

Recommendation regarding long-term financing of the Austrian education and RTI system

Background

An excellent education system and adequate financial support for science and research are factors that have a crucial influence on shaping and securing the future. In recent years, Austria has significantly increased investments in research and development. Supported by a vigorous expansion of the funding system, the business sector in particular has generally reported very positive development. However, at the same time, the economic crisis has resulted in a sustained stagnation in the level of research expenditure since 2008. In view of the ambitious goal to increase R&D expenditure to 3.76 percent of GDP by 2020, there is an urgent need to increase private-sector research funding in order to achieve the target ratio of 70 percent private and 30 percent public spending.

Research has long lead-times. In comparison, the planning horizon in industry is considerably shorter. Thus adequate public funding is essential to create the necessary pull effect in private-sector research and to motivate the sector to make anticyclical investments in R&D. Furthermore, national funding schemes also provide an important basis for obtaining EU funding.

In economic terms, an anti-cyclical approach should be adopted. The role models in this regard are Germany, Switzerland and the Netherlands, where despite spending cuts in other areas, anticyclical investments are being made in education and research. In Germany, for example, public and private-sector spending on research and development rose to a record level of almost EUR Recommendation regarding long-term financing of the Austrian education and RTI system – recommendation dated 11 September 2012 70 billion in 2010, the equivalent of 2.82 percent of gross domestic product. Industry contributed EUR 46.9 billion to this total and the Federal Government EUR 12.8 billion. No other large member state of the European Union has increased its national R&D budget as significantly.

Research requires long-term secure financial planning. The long-term securing of IST Austria is therefore exemplary. However, the same must be guaranteed for all other Austrian research institutions. Provisions should therefore be made in the current budget negotiations or in the negotiations concerning the future performance agreements.

In this context it is essential that calculations are based on realistic figures. It is unacceptable that after adjusting the nominal increase in the university budget for inflation, there is no budget increase in real terms, yet at the same time, the universities are expected to cover steadily rising general costs as well as sharp increases in student numbers. When implementing the planned funding measures, the performance agreements should be structured in such a way that they offer greater incentives to carry out structural reforms than in the past.

Analysis of the Trajectory of R&D Expenditure in Austria Until 2020

The following calculations show the development of R&D expenditure in Austria until 2020 and the foreseeable funding shortfall to the 3.76 percent GERD-to-GDP target. The figures for the period up to 2012 are based on the Statistik Austria global estimate, those for the period 2013 to 2020 on the WIFO figures for the study "GERD-to-GDP Targets 2020".

The table entitled **Foreseeable Budget Trajectory** shows the growth of private and public-sector spending on R&D, taking into account the Budgetary Framework Act (2011– 2015) and assuming that the status quo is retained (2016–2020). The table entitled **Trajectories Calculated Using a Deterministic Model** calculates the trajectories that are hypothetically necessary to achieve the GERD-to-GDP target of 3.76 percent by 2020. In the deterministic scenario, the ratio of public and private-sector contributions to total R&D spending in the period 2011–2020 will evolve from approximately 40:60 to roughly 30:60.

Budget Trajectories and Financing Shortfalls Until 2020

	Development from current perspective (bn. €)		Deterministic calculation (bn. €)		Shortfall (€ mn.)		
	Public	Private	Public	Private	Public	Private	Total
2012	3.28	5.48	3.38	5.50	-98.9	-27.6	-126.6
2013	3.40	5.95	3.57	5.97	-171.3	-16.2	-187.5
2014	3.45	6.37	3.78	6.48	-328.5	-103.5	-432.0
2015	3.50	6.83	3.99	7.03	-491.5	-199.2	-690.7
2016	3.58	7.14	4.14	7.48	-562.6	-338.5	-901.1
2017	3.66	7.47	4.29	7.96	-635.1	-489.7	-1.124.8
2018	3.72	7.78	4.45	8.47	-729.5	-682.7	-1.412.2
2019	3.79	8.11	4.62	9.00	-827.8	-893.8	-1.721.6
2020	3.85	8.45	4.79	9.57	-933.4	-1.128.8	-2.062.2

The table shows the absolute nominal amounts of public and private-sector R&D spending up until 2020. The difference between the deterministic trajectory (to the 3.76 percent target) and the continuation of the status quo (taking into account the Budgetary Framework Act) is the hypothetical shortfall. The figures show that the shortfall in public funding will rise to almost one billion euros by 2020. As a result, the private sector will be required to provide additional funding of more than one billion euro in 2020.

The figures show that by 2020 there will be a substantial financing shortfall in respect of both private and public R&D spending; in 2020 this will total some two billion euros.

Recommendation

In view of the continuing stagnation of research spending in the private sector, the Austrian Council recommends increasing the public R&D spend in order to ensure the necessary anti-cyclical pull effect. If the 3.76 percent GERD-to-GDP target is to be reached by 2020 an accumulated additional financing requirement of more than EUR 900 million must be expected. This requirement must be taken into account in the current budget negotiations.

In the opinion of the Austrian Council there is an urgent need to improve the predictability of research financing. The current basis of financial planning and appropriate safeguarding of the central institutions of Austria's science and research system thus need to be anchored in the federal budget. This concerns the tertiary education and research sector (e. g. universities), non-university research (e. g. the Academy of Sciences) as well as direct research funding (e. g. FFG). Furthermore, the recommendation made by the EU Commission to spend two percent of GDP on the tertiary education sector should be implemented as quickly as possible.

The Austrian Parliament and the Federal Government have committed themselves to achieving a GERD-to-GDP target of 3.76 percent by 2020. This necessitates the introduction of the research finance law announced in the RTI Strategy, which must establish a corridor for research and development investments, so that the GERD-to-GDP target of 3.76 percent by 2020 can be reached. This does, however, require the successful implementation of the current planning and reform processes.

Regular and objective quality controls which are carried out independently are a key element for implementing all planned financing measures in the research sector.

Tertiary Sector

A central element is the further development of the tertiary education sector by means of a thorough reform of the Austrian higher education landscape and the consistent implementation of the University Plan, within the framework of which sufficient scope and appropriate financial resources must be provided for research. Performance agreements must be structured in such a way that they provide a greater incentive for structural reforms. In particular, this applies to the current negotiations with the universities regarding the performance agreements for the period 2013 to 2015, as well as with the Academy of Sciences (ÖAW).

The university sector is characterised by a problematic combination of an absence of access management and tight budgets. The system of unrestricted university access has not brought about the desired progress toward equal opportunities. The most important measure to improve planning security for the university sector is therefore the autonomous regulation of access by the individual universities.