



## FREEDOM OF SCIENTIFIC PRACTICE IN THE NETHERLANDS

*Advisory Memorandum by the Royal Netherlands Academy of Arts and Sciences in the light of the Straus-Duisenberg motion No. 120 (34550-VIII)*

### Summary

Guaranteeing honest and independent scientific practice is essential for the proper functioning of science endeavour. It is a subject that enjoys the constant attention of the Royal Netherlands Academy of Arts and Sciences (“the Academy”) and of the Dutch knowledge institutions. The present Advisory Memorandum is in the light of the Straus-Duisenberg parliamentary motion in which the Academy is asked “whether self-censorship and restriction of the diversity of points of view play a role in science in the Netherlands, and to make recommendations as to how free speech should at all times be given scope within the search for scientific truth”. In preparing this Advisory Memorandum, the Academy has taken the text of the motion as its point of departure. Contrary to what has been asserted during debate in the Dutch House of Representatives and in the media, determining the political preferences of researchers does not form part of that motion.

The Academy has “translated” the motion into the following two questions:

- 1 Is there reason for concern in the Netherlands about self-censorship and restriction of the diversity of points of view?
- 2 Are there specifically Dutch mechanisms that increase the risk of self-censorship or a lack of such diversity?

The Advisory Memorandum deals with the following matters: the principles of proper scientific practice that apply in the Netherlands, the risks regarding restriction of academic freedom, and conclusions and recommendations.

The conclusions and recommendation of the Advisory Memorandum can be summarised as follows:

- 1 The principles of proper scientific practice – comprising legal frameworks, codes of conduct, and institutional mechanisms – together form a good basis for guaranteeing the freedom of scientific practice in the Netherlands. There are no signs of any systematic restriction of that freedom. Regular evaluation and updating of the regulations and codes naturally remains extremely important, as does constant attention to the correct way of conducting research in the training programmes for researchers and students



*Recommendation (action to be taken by the Academy):* Encourage formulation of an explicit definition of academic freedom and freedom of scientific practice in national and international regulations and codes of conduct. Raise the issue of freedom of scientific practice at European level through the European umbrella organisations of which the Academy is a member.

- 2 The emphasis on societally relevant research in the Netherlands means that society has an influence on the research agenda of the country's academic institutions. In doing so, society provides direction as regards research questions, the focus of scientific research, and the diversity of points of view. However, the fact that it does so also means a certain restriction of academic freedom which can lead to the scope for researcher-driven projects being constrained. This awareness is also reflected in the Government's recent Coalition Agreement.

*Recommendation (action to be taken by government and politicians):* A major increase in dependence on project financing poses a risk to preservation of the necessary scope for researcher-driven research and thus to preservation of the freedom of scientific practice. This is one of the reasons why it is important, for example, to retain sufficient scope in direct public funding for research (the so-called "first flow of funds") for unfettered research. Government and politicians also have a major role to play in recognising the importance of scientifically substantiated facts and analyses. That is not only for the sake of the quality of political decision-making but also so as to safeguard the boundary between the outcome of scientific analyses and political judgements.

- 3 The increased importance of project financing can lead to undesirable influence being exerted by the body providing funding. Independence and academic freedom can be obstructed if the researcher allows significant interference by the client in the working method, interpretation, and publication of the results. This can be prevented by having effective prior agreements in place between researcher and client.

*Recommendation (action to be taken by researcher and client):* Guarantee the independence of research commissioned by government or the business community by making effective agreements in advance and stipulating that the Academy's Declaration of Scientific Independence (KNAW 2005) applies to the research.

- 4 Bias (conscious or unconscious) on the part of researchers and undesirable, freedom-restricting creation of "schools" (in the sense of schools of thought) can be a threat to proper scientific practice. This is particularly relevant in the case of appointments of academic staff and during the process of peer reviewing research proposals and publications. Preventing this deserves permanent attention on the part of universities and research institutes.

*Recommendation (action to be taken by universities, the Academy institutes, and NWO institutes):* Strive for diversity in the representation of scientific movements and points of view. When recruiting academic staff, ensure an open mind when drawing up profiles for professorial chairs, sufficient external input from adjacent disciplines in appointing committees to advise on nominations, and procedures that are as open and transparent as possible.

*Recommendation (action to be taken by the NWO):* Evaluate the composition and working methods of review committees in order to arrive at more transparent peer review of grant proposals. Organise funding instruments in such a way that researchers are encouraged and supported to gain research experience at other knowledge institutes or in professional practice.

- 5 It is important in scientific practice to offer scope for diversity and pluriformity in points of view, in so far as this contributes to a sound search for scientific truth. Encouraging cooperation and open discussion between employees contributes to creating that scope. Diversity of ideas does not



necessarily need to be achieved at the level of individual research groups; it is essential, however, that it is created at national level, and the local formation of “schools” does not need to obstruct this.

*Recommendation (action to be taken by universities, the Academy institutes, and NWO institutes):* Encourage an open organisational climate, a culture in which differences in points of view and mutual debate are valued. Encourage and support researchers to develop broadly and to gain research experience at various other knowledge institutes or in professional practice. In formulating research policy, aim where possible for countrywide diversity in research approaches and/or methodologies in a given discipline or scientific field.

6 Academic freedom can be restricted if certain research or the results thereof is/are considered undesirable by organisations within society or by the researcher him/herself. There may, for example, be ethical objections, safety risks, or fear of negative reactions from certain groups within society. This tension between the search for scientific truth and the societal impact of research can be reduced by ensuring sufficient dialogue both between researchers themselves and between researchers and society. Academic freedom and professional responsibility go hand in hand: freedom of scientific practice also means that researchers should seek where possible to connect with society and explain why the research is being carried out and how the knowledge generated can be applied. The boundary between scientifically substantiated analyses and arguments and decision-making should be a focus of attention in this regard.

*Recommendation (action to be taken by the Academy):* Encourage attention to the societal assessment of research results in the codes of conduct for scientific practice and during research evaluations.

## Background

On 7 February 2017, the Dutch House of Representatives adopted the Straus-Duisenberg motion,<sup>1</sup> in which the Government is asked “to request further consideration and advice from the Royal Netherlands Academy of Arts and Sciences (KNAW) as to whether self-censorship and restriction of the diversity of points of view play a role in science in the Netherlands, and to make recommendations as to how free speech should at all times be given scope within the search for scientific truth” (see appendix). During the debate on the motion, the then Minister of Education, Culture and Science, Dr Bussemaker, indicated that she would not comply with such a request. The Minister was of the opinion that a debate on the question of whether there is sufficient scope for free speech within the search for scientific truth should come from the scientific community itself (House of Representatives, 2017b). Although the Government has not made a formal request, the Academy would still like to address the questions raised in the Straus-Duisenberg motion. Guaranteeing honest and independent scientific practice is, after all, essential for the proper functioning of science. This is a matter that enjoys the constant attention of the Academy – including through its Permanent Committee on Scientific Freedom – and of all the knowledge institutions in the Netherlands.

After briefly outlining the background and the debate on the Straus-Duisenberg motion, the Advisory Memorandum first discusses the principles of proper scientific practice that apply in the Netherlands. This is followed by an analysis of the risks to academic freedom in the country. The Memorandum finishes with conclusions and recommendations. The text of the Straus-Duisenberg motion as submitted to the Dutch House of Representatives is included as an appendix.

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<sup>1</sup> The following parliamentary groupings voted in favour of the motion: Van Vliet, 50PLUS, Klein, Kuzu/Öztürk Group, Houwers, VVD, SGP, CDA, Bontes/Van Klaveren Group, and PVV. The members of the other groupings who were present voted against (House of Representatives 2017c). For an account of the debate, see Proceedings of the House of Representatives [Handelingen TK] 2016-2017, 48 4 Hoger Onderwijs 2 February 2017 (2017b).



With this Advisory Memorandum, the Academy aims to improve understanding of how freedom of scientific practice is guaranteed in the Netherlands, what the greatest risks are as regards restriction of that freedom, and how one should respond to those risks. The Academy has chosen to do this in the form of an Advisory Memorandum and to address only those aspects that are most relevant to answering the questions raised in the motion. The Advisory Memorandum does not therefore claim to provide a fully comprehensive exploration of the topic of scientific freedom.

## Focus and scope of this Advisory Memorandum

The Straus-Duisenberg motion was submitted after Pieter Duisenberg (a Member of the House of Representatives for the conservative-liberal VVD party) asked the then Minister, Dr Bussemaker, during the General Consultations on Higher Education, Research and Science Policy on 25 January 2017, to commission an investigation of political diversity in science in the Netherlands (Dutch House of Representatives, 2017a). Media reports interpreted the motion as a request to determine the political preferences of researchers at Dutch institutions, despite the text of the motion not including such a request. The fact that the motion was interpreted in that way also has to do with the article “Political diversity will improve social psychological science” by J.L. Duarte et al., to which the motion refers and which has played a role in debate on this matter in the United States. The article is about the lack of political diversity among social psychology researchers in the US (Duarte, 2015). Little is known, however, about the political preferences of researchers in the Netherlands or about the supposed “left-wing leanings” of Dutch universities. Only a few facts are available, some of which are out of date (Van der Werfhorst, 2017; Van Dalen, 2015).

Another aspect mentioned in many responses to the motion was that it was supposedly a sign of a decline in the level of trust in science. The Rathenau Institute published a report (De Jonge, 2015) on this matter in 2015 which showed that up to now there is, on average, a broad-based trust in science among the Dutch population. However, there has recently been discussion in many countries about an alleged loss of confidence in scientific expertise. Scientists express concern about the growing lack of trust in science and sometimes even the rejection of scientific evidence by opinion leaders and policymakers. These concerns are also in response to statements and initial actions of US President Donald J. Trump. On 22 April 2017, this led to a “March for Science” in many cities around the world, emphasising the importance that science has for society. Trust in science was also a topic of discussion at a number of meetings of the Academy during the past year. In addition, the President of the Academy is a member of the recently established working group set up by ALLEA (All European Academies), the federation of national academies of science, to explore this issue further. The Academy considers trust in science to be an important topic, but does not see it as the main reason for the motion or for the present Advisory Memorandum.

In this Advisory Memorandum, the Academy has taken the text of the request to the Academy as its point of departure; this does not include charting the political preferences of researchers. In that regard, the Academy agrees with the comments by the Minister during the General Consultations on 25 January 2017: “Science is about finding the truth. In that context, a diversity of views can be useful in order to determine the truth in the most effective way, but always based on substance, on knowledge. Taking stock of researchers’ political preferences is fundamentally at odds with this.”

The Straus-Duisenberg motion also asks whether self-censorship and restriction of the diversity of points of view play a role in science in the Netherlands. In asking this, the motion overlooks the fact that scientific endeavour is very often an international activity. In fact, this question can only be answered in an international context and for each particular discipline. Such an investigation would go beyond the capacity of the Academy. The Academy is in a position, however, to investigate whether, in the Dutch



context, there is reason for concern about self-censorship and restriction of the diversity of points of view in science. Are there specifically Dutch mechanisms that increase the risk of self-censorship or a lack of such diversity? In answering these questions, the Academy will confine itself to scientific research carried out at academic institutions.

The motion focuses on three key concepts: free speech in science, self-censorship, and restriction of the diversity of points of view. In this Advisory Memorandum, the Academy applies the following definitions of those key concepts:

- *Free speech in science*: the right to conduct scientific research freely and to disseminate its results freely.
- *Self-censorship*: consciously or unconsciously refraining from posing research questions or publishing research results because the questions and/or the results (or expected results) are considered socially and/or politically undesirable.
- *Restriction of the diversity of points of view*: a lack of diversity in the expertise and background of researchers, with negative consequences for the quality of research and the extent to which it is innovative or ground-breaking.

## Principles of proper scientific practice

The principles of proper scientific practice that apply in the Netherlands comprise legal frameworks, codes of conduct, and institutional mechanisms.

### Legal safeguards on academic freedom

De vrijheid van wetenschapsbeoefening is in de Nederlandse wetgeving niet sterk verankerd. De vrijheid Freedom of scientific practice is not firmly enshrined in Dutch law. In contrast to Germany, for example, it is not explicitly stipulated in the constitution. The term “academic freedom” is included, however, in the Higher Education and Research Act [Wet op het hoger onderwijs en wetenschappelijk onderzoek, WHW]. Section 1.6 of that Act (“Academic freedom”) reads: “Academic freedom shall be respected at higher education institutions and at university hospitals.” However, what exactly is meant by “academic freedom” is not specified in the Act.

There are also a number of international conventions and declarations that deal with academic freedom (Groen, 2015):

- Article 27 of the Universal Declaration of Human Rights (UDHR) states that “(1) Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. (2) Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.”
- Article 15 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) states, inter alia: “The States Parties to the present Covenant undertake to respect the freedom indispensable for scientific research and creative activity.”
- Article 13 of the Charter of Fundamental Rights of the European Union provides explicitly for protection of academic freedom: “Freedom of the arts and sciences: The arts and scientific research shall be free of constraint. Academic freedom shall be respected.”
- The UNESCO Recommendation on Science and Scientific Researchers (November 2017) deals with various aspects of academic freedom, with Article 10 stating explicitly: “Each Member State should institute procedures adapted to its needs for ensuring that, in the performance of publicly supported scientific research and experimental development, scientific researchers respect public accountability while at the same time enjoying the degree of autonomy appropriate to their task and to the advancement of science and technology. It should be fully taken into account that creative activities of scientific researchers should be promoted in the national science policy on the basis of utmost respect for the autonomy and freedom of research necessary to scientific progress.” Article 16(a) deals with



the recommended responsibilities and rights of scientific researchers, including: “to work in a spirit of intellectual freedom to pursue, expound and defend the scientific truth as they see it, an intellectual freedom which should include protection from undue influences on their independent judgement.”

### Codes of Conduct

In addition to these legal frameworks, the academic institutions themselves have also drawn up codes of conduct for guaranteeing good and honest science. After all, scientific research too is “people work”. The most relevant of these codes as regards freedom of scientific practice is the *Netherlands Code of Conduct for Scientific Practice*. All the Dutch universities and the NWO and Academy institutes have committed themselves to observing this code (which was, incidentally, undergoing periodic review at the point when this Advisory Memorandum was published).<sup>2</sup>

These organisations also respect the frameworks of such international documents as the Singapore Statement on Research Integrity (2010), the OECD’s Best Practices for Ensuring Scientific Integrity and Preventing Misconduct (2007), and ALLEA’s recently revised European Code of Conduct for Research Integrity (2017).<sup>3</sup> The currently applicable *Netherlands Code of Conduct for Scientific Practice* comprises six principles of good scientific education and research:

- 1 honesty and scrupulousness
- 2 reliability
- 3 verifiability
- 4 impartiality
- 5 independence
- 6 responsibility.

Where the Straus-Duisenberg motion is concerned, the principle of “impartiality” is of particular relevance, with the Code of Conduct having this to say: “In their scientific or scholarly activities, academic practitioners are led by no other interest than academic interest, and they are always prepared to account for their actions.” Impartiality is defined as follows: “Academic practitioners are impartial and objective when they do not let personal interest, preference, affections, prejudice or the interests of the commissioning or funding body affect their judgement and decisions.” In elaborating this principle, the Code sets out a number of standards with direct relevance to the subject of the Straus-Duisenberg motion:

4.1. Academic practitioners allow others to take an independent intellectual position on topics. This applies particularly in the case of hierarchical relationships such as the relationship between a teacher and a student or a supervisor and a PhD candidate.

4.2. The choice of methods and criteria is made solely to establish facts, and is not led by external goals such as commercial success or political influence.

4.3. A reviewer carefully reflects whether they can offer an impartial assessment of a manuscript, for instance when it concerns a competing research group.

4.4. In assessing the performance of others (peer review of research and manuscripts), academic practitioners are led by scientific or scholarly arguments, and they refrain from assessing a manuscript if there could be any doubt about the impartiality of their opinion.

4.5. Academic practitioners only take up and defend a certain scientific or scholarly viewpoint when there are sufficient grounds to support that viewpoint. Competing viewpoints must be mentioned and explained.”

In addition, the principles of “independence” and “responsibility” referred to in the Code of Conduct are highly relevant to the present Advisory Memorandum. The Code defines the principle of “independence” as follows: “Academic practitioners operate in a context of academic freedom and independence. Where

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<sup>2</sup> VSNU, KNAW, NWO, NFO, TO2, and VH are currently engaged in drawing up a new *Netherlands Code of Conduct for Scientific Practice*. This will appear in 2018. The present Advisory Memorandum refers only to the text in the 2004 version of the Code of Conduct that is currently in force, including the 2012 and 2014 revisions.

<sup>3</sup> Links to these codes can be found on the Scientific Integrity page of the Academy’s website:  
[https://knav.nl/en/topics/ethiek/wetenschappelijke-integriteit/overzicht?set\\_language=en](https://knav.nl/en/topics/ethiek/wetenschappelijke-integriteit/overzicht?set_language=en)



restriction of that freedom cannot be avoided, this is clearly stated.” As regards this principle, a description is given of how researchers can monitor the independence of externally funded research. The principle of “responsibility” is defined as follows: “Academic practitioners acknowledge their responsibility for the societal implications of their work. They are willing to discuss and explain their choice of research themes.” It is then stated that researchers must be prepared to account for their choice of research themes, the use of research funds, and the quality of their research output.

Researchers, instructors, and students are required to respect the *Netherlands Code of Conduct for Scientific Practice* and to tackle one another about any questionable behaviour. The Code imposes an obligation on the governing bodies of universities and research institutes to promote and enforce compliance with the Code. The training programmes for researchers and students nowadays therefore pay systematic attention to the correct way of conducting research. Each organisation that has committed itself to observing this Code of Conduct has at least one confidential counsellor for scientific integrity. In the event of suspicion of a violation of integrity, a complaint may be submitted to an independent committee on scientific integrity at the relevant university or NWO or Academy institute. If so desired, the university’s or institute’s decision can be reviewed by the Netherlands Board on Research Integrity (LOWI). This was established in 2003 by the Academy, the NWO, and the Association of Universities in the Netherlands (VSNU) and advises the management boards of the affiliated institutions on possible violations of research integrity. LOWI publishes its advisory reports (anonymised) on its website ([www.lowi.nl](http://www.lowi.nl)). To date, LOWI has not dealt with any cases in which political preference has played a role.

Finally, the *Code of Conduct on Conflicts of Interest* is worthy of mention. This is intended for researchers who are members of committees that draw up scientific advisory reports and guidelines for healthcare in the Netherlands. It is intended to guarantee the independence of these committees and to prevent any appearance of a conflict of interest, for example by disclosing the relationships and interests of committee members. The Code was drawn up by the Academy, the Royal Dutch Medical Association (KNMG), the Health Council of the Netherlands (GR), the Dutch College of General Practitioners (NHG), and the Dutch Federation of Medical Specialists (FMS).

### **Institutional mechanisms**

In addition to codes of conduct, attention to good and honest scientific practice in the Netherlands takes the form of a system of quality assurance for scientific research. Since the 1980s, the scientific quality and relevance of all research has been systematically evaluated according to the Standard Evaluation Protocol (SEP) developed by the Academy, NWO, and VSNU (see [www.vsnul.nl/sep](http://www.vsnul.nl/sep)). Research quality and societal relevance but also the strategy of research groups and the assessment of scientific integrity policy are important components in external evaluations. An evaluation of this kind by an external panel of experts takes place once every six years.

Worldwide peer review is also an important principle in quality assurance for scientific research, i.e. the process whereby scientific findings are checked by colleagues for correctness of judgement and soundness of research. Peer review is the most important mechanism for ensuring quality, not only in evaluations of research groups according to the SEP but also in the assessment of research proposals by funding bodies such as the NWO and in the evaluation of articles by scientific journals. Despite criticism of the system, peer review is so far the only widely accepted method for the validation of funding applications and research results. However, the process is susceptible of improvement. We will return to this matter below in the section on “Risks of violation of freedom of scientific practice”.

### **Conclusion**

The Academy concludes that existing codes of conduct and regulations create the right frameworks for proper scientific practice. Regular evaluation and updating of the regulations and codes naturally remains extremely important, as does constant attention to the correct way of conducting research in the training programmes for researchers and students



## Risks of violation of freedom of scientific practice

Although freedom of scientific practice is well guaranteed from the procedural perspective in the Netherlands, in practice there may still be desired or undesired restriction of that freedom. We will examine in greater detail below the factors that can influence freedom of scientific practice. In doing so, we distinguish three categories of risks impacting that freedom:

- 1 risks when drawing up the research agenda
- 2 risks when performing research itself; and
- 3 risks when utilising the research results.

### 1 Risks when drawing up the research agenda

The research agenda of academic institutions in the Netherlands is to a large extent determined by the major scientific and societal issues affecting Dutch society. Society thus provides direction as regards research questions, the focus of scientific research, and the diversity of points of view in science. However, the fact that it does so also means a certain restriction of academic freedom. This is inextricably bound up with the societal function of science. The current Government Coalition Agreement, *Confidence in the Future* [*Vertrouwen in de toekomst*] (2017), refers to this tension (page 12): “Funding for university-based research will be more closely linked to research quantity, academic quality and social impact. At the same time, sufficient scope must be given for free academic inquiry, now and in the future.” The Government thus recognises the crucial contribution that science makes to tackling societal challenges and hence the importance of political decision-making based on facts and analyses that have been substantiated scientifically.

Academic freedom in the Netherlands is therefore unavoidably influenced by political choices in the funding of research. This concerns not only the size of the available budget but also the degree of control of content and the freedom that academic institutions are given to make their own decisions as regards spending. The freedom of an individual researcher also depends on the administrative choices made by his or her institution, faculty, or institute.

Last summer, in its publication *The Dutch Polder Model in Science and Research* (Van Dijck and Van Saarloos, 2017) the Academy noted that the science system in the Netherlands is under pressure. Since 2000, the budget that universities actually have available for research has diminished. At the same time, there are more and more tasks for scientists for which less and less money is available. Competition for research funding is increasing, both nationally and internationally. The potential consequences of this for freedom of scientific practice are:

- The high pressure of funding applications reaching the NWO may result in projects that are innovative but scientifically, socially, and/or politically risky no longer being eligible for funding. The NWO identified this as a realistic risk in its October 2017 report on the pressure of applications (NWO, 2017).
- Due to the high degree of dependence on external research funding, an increasing proportion of the research agenda is determined by external parties (VSNU, 2017). On the one hand, external control can embed science in society more firmly and can prevent self-censorship within scientific practice. On the other, it may result in some subjects being neglected because there is (temporarily) less interest in them within society, despite there being no reason for that lack of interest from a scientific perspective. In 2015, the Academy published an Advisory Report that identified potential undesirable effects of, among other things, the “Top Economic Sectors” policy. The report’s conclusion was that the Dutch scientific landscape does not yet have any “blank spots” but rather areas of concern that merit serious attention. However, the report also warned that vigilance and appropriate care would remain necessary in order to prevent a concentration of resources on broad themes from reducing the scope for curiosity-driven research (KNAW, 2015).
- The relatively sharp increase in the importance of project financing can lead to undesirable influence being exerted by the body providing funding. Independence and academic freedom can be obstructed





if the researcher allows significant interference by the client in the working method, interpretation, and publication of the results. The Academy's Advisory Report *Science to Order*, already published back in 2005, makes a number of still valid recommendations for guaranteeing the independence of research commissioned by government or businesses. Among other things, it is recommended that sound agreements be made with the client in advance about such matters as publication of the research results. The Advisory Report contains a proposal for a declaration of independence for externally financed research to which both the client and the researcher would commit themselves (KNAW 2005) and which can be utilised by both academic and non-academic research institutes. The principle of "independence" in the *Netherlands Code of Conduct for Scientific Practice* also applies here (see the previous section "Principles of proper scientific practice").

## 2 Risks during the research project

Risks of bias (whether or not conscious) or restriction of ideas during the research process may differ from one discipline or research method to another. Normative or interpretative research imposes different requirements to experimental research, for example, and a policy studies analysis involves different risks to an historical study. Each field of science has its own methods, standards, or entrenched dogmas. The zeitgeist also plays a role, as a result of which some subjects are temporarily more in the spotlight while others are marginalised. This is not to say that every point of view must always be represented. There may be good scientific reasons for one point of view or school to be abandoned and perhaps replaced by another as scientific knowledge develops. It is also important to realise that a plurality of points of view does not necessarily need to be achieved at the level of individual research groups; it is essential, however, that it is created at national level, and the local formation of "schools" does not need to obstruct this. In many disciplines, national networks such as research schools contribute to the plurality of points of view at national level.

Points within the research process when there is the greatest risk of bias, restriction of ideas, or restriction in the choice of topics are the appointment of academic staff and the process of peer reviewing research proposals and scientific publications. The formation of "schools" can play a role in this.

Universities and research institutes should aim for a scientific staff that is diverse – in all respects – by implementing open and transparent procedures in their personnel policies. In that context, it is important that profiles for professorial chairs are drawn up with an open mind and that the committees advising on the appointment of scientific staff are aware of any undesirable formation of "schools" within the discipline. External recruitment and input from adjacent disciplines when appointing such committees can also make a valuable contribution. Creating an open organisational climate and a culture in which differences are valued is also of great importance. Encouraging cooperation and open discussion between staff about differences in points of view and opinions will ensure that there is a diversity of ideas, thus enabling the organisation to benefit more effectively from having teams that are of varied composition. The same also applies, *mutatis mutandis*, to the composition of assessment committees in the context of organisations such as the NWO and the European Research Council (ERC).

Assessing research proposals and research reports by means of peer review is another point in the research process where risks are lurking. On the one hand, peer review can help prevent bias on the part of researchers or research groups by providing an independent judgement. On the other hand, it can obstruct freedom if there is a case of "schools" being formed. Interdisciplinary research, for example, is often difficult to finance and publish, as is highly innovative research ("paradigm shifts"). Peer review is a good system but bias and self-censorship among researchers and the formation of "schools" can be a risk. This applies to science worldwide. The extent to which it occurs varies from one discipline to another. Preventing bias and the undesirable, freedom-restricting formation of "schools" is an issue that should be tackled primarily at international level in the context of the particular discipline. Within the Netherlands, the recent discussion about possible conflicts of interest among committee members at ZonMw (the Netherlands Organisation for Health Research and Development) is also a reason to evaluate the method of peer reviewing of grant proposals submitted to ZonMw and the NWO. Measures that the NWO could



consider to increase the independence of peer reviewing of grant applications include informing members of the review committee about the identity of the external referees, increasing the transparency of selection procedures for the review committees, and adding foreign researchers to committees.

### 3 Risks when utilising the research results

The application, or possibility of applying, research results can sometimes lead to public debate as to whether certain research is desirable. However, there is no clear boundary between desirable and undesirable research and between desirable and undesirable restriction. Moreover, such a boundary is subject to change as society changes, and as our views, knowledge, and values regarding such boundaries also change. A familiar example is Wouter Buikhuisen's research on biological backgrounds to delinquency in the late 1970s. The desirability of such research was contested at the time and led to fierce public debate. It was ultimately impossible for Buikhuisen to continue his research. Now, several decades later, our views regarding this matter have changed and such research would probably now be acceptable. The question then arises of how far that restriction hampered scientific progress.

What we can learn from the Buikhuisen affair is that science and society need to deal cautiously with the tension between the search for scientific truth and the societal impact of research. A dialogue is necessary both between researchers themselves and between researchers and society. A plea for the freedom of scientific practice is not only a plea for the right to conduct research freely and to freely disseminate the results but also for scientists to take responsibility for engaging in debate with society. Academic freedom goes hand in hand with responsibility on the part of researchers to explain to society why such research is being carried out and wherever possible to apply the knowledge acquired in such a way that society benefits from it. The Dutch National Research Agenda is a good example. Academic freedom also entails the responsibility to make statements only within the scope of one's own expertise<sup>4</sup> and to be cautious when "translating" research results into policy. Science can provide substantiated analyses and arguments that can play a role in decision-making, for example in politics, business, and the law. Political judgement, however, is a matter not for scientists but for politicians. This boundary between science and politics must be safeguarded by both scientists and politicians.

There may also be self-censorship on the part of the researcher him/herself. There may be good reasons for this, for example if major risks are involved in carrying out the research or publishing the results, such as a biosecurity risk in the case of some biomedical research projects (KNAW, 2013). In other cases, self-censorship by the researcher is inadvisable, for example if the researcher considers his/her own results undesirable because they conflict with his/her own views or because he/she expects negative reactions from certain groups within society or from the external body that is funding the research. Freedom of scientific practice also implies the obligation to report all results which the research generates.

Codes of conduct for science practice and the protocols for research evaluation devote limited but increasing attention to societal assessment of research results.<sup>5</sup>

## Conclusions and recommendations

In the light of the Straus-Duisenberg motion, the Academy has examined the issue of whether there is reason for concern in the Netherlands about self-censorship and restriction of the diversity of points of

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<sup>4</sup> The *Netherlands Code of Conduct for Scientific Practice* has the following to say about honesty and scrupulousness: "Academic practitioners ensure that they maintain the level of expertise required to exercise their duties. They do not accept duties for which they lack the necessary expertise. If necessary, they actively indicate the limits of their competence."

<sup>5</sup> The Academy is currently working on the Advisory Report *Tracking Impact [Impact in Kaart]*, which is intended to clarify which tools are suitable for determining the impact, identifying any gaps, and making recommendations for the development of new tools. The expected publication date is June 2018.



view. In addition, the Academy has investigated whether mechanisms exist, specifically in the Netherlands, that impede freedom of scientific practice and about which we should be particularly concerned. In a general sense, the Academy believes that the answer to both those questions can be negative, but that constant alertness and suitable caution are necessary.

Based on the above analysis, the Academy arrives at the following conclusions and recommendations.

### Conclusions

- 1 The various codes of conduct and legal frameworks in the Netherlands for honest scientific practice together form the right frameworks for guaranteeing the freedom of scientific practice in our country. There are no signs of any systematic restriction of that freedom. Regular evaluation and updating of the regulations and codes naturally remains extremely important, as does constant attention to the correct way of conducting research in the training programmes for researchers and students.
- 2 The emphasis on societally relevant research in the Netherlands means that society has an influence on the research agenda of the country's academic institutions. In this way, society provides direction as regards research questions, the focus of scientific research, and the diversity of points of view in science. However, the fact that it does so also means a certain restriction of academic freedom which can lead to the scope for researcher-driven projects being constrained. This awareness is also reflected in the Government's recent Coalition Agreement.
- 3 The increased importance of project financing can lead to undesirable influence being exerted by the bodies providing funding. Independence and academic freedom can be obstructed if the researcher allows significant interference by the client in the working method, interpretation, and publication of the results. This can be prevented by having effective prior agreements in place between researcher and client.
- 4 Bias (conscious or unconscious) on the part of researchers and the undesirable, freedom-restricting creation of "schools" can be a threat to proper scientific practice. This is particularly relevant in the case of appointments of academic staff and during the process of peer reviewing research proposals and publications. Preventing this deserves permanent attention on the part of universities, research institutes, and the bodies that fund research.
- 5 It is important in scientific practice to offer scope for diversity and pluriformity in points of view, in so far as this contributes to a sound search for scientific truth. Encouraging cooperation and open discussion between employees contributes to creating that scope. Diversity of ideas does not necessarily need to be achieved at the level of individual research groups; it is essential, however, that it is created at national level, something that the local formation of "schools" does not need to obstruct.
- 6 Academic freedom can be restricted if certain research or the results/potential results thereof is/are considered undesirable by society or by the researcher him/herself. There may, for example, be ethical objections, safety risks, or fear of negative reactions from certain groups within society. This tension between the search for scientific truth and the societal impact of research can be reduced by ensuring sufficient dialogue both between researchers themselves and between researchers and society. Academic freedom and professional responsibility go hand in hand: freedom of scientific practice also means that researchers should seek where possible to connect with society and explain why the research is being carried out and how the knowledge generated can be applied. The boundary between scientifically based analyses and arguments and decision-making, for example in a political context, should be a focus of attention in this regard.

### Recommendations

- 1 *Government and politicians:* Project financing can contribute to a diversity of points of view in scientific research because it reinforces the connection with society. A major increase in dependence on project financing poses a risk, however, to preservation of the necessary scope for researcher-driven projects and thus to preservation of the freedom of scientific practice. This is one of the reasons why it is important, for example, to retain sufficient scope in direct public funding (the "first flow of funds") for unfettered research. Government and politicians also have an important role to play in recognising the importance of scientifically based facts and analyses. That is not only for the sake of the quality of



political decision-making but also so as to safeguard the boundary between the outcome of scientific analyses and political judgements.

- 2 *Universities, the Academy institutes and NWO institutes*: Regularly evaluate the regulations and codes governing scientific practice and devote attention to this subject in the training programmes for researchers and students. Strive at national level for diversity in the representation of scientific movements. When recruiting academic staff, ensure an open mind when drawing up profiles for professorial chairs, sufficient external input from adjacent disciplines in appointing committees to advise on nominations, and procedures that are as open and transparent as possible. Encourage an open organisational climate, a culture in which differences in point of view and mutual debate are valued and in which there is not too anxious a response to research, and its potential results, including the choice of research topics that do not immediately enjoy high regard politically or socially. Encourage and support researchers to develop broadly and to gain research experience at various other knowledge institutes or in professional practice.
- 3 *Researcher and client*: Guarantee the independence of research commissioned by government or the business community by making effective agreements in advance and stipulating that the Academy's Declaration of Scientific Independence (KNAW 2005) applies to the research. Safeguard the boundary between scientifically based analyses and arguments on the one hand and decision-making on the other.
- 4 *NWO*: Evaluate the composition and working methods of review committees in order to ensure more transparent peer reviewing of grant proposals. Organise funding instruments in such a way that researchers are encouraged and supported to gain research experience at other knowledge institutes or in professional practice.
- 5 *The Academy*: Encourage formulation of an explicit definition of academic freedom and freedom of scientific practice in national and international regulations and codes of conduct. Raise the issue of freedom of scientific practice at European level through the European umbrella organisations of which the Academy is a member. Encourage attention to the societal assessment of research results in the codes of conduct for scientific practice and during research evaluations.

## About this document

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## Appendix I: Dutch House of Representatives

Session Year 2016–2017

### **34 550 VIII Adoption of the budget statements of the Ministry of Education, Culture and Science (VIII) for the year 2017**

**No. 120 MOTION PROPOSED BY REPRESENTATIVES STRAUS AND DUISENBERG**

Proposed 2 February 2017

The House of Representatives,

having heard the deliberations,

whereas discussions are taking place in other countries regarding homogeneity, self-censorship, and lack of diversity in scientific research;

whereas there must always be scope for free speech in scientific research, driven by curiosity and the search for truth;

being of the opinion that free scientific research may never be hindered by differences in moral or political views;

requests the Government to request further consideration and advice from the Royal Netherlands Academy of Arts and Sciences (KNAW) as to whether self-censorship and restriction of the diversity of points of view play a role in science in the Netherlands, and to make recommendations as to how free speech should at all times be given scope within the search for scientific truth,

and proceeds with the order of the day.

Straus  
Duisenberg