POLICY FORUM: SCIENCE IN EUROPE

Implementing the European Research Area

Enric Banda

Although the idea of a European Research Area to promote coordination of European science and cross-border collaboration has received acclaim, implementation is being hotly debated. The following are the views of four prominent European spokesmen.

Over the past two years, a new political impetus has been given to European science through the concept of the European Research Area (ERA) articulated by Philippe Busquin, Commissioner for Research of the European Union (EU) (*1*, *2*). The ERA is a concept that attempts to catalyze coherence and to mobilize joint efforts across Europe with the aim of improving Europe's research capacity in global competition. No single country in Europe is able to compete with the American research effort, but working together and in the right way, we should be at least on par with our American competitors and colleagues. Busquin provided the badly needed political weight behind the idea, which was subsequently endorsed at the highest political level—the European Council of Heads of Government. However, there remain issues that need to be resolved.

The European Union's Framework Programme will be a contributor to the implementation of the ERA. However, the Programme is not primarily devoted to basic research and, furthermore, the great majority (95%) of funding available for research in Europe is nationally based within the research agencies of the various countries. Therefore, the ERA will never be properly implemented without a strong commitment from the EU countries.

What should we do now to make the ERA concept more concrete? We need to establish an appropriate structure at arm's length from the governments and avoid the problems of "juste retour" (in which the Member State's contributions are expected to be returned). This structure, a European Research Council (ERC), would use the best practices of national scientific funding through peer review and would be accessible to Europe's research community. Such a project, however, needs debate at all levels.

Who will provide the resources for an ERC? Ultimately, funds will need to come from national sources, perhaps augmented from the communal budget of the EU. This will not be easy to achieve because, paradoxically, scientific research—although by nature an international endeavour—is viewed as a national funding responsibility and national governments and their agencies jealously guard their independence and sovereignty. Realization of the ERC demands that governments at the highest level be prepared to honor their political commitments, overcome their suspicions and lack of interest in changing the status quo, and take a bold step forward.

Diversity of funding sources is healthy. I am not advocating the replacement of national systems by the ERC, but the use of the ERC to provide a new source of appropriate competition, to set a benchmark for national research endeavors, and thus to improve quality at all levels in the process of knowledge generation. The ERC should not be seen as just another bureaucracy but rather as a source of creativity.

We are not starting ab initio in such a design. The European Science Foundation (ESF) has been in existence as an association of national research funding agencies for more than a quarter of a century, concentrating on coordination mechanisms and support. Recently, anticipating the new needs for joint European funding, ESF has introduced its EUROCORE scheme for collaborative research (*3*). This is an open scheme in which national funding agencies, on a voluntary basis, come together to support a priority topic through a joint Call and Programme specification and a single international peer-review process, but with the grants being implemented at the national level. So we are halfway there already and accumulating experience daily on the operation of funding mechanisms at the European level. New internal structures in the ESF could be put into place to cope with added responsibility for funding. This is on top of the existing networking and cooperation experience which exists in Europe, and which is a European strength relative to the United States.

Strong European-wide organizations should be seen as reinforcing each other rather than being in competition. The Framework Programme would set European political objectives, and the ERC would provide the science base with a European support structure.

Europe must show its best face in setting up the structures that it needs for its research and development. It has done so in the past with the far-sighted vision of cooperative science exemplified in European Organization for Nuclear Research (CERN), European Southern Observatory (ESO), and European Molecular Biology Laboratory (EMBL). What it now needs is the same far-sighted vision in creating a European support structure for science.

References and Notes

1. See http://europa.eu.int/comm/research/area/preface_en.html
2. See http://cordis.lu/rtd2002/era-debate/era.htm
3. See www.esf.org/eurocores

The author is Secretary General of the European Science Foundation, F-67080 Strasbourg Cedex, France. E-mail: secgen@esf.org

POLICY FORUM: SCIENCE IN EUROPE

Framework Programmes Evolve

Hans Wigzell

Europe is presently undergoing a most exciting period of transition. Via a cobweb of changes, a large number of nations are moving toward creating a federation of states, the European Union (EU). It is possible that in the end all of Europe, with Russia and Turkey, will be included. This is an experiment of a kind never tried before and it will be ongoing for many years. Strategic components for the success of this venture, such as research and innovation, will be dependent on well-understood, clearly organized structures with clear-cut organizations. The EU has chosen for the first decades of its existence to use a series of changing Framework Programmes to create what has been called a European Research Arena. Elements of these Framework programs aim to promote a European identity through such activities as supporting collaboration between scientists across national borders and encouraging movements of researchers between universities in different countries. A fundamental underlying principle has also been to link research with innovation, in a way that reduces the distance between basic research, applications, and products.

The Framework Programmes have been

The author is president of the Karolinska Institutet and does his research at Microbiology and Tumor Biology Center, Karolinska Institute, S-17177 Stockholm, Sweden. E-mail: hans.wigzell@mtc.ki.se