on drafting the Euregio Code. Project leaders guided them through the process, with an emphasis on regulatory provisions and sanctions.

The third and final meeting was held on May 15th in Innsbruck. In the morning, students revised the final version of the Code and prepared for the presentation. In the afternoon, they presented and discussed the Code in a public event in front of a board comprising one guest RI expert and two RI experts from the Euregio universities.

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PREAMBLE

The aim of the code is to encourage and foster an interregional culture and to establish research networks between the three regions Tyrol - South Tyrol - Trentino, with the final aim of strengthening economic, social, and cultural links between them.

In order to discuss a collaborative approach in the main fields of interregional cooperation, (education, energy, environment, protection of mountain areas, health, scientific research, and economic innovation) the Universities of Trento, Bozen, and Innsbruck drafted the following code which includes: principles, rules, institutions, misconducts and sanctions that researchers have to conform to whilst conducting scientific research.

The three Universities, in regards to conducting scientific research, commit to recognizing and promoting a list of core values such as freedom, independence, the dignity of human beings, accountability, and sustainability as well as the ever-increasing importance of data protection. These values are safeguarded in the Italian and Austrian Constitutions and in the Charter of Fundamental Rights of the European Union, consequently, it is of utmost importance to advocate for a balance between the principles and to uphold the dignity of human life within their confines. The outlined principles touch upon various areas where the rules of Research Integrity (RI) are applicable. Specifically, they identify principles of reliability, diligence, and accountability to be respected in order to access European funding. Principles of transparency, respect, and honesty are delineated for intra-academic relationships. Furthermore, accountability, diligence and reliability, as well as responsibility are emphasized to maintain independence and autonomy from governmental institutions and to hold research accountable to future generations.

TITLE 1 – PRINCIPLES

1.1. Reliability / Diligence in ensuring the quality of research, reflected in the design, methodology, analysis, and use of resources. There should be a balance between independent research and the required goals imposed from outside funding. Researchers need to hold themselves to the current state of the art in regard to their own field of expertise and observe changes in legislation.

- Ensure the quality of your research (design, methodology, analysis, use of resources).
- Keep a balance between your own independent research and the goals imposed by outside funding.
- Always work at the current state of the art in your field of expertise and keep changing legislation in mind.

1.2 Accountability permeates every stage of research, from the conceptualization of an idea to its dissemination. Researchers are to be held accountable for the organization and management of their projects, as well as for the training and supervision of their staff and test subjects. Moreover, they must consider the wider societal impacts of their work, ensuring their transparency and responsiveness to public concerns.

- For organization and management
- For training, mentoring, and supervision of staff and test subjects
- For wider societal impacts.

1.3 Responsibility of researchers for the integrity of their research. Researchers are responsible for their findings in front of the research community which verifies their compliance with the community guidelines. Responsibility also implies assessing the environmental and social impact of the research activity with the aim of trying to minimize harm to future generations.

- Principle of precaution from damages done through research.

1.4 Transparency with research practices refers to openly sharing all aspects of the research procedure in an accessible and understandable way. It maximizes the quality, reliability, and robustness of research and its results. Best practices in research transparency regarding the source of funds, their amount, and the purposes of the research.

1.5 Honesty in developing, undertaking, reviewing, reporting, and communicating research in a transparent, fair, full, and unbiased way. From data collection to communication of the results,

researchers must uphold honesty & integrity to foster trust within the academic community and most importantly, with the public.

- Enhance data awareness
- Related to peer reviewing Avoid acts of misconduct or conflicts of interest.

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

- Fair research practices regarding evaluation, collaboration with colleagues, and avoiding defamation
- Promotion of equal opportunity and gender equality
- Act in such a way that the consequences of your action are compatible with the survival of authentic human life on earth -Hans Jonas.

TITLE 2 – RULES

2.1 Research Environment in Research Integrity

2.1.1 Culture of Research Integrity

Research institutions and organizations provide the resource incentives needed to ensure a culture of research integrity and promote awareness among researchers to achieve this aim.

2.1.2 Independence and Principles

Research institutions and organizations enable researchers to work independently and in compliance with the principles of good research practice. To ensure this, they establish an environment free of inappropriate pressures.

2.1.3 Procedures and Policies

Research institutions and organizations establish clear procedures and policies for implementing good research practices and adopt a transparent and fair handling in the case of suspected research misconduct and research integrity violations

2.1.4 Protection

Research institutions and organizations create an environment in which researchers who receive threats are actively supported and bona fide whistleblowers are carefully protected.

In addition, research institutions and organizations recognize that early-career researchers and those hired on a short-term basis may be particularly vulnerable.

2.1.5 Promotion and respect of the rules

Research institutions and organizations, as well as researchers, observe and promote codes, guidelines, and regulations related to research integrity and good research practices.

2.1.6 The importance of training

Research institutions and organizations ensure that researchers are highly qualified. For this purpose, researchers must receive rigorous and continuous training in research design, methodology, analysis, dissemination, and communication.

2.1.7 Ethics Training: Ensuring Research Integrity

Research institutions and organizations are tasked with creating comprehensive training programs on ethics and research integrity to ensure all involved parties understand pertinent codes and regulations and acquire the essential skills to implement them in their research endeavors.

2.1.8 Mentorship in Research Leadership

Experienced researchers, research heads, and supervisors provide mentorship to their team members, setting a leading example while offering targeted guidance and training to effectively nurture and organize their research endeavors.

2.1.9 Prioritizing Well-being in Research

Researchers prioritize the well-being and safety of the community, collaborators, and all individuals involved in their research endeavors.

2.1.10 Evaluating Submissions: Transparent & Justified

Researchers, research institutions, and organizations evaluate submissions for publication, funding, appointment, promotion, or recognition in a transparent and justified manner.

2.1.11 Beyond Metrics: Holistic Research Assessment

Researchers, research institutions, and organizations embrace assessment methodologies rooted in principles of quality, knowledge progression, and impact that extend beyond numerical metrics, considering factors such as diversity, inclusivity, transparency, and collaboration where applicable.

2.1.12 Career-Long Guidance

Individuals at every stage of their career, ranging from novice to the most experienced, receive instruction in ethics and research integrity.

2.2 Methodology And Material

2.2.1 Handling the materials, protocols, and data

- Researchers design, carry out, analyze, and document research in a careful and transparent manner.
- Research protocols are to be formulated in accordance with relevant differences (for a particular research project) among the participants, such as age, sex, culture, religion, ethnicity, geographical location, and social class.
- The disclosure of the use of AI and automated tools as part of the methodology enables the replication and verification of the results by other laboratories.

2.2.2 Handling the participants

Researchers handle research participants and subjects in accordance with legal provisions and ethical principles recognized inside the EUREGIO geographic region.

2.3 Funding

2.3.1 Usage of Funds

Throughout the process, researchers undertake to make proper use of funds.

2.3.2 Expenses and Budgets

Each research project leader is required to draw up a final account of the expense incurred in accordance with the specifications in the call for proposals. Provisional budgets may be requested by each call for proposals.

2.3.3 Language

EUREGIO calls awarded to EUREGIO institutions, research institutes, bodies, or researchers must include a sum specifically dedicated to the translation of research results into the languages English or Italian/German.

If for a lack of budget such additional funds are to be denied, the researcher is free to write his research paper in one of the three languages of his choice and just.

2.4 Research Practice

2.4.1 Research

Research is performed in an open, reproducible, honest, transparent, precise, and reliable manner, showing regard for confidentiality of data and/or findings when required to do so.

2.4.2 State of the art

While carrying out research in all its aspects, including design, analysis, and experimentation, researchers consider the state of the art in pertinent fields while developing and implementing ideas and practices.

2.4.3 Documentation

Documentation of the research follows the principle of transparency and is reported in a clear and well-planned manner.

2.5 Publications and Dissemination

2.5.1 Responsible disclosure of the obtained results

- Researchers are to share their results in an open, transparent, and accurate manner.
- Any form of plagiarism, falsification, or concealing of the results during the research practice is absolutely prohibited.
- Researchers must study throughout all the potential applications of their research and mitigate possible negative impacts through public divulgation and consultation of the competent authorities.
- Reviewers and editors are to respect the rights of authors and seek permission to make use of the ideas, data, or interpretations presented.

2.5.2 Acknowledgements and Authorship

- Authors formally agree on the sequence of authorship, acknowledging that authorship itself is based on: a significant contribution to the design of the research project,

relevant data collection, its analysis, and interpretation; reviewing the publication; and agreeing to take responsibility for the content of the Publication.

- Authors acknowledge the important contributions of those who do not meet the criteria for authorship, such as sponsors, assistants, and collaborators.

2.5.3 Issues before and after the publication

- Researchers, now authors, promptly issue corrections or retract publications, if any errors are to be identified after the publication.
- Reviewers and editors declare any actual or perceived conflicts of interest and, if necessary, withdraw from involvement in the decision-making about publication, funding, or rewards of any kind.
- Authors adhere to the exact same criteria whether they publish in a subscription journal, an open-access journal, or in any other publication form, including preprint servers.
- Any use of AI tools as a means to correct/improve partially or fully the thesis/scientific article is to be promptly disclosed during the review process and before publication. The reviewers and editors are to decide whether the use was appropriate and didn't compromise the final thesis text.

2.6 Data Management

2.6.1 Data management, storage, and curation

- Researchers and research institutions maintain and support necessary and suitable infrastructures for data management, storage, generation, processing, and protection in all forms required for accountability, reliability, and reproducibility.
- Researchers and research institutions guarantee appropriate data preservation, administration, and curation together with metadata, code, software, protocols, and research documentation for an explicit and suitable period.

2.6.2 Data access

- Researchers and research institutions guarantee that data is treated in line with the FAIR Principles (Findable, Accessible, Interoperable, and Reusable), being as open as possible and as closed as deemed necessary.
- Accessing or obtaining permission to visualize or work with data, metadata, code, software, protocols, and research documentation is clear and transparent.

2.6.3 Data citation and reusability

Researchers and research institutions recognize the possibility of data, metadata, code, software, protocols, and research documentation being citable products of research or

re-used following clear and fair provisions regarding authorship, ownership, and protection under intellectual property.

2.6.4 Informing participants

Researchers and research institutions inform the participants of the research about how their data is and will be used, stored, modified, deleted, and accessed to, conform to GDPR, in a transparent, clear, and complete way.

TITLE 3 – INSTITUTIONS

3.1 The following **institutions** are involved in the development and coordination of the Euregio Tyrol - South Tyrol - Trentino Code of Ethics:

- Academic Senate Commission for Implementation of the Code of Ethics;
- Committee of Ethics and Research;
- Committee for Misconduct and Sanction Management.

3.2 The **Academic Senate Commission for the Implementation of the Code of Ethics** is responsible for:

- the drafting and approval of the Euregio Code of Ethics, in accordance with the principles and practices defined in the European Code of Conduct for Research Integrity;
- revising the Ethics Code every three to five years.

3.2.1 In order to ensure the optimal representation of the Academic Senate Commission, the Senate must include an equal number of members from each of the three universities and research centers that comprise the Euregio. The Senate is constituted as follows:

- Ordinary Professors;
- Research Center Managers;
- General Secretariat of the EGTC "Euregio Tyrol - South Tyrol - Trentino".

3.3 The **Committee of Ethics and Research** is entrusted with the evaluation and approval of research projects based on their adherence to the Code of Ethics. This Committee works specifically on projects funded by the EGTC "Euregio Tyrol - South Tyrol - Trentino".

3.3.1 To this Committee are appointed four representatives from each region of the EGTC, two from the local university and two from affiliated local research institutions.

3.3.2 Members of the Committee shall serve for a period of three years, extendable by an additional three years at their discretion.

3.3.3 The procedure for approval of the study is as follows:

- Submission of the research proposal to the Committee
- Assessment of the study's compliance with the Euregio Code of Ethics carried out in chronological order during one of the scheduled meetings of the Committee
- Decision to approve, approve with modifications, or reject the study proposal based on the deliberations of the Committee. The decision of approval is reached with a majority consensus.

3.4 The Committee for Misconduct and Sanction Management is responsible for

- the processing of misconduct reports and the application of verified sanctions concerning research projects financed by the EGTC "Euregio Tyrol - South Tyrol - Trentino";
- receiving complaints by the Complaints Offices of the research centers and universities of each region of the EGTC. The Complaints Office is composed of Administrative personnel who regularly communicate with the Misconduct Committee;
- verifying a possible violation of the principles defined in Title I and, if necessary, applying sanctions with reference to Title V of the EUREGIO Integrity Code.

3.4.1 The Misconducts Committee is an independent institution formed by one member for each research center and university of the EGTC, elected by the center/university itself. The President is elected by the members under the majority rule.

3.4.2 The sanctions are adopted by a majority of votes of the members of the Committee. In the event of a tied vote, the President decides whether to adopt the sanction, with reference to the EUREGIO Integrity Code. The representatives of the institution under evaluation have to abstain from the discussion and the voting.

TITLE 4 – MISCONDUCTS

4.1 A misconduct in a research environment is defined as any intentional or unintentional behavior by a person in a position of authority or responsibility which contradicts:

- the predefined principles and rules;
- the due diligence of the medium researcher;
- a trustful relationship between research practice and society.

Hereby are listed the categories of misconduct that are traditionally considered the most hampering the research environment:

4.1.1 Fabrication is making up data or results and recording them as if they were real.

4.1.2 Falsification is manipulating research materials, equipment, images, or processes, or changing, omitting, or suppressing data or results without justification.

4.1.3 Plagiarism is using other people's work or ideas without giving proper credit to the original source.

4.1.4 Negligence of interpersonal relationships and actions that harm the research environment, people inside and outside the research

As the behavior and work of a researcher and their environment should strictly adhere to the predefined principles and rules, below are explicitly mentioned only those misconducts that either involve a severe degree of violation or require a clear demarcation. This chapter therefore does not represent a complete list of all misconducts possible, but is rather a practical differentiation of desirable behaviors and unwanted conditions.

4.2 Research Environment in Research Integrity

4.2.1 Professional relationships

4.2.1.1 Wrongful recruitment

- Any decision in a recruitment process that is based on personal interests or circumstances that have no demonstrable connection to scientific requirements
- Incorrect or inadequate descriptions that do not correspond to the actual areas of activity

4.2.1.2 Exploitation or mistreatment in hierarchical positions

- Any form of taking advantage of other persons on the basis of a hierarchically justified decision-making position, whether for personal or professional motives
- Disregarding the duty of care in a position with control obligation

4.2.1.3 Unequal treatment of research practices

- Any categorical rejection of research approaches without examining them more closely and specifically
- Any form of personal discrimination
- Deliberately withholding information to create an artificial advantage towards

4.2.2 Use of facilities

4.2.2.1 Disregard of responsibilities in the laboratory environment

- Unprofessional or unauthorized use of equipment
- Ignoring safety and training protocols and disregarding the instructions of a supervisor
- Violation of the duty to supervise or inform in a laboratory environment

4.2.3 Connection to external parties

4.2.3.1 Conflict of interest

- Any misappropriation of information in a scientific context for personal or other professional motives
- Failure to disclose conflicts of interest for an independent assessment

4.3 Methodology and Material

4.3.1 Research Design

4.3.1.1 Not mentioning the usage of A.I.

Not mentioning the usage of Artificial Intelligence software or stating an untrue extent of contribution in formulating a written research document.

4.3.1.2 Ignoring ethical considerations

To ignore or only partially follow existing ethical considerations or instructions when designing your research. Es.: three Rs in animal experimentation

4.3.2 Informed consent

N.B. the following misconducts are defined in the context of writing the informed consent documentation:

4.3.2.1 Incorrect or insufficient information provided to participants

1. Failing to disclose potential risks associated with a research study to the public or the participants.
2. Not including the possibility of withdrawal.

3. Not inform participants of their right to be informed of eventual changes in the data management or the treatment given or reserved to participants.

4.3.2.2 Deceptive or manipulative communication

Creating questions for the participants in such a way that nudges their answers and behavior unconsciously toward a certain answer or the researcher's expectation.

4.3.3 Treatment and choice of participants

4.3.3.1 Research bias

Knowingly or unknowingly failing to select representative pools of participants taking into consideration factors such as age, sex, gender, ethnicity, salary, etc.

4.3.3.2 Discrimination

To not take account of/be sensitive to relevant differences among research participants (see Research bias).

4.3.3.3 Treating participants and subjects without respect or care

To treat or handle any subjects (human, animal, cultural, etc.) of your research and their related data without the due care and respect, may it be through negligence or violation of legal provisions (see Rules 2.4.2)

4.4 Funding

4.4.1 Obtaining funds

4.4.1.2 Inequity

- Any act of favoritism or attempt at bribery that would create a corrupted environment
- Knowingly magnify or alter Research intentions or Research means during grant proposal writing, aiming at facilitating the attainment of funds

4.4.2 Research aims distortion

- Any research project designed only around the mere intention of obtaining funds
- Any research project serving political motivations, direct economic gains, or other third parties.

4.4.2 Misuse of funds

The use of funds for studies or resources that go beyond what is necessary to carry out the research project defined in the grant proposal

4.5 Research Practice

Fabrication, Falsification, Plagiarism - In a position of authority or supervision, knowingly permitting or failing to prevent others from engaging in fabrication, falsification, or plagiarism.

4.5.1 Responsible Conduct of Research

(describes the desired outcome – conducting research ethically)

Note: This section emphasizes the importance of acting ethically as well as following established guidelines throughout the research process. It is focused on conducting research with integrity, transparency, and accountability.

4.5.1.1 Withholding Important Information

Failing to disclose crucial information undermines informed consent and participant safety. The researchers have a responsibility to be transparent with participants throughout the research process.

4.5.1.2 Ignoring Informed Consent Requirements

Informed consent is a cornerstone of ethical research practice. Ignoring these requirements undermines the ethical foundation of the research and the validity of any data collected.

4.5.1.3 Poor Data Gathering Practices (e.g., collecting unreliable or biased data)

Research practice requires collecting data in a rigorous and objective manner. Poor data-gathering practices call into question the entire research process and the validity of the conclusions.

4.5.1.4 Not Reporting Known Misconducts (by colleagues, relations, etc.)

A core principle of research practice is upholding ethical standards. Failing to report misconduct allows unethical practices to persist and undermines the integrity of the entire research environment.

4.5.1.5 Selling Sensitive Data to Companies/Third Parties (GDPR)

Research practice necessitates protecting participant privacy. Selling data violates this principle and potentially exposes participants to unforeseen risks (breach of data privacy regulations and compromises research participant confidentiality).

4.5.2 Research Misconduct

(identifies the actions that undermine the entire research project)

Note: this section highlights the negative consequences of unethical research practices and actions that deliberately deceive or misrepresent the research process or findings

4.5.2.1 Publishing False Data or Information (to prove a thesis, etc.)

Falsifying information directly misrepresents the research and its conclusions.

4.5.2.2 Unethical Management of Research Materials

- **Tampering with Equipment or Materials:** Altering equipment or materials used in the research can invalidate results and compromise the integrity of the project.

- **Improper Disposal of Hazardous Materials:** Failing to dispose of hazardous materials generated during research properly poses risks to the environment and human health.

4.5.2.3 Goal Shifting (Shifting the research goal mid-project to fit the data)

Deviating from the approved research plan and raises concerns about the validity of the research process findings.

4.5.2.4 Selecting Participants in a Biased Way (to manipulate data)

Compromising the generalizability of research and skews the results.

4.5.2.5 Creating Biased Survey Questions (to influence participant responses)

Manipulating data collection undermines the researcher's objectivity.

4.5.2.6 Allowing Misinterpretation Through Exaggerating Future Perspectives

Misrepresenting potential outcomes can mislead stakeholders and misuse research resources.

4.5.2.7 Constructing Research Solely to Obtain Funds

Research should be driven by genuine inquiry, not solely for financial gain. This compromises research integrity.

4.5.2.8 Ignoring Previous Data That Contradicts the Thesis

Failing to consider all relevant data undermines the researcher's objectivity and potentially leads to biased conclusions.

4.5.2.9 Being in a Supervisory Position and Encouraging/Allowing Misconduct

(fabrication, falsification, plagiarism)

Supervisors have a responsibility to uphold ethical standards. Encouraging or allowing misconduct breaches this trust and undermines the research project.

4.6 Data Management

4.6.1 Data Collection

4.6.1.1 Biased sampling

- Acquire unreliable and/or biased data, with the purpose of supporting a predetermined hypothesis or altering the premises of the research.
- Use methods or instruments that are not properly validated or calibrated, leading to inaccurate or unreliable data.

4.6.1.2 Violation of privacy and omission

Acquire data without the consent of participants or different data from the ones stated in the informed consent.

4.6.1.3 Data snooping

Continuously analyzing data during the collection process and adjusting the research methodology or stopping data collection when a desired result is achieved, without pre-specified criteria.

4.6.1.4 Excessive data collection

Collect unnecessary amounts of data, which exceed the purpose of the research.

4.6.1.5 Data mining without permission

Accessing or using data from repositories or databases without proper authorization or adherence to usage policies.

4.6.1.6 Inadequate Data Documentation

Failing to properly document the data collection process, including details about sample selection, measurement techniques, and experimental conditions, making it difficult for others to evaluate or replicate the study.

4.6.1.7 Inadequate data validation

Failing to validate the accuracy and reliability of collected data through appropriate quality control measures or independent verification.

4.6.2 Data storage

4.6.2.1 Excessive Data Retention

Failure to adhere to proper protocols for retaining research data for the required period.

4.6.2.2 Data loss

Failure to adequately store and protect research data, leads to data loss or corruption.

4.6.2.3 Data Breach

Use of inadequate security systems, leading to unauthorized access and/or data theft.

4.6.2.4 Data leakage

Unauthorized or unintentional transmission of data from within an organization to an external or unauthorized destination

4.6.2.5 Data hoarding

Withholding or delaying the release of research data to prevent others from independently verifying or building upon the findings.

4.6.2.6. Data alteration

Making unauthorized changes to research data after it has been collected or analyzed, either to correct errors or to manipulate results.

4.7 Publications and Dissemination

4.7.1 Publication of false or incoherent data

- To publish false or incoherent data or information on purpose.
- False data means any data that is not dutifully proven within the Research.
- To publish false data equally with the idea of proving my thesis or to reinforce my point against the point of another research, researcher, or group. With this it is important to respect the state of the art and to maintain in due consideration all the findings of the research in the field without, by fraud or negligence, ignoring previous results.

4.7.2 Influences by economics, politics, and third parties

The result of the research and its findings can not be influenced by economics, politics, and third parties even though this might lead to a higher income.

4.8 Conflict of Interests

To omit to declare whether there is a conflict of interest or not. It is the duty of the researcher or the authority in charge of his or her work. The conflict might occur both in the submission of the work to an ethical committee or in the analysis of the peer review. The absence of conflict of interest must be stated clearly and inferable by the information provided within the research.

4.9 Citation

4.9.1 To cite incorrectly any kind of source used to obtain the research results or the research data.

4.9.2 To cite incorrectly any kind of source used to obtain the research results or the research data.

4.9.3 To cite the people inside its own research group, especially if more than once, in order to boost their career and publication.

4.10 Mention of all the members of the research group

4.10.1 An omission in mentioning all the participants within the research group of the research in order to recognize their participation in the final outcome.

4.10.2 In particular the omission of a participant can not be caused by a personal feeling for the person in question nor a personal interest of the writer.

4.10.3 The omission can not be the result of a will of obstructing the career of a fellow researcher however he or she is under or above the position of the publisher.

4.10.4 The omission might as well integrate an abuse of power if caused by a researcher in a higher position.

4.11 Artificial Intelligence

4.11.1 To not declare in a clear and unequivocal manner the use of Artificial Intelligence in the writing of the final outcome of the paper or the article.

4.11.2 To not declare what kind of Artificial Intelligence has been used and in compliance with that, the researcher must be obliged to the requirement present in the AI Act.

4.12 Presentation to ethical committee

4.12.1 To omit to submit the research outcome to an ethical committee to verify that all the due compliance is present.

4.12.2 It is not possible to submit a research paper with a clear unethical or discriminatory intent as researchers are responsible for the respect of all the principles written in this code.

4.13 Leaking confidential information

4.13.1 Within a research group members shall not leak personal information about a colleague of theirs.

4.13.2 As for personal information it is meant both a piece of information about the personal life of the individual or about his or her work, results or thesis as long as the individual does not wish to share that information with him or herself.

4.13.3 In the light of what is recalled, even more so when it comes to write those information in papers that are going to be published.

4.14 Author inflation

Adding unqualified individuals as authors to a research paper to boost their publication record or appear as collaborators.

4.15 Reporting data separately in multiple end publications

4.15.1 Since a publication needs to present something new, it is considered misconduct to reproduce the same findings in more than one publication with the only design to gain more credit as the number of publications made by the same person would rise.

4.15.2 The research results can both be a new finding or a thesis proven in the past republished without an element of novelty.

4.15.3 The misconduct can also consist of the publication of the so-called "least publishable unit" with the same goal described in paragraph 1 of this same article.

4.15.4 The idea of raising the number of publications can be reached also by sending the article to many journals at the same time integrating, therefore, the case in paragraph 1.

4.16 Detaining information purposely

The publication must contain all the information that comes from the research, therefore a researcher or a group of researchers shall not detain information of any kind whatever the motives might be.

TITLE 5 – SANCTIONS

5.1 A Sanction can be defined as a strong action or punishment taken against an individual when there is negligence in compliance or a violation of rules and laws, they are done with the aim of incentivizing obedience to the legislation already in action and can be seen as an adversary consequence.

5.1.1 When 'research misconduct' is identified, **the Committee for Misconduct and Sanction management** must decide whether to apply punishment. Sanctions must always be appropriate and proportionate. The Committee has the authority to impose sanctions in significant situations, including formal reprimands, transfers, demotions, and dismissals.

5.1.2 The authorization to oversee degrees may also be suspended. The institution may submit the matter to regulatory agencies or authorities that can impose administrative, disciplinary, or criminal punishment.

5.1.3 When there is repeated noncompliance or occasional violations of norms, it is critical to determine whether additional actions are required. Researchers must hold one another, their subordinates, supervisors, principal investigators, research directors, and managers accountable in order to improve quality assurance, prevent recurrence, and mitigate negative consequences.

5.1.4 The Committee should take action or guarantee that others do so. Preventive individual or general measures may also be required to guarantee that research processes are improved, standards are followed, and timely detection happens. This ensures that the institution's commitment to quality and safety remains intact.

5.2 Research Integrity and Procedure

The research integrity process is a crucial aspect of the research community's self-regulation.

5.2.1 It involves the investigation of alleged research integrity violations, which are initiated by **the Committee for Misconduct and Sanction Management**. The Committee's responsibility is to ensure the process is followed throughout the investigation. If there is a conflict of interests, one person's position in the Committee can be transferred to another party.

5.2.2 The parties involved in the research integrity process are the complainant (the person who submitted the notification) and the respondent (the person suspected of an alleged violation).

5.2.3 The respondent is presumed innocent until proven otherwise. Their rights are safeguarded through a fair and impartial process, conducted with expertise and without delay.

5.2.4 The investigation is carefully documented and respects the parties' right to information. If one party does not have sufficient command of Italian or German, the investigation is conducted in English.

5.2.5 The research integrity process is carried out confidentially. The parties involved must refrain from commenting on an ongoing research integrity process to safeguard confidentiality.

5.3 Accusation Phase

If the accusation were to be made by somebody in the Committee, they have to be represented in the Committee; otherwise, anonymity is also possible.

5.3.1 Anyone who has justified reasons to believe that a violation of the present Code has occurred, may report the suspicion to the Committee for Misconduct and Sanction management in writing, accompanied by any relevant supporting documentation.

5.3.2 The Committee ensures a fair and meticulous process for handling such complaints and subsequent judgments.

5.3.3 In any instance, the Committee assures that the name of the reporter will remain confidential.

5.3.4 The Committee may consider an anonymous complaint of alleged research misconduct if it believes compelling public or institutional interests are at stake or the respondent's interests require investigation, and the factual basis can be investigated without the complainant's input.

5.3.5 The Committee completes a preliminary investigation in regards to the allegations on which the procedure will later be based on, in order to validate the claims. It hears from all parties involved and collects, analyzes, and debates all pertinent documentation. The Committee commits not to disclose in any way the data and information collected to individuals having no connection to the proceedings.

5.3.6 The preliminary investigation is unnecessary if the allegation does not fit within the research integrity guidelines, has no factual basis, or is made with malicious intent, and if another organization initiated the inquiry.

5.4 Instruction Phase

5.4.1 The Researcher who is accused should be instructed about the accusation and the oncoming disciplinary practices that will need to be finalized.

5.4.2 The person for whom misconduct is alleged shall be afforded adequate advance notice and be in a position to defend themselves, if necessary with the assistance of an expert.

5.4.3 If the Committee believes there are no grounds for proceeding, it may decide to dismiss the matter after hearing the individual concerned, sometimes in conjunction with the person reporting the conduct at issue. The dismissal of the case will be reported to the parties.

5.4.5 If the evidence indicates that a breach of this Code occurred, the Committee shall conduct the necessary investigation.

5.4.6 The procedure will ensure confidentiality for the reporter and all involved parties, guaranteeing the right of defense and the adversarial principle. Participants must be invited to participate in their defense, with a reasonable period of at least two weeks from notification to examine the report, produce deductions, and name witnesses in their favor.

5.5 Investigation Phase

5.5.1 The investigatory procedure for research and second opinions should be conducted by experts with no personal interest in the case and completed within a reasonable period. The Committee should ensure fair treatment, confidentiality, and organization without disadvantaged parties.

5.5.2 The evidences taken into account throughout the entirety of the procedure will be submitted by both the defendant and the plaintiff, the amount of documentation that will be later reviewed may depend on the severity of the allegations made against the defendant, as grievous claims usually call for a higher number of evidences against the respondent

5.6 Defense Phase

The Researcher accused gets to defend themselves in front of the Committee.

5.6.1 The defendant must be informed of all the information regarding the accusations and they also must be able to access the related data of which the evidences are based on.

5.6.2 The defendant must be given the possibility to bring forward additional proof in order to exonerate the allegations they are faced with.

5.7 Evaluation Phase

The Committee discusses all evidence and decides whether the case is misconduct and if so, which sanction should be put into place.

5.7.1 Every member of the Committee is able to express one vote in order to decide whether or not the final verdict will be against or in favor of the allegations made. The final decision will depend on the majority of votes. Abstention from voting is not counted as a vote. In case of a tie the vote of the President is considered the predominant. The

President cannot abstain from voting.

5.7.2 The Committee can activate legal consequences.

5.8 Final Decision:

The Committee proceeds to enunciate the decision regarding the defendant's accusation and proceeds to finalize it with the possible introduction of further sanctions/penalties.

5.8.1 In its reasoned opinion, the Committee expresses its opinion as to whether misconduct can be configured and proposes the sanction it deems most appropriate. The decision is communicated to all involved parties.

5.8.2 Sanctions for ethical misconduct are imposed according to the principle of gradualness depending on the severity of the violations found. They are distinguished into mild sanctions, intermediate sanctions, and severe sanctions.

5.8.3 If the final verdict coming from the Committee leads to the dismissal of all claims associated with the respondent, all data collected needs to be handled according to the EU General Data Protection Regulation.

5.9 Levels of severity of damage

When analyzing or reviewing research or a study, there are certain conditions that are to be taken into consideration in order to not undergo possible sanctions, those can be listed here with their respective sub-division in different levels of severity. It is not needed from research to possess all the qualities of one of the levels, one can be considered enough to let the research be associated with one of the 3 levels presented.

5.9.1 Unintentional misinterpretation of data following the final achievement of erroneous knowledge at a non-essential level, **unable to harm** individuals and **incapable of spreading mass disinformation** of core insights regarding the topic taken in consideration, or knowledge **influenced in a non-emphasized** manner by political, socio-economic or religious beliefs.

- a. No damage to people
- b. No disinformation
- c. Non emphasized ideas

5.9.2 Production of erroneous information, negligent or intentional, that may, in an **indirect way**, harm individuals if applied, that **may cause disinformation** on core knowledge regarding the topic of study, or is **heavily influenced** by political, socio-economic or religious beliefs, or using those and the research to promote personal ideas.

- a. Damage in an indirect way (unwanted effects, secondary effects regarding both the physiological and psychological levels)

- b. possible disinformation spreading
- c. Emphasized ideas or use for promotion of own personal principles
- d. Light fabrication, remodeling of data

5.9.3 Intentional production of knowledge able to **directly cause harm** to individuals, that is able to **produce easily disinformation** regarding core insights of the topic related to the research conducted, or that is **heavily influenced** by political, socio-economic or religious beliefs, or it is **used in order to promote personal ideals considered immoral** and are not accepted by classical ethical models.

- a. Direct damage/harm to an individual
- b. Disinformation regarding core data of the research-related topic
- c. Use of the research to share immoral ideas, not suited for normal ethical standards, or research being heavily influenced by ideas already cited
- d. Heavy fabrication and remodeling of data to accommodate the wanted results

5.10 Sanctions

With the application of the correct alignment between the severity of the sanction and the degree of the misconduct's impact on organizations or individuals, institutions can uphold ethical standards and research integrity at the best achievable degree

5.10.1 Level 1: Minor Severity

- a. **Expanding unnecessarily the bibliography of a study:** This might include adding irrelevant references, which could be seen as an attempt to improve the work's perceived rigor or relevance. A *warning* is typically sufficient here since there is no direct impact.
- b. **Misuse of resources/equipment:** This includes the inappropriate use of lab materials or equipment without causing major damage or loss. Possible Sanctions include a *warning* and *repayment* to cover the misused resources.
- c. **Selective citation:** Citing selectively to improve one's findings can mislead readers or journals but does not generally falsify the output. Therefore, possible Sanctions include a *warning* and *strict monitoring of future research*.
- d. **Overexerting applicability of results:** Overstating the relevance of results can mislead but usually does not cause direct harm. *Corrections to the publication* might be necessary.

5.10.2 Level 2: Moderate Severity

- a. **Improper use of funds:** Misuse of research funds leads to a reduction of trust and can affect the research integrity but might not necessarily cause immediate harm to individuals. Possible Sanctions include *repayment* and *ineligibility for future funding*.

- b. **Misuse of data/privacy violations:** This could potentially harm individuals indirectly through violation of confidentiality or misuse of personal data. Possible Sanctions include a *public apology* and *withdrawal of the offending article*.
- c. **Plagiarism:** Copying another's work undermines academic integrity and can indirectly damage reputations. Possible Sanctions include *retraction of work* and *failing grades* for students.
- d. **Falsification:** Altering data or results can lead to misinformation but might not directly harm individuals. Possible Sanctions include *retraction*, *public apology*, and *ineligibility for future funds*.
- e. **Hiding conflicts of interest:** Deliberate concealment of relationships to third parties (financial, personal, professional) that are suitable to harm public perception of the quality of the study, the researcher, or the institution. Possible Sanctions include *Surveillance for future research/Supervision*, *Warning*, and *Possible withdrawal of personnel from the project*.

5.10.3 Level 3: Major Severity

- a. **Fabrication:** Making up data or results can lead to significant misinformation and potential harm in fields where accurate data are critical (e.g. medical research). Possible Sanctions include *revocation of degrees or titles*, *suspension or removal from teaching positions*, and *exclusion from professional bars*.
- b. **Discrimination in research settings:** Discriminating against others in the research group directly harms individuals and can undermine the entire research process. Possible Sanctions include *retraction from projects*, *teaching suspensions*, and *possibly legal actions*.
- c. **Serious misuse of data** (e.g. for harmful purposes): This could involve using sensitive data to harm individuals or groups, which might result in direct damages. Possible Sanctions include *revocation of titles*, *legal penalties*, and *a permanent ban from conducting research*.

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