

Indicators for the evaluation of the internationalisation of the Government Funding Agencies: results from an exploratory and participatory project at European level

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1. Introduction

Internationalisation and international standing are increasingly important for research organisations and for governmental R&D policies. The most important factors behind the need to enhance recognition and reputation at a supra-national level are: i) a strong competition for both human and financial resources, ii) the globalisation of the economy influencing also research and development in different institutional contexts, and finally iii) new forms of knowledge dynamics within traditional and emerging new fields, increasingly taking place at the supranational arena.

The paper aims at building a conceptual framework and suitable indicators for assessment of internationalisation of funding agencies (FAs), adopting a comparative approach at European level, and a participatory approach involving the FAs in the identification of the relevant and feasible indicators. The paper is based on work carried out within the ESF MO Forum on “Indicators on Internationalisation”, involving several FAs¹.

FAs operate within different configurations based on national traditions. FAs can be agencies in the strict sense, or academies, or foundations. They can act exclusively as funding organisation or can also play a role as research performer, thus assuming a more hybrid nature. The common feature of all types of FAs considered in this paper is that they are in charge of public R&D funding. Consequently, they implement public R&D policies, based on different delegation modes (Braun, 2003).

2. Theoretical background

Internationalisation of the research system is driven by the globalization of economies, the increased competition for good researchers and research funds, and the need to improve reputation and visibility at the knowledge frontier (Hakala, 2002; Veugelers et al., 2005). Although internationalisation is becoming a key issue on the political agenda, we still have little empirical evidence, and indicators still need dedicated work.

In the last decade, we faced a change in the meaning of internationalization. Gornitzka et al. (2003) distinguished between different concepts related to internationalisation and suggested the existence of different patterns of internationalisation that can be labelled as “traditional” or “emerging”. The traditional pattern of internationalization focused on the international orientation of individual researchers and research groups. In traditional patterns the autonomous initiatives of individuals and

¹ Funding Agencies participating in the ESF MO Forum are: FWO, Belgium; DFG, Germany; SFI, Ireland, FPS, Poland; RC, UK; RCN, Norway; SNSF, CH.

of corporate research institutions are more important than government policy initiatives. More recently we witness an emphasis on the position of institutions and individuals in international networks, as this is expected to increase the capability i) to act at the frontier of the research, ii) to attract foreign researchers and clients, and iii) to localize research activities abroad (researchers and units).

Internationalisation does not only affect research performers, but is also a growing concern of other key actors in the research system and in science policy, such as the organisations that are in charge of public research funding at the national level. On the one hand, these organisations (which are for analytical purposes label as funding agencies - FAs) have been mostly investigated from the perspective of their role of intermediaries between government and the research performers (van der Meulen, 2003, Braun, 2003). However, the scope of their aims and policies has become much larger during the nineties, because of the increasing complexity of the research policy arena, which has become an increasingly multi-layered space of coexisting national, sub-national and supra-national governance levels exerting different functions (Lepori et al, 2007).

On the other hand, internationalisation plays a role in enhancing the integration of the research system at European level: the collaboration between European research actors, funders as well as performers, and the collaboration with non-European countries.

In this paper we consider internationalisation of the FAs as related to the configuration of the national research funding system and to existing coordination modes (project-based, mixed, vertically integrated, Lepori, 2011). We are looking for indicators on the internationalisation of the FAs suitable for evaluating “the extent to which funding instruments are able to achieve their objectives” (p.13). The indicators should help to i) improve the complementarities between existing instruments, ii) highlight the possible weaknesses of the FAs’ funding portfolio and iii) clarify the linkages with their governance and organisational settings.

We consider FAs as layers of the science systems that organize and manage different functions related to research funding. Indicators can be devoted to deepen our knowledge of the level of internationalisation of each function performed, namely i) the joint development of programs, ii) the openness of programs, iii) the selection and evaluation processes, iv) the design of the instruments, including rules and regulations, and v) the objectives and the target addressed. Another aspect of internationalisation of FAs relates to the way the functions are organized by the agencies, and how they organize their international orientation. Important factors for this are the procedures for hiring staff, the mobility of the internal staff of the FAs, the presence of offices abroad, and the participation in international committees and organisations for processing and governance of funding. Consequently, it is important to develop indicators customized at understanding how internationalisation fits with the roles of the FAs in different countries. On the one hand, being an actor at international level can help to enhance the quality of the national funding system. On the other hand, a strong international research position might be crucial for exerting influence on supra-national research policies. These two advantages can be perceived in different ways, and can be weighted on the basis of different rationales, according to the mode of coordination adopted by the national governments and the FAs.

3. Indicators for assessing internationalization: methodological choices

The key methodological choice of the project is involving experts in the field of indicators and practitioners, as this is needed in order to build a useful conceptual framework and to select the relevant indicators.

The first step was to create agreement on why internationalisation should be addressed through evaluation, and this led to the establishment of the MO-forum. The FAs acknowledge the importance of internationalisation, and the need to improve information and knowledge about its

characteristics for evaluation purposes: Information is needed about the investment in research at international level. This may result in a better understanding of international activities linked to different FAs' rationales, and of short-term and long-term relations between actors at European and non-European level. Key questions for assessment purposes were identified: why and to what extent are we investing in collaborative international research? What are the outcomes of investing in international activities?

A second important choice is distinguishing between internationalisation and Europeanization. This implies to focus specifically on changes that can be related to the policies developed at European level (Olsen, 2002; Banchoff, 2002; Cowels et al., 2001, Trondal, 2002).

A third choice is the deployment of positioning indicators (Lepori, et al., 2008): indicators mainly concerning flows and linkages, such as mechanisms for allocation of funding. As causal relationships are difficult to grasp, the positioning indicators approach is useful as it focuses on the specification of the actors' spaces instead of on input/output relationships.

In a second step, the involved FAs compiled a list of possible indicators of internationalisation by different functions performed. The Forum launched mapping exercises in order to learn the demand of practitioners and to collect the available data and indicators deployed by funding and hybrid agencies. The data collection was based on a questionnaire focusing on three dimensions: i) funding of programs, ii) knowledge circulation, and iii) knowledge production. The exercise highlighted that some traditional indicators are useful to respond to new questions on internationalisation. However, a dedicated workshop highlighted also the need for a broader sampling method and data collection. Additionally, more dimensions of internationalisation have to be taken into account.

In the forthcoming step, a scheme for a minimum set of common indicators on the internationalisation of FAs functions will be developed, based on existing and available data from national and international sources.

4. Expected results and conclusions

Firstly, the survey and the dedicated workshops resulted into a consensus between experts and FAs on the assumptions for selecting indicators for the evaluation of internationalisation:

- FAs can be investigated with indicators aimed at analysing the internationalisation of the different funding functions performed, and the international perspective they pursue;
- Internationalisation is related to different rationales of FAs, notably *scale rationales*, such as pooling together of resources (critical mass) or getting access to new resources, and *scope rationales*, such as pooling together competences (complementarities), enhancing reputation and visibility, or broadening the scope of the research agenda.
- Internationalisation of the FAs can also be assessed in terms of the internationalisation of the research performers funded by the FAs: indicators showing changes in the beneficiaries and in their international position and standing. These indicators are proxies of the effectiveness of the funding schemes and of the soundness of the selection process. They can also reveal the relationships between the funders and the performers;

Secondly, a matrix of rationales and the components of internationalisation has been developed, and this supports the selection of relevant key indicators.

Thirdly, the forthcoming development of a set of feasible indicators shared between the participating FAs can supply evidence for investigating the characteristics of FAs' internationalisation, and for exploring the coordination modes in different funding systems.

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