B 5-3 Evidence-based innovation policy

Aims, potential and limits of impact research

Impact analyses on funding measures of R&I policy make it possible to assess whether the funds provided and measures taken have the desired effect and thus achieve the intended objectives. The findings of evaluations are therefore an important factual basis for the continuous adjustment and improvement of existing measures. They help ensure that the funds spent have maximum effect in reaching the previously clearly defined objectives with a minimum of effort and resources. Thus, the purpose of such evaluations is to encourage learning processes and to provide more knowledge for decision-makers. In turn, funds made available by effective and cost-efficient use can be diverted to further strengthen particularly effective measures, to reach objectives more quickly, and to further develop the instruments of R&I policy. Especially in the context of entirely new measures and instruments of R&I policy, it is important to systematically evaluate such courageous experiments conducted by political decision-makers from the outset and, in addition, to develop a strategic knowledge advantage in international competition between funding policies.

Evaluations in this sense must be in line with the latest scientific standards and ultimately help policy-makers and ministries to make informed decisions. Today, randomised experiments are among the particularly promising evaluation methods, because they are especially good at identifying causal effects.[308] Causal effects represent a direct connection between the cause (funding) and effect (impact) of measures, e.g. improved innovation performance in the companies receiving funding (treatment group) compared to companies that have received no funding (control group). They help ensure that the allocation of funds is focused on areas where they have a particularly strong effect, and that funding is quickly abandoned where it is shown to be ineffective.

However, such randomised experiments also have their limits.[309] Even when they provide information on the effectiveness of a measure in the observed context, a careful analysis must still be made to determine whether, and under what conditions, the impacts can be generalised and are transferable to other situations. The systematic use of randomised experiments prior to the introduction of new measures helps continuously accumulate more knowledge.[310]

Randomised experiments cannot be used in the case of all funding measures, for legal or even for purely practical reasons. In such cases, it is advisable to use quasi-experimental methods with control-group approaches which make it possible to determine the causal effects of the funding measure. The choice of methodology should be in line with the latest research.

If the selected evaluation period is too short, it is impossible to determine long-term or downstream effects conclusively. For this reason, the period of data collection and evaluation should be correspondingly long.

Current evaluation practice in Germany

Evaluation practice in Germany to date reveals a mixed picture. Meanwhile, evaluations or success checks are carried out on many R&I-policy measures. Since 2013, ex-post evaluations have been obligatory for legislative proposals above a specified annual funding volume, although they are not subject to fixed methodological standards, as they are in some other countries.[311] The Verein für Sozialpolitik, among others, has pointed out the need for qualitative standards, and has prepared guidelines and recommendations for ex-post impact assessments.[312] Indeed, there is still a lot of catching up to do when it comes to the scientific quality of many evaluations. Even when evaluations are conducted, the evalua-

tion results and associated research data are sometimes not published.[313] The result is not only a lack of transparency regarding the quality of the evaluations; above all, there is often also a lack of opportunities and incentives to check the quality of the studies and for the improvement of the evaluation quality.

Unlike with measures of labour-market policy in the USA,[314] for example, in Germany there is no systematic recording of evaluation studies and associated research data in the context of R&I policy. To date, there are no so-called clearing houses that would deliver a transparent and comparative overview of past evaluations at the national and international level, make it possible to identify best practices, and facilitate a scientific validation of the studies. Typically, the mandated evaluations are published in a decentralized way.

Pressure to act is being generated by the fact that, meanwhile, under the existing state-aid rules at the EU level, the federal ministries are legally obliged to conduct systematic evaluations of the relevant funding programmes – as in the case of the Central Innovation Programme for SMEs (ZIM).[315] The institutional integration of evaluation practice has recently been strengthened by the establishment of administrative departments and subject-specific divisions within the BMBF and the BMWi and by the development of evaluation guidelines at the BMBF. The latter focuses on the procedural aspects of evaluations, but, unlike the EU directives, does not prescribe any methodological standards.

Another important step in improving evaluation practice would be to improve the availability of government data for (research and) evaluation purposes. In the USA, for example, this is seen as an important state task.[316] In 2016, the US Congress passed a law setting up a Commission on Evidence-Based Policymaking. The Commission's task is to develop proposals on how the availability and use of public-sector administrative data can be guaranteed in order to ensure an evidence-based improvement in the design of political measures without violating the requirements of data protection.[317]