

ANNEX 2. EXPLANATIONS OF VALUES

Freedom and responsibility

Freedom from both external and internal limitations is the precondition and guarantee for striving for new knowledge. Still, the freedom of research is not unlimited; it must consider social and cultural norms which can be criticised and reassessed from time to time, but researchers should not arbitrarily surpass them. Freedom of research means understanding that greater freedom is a privilege that is accompanied by greater responsibility.

Freedom of research means that no unsubstantiated limitations are set to researcher's research and the researcher is free to study any problems or hypotheses, and that search for new ideas or criticising of old ones should not be hindered by unsubstantiated limitations by the state, the society or the research community. Freedom to choose research themes helps to form new schools and trends of thought and to avoid dogmatisation of research. Freedom of research means that search for new ideas or criticising of old ones should not be hindered by unsubstantiated limitations by the state, the society or the research community.

Responsibility means responsible research which is needed for ensuring the credibility of research. In his/her work, the researcher follows all the relevant rules and the highest standards of research integrity. The researcher is aware that his/her conduct serves as a model for future generations of researchers.

Responsibility means being aware of one's obligations to nature and society. The researcher is responsible for his/her own research and its results and weighs the potential benefits and harms of new knowledge for the society, including when the potential applications and undesirable influences of new knowledge are not known for certain or are difficult to assess. In such cases, the researcher assesses the potential impact objectively, does not hide essential information about research and informs the public about the potential threats.

Honesty and objectivity

Honesty as a principal value results from the aims of research itself and striving for truthful and evidence-based knowledge. The achievement of these aims is notably hampered by fabrication and falsification of data or research results. Interpretation of results is more complicated, as one should remain objective and critical, but different research areas and disciplines can have different traditions and standards for drawing conclusions.

Honesty also presumes **precision, impartiality and independence** at all stages of research. The researcher has to be precise to avoid errors in data or results caused by carelessness. Precision is also necessary for critical assessment of the research of others to discover errors and contradictions. The impartial researcher does not assess applications or candidates for positions or does not interpret research results according to personal likes or

dislikes for people or schools. Independence means that the researcher does not allow his/her research to be influenced and will not conduct research in the interests of a company, interest group or public institution if these are not in accord with research interests. Although full independence is not possible, the researcher should always be attentive and critical of his/her own work and avoid potential conflicts of interests.

Honesty means honesty to oneself. The researcher dares to admit his/her errors to others and to reassess his/her earlier conclusions. It is important to differentiate deliberate falsification and fabrication from making of errors. Making of errors is human and they should be admitted. Deliberate denial of errors, however, can be as harmful for research as falsification or fabrication of data.

For the researcher, honesty means telling the truth and striving for transparency. All participants in research, from students to partners outside the institution, should clearly understand for which purpose, for whose money and how research is conducted. Transparency is important in managerial decisions like recruitment of researchers, allocation of pay and bonuses, formation of research groups and use of research funding. Transparency is also essential in each researcher's own work, particularly concerning data, methods and results. This creates preconditions for the research community to assess research critically.

Objectivity means that the researcher's work is always based on evidence and s/he also requires this from colleagues. The researcher makes a clear distinction between factual statements, assessments and personal opinions. When presenting facts, the researcher is precise and refers to their source. In the case of assessments, the researcher explains what his/her assessments are based on. The researcher indicates clearly in which area s/he has expertise and does not act as a researcher or expert in questions that are outside the scope of his/her research.

Respect and caring

Respect as a fundamental value results from each person's right to life, equal treatment and dignity, and it also includes the more general reverence for life. For the researcher, dignity means respect for and regardful treatment of subjects of research, colleagues and cooperation partners. Dignity is particularly important in these research areas where people and their health are studied, animal experiments are conducted, or where nature is involved.

Respect means honouring people's autonomy and privacy. The researcher has to respect the subjects' will, inform them about the research and their rights as subjects. The researcher observes the rules and principles of data protection and informs the subjects about any collection, application and storage of personal data. Dignity presupposes caring and polite communication with persons participating in research. The researcher pays particular attention to human dignity when dealing with children or other persons belonging to vulnerable groups.

Respect means reverence for life, which includes caring treatment of experiment animals. The researcher avoids unsubstantiated harm to experiment animals and causes tortures to animals only if there are no alternatives. Respect presupposes carefulness when

using any living resources. The researcher takes care that living resources are used purposefully, to necessary extent and are not wasted.

Respect means protection and careful use of cultural and historical heritage. The researcher supports cultural diversity and ensures the preservation of material and spiritual heritage of humankind for future generations.

Justice

Justice means both fair treatment of people and fair distribution of resources. In treatment of people, the researcher observes the principle of equality. **Equality** means that a person's actual contribution to work and his/her existing knowledge or skill are taken into consideration, not personal relations or favours. In acknowledging and ascribing of authorship, everyone's actual contribution to research is taken into consideration. Equal treatment also means avoiding discrimination – no one should be preferred or disadvantaged because of their research school, worldview, gender, age, nationality, race, religious or political convictions.

The researcher shares resources sparingly, selflessly and justly. Depending on the situation, this can mean either equal treatment of all parties or special treatment based on substantiated needs. When establishing the needs, the researcher is impartial and objective and considers the interests and needs of all the parties without unsubstantiated preference of one to some other. The researcher must strive for greater transparency of the decision-making process and careful consideration and substantiation of decisions.

Justice also means that the researcher should be aware of all kinds of **conflicts of interests**, try to avoid them and inform others about them. It is particularly essential to avoid conflicts of interests in decisions affecting research and its results, like distribution of research funding, election and appointment of staff, granting of coordinations, permits and agreements, reviewing of publications and giving expert assessments. Conflicts of interests may arise from earlier joint research, parallel research, interests of financiers and from personal connections with some enterprise or organisation.

Justice also means that the researcher takes all the obligations and roles seriously and strives for their balance. The researcher does not give empty promises and does not take on obligations that s/he cannot fulfil. The researcher should avoid situations where some of his/her roles (researcher, teacher, supervisor, administrator) are neglected.

Openness and cooperation

Openness means that the researcher dares to think differently, seek for new knowledge and doubt earlier knowledge. The researcher is open to cooperation with researchers from other countries, research institutions and disciplines.

The researcher is open to cooperation with different partners for the purposes of research, higher education, knowledge transfer and popularisation of research. When

communicating with different parties, the researcher is ready to explain the essence and aims of research. In the situation where different partners have opposite interests, the researcher always observes the interests of the society and research.

Cooperation in research is of particular importance when research is done in large research groups and several research institutions in cooperation with the private sector or within the framework of interdisciplinary research projects. The value of cooperation emphasises the researcher's need to consider different interests and to ensure trusting relations with colleagues, partners and the broader society.

Cooperation also means openness and sharing of ideas, data and research results with cooperation partners and colleagues. Free spread of knowledge is a precondition for critical assessment of the newest knowledge by the research community. Simultaneously, researchers should be aware that, resulting from the need to protect intellectual property, privacy, security or some other value, limitations can apply to conducting research and distribution of results. It is the researcher's obligation to observe such limitations and agreements between partners and to respect the confidentiality of all the cooperation parties.

The researcher promotes a good creative atmosphere, acknowledges the success of colleagues and helps them as much as practicable. A precondition for good research is that the researcher is critical of his/her own and colleagues' work. The researcher does not abstain from substantiated criticism even if it concerns close colleagues or renowned researchers. In criticism, the researcher is always impartial and precise and presents his/her standpoint benevolently, politely and well-groundedly. The researcher takes care that the requirements of research integrity are followed and, in the case of breaches of them, draws the colleagues' attention to it.