EU Monitoring Processes and Their Relevance for Austria

Research Quota and European Semester

For some years now, all those dealing with governance issues in the European research area in their everyday professional lives have observed an increase in European monitoring processes. This development is connected with various factors.

A first stimulus for intensified monitoring emerged from the debate on the research quota in the member states and in Europe. After the original 3% quota by 2010 had not been achieved, the European Heads of State or Government resolved to implement this objective by 2020, and to consult annually about progress on the path towards the 3% R&D quota. In turn, every member state had to lay down its own target quota. Austria announced an R&D target quota of 3.76% by 2020, which corresponded to an increase of one percentage point compared to the investment level of 2010.

The research quota was integrated into the reporting and monitoring system for implementing the “Europe 2020 Strategy”. Every spring, the research ministries contribute to the Federal Government’s National Reform Programme, which sets forth measures for reaching the 3.76% target. The European Commission checks the expediency of the measures, assesses them, and presents country-specific recommendations shortly before the summer. These recommendations should provide orientation for the member states when implementing their measures. The technical term for this process, which is represented here in simplified form, is the “European Semester”, since the required data and measures are drawn up, sent to Brussels and assessed by the European Commission during the first half year.

The research quota describes an investment objective which has three fundamental flaws. Firstly, it places the focus of observation on input, i.e. on the issue of how much money flows into the research system; issues regarding the efficient use of funds or the usefulness of the funds for society retreat into the background in this context. Secondly, the research quota essentially consists of investments by the public and by industry, with the latter not even sitting at the table when the
Heads of State or Government agreed on the research quota by 2020. Thus, the Heads of State or Government made a requirement at the expense of a third party, i.e. industry, which in the case of Austria is even expected to provide up to 70% of research investments. Thirdly, and finally, it may not even be appropriate to pump more and more money into research if the research system is not able to absorb these funds optimally. The research quota therefore obscures the vision of necessary structural reforms in the research system.

All these points of criticism, however, do not alter the fact that the research quota plays a role watched with great political interest. It has a strong signal effect and, due to the correlation between level of investment and level of prosperity, tells us something about a country’s innovative vitality.

**Observing Structural Change**

The criticism of unilateral concentration on the research quota has not been completely without effect. For some time now, the European Commission has been making efforts to get a better picture of the condition of national research systems. It first commissioned a project called “ERAWATCH” to create profiles of national research systems and to update them regularly. Later, “NETWATCH” was added as an instrument for observing cross-border cooperation of public players from the member states (ERA-NET, Joint Programming Initiatives). In this context, “ERA-LEARN” has proved to be an important platform for “practitioners” to exchange experience, and supplements the monitoring carried out by “NETWATCH”.

Within the framework of ERAC, the joint research policy advisory body of the General Directorate for Research and Innovation, the member states and the countries associated to the Framework Programme, a questionnaire was drawn up annually for collecting research expenditure data. This questionnaire shows that public expenditure for research in Austria is developing well compared to other states.
With regard to EU monitoring, the European Commission refers to Article 181 of the Treaty on the Functioning of the European Union. This Article entitles the Commission “in close cooperation with the Member State […] to take any useful initiative […] aiming at the establishment of guidelines and indicators, […] and the preparation of the necessary elements for periodic monitoring and evaluation.”

**ERA Progress Report**

The most recent developments in this context are the “ERA Progress Report” and the Innovation Indicator. Let us first look at the “ERA Progress Report” of September 2013: On several hundred pages, this report presents the structural reforms each country is carrying out in the key areas which contribute most to creating a “unified” European Research Area: Effectiveness of national research systems; transnational cooperation; research infrastructures; open labour market for researchers; innovative doctoral training; gender equality and mainstreaming in research; open access to publicly funded research results; knowledge transfer and open innovation; digital dimension of ERA.

The first “ERA Progress Report” is more of a stock-taking than an evaluation of national research systems. This is supposed to change, however, in the coming years when, due to consolidated data conditions, more in-depth analyses should be possible.

The “Research and Innovation Observatory” (RIO) should also make a contribution in this context. Behind the idea of a “Research and Innovation Observatory”, there is the idea of the European
Commission that quantitative and qualitative data from different sources should be collected, processed, analysed and made available in one single location.

This is another instrument which should help the Commission – but also the member states – to assess the relevance of different reform measures. The idea is to create “country fiches” for each member state, depicting the following facts:

- Socio-economic indicators
- Financing flows into research and innovation
- Framework conditions of research and innovation
- Current research and innovation processes
- Sectoral analyses
- International environment

**Innovation Indicator**

The Innovation Indicator tries to measure the innovation output of an economy, supplementing the research quota. In particular, it measures the share of fast-growing innovative enterprises (measured in terms of employees) in the economy. The Innovation Indicator is a so-called “composite indicator”, generated by the following components:

- Patents applications per billion of GDP – as a proxy for the share of technological innovation
- Share of employees in knowledge-intensive activities in % of the total number of employees – as a proxy for economic structure
- Share of high-tech and medium-tech products in the trade balance, or share of high-tech and medium-tech products in knowledge-intensive service exports against the total of service exports respectively – as a proxy for the competitiveness of knowledge-intensive goods and services.

Austria is ranking 11th within the EU and is counted among the group of “medium-level performers”. By comparison, Austria is in 9th position in the “Innovation Union Scoreboard” (IUS) 2013.

**Limitations of the European Monitoring Instruments**

From Austria’s point of view, the model of an innovation indicator which has been presented leads to distorted representations of some countries, or to their innovation performance being underestimated respectively:

- The indicator aims to an insufficient extent at innovation in the sectors, and too much at the structural changes.
- The service export indicator in its current form systematically puts countries with a strong tourism sector (such as e.g. Austria or Switzerland) at a disadvantage.
- Furthermore, the growth dynamics of innovative enterprises which are active in non-innovative or less innovative sectors is not considered.
Similar to the innovation indicator, the purpose of the measurability of national R&I structures as analysed within the framework of the “ERA Progress Report” is questioned critically. This applies in particular to the requirement of effective national research systems for implementing the European Research Area.

Effectively designed national research systems are desirable from the member states' point of view. Nonetheless, they are not a precondition for completing the European Research Area. Such a precondition would only apply if the effectiveness of the national systems were primarily measured in terms of removing the barriers in the European Research Area. In this case the national research systems of the member states would be subordinate to the objective of Article 179 (1) TFEU.

National research systems, on the other hand, strive to achieve heterogeneous objectives which can by no means be reduced to promoting the free movement of researchers as well as scientific findings and technologies in a European area for research. The effectiveness of each individual member state’s research system has to be measured in terms of its respective system’s objectives. These objectives range from educating a sufficient number of knowledge workers for the country’s own needs in science and research or successfully occupying thematic niches to contributing to locational advantages for the country’s own economy in European and global competition.

It is difficult to comprehend why bridging the so-called “innovation divide” between the most innovative member states and the less innovation-oriented member states should be in the joint interest of all EU-28 countries. In terms of looking for competitive advantages, it is to be expected that the “Innovation Leaders” align their national research systems so effectively as to reduce the difference to their other competitors within and outside the EU either not at all, or only very slowly.

In the same manner, the less innovation-oriented member states can argue that their national research systems would be adversely affected in a European “internal market for knowledge” without barriers, in favour of existing innovation centres in Europe. Against this background, organising and governing an effective research system in these countries requires – at least in some instances - the establishment of protection zones for their own RTI players instead of a general removal of all barriers.

**Outlook**

The Federal Ministry of Science and Research (BMWF), together with other ministries, reacts to the increasing demand for monitoring instruments at the interface between the national and the European level by the envisaged commissioning of the Austrian Research Promotion Agency (FFG) to implement an “EU Performance Monitoring” as of July 2014. This EU Performance Monitoring should relate the participation data from HORIZON 2020 to national programme data and relevant data on Austria’s structural development in the European Research Area. Within the framework of the “EU Performance Monitoring”, data on Austria’s participation in ERA instruments, such as for instance Joint Technology Initiatives, Joint Programming Initiatives, the EIT or Article 185 Initiatives, should also be collected in future.

In addition, setting up an “ERA Observatory Austria” is being considered. Under its roof, all relevant players from the ministries responsible for R&I, together with stakeholders, should prepare the
required strategic decisions in Austria in order to ensure Austria’s sustainable success in Europe’s R&I landscape ("ERA Policy Forum Austria"). In addition, an advisory body should be created, consisting of renowned European personalities, its task being to provide political decision-makers with recommendations for action regarding Austria’s role in the European Research Area ("ERA Council Forum Austria"). For the work within the "ERA Observatory Austria", it will be essential to obtain a comprehensive overview of Austria’s development in the field of RTI policy by means of specific analyses and studies. The “ERA Observatory Austria” will therefore cooperate closely with the future “EU Performance Monitoring” and other monitoring instruments in Austria.

ERAC has implemented an ad-hoc working group which deals, amongst other things, with monitoring issues, until the end of 2014. Austria is involved actively in this working group in order to recognise the demand emerging at European level at an early stage, and to introduce it into the national monitoring processes.

At the political level, the dialogue between the European Commission and the member states concerning monitoring issues in the European Research Area should be reinforced. The ERA Progress Report provides a good starting point for this. This dialogue between the European Commission, the Member States and the Associated Countries should have some important characteristics:

- Taking into account the principle according to which the Union shall not act in areas which do not fall within its exclusive competence if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the member states, either at central or at regional and local level (subsidiarity, Art. 5 Treaty on European Union);
- Identifying and comparing the different system objectives of the member states in the field of research and innovation, on the basis of which the indicators used in the ERA Progress Report for the outcome-oriented development of the national research systems are reviewed and improved; in this context, the effects which a national research system should have on a member state’s innovation dynamic and business location should also be considered;
- Participation of stakeholder organisations from the member states, complementing the existing dialogue with European interest groups; including local and regional players into the RTI dialogue;

The debate on the effectiveness of the national research systems should not be reduced to the framework of the European Semester. The European Semester is dedicated to the consultation, preparation and implementation of National Reform Programmes of the member states, with a view to achieving a national R&D quota by the year 2020. Activities for implementing the R&D quota are investment measures as a rule, while the dialogue on the effectiveness of research systems mainly deals with structural measures.

A limited number of new initiatives with an impact on the effectiveness of national RTI systems could be listed in the National Reform Programmes next to the investment measures dedicated to achieving the quota target. However, a more comprehensive look should be taken at their effectiveness in the context of the Innovation Union and the annual ERA Progress Report. Therefore, the European Semester should be extended to a full annual RTI policy cycle (see graph below).
The desirable dialogue on such issues should take place through informal exchange and learning processes. The regular ERA Ministerial Conference can provide important ideas on the political level regarding this dialogue.

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