

A REQUIREMENTS FOR IMMEDIATE AND MEDIUM-TERM POLITICAL ACTION

A 1 AVERTING THE CRISIS

A 1–1 EDUCATION, RESEARCH AND INNOVATION – EVEN MORE OF A PRIORITY IN THE RECESSION

The looming global recession is unprecedented in this form. It already covers all sectors of the economy. Germany is particularly exposed due to its export orientation, but at the same time, advances in productivity of German companies and their financial successes in recent years mean that they are better equipped for the crisis than their foreign competitors. However, there are now daily reports about collapsing orders, redundancies, and investment cut-backs. It is not yet clear how long the downturn will last or how deep it will be. Threats are also posed by protectionist interventions in other countries. The Federal Government must take decisive steps to counter such tendencies.

The Federal Government has initiated important measures with its Recovery Packages. The steps that have already been agreed on and which are shortly to be adopted are aimed primarily at supporting and stimulating the economy. However, the concerns of education, research and innovation should also be given priority consideration, in order to generate sustainable effects. The Expert Commission suggests that in the course of implementing the Second Recovery Package, the measures decided on by Bundestag and Bundesrat should focus more on these priorities. Otherwise, the consequence will be that, at a later stage, there will be a significant lack of funds to improve the competitive position of Germany. Therefore care must be taken that the measures of the Second Recovery Package also serve to strengthen research and innovation as far as possible.

In addition, the research-relevant measures should be linked together with the Federal Government's High-Tech Strategy and integrated in its further development.

A 1–2 STABILISATION OF CORPORATE FINANCING

The first steps of the Federal Government in late autumn 2008 were intended to stabilise the banking system and corporate financing. The priority was to prevent the collapse of system-relevant banks and to maintain the flow of loan-capital. This was the only way to minimise the impact of the financial crisis on the rest of the economy. Otherwise it is possible that the restrictions on credit availability would have robbed companies of the

air to breathe. To this extent, as hard as the measures were for the Federal Government, they were necessary with a view to supplying the German economy with loan capital.

However, the Expert Commission draws attention to the fact that the improved availability of credit will only help the companies to a limited extent when it comes to the financing of innovation.

It is therefore to be expected that the predicted decline in orders and revenues will also be accompanied by a considerable reduction in R&D expenditure. Under these circumstances, it will not be possible for Germany to achieve the goal of investing three percent of its gross domestic product in research and development by 2010. This does not mean that the goal should be completely abandoned, but policy-makers must make greater efforts to change the incentives and framework conditions for R&I.

The equity capitalisation of companies is particularly important. Equity capital formation must be treated more favourably in the taxation system. It is also becoming increasingly important to offer appropriate fiscal stimuli for external equity providers. Only if investment companies and also Business Angels encounter positive fiscal conditions for investments in new enterprises and innovative companies will they be able to develop greater positive macroeconomic effects than in the past. However, the intention of such regulations is not the only important factor – they must also be clearly formulated and practicable.

An example is the provision for losses carried forward in Section 8c of the Law on Corporation Taxation. Although the new regulation was introduced for good reasons, the effect is to make investment financing less attractive in Germany and to exacerbate the problem of inadequate equity funding for domestic companies in times of financial market instability.

R&I-RELEVANT COMPONENTS OF THE SECOND RECOVERY PACKAGE

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Investments in education

Within the framework of the Second Recovery Package, the Federal Government and the federal states (*laender*) have among other things decided to make 8.7 billion euros available in 2009 and 2010, mainly for investments in pre-school centres, schools, universities and research institutions, further training, and research. The Expert Commission regards these necessary investments as a first step in view of the estimated overall need of 100 billion euros for refurbishments.

The funds will be allocated by the *laender* (30 percent) and the municipal and local authorities (70 percent). Priority will be placed on investments in schools and child care facilities. The Expert Commission welcomes these investments, in particular in view of the central role of preventive educational policies for the innovative potential of Germany, which was considered in detail in the EFI Report 2008.

The special funds flowing to the educational institutions will have to be spent in 2009 and 2010. This support could therefore miss out the larger projects of longer duration which are currently still in the planning stage. The rapid flow of funds is impeded for example by the lengthy tender procedures of the building and planning authorities and the ponderous nature of the acquisition procedures. In view of the time constraints, it

would seem sensible to relax the allocation criteria for a period of two years through the Second Recovery Package. It is important at the moment that full use is made of these possibilities. The acquisitions by public authorities must be flexible and stimulate innovations. Orders should not only be placed with large companies with which there is established cooperation. Young and small enterprises must also be taken into consideration.

Innovation support for small and medium-sized enterprises

As a broad measure, in 2009 and 2010 additional funds amounting to 900 million euros are to flow into the economy through the Central Innovation Programme for the *Mittelstand* (ZIM). The Expert Commission regards this measure as positive in principle, because the funds can provide useful support for the financing of innovation projects in small and medium-sized enterprises. However, it only represents the second-best option, and the introduction of fiscal R&D support would be a better contribution to a long-term promotion of research and innovation in SMEs.

The Expert Commission recommends that special priority should be given to the promotion of projects in young, innovative companies in the context of the ZIM programme. In addition, support should also focus on innovative services in order to avoid a one-sided emphasis on technology topics. The Expert Commission still sees the need to complement the general support for SMEs in the medium-term by fiscal R&D-support. The expansion of the ZIM programme must not lead to a further delay in the introduction of fiscal R&D-support.

Support for mobility research

The Expert Commission warmly welcomes the fact that the Federal Government plans in the Second Recovery Package to provide support totalling 500 million euros for application-oriented research in the mobility sector. Specialisation in electro-chemistry, in particular in the industrial manufacture of lithium-ion batteries, and the development of drive concepts with low environmental impact are very important and should be anchored in this support measure. Here too the Expert Commission advises that special consideration should be paid to SMEs and young enterprises. If suitably structured, this programme – as for the ZIM – would also provide targeted support for venture capital financing. It is therefore important that representatives of the venture capital industry and the industrial associations are included in the committees and consultation groups which decide on the allocation of funds, in order to represent the interests of young enterprises.

Infrastructure support

The current measures of the Federal Government envisage infrastructure support in some sectors, including traffic and transport, and information and communications technology (broadband networks). This is warmly welcomed and will also be of benefit to the nation's innovation potential. The expansion of broadband connections in rural areas can significantly contribute to reducing the deficits in the availability of information and communications technologies in Germany. However, there is a lack of decisive infrastructure measures to expand our electric power grid. Robust and "intelligent" supply networks adapted to

meet future needs are essential if the reasonable but ambitious objectives of the Federal Government in the fields of energy efficiency and renewable sources of energy are to be met in a timely fashion.

NO OFF-SETTING AGAINST EXISTING STRATEGIC MEASURES

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The Expert Commission also emphasises that the funding provided for the Second Recovery Package must not be off-set against measures within the framework of the Higher Education Pact or the Excellence Initiative. The German universities and research institutions need these funds urgently in order to be able to create excellent research conditions and to enrol more students. The key provisions for the continuation of the university pact and the excellence initiative should be in place before the 2009 elections in order to provide planning security. The aim is to maintain the course towards a sustainable improvement of the entire education system. The school discussion must not impede the development of education, research and innovation.

MEDIUM-TERM PROSPECTS – RESEARCH AND INNOVATION 2020

A 2

ELECTION YEAR 2009

A 2–1

Germany is facing a series of elections in 2009, including a federal election. Work must be started well in advance on the preparations for the next legislature period. For this reason, the Expert Commission describes the medium-term political challenges faced by the new government which will come into office at the end of 2009. The comments here follow on from the discussion in the EFI Report 2008.

CHALLENGES

A 2–2

Germany faces considerable challenges. The competition from other industrialised countries and the emerging economies is growing. Germany's position in research and innovation would come under pressure even if the expenditures for research and innovation were maintained at present levels. To stand still here means going backwards, because other economies are attaching more importance to education, research and innovation. And these countries often react more directly and faster to important developments than Germany does.

Challenges arise in particular from the knowledge intensification in the economy. The demand for highly-qualified professionals is growing and value-creation processes increasingly rely on the production factor knowledge. In contrast there is less and less demand for simple occupations.

The demographic development in Germany is exacerbating this problem, because the German population is ageing rapidly. The immigration of qualified workers is still viewed with scepticism, and the participation of women is still far behind the possibilities, particularly in central areas of research and innovation.