Final Memorandum of the campaign Freedom is Our System

conducted by the Alliance of Science Organisations in Germany

“Arts and sciences, research and teaching shall be free. The freedom of teaching shall not release any person from allegiance to the constitution”, says Article 5, paragraph (3) of the German constitution – the Basic Law – which went into effect 70 years ago. Freedom of science is not only a basic right, it is also a pillar of liberal democracy and a prerequisite for economic and social progress. However, this basic right must also be balanced with other constitutionally protected basic rights and objectives. The state’s granting of legal autonomy and its provision of financial resources – which are indispensable to scientific freedom – go hand in hand with the obligation to consider the possible consequences of research. Researchers and scientific institutions are aware of the responsibility arising from their considerable freedom.

During this anniversary year, the science sector has conducted a joint campaign highlighting Germany's constitutionally protected freedom of science and scholarship. With numerous events, speeches, debates and reports in the media, this campaign, titled “Freedom is our system. Together for science. 70 years of the Basic Law”, underscored the importance of freedom of research and teaching, took a critical look at developments in science, and raised awareness of the risks to scientific freedom in Germany and abroad.This memorandum should be regarded as a voluntary commitment on the part of science and research in Germany to protect freedom of science, stand up against restrictions on it, and strengthen it to meet future challenges.

Ten principles for freedom of science

1. Foster freedom of science worldwide.

Freedom of science is at acute risk in more than just a few countries. In some cases scientists are persecuted or even arrested as opponents of the regime. Here, science organisations must maintain a difficult balance between opposing these threats and at the same time preserving existing collaborations which provide valuable latitude for researchers. Science and research in Germany will undertake to continue and increase their provision of protection and prospects in their own organisations to researchers from abroad who are at threat and to actively participate in programmes and networks such as the Academy in Exile and Scholars at Risk. Mobility and the free exchange of ideas and information are necessary conditions for successful science and research.

2. Strengthen confidence in scientific findings.

Scientific findings are not mere expressions of opinion. As a consequence, science also has a duty towards society to explain the difference between opinions and scientifically verifiable findings, ensure clarity, transparency and comprehensibility when communicating research findings and cut the ground from under populistic distortions of facts. In light of this, science and research must time and again raise public awareness of substantiated findings and the significance of scientific controversies. In this way it is possible to boost society’s confidence in science and thus in the constitutionally guaranteed right to scientific freedom.

3. Special freedoms call for special forms of self-regulation.

In a science system that is predominantly publicly-financed, society must be able to rely on self-regulation that functions. Cases of fraud, abuse of power, and “fake science” undermine society’s confidence in science’s responsible management of its special freedoms. Universities and research institutes will fulfil this responsibility by meeting high standards of good scientific practice and ensuring integrity, compliance, legal certainty and employee safety.

4. “Freedom” does not mean free from rules.

Free science is not above the law. Legal and ethical limits and restrictions placed on research will be scrutinised in light of social developments and discussions, such as when animal testing, issues of human genome research, or artificial intelligence are involved. When conducting ethically sensitive research, scientists must always carefully weigh the opportunities against the risks their activities entail. Scientific institutions support these processes with ethics commissions and advisory structures.

5. Ensure the free choice of research topics.

An orientation towards trends can help to bundle expertise within the science system and foster interdisciplinary research as is currently being done in, for example, the area of artificial intelligence. Nonetheless, fundamental freedom in the choice of research topics is necessary in order to preserve the system's diversity. It is therefore important that sufficient resources be made available for research topics that fall outside of current trends and that high-profile scientific journals also publish replication studies and negative research findings. Research must produce more than economic benefits and concrete applications. The importance of the entire impact chain from basic research all the way to actual application should be emphasised on an interdisciplinary basis and communicated within society.

6. Freedom of science applies to the transfer of knowledge as well.

Collaboration with external partners such as companies and other actors is important for strengthening industry and society’s capacity for innovation and, at the same time, putting ideas and insights from real-life practice to use for research. This increasingly important understanding of the role of science poses new challenges for the transfer of knowledge generated by non-university and university scientific institutions. Ensuring freedom of science is of particular importance in connection with collaborative work with companies: The transparency of research findings generated in the course of collaborations and their independence must be adequately ensured.

7. Free scientific enquiry requires a reliable framework.

Institutional autonomy and reliable financing are necessary prerequisites for scientific freedom. The provision of adequate basic funding for universities and research institutes is the only way to ensure that researchers are able to pursue diverse questions at their own discretion and according to society’s needs and not have to arrive at foreseeable findings. Moreover, reliable funding is a fundamental prerequisite for the development of structured, attractive career paths in science.

8. Assess research achievements without constraining scientific freedom.

Incentive and reward systems in science and research cannot be allowed to restrict independent research, but rather they must promote it. Scientific freedom particularly flourishes when achievement and success in science and research are measured by quality and not primarily by quantity. Innovative research does not always result in high citation rates. Today however citation rates are the predominant criterion used when assessing a researcher’s success. The guidelines and assessment tools used by scientific publishing houses must also be scrutinised to determine whether they foster or hinder scientific freedom.

9. Freedom of science requires a culture of debate.

Open discourse and the discussion and examination of other standpoints are fundamental to scientific freedom. It is important to communicate the enormous importance of free scientific debate to students in all disciplines. They should learn to examine different points of view, including their own, with a critical eye. This type of experience with controversial scientific issues also helps strengthen the basic values underpinning liberal democracy, values that are, in turn, indispensable for wide-ranging scientific freedom.

10. Scientific freedom requires social discourse.

In Germany, scientific freedom is so highly valued that the respect it receives in society and the political sector may appear to be a matter of course. However, freedom of science can retain this standing only when it is adapted as a living, dynamic concept for the future and takes up new challenges and meets new demands. Freedom of science is closely linked to the active sharing of information and the cultivation of discourse in society. Extensive science communication therefore has the task of entering into constant dialogue with other social actors regarding the effects, the findings and the limits of science.