

Ethical Code of the Slovak Academy of Sciences

Bratislava, August 2025

Preamble

The Slovak Academy of Sciences (SAS) and its organisations accept their institutional responsibility for implementing national and international standards of integrity and ethics in science and research. The Ethical Code of SAS (hereinafter the “Code”) jointly expresses ethical commitments and requirements of research integrity that are binding on all scientific, professional and other employees of the Slovak Academy of Sciences and its organisations, including persons in doctoral study.

The purpose of this Code is to contribute to the consistent and integral observance of demanding ethical requirements and to the prevention of unethical and dishonest conduct and behaviour in the field of science, research and development carried out at the Slovak Academy of Sciences, thereby increasing their quality and credibility in both the domestic and international context.

The Code adopts the requirements of the “Code of Research Integrity and Ethics in Slovakia” as a minimum standard and thus builds on the legal regulations of the Slovak Republic, legally binding acts of the European Union and international treaties and agreements, in particular the European Code of Conduct for Research Integrity. This standard is complemented by specifics arising from the research environment of the Slovak Academy of Sciences.

In the areas of science, research and development, as well as academic, managerial and organisational activities, the Code applies and develops generally accepted ethical values, principles and norms. An integral part of it are also the principles of academic integrity and ethics, as study and education are an organic component of the overall system of science and research.

1. Main principles and basic terms

1. In addition to inherent methodological, technical, technological, didactic and other requirements, work in science, research and development includes a moral requirement. It follows from the very essence of science and is given by the significance and contribution of professional and expert activities for the individual and society as a whole. Its content is ethical discernment and guidance from the perspective of ethical values, principles and norms that are generally respected in a democratic society.

2. The main principles of research integrity are responsibility, honesty, respect and reliability.

3. Research integrity is a primary condition of quality scientific work consisting in consistent adherence to the highest professional and moral standards. In this document, research integrity is defined as the sum of scientific integrity and academic integrity.

4. Scientific integrity is a set of principles and ethical values, deontological commitments and professional standards that form the basis of responsible and correct conduct and behaviour of those who carry out, fund or evaluate scientific research, as well as of institutions that support and conduct it. Scientific integrity is a primary condition of quality research consisting in complying with the highest professional, moral and ethical principles and standards, transparency, and in conducting research critically, without prejudice and with absolute integrity of research practice and administration by individuals or institutions.

5. Academic integrity is a set of values and rules concerning study and education that ensure that study and education are based on the principles of responsibility and honesty. Integrity relates to the morality and deontology of students and teachers as well as of the educational institution, based on proper study and educational practice.

6. Good scientific and research practice represents the international ethical and scientific standard for planning, conducting, evaluating and publishing results of science, research and development, as well as the ethical and scientific standard for conduct and behaviour of all actors operating in these areas.

2. General ethical values, principles and norms

The following general ethical values are respected and implemented in research, development, innovation, teaching and study, as well as in managerial and support activities:

- Freedom of scientific inquiry, research, development, study and education, together with the responsibility towards SAS and one's organisation, as well as towards individuals, groups and society as a whole.
- Independence of science, research and education from political, ideological or religious influences.
- Human dignity as the basis of human rights, civil liberties and a precondition for the existence, functioning and development of a democratic society.
- Human rights, civil liberties and legitimate interests of individuals and groups of society in achieving individual and common good.
- Promotion of gender equality and equal opportunities.
- Ethical values, principles and norms commonly recognised and applied in a democratic society such as consideration, respect, courtesy and honesty.

3. Ethical values, principles and norms of scientific and research practice

Implementation of good scientific and research practice, the aim of which is also to achieve the integrity of research work and of study and educational activities, requires consistent application of the relevant ethical values, principles and norms, and is carried out in the following areas:

- Research environment
- Education, supervision and mentoring
- Research procedures
- Safety and protection
- Data processing and management
- Cooperation and coordination
- Non-discrimination, with an emphasis on gender equality and equal support in scientific careers
- Publishing and dissemination of scientific information and research results
- Authorship of scientific findings and professional publications
- Evaluation of scientific and ethical quality of research results and outputs, thesis and dissertation assessment, peer review and editorial activity

3.1 Integrity in the research environment

- SAS and its organisations promote awareness of the requirements of research integrity and of institutional ethical standards, and adopt measures to ensure a culture of research integrity prevails in research.

- SAS and its organisations create an environment that enables scientific and professional staff to work according to the principles of good scientific and research practice, to discuss ethical dilemmas, as well as unintentional errors in research openly and without fear of possible consequences or sanctions.
- SAS and its organisations support adequate infrastructure for the management and protection of research data and research material in all their forms.
- SAS and its organisations do not tolerate bullying, humiliation, slander, defamation or other manifestations of hostility towards individuals or groups. They respond adequately to any form of defamation related to scientific activity, scientific results and their presentation, originating both within and outside the Academy.
- SAS employees do not abuse their position, authority or power.
- SAS employees maintain and promote the interests of their organisation and of SAS, protect its intellectual and material property and take care to preserve its good reputation.
- In research activities, as well as in managerial and support activities, SAS employees and doctoral students act so as to eliminate any possibility of conflict of interest that would reduce the credibility of the organisation, persons, results achieved, publications, public appearances, review and opposition proceedings, managerial, decision-making and support activities.
- Researchers do not undertake other work activities that prevent proper fulfilment of their duties at SAS, and, in the case of multiple employments, they declare which is key to their research activity.
- SAS employees and doctoral students appropriately observe the principles of this Code when performing concurrent occupations, professions or functions outside SAS so that their conduct does not jeopardise the credibility of SAS or its organisation or undermine the integrity of science, research and education.

3.2 Integrity in education, supervision and mentoring

- SAS and its organisations provide suitable and adequate education in ethics and integrity, ensuring awareness of relevant codes, standards and regulations, and discuss potential ethical issues and model cases.
- Researchers, employees and doctoral students undergo training in ethics and research integrity throughout their careers.
- Researchers, employees, principal investigators and supervisors guide students and team members, advise them and provide professional training that steers the development of their research activities, their concept and structure, and reinforce a culture of research integrity by personal example.
- Heads of research teams and managers ensure fairness and openness in communication with subordinates, support their professional and qualification development and require appropriate research, publishing, project and organisational activity, as well as cooperation with other scientists at home and abroad.

3.3 Integrity of research procedures

Researchers at SAS focus their activities on expanding the boundaries of scientific knowledge and its use for the benefit of society, while being aware of their responsibility for the quality of research and the credibility of results obtained.

Scientific research is conducted exclusively through scientific methodology with adherence to rules and regulations specific to the given discipline.

Scientific research is open to doubt, verification, and rational, reasoned criticism.

Therefore, SAS researchers, professional staff and doctoral students:

- Take into account the best verified knowledge and procedures achieved in the field.
- Design, conduct, analyse and document research thoroughly and prudently.
- Use research funds properly, efficiently, economically and responsibly.
- Publish results and interpret research honestly, transparently and accurately.
- Maintain confidentiality of data/findings in justified cases.
- Describe the results obtained and the methodology used (including the use of external services, artificial intelligence or automated tools) in a manner that allows verification or replication of the research and in line with European Research Area policies.
- Contribute to strengthening a culture of research integrity, draw attention to cases of its violation and duly contribute to their resolution.
- Publish in open access where possible.
- In public appearances aimed at disseminating scientific knowledge and results, act within their expertise and share only verified, confirmed and up-to-date scientific information placed in the correct context.
- Apply the principles of research integrity also in public appearances that are not primarily focused on disseminating scientific knowledge.

3.4 Protection and safety in conducting research

- SAS employees and doctoral students comply with safety standards and regulations concerning their field and the procedures, instruments, materials and technologies used.
- SAS employees and doctoral students treat research subjects—whether people, animals or objects of a physical, environmental, biological or cultural nature—with appropriate respect and care and in accordance with applicable legal regulations and relevant ethical principles and norms.
- SAS employees and doctoral students duly consider the health, safety, personal dignity and autonomy of collaborators and other persons concerned by the research, while appropriately considering the potential risks and impacts of the research on society as a whole, including special attention to marginalised, vulnerable, disadvantaged or excluded groups.
- SAS researchers and doctoral students define and take into account foreseeable risks that may be caused by their research, and, already at the planning stage, prepare procedures to minimise such risks.
- SAS researchers and doctoral students ensure that research protocols duly take into account the significance of differences based on age, sex, social class, culture, religion and ethnic origin.
- SAS employees and doctoral students are responsible for informing and monitoring compliance with the principles of research integrity and with safety standards and regulations concerning procedures, instruments, materials and technologies used in research in which non-professionals actively participate.

3.5 Integrity in acquiring, processing, storing and managing research data

- SAS, SAS organisations, researchers, professional staff and doctoral students ensure appropriate governance, acquisition, processing, organisation and compliant disposal of all data,

metadata, protocols, software and other research material, including unpublished ones, as well as their secure retention for an appropriate period.

- SAS organisations, researchers and doctoral students ensure that access to data is, within necessary limitations, as open as possible and, where appropriate, in accordance with FAIR data principles.
- SAS researchers and doctoral students provide transparent access to and use of their data and research material by others where possible or permitted by informed consent.
- SAS researchers and doctoral students inform research participants about how their personal data will be protected, who will have access to it, for what purposes it will be used, how, when and under what conditions it will be deleted, and they obtain consent for processing personal data in accordance with applicable law.
- SAS, SAS organisations and researchers regard data as legitimate research outputs that can be cited.
- SAS, SAS organisations and researchers ensure that all contracts or agreements concerning research outputs contain fair terms of use, ownership and protection of research outputs in accordance with intellectual property law.
- SAS, SAS organisations, researchers and doctoral students respect legal regulations related to data protection.

3.6 Cooperation and coordination of research, development and educational activities

- All partners in research cooperation and coordination are jointly responsible for research integrity in collaborative research.
- Before starting research, partners agree on objectives, method and conditions for conducting the research (including clear allocation of responsibilities), as well as on the method of publishing results and addressing issues of intellectual property related to the joint research.
- Before starting research, partners agree on respecting principles and norms in the field of research integrity and, in particular in international cooperation, inform one another about relevant laws and regulations and agree on ways of handling potential problems or conflicts, including dealing with violations of research integrity.
- Partners jointly assess, before research begins, the feasibility, potential impact and ethical implications of the research.
- SAS, its organisations, employees and doctoral students strengthen institutional resilience of SAS and its organisations and do not knowingly create opportunities for undesirable influence of foreign powers.

3.7 Equality and non-discrimination in science and research

- SAS and its organisations create an inclusive environment, promote equal opportunities and consistently observe the principle of equal treatment.
- No person conducting research at SAS may be discriminated against on prohibited grounds.
- Prohibited are direct and indirect discrimination, harassment, sexual harassment and unlawful retaliation. Discrimination also includes an instruction to discriminate and incitement to discrimination.

- No one may use their position to intimidate, bully, demean, slander or defame other employees or students. Any verbal or non-verbal conduct that may display features of physical or psychological violence, coercion or similar forms of behaviour, including sexual harassment and violence, or any manifestations of hostility towards individuals or groups, is not tolerated.
- No one may be harmed for exercising their rights or fulfilling their duties, for example by seeking protection against discrimination, providing testimony within SAS structures, or reporting crime or anti-social conduct.
- Transparent procedures are applied in recruitment and career progression and selection is based on open competition and objective assessment of professional skills, intellectual abilities and personal characteristics.
- In line with the SAS Gender Equality Plan, SAS supports gender equality and the elimination of gender segregation in all areas of science, research and education, including management and decision-making, recruitment and career progression.

3.8 Integrity in publishing and disseminating information and data

Authorship of a scientific or professional publication is based on:

- A significant contribution to the design of research, to the collection of relevant data, their analysis or the interpretation of research results.
- Drafting and revising the manuscript.
- Approval of the final version of the manuscript.
- Researchers, professional staff and doctoral students accept responsibility for the entire content of the publication, including respect for relevant ethical principles and norms.
- Co-authors agree on author order and define responsibilities and the level of contribution of each author.
- Authors ensure that their work is made available to co-authors in a timely, complete and transparent manner before publication.
- SAS, its organisations, employees and doctoral students communicate with the public in accordance with ethical requirements.
- Authors acknowledge the significance and contribution of the work of other researchers and properly cite related works.
- Contributions that do not meet the threshold for authorship are indicated through acknowledgements.
- Any use of artificial intelligence (AI) is disclosed in line with integrity principles, indicating scope and manner of its use.
- Authors declare potential or actual conflicts of interest and funding sources.
- Institutions in which the research was conducted and all external funding are indicated in accordance with funder requirements.
- Authors request corrections or retractions when serious errors or shortcomings are identified.
- Predatory publication venues and practices are avoided and not supported.
- Negative research results are recognised as potentially equally significant for the development of scientific knowledge.
- When applying results or patenting, the interests of SAS and the home organisation are respected and protected.

3.9 Integrity in expert assessment and evaluation

- Evaluation of protocols, grant applications, publications and staffing proposals is based on predefined criteria and a transparent, predetermined procedure; the use of AI or automated tools in evaluation is declared in advance.
- Participation in evaluation and peer-review is a serious professional commitment undertaken with full responsibility and in the spirit of relevant ethical principles, including confidentiality.
- Conflicts of interest, possible bias or pressure are declared; participation in the relevant processes is then reconsidered.
- SAS and its organisations ensure improved fulfilment of conflict-of-interest requirements also by researchers from other institutions, e.g., by adjusting journal ethical codes and editorial processes.

4. Breaches of research ethics and integrity

Conduct contrary to this Code constitutes a breach of research ethics and integrity.

Breaches of this Code may vary in extent and severity but always harm the credibility, quality and reputation of science, research, development and education. The list below is demonstrative.

4.1 Serious breaches of research integrity and ethics

- Fabrication of results: deceptive creation of invented results and their presentation as real.
- Falsification: intentional deceptive manipulation of research material, equipment or processes, or deceptive change, substitution, omission or ignoring of data.
- Plagiarism: deceptive appropriation and use of the results of work and ideas of others without proper attribution.

4.2 Questionable research practices

Data-related questionable practices include:

- Incorrect or manipulative procedures concerning research data across their lifecycle.
- Inadequate protection or improper storage of primary data.
- Unjustified refusal to provide access to primary data or destruction of such data before the required retention period.

Publication, conference and project-proposal practices include:

- Manipulation of authorship (e.g., gift/ghost authorship, paper mills), omission of deserving co-authors or arbitrary assignment of unjustified authorship shares.
- Using AI or automated tools without proper disclosure.
- Self-plagiarism without proper reference, including in project proposals relative to approved or ongoing projects.
- Unjustified salami-slicing of publications.
- Intentionally providing false or inaccurate information in project proposals.
- Improper attempts to influence reviewers, evaluators or decision-making bodies.
- Unauthorised, deceptive budget inflation in project proposals.
- Selective or purposefully inflated citation of selected works.
- Negligent editorial conduct in joint publications.

- Publishing at questionable events or in periodicals that do not observe publishing ethics and integrity.
- Organising, supporting or participating in pseudo-professional or pseudo-scientific events that fail to observe publishing ethics and integrity.

Research-practice-related questionable practices include:

- Using inappropriate, harmful, unjustifiably risky or dangerous research methods and procedures, including misuse of statistical methods.
- Insufficiently or unclearly prepared methodology in project proposals.
- Biased design to obtain desired outcomes rather than reality.
- Violating or improperly changing the adopted research or development protocol.
- Failing to obtain the opinion of relevant ethics committees where relevant.

Evaluation-related questionable practices include:

- Any breach of required confidentiality.
- Superficial or non-objective assessment of a publication or of a research/development proposal.
- Non-disclosure of an actual or potential conflict of interest.
- Bias in evaluation, peer-review or assessment.
- Any misuse of information obtained during evaluation or peer-review.
- Recommending unjustified expansion of reference lists to increase citations.

Behaviour-related questionable practices include:

- Jeopardising the independence of the research process or publication of its results.
- Neglecting research management and leadership.
- Non-transparent use of research funds.
- Unfounded accusations of violating methodological or ethical rules.
- Distorting dissemination or application of research results.
- Purposefully delaying or hindering the work of other researchers.
- Abusing one's position to violate integrity and ethics of research, development or education.
- Ignoring or concealing cases of breaches of research integrity and ethics.
- Neglecting supervision, education and development of doctoral students and subordinate staff.
- Damaging or sabotaging the preparation, implementation, evaluation or publication of R&D; activities.
- Creating obstacles to career progression of staff.
- Penalising researchers or students who report potential breaches.
- Writing unjustifiably positive or negative reference letters to influence procedures.
- Discriminatory, demeaning or other inappropriate conduct and behaviour.

5. SAS Ethics Committee and procedures for addressing disputed ethical issues

- Disputed issues are addressed first within the organisation; if an ethics committee exists, it handles the matter, otherwise the director may establish an ad hoc committee.

- If the matter exceeds the scope of one organisation or parties are not satisfied, the SAS Ethics Committee handles it.
- If the breach concerns equal treatment or equal opportunities not adequately addressed at the organisation, the SAS Committee for Equality addresses it.
- The dispute-resolution process respects integrity, independence, objectivity, privacy and timeliness, including presumption of innocence until a decision is made.
- Parties are informed in writing about conclusions; if a breach is proven, corrective or sanctioning measures are proposed proportionate to seriousness.
- A person found in breach has the right to appeal and request review.
- If no breach is proven yet harm is likely, measures are proposed to restore and protect reputation.
- Good-faith whistleblowers suffer no negative consequences and may receive protection and assistance.
- Implementation of proposed measures is verified usually within six months; insufficient implementation may be escalated to the SAS Presidium.
- Alternative means of resolution, such as mediation, are supported.

6. Final provisions

- The SAS Ethical Code was approved by Resolution of the SAS Presidium No. 49.C on 14 August 2025; effective the day after publication on the SAS website. The Ethical Code of 9 July 2015 is repealed.
- Bratislava, 25 August 2025
- Mgr. Martin Venhart, DrSc. — President of SAS