

# MANAGEMENT SUMMARY

## The question

In June 2012, the Under Minister for Education, Culture and Science asked the Royal Netherlands Academy of Arts and Sciences to advise on potential negative consequences of the government's research and innovation policy at that time. In his request for advice he referred to the Strategic Agenda for Higher Education, Research and Science (2011) and the *Bedrijfslevenbrief* policy memorandum (2012), both documents that identify the frameworks for the government's future research and innovation policy.

The advisory committee established by the Academy and chaired by Prof. Jacques Thomassen divided the Under Minister's request into three main questions:

1. What undesirable systemic trends can be detected in the various disciplines, how might their effects lead to 'blank spots' in the Dutch scientific landscape, and what is the role of faculty policy in this?
2. What factors are affecting the budgetary range for unbound fundamental research and how significant is the impact of the government's top economic sectors policy?
3. What other problems pose a serious threat to scientific research in the Netherlands?

## The study

The committee went about collecting empirical data in various ways. To begin with, it called on the Academy's five overarching advisory councils to help outline how strategic research agendas are developed and future plans drawn up in all fields of science. The committee looked in particular for signs of potential blank spots, i.e. fields that are disappearing or weakening while this is undesirable from a national or international perspective. In cooperation with the Rathenau Institute, the committee additionally conducted two surveys, one among university deans and the other among Academy and Young Academy members. The former focused on factors that influence faculty-specific policy, while the latter focused on what researchers have observed as unfavourable trends in specific disciplines. Both surveys also considered the threats to unbound research, especially in the wake of the government's top economic sectors

policy, as well as other problems that could be unfavourable to research in the Netherlands. At the Under Minister's request, the study looked specifically at the humanities and social sciences.

## Conclusions

### 1. Blank spots and areas of concern

- The committee detected few if any real blank spots in its study, in the sense of disciplines that have disappeared or are at risk of doing so in the short term without good reason. One important explanation for this finding is that Dutch research is generally robust enough to counter such threats.
- That is in part because most fields of science have a highly developed system of national consultations concerning the development of the various disciplines. Such consultations are needed to gain a clear notion of what trends are favourable and unfavourable. In turn, that notion is needed to identify the risk of blank spots arising before it is too late. The national system of consultations is underdeveloped in the humanities and social sciences, though that appears to be changing gradually.
- The committee has identified a number of fields that have been put at risk by the current policy, however, and that therefore require extra attention. The committee refers in this case not to 'blank spots' but rather to 'areas of concern'. These areas can be found in every field, but the situation has become most pressing in the humanities (languages) and in Dutch law. But they can also be found in the natural sciences, for example pure mathematics and botany.

### 2. Scope for unbound fundamental research

- The budgetary range for unbound basic research has declined sharply, particularly in the past decade. One of the key reasons is the government's top economic sectors policy, but that policy reflects a broader domestic and international trend towards thematic research.
- Increasingly, unbound basic research is at a disadvantage when it comes to funding channelled through the Dutch National Research council NWO (Netherlands Organisation for Scientific Research), thematic programs at the universities, and European funding programmes.
- Research and research funding are increasingly being concentrated in specific fields. In some fields, 'focus and mass' are undoubtedly important for the quality of research, but at the same time, this trend is particularly disadvantageous for young research groups that are eager to innovate, and it poses a further threat to the close relationship between education and research – one of the defining characteristics of the university.
- Government spending on R&D will continue to decline until 2018, while student numbers continue to rise (there has been a record number of enrolments this year, 2015), at the expense of both education and research. The reduction in state aid to universities based on student enrolment figures also works to the disadvantage

of research. With state aid not compensating for the rise in student numbers, that rise is taking place not only at the expense of education but also at the expense of research owing to the applicable budgeting system.

### 3. Critical problems

- Deans are finding it more and more difficult to maintain the balance between education and research when it comes to funding. That is mainly because education and research are communicating vessels in terms of funding. On the one hand, as student numbers rise and the budget remains the same or shrinks, research time is being sacrificed to teaching time. On the other, as funding is increasingly concentrated in a limited number of research groups, the close relationship between education and research is put at risk.
- The struggle to retain talented researchers and offer young researchers good career prospects is a growing organisational and financial problem in many fields.
- Long-term investment in infrastructure (including the digital infrastructure) is lacking in many fields. Weak national coordination is aggravating this problem in a number of cases.
- Disciplines specific to the Netherlands, such as Dutch law, are in danger of running into problems in a research culture in which international peer-reviewed publications matter most.

## Recommendations

- To the government and the universities: Encourage disciplines (and groups of disciplines) to develop strategic national agendas for education and research, partly in response to socially relevant issues. Priority should be given to disciplines that have been identified, at least in part, as areas of concern.
- To universities and NWO: Create more scope for unbound research in the direct and indirect funding mechanisms and support small-scale initiatives by young research groups to counterbalance the growing clustering of research into themes.
- To the universities: Improve opportunities for young talented researchers throughout their academic career, and see that grants are more equally distributed across disciplines.
- To the academic community: Ensure that the interaction between education and research – the characteristic that distinguishes universities from other educational and research institutions – is given a firm place on the policy agenda.