

A 1 Area for action: the science system

A raft of policy measures over the last ten years in the tertiary education sector, and in the field of publicly funded research in general, has led to a significant improvement in research conditions, to more third-party funded research and research collaborations, as well as to an increase in the number of up-and-coming young academics (cf. Chapter B1). Germany has become significantly more attractive as a location for science. The Federal Government has substantially increased resources for publicly funded research and has thus made a significant contribution towards achieving the three-percent target for R&D spending and making the German research landscape more competitive.

The Commission of Experts now considers it necessary to set a more ambitious goal. In its 2015 Report it already called for an increase in the target for R&D spending to 3.5 percent of GDP.

The Excellence Initiative has strengthened Germany as a location for science. The Commission of Experts welcomes the agreement on the Excellence Strategy between the Federal and Länder governments adopted in 2016. Since the Higher Education Pact and the Pact for Research and Innovation will expire in 2020, decisions will also have to be taken in the next few years on whether, or in what form, these two pacts are to be continued. While the non-university research organisations achieved the budget increases of the last few years via institutional promotion with the Pact for Research and Innovation, the problem in the case of tertiary education institutions (universities and universities of applied sciences) is that a high proportion of the increase in funding was realised via temporary and earmarked funds. This creates many problems for tertiary education institutions; it also opens up a gap between financing conditions in tertiary education institutions and those at non-university research organisations.

Increase basic financing of tertiary education institutions and continue the Higher Education Pact

A key challenge in the coming years will be to substantially improve the basic financing of Germany's tertiary education institutions, to overcome their structural underfunding, and to further boost their international competitiveness. In this context, it is initially the Länder that have an obligation to invest in basic financing.

At the same time, the Commission of Experts recommends that Federal and Länder governments should initiate a follow-up programme for the Higher Education Pact. The Federal Government should continue to support the Länder in financing teaching and overhead costs. However, this must not lead to the Länder reducing their own contributions to the funding of tertiary education institutions. Assistance from the Federal Government should thus be tied to verifiable conditions.

Increase overhead allowances for third-party funded projects

The DFG Programme Allowance and the BMBF Project Allowance are usually not sufficient to finance the full indirect costs related to third-party funded research (cf. Chapter B 1-1). To avoid tertiary education institutions being forced to use more and more basic funds to cover overhead costs in view of growing volumes of third-party funding, increases in the DFG Programme Allowance and the BMBF Project Allowance are urgently needed.

Increase the number of permanent professorships

The number of permanent professorships should be increased. At the same time, the student-to-professor ratio should be improved and individual teaching loads reduced. A combination of these measures will make the German academic system more attractive in the international competition for excellent researchers and particularly talented students. It will also improve the quality of teaching for all students.

Improve career opportunities for young academics

An increase in the number of permanent professorships also benefits the greatly increased numbers of up-and-coming young academics, because it improves their career opportunities (cf. Chapter B 1-3). Furthermore, it supports greater use of the tenure-track system.

In the context of young people's career planning, more attention must also be paid to their labour market options outside academia. Young academics' careers outside the higher-education sector represent an essential element of knowledge and technology transfer that sustainably strengthens Germany's research and innovation system.

Refurbish university buildings and create future-proof infrastructures

As regards buildings and technical facilities, many years of investment backlogs must be overcome and expansion investment carried out to improve the increasingly serious state of the general infrastructure and bring tertiary education institutions up to date with state-of-the-art technology. At the same time, the tertiary education institutions must meet the requirements of digitisation. This will require corresponding investment programmes on the part of the Federal and Länder governments.

Differentiate between tertiary education institutions and modernise governance

In addition to improving staffing and the basic provision of premises, the organisation and governance of tertiary education institutions must also be modernised. They must be given more scope for greater differentiation and experimentation with new forms of governance and priority setting; corresponding incentives are needed.

Further strengthen non-university research organisations – continue the Pact for Research and Innovation

The Commission of Experts recommends continuing the Pact for Research and Innovation for financing non-university research organisations beyond 2020. A further improvement in the performance of non-university research organisations can only be achieved if funding can be increased not only in nominal, but also in real terms.