A 5 Area for action: governance

In the new legislative period, Germany must increasingly face up to the major societal challenges of our time – including climate change, demographic development, health and food security, resource scarcity and energy supply, access to information and mobility. In order to rise to these challenges, it is decisive that the state promotes the development and use of knowledge.

Different areas and levels of policy are increasingly being affected by the breadth and complexity of societal challenges. This means that the coordination of R&I policy has an important role to play in order to avoid any negative overlapping of regulations and to tap positive synergies. Alongside developing an effective inter-departmental innovation strategy and making overall conditions innovation-friendly, however, the state is also active as an engine for innovation in innovation-oriented public procurement.

Continue High-Tech Strategy, implement measures quickly

The Commission of Experts lauds the concept of an inter-departmental coordination of policies pursued since 2006 with the so-called High-Tech Strategy (HTS). This was the first time a reliable framework was created for a higher-level innovation strategy. In the meantime, innovation is understood as an important cross-policy task. The HTS's inter-departmental approach has fundamentally proved its worth and should be continued. However, the implementation of the new HTS has been considerably delayed in the 2013-2017 legislative period, so only a limited number of new measures requiring inter-departmental coordination have been implemented to date.

High-Tech Strategy: clarify target hierarchies, avoid silo formation

The Federal Government must clarify target hierarchies and set milestones right at the beginning of the next legislative period. The promotion of internet-based technologies and business models should be a top priority in the new HTS's target hierarchy. In this context, the approaches to managing digital change should not be related to individual industries or technological areas, but geared to a wide variety of topics. The formation of thematic silos must be avoided.

The field of information and communication technology, which plays a key role in the management of digital change, should be given a significantly higher priority in the distribution of research funds.

High-Tech Strategy: institutionalise inter-departmental cooperation

To ensure effective communication, networking and cooperation between ministries, as well as a coherent external image, a Federal Committee of State Secretaries for the HTS should be made a fixture. Internal incentives for different ministries to participate in the HTS could be strengthened by a separate, additional HTS research budget.

Shape innovation policy at the European level In the coming years – also in view of Brexit – German research and innovation policy must become more engaged in the European Research Area and contribute at an early stage to shaping a successor programme for Horizon 2020.

Pay more attention to social innovations

Not only technological, but also social innovations – i.e. changes in social practices – can help resolve societal challenges. Technological and social innovations can be both substitutive and complementary – and a broad understanding of innovation is becoming ever more important for the knowledge markets of the future. Although the definition of innovation has been extended in this sense in the new High-Tech Strategy, it is now also important to treat social innovations on an equal footing with technological innovations in the implementation of funding policy. Promotion should focus on the development, research and testing of new ideas for changing social practices that seem important for dealing with major societal challenges.

Permanently integrate transparency and participation in innovation policy

When identifying major societal challenges and defining target hierarchies, intensive consideration should be given to how societal groups can be included in shaping research and innovation processes. More transparency and participation can contribute to increasing long-term support for innovation policy in society. This has been implemented within the framework of the HTS, for example, with the establishment of the High-Tech Forum. When developing their ideas on research policy, the responsible ministries could experiment more with internet-based methods such as online platforms for gathering ideas or forming opinions. Ultimately, however, public innovation policy remains a task for democratically legitimate representatives of the people in a permanent and constructive discourse with knowledge bearers in both the academic and business worlds.

Gear public procurement to innovations

State innovation policy has an important role to play on the demand side in the emergence and further development of innovation-oriented markets. In view of the fact that the volume of public procurement is approximately €450 billion per annum, the Commission of Experts calls for part of these funds to be used to promote innovation more intensively and in a more coordinated way than in the past. To achieve this, it would in particular also be necessary to adjust both the legal framework and the practical operations of public procurement to give 'priority to the more innovative offer'. However, the Commission of Experts warns against assigning the state the key role as an investor and initiator of innovations. Such an understanding of roles would risk causing considerable misallocations by weakening market-economic innovation dynamics. Furthermore, the Commission of Experts remains sceptical about direct programmes for promoting private demand for innovative products (e.g. buyer's premiums for electric cars).

Develop innovation policy in an evidence-based way

Evaluations form the basis for an informed political decision, and they can only accomplish this if they are carried out in a way that is free of preconceived expectations, if the medium and long-term effects of a measure are also considered, and if they meet methodological standards that make it possible to identify causal effects. The best guarantor of quality assurance is transparency, i.e. the disclosure of methods used and results, as well as competitive access to data to verify the results. The institutional integration of evaluation practices in the ministries should be continued and special attention paid to further training and methodological competence. It is also expedient to legally codify the research mandate of the statistical offices to ensure that data collected by the administration can be used for evaluation purposes. The Commission of Experts recommends incorporating evaluations based on randomised experiments into the evaluation portfolio of state R&I funding as one of its standard instruments.

Continuously improve governance of R&I policy

Good governance in public research policy includes and requires innovation in the sense of experimenting with new funding strategies. This requires sufficient freedom and strategic flexibility. At the working level in the ministries, there should also be positive incentives (e.g. integrative process teams, competitive salary, career options, research budgets) to encourage involvement in key R&I initiatives. Like innovation itself, innovation policy takes place in the context of change and uncertainty. Here, the aim should be to create framework conditions and incentives for an agile form of governance, enabling it to react flexibly and actively to any short-term need to adapt R&I policy.