Harvesting talent: strengthening research careers in Europe

Summary

- A powerful and internationally competitive research base, essential to the present and future vitality of Europe, depends fundamentally on a strong cohort of highly creative researchers, and therefore on Europe's capacity to attract some of the best minds in each generation, not only from Europe, but also from the global pool of talent.
- The institutions in which research is done must respond to four vital contemporary imperatives:
 - the need for "critical diversity" as well as critical mass, recognising that many of the most powerful ideas arise from unexpected areas of study;
 - that many major challenges facing the contemporary world require systemic thinking that draws on a great variety of disciplines, and that researchers must be adept in working in such a setting;
 - that research in many domains is a global enterprise and must be able to engage globally;
 - that national interests not only require collaboration but competitiveness by international standards.
- The uniqueness amongst human institutions of comprehensive research-intensive universities, because of the breadth of knowledge they encompass, makes them ideal locations for the development of the researchers that society needs. They play the crucial role of educating and training Europe's researchers in their early careers, and therefore carry a heavy responsibility to offer attractive and stimulating careers and a productive setting for research. They must play a central role in developing the European Research Area if this is to become a powerful agent in developing Europe's research capacity.
- Although research careers can rarely compete with the salaries of the private sector it is important that they are seen to offer unique opportunities for well-supported, creative freedom and personal satisfaction. The key objectives of policy for research careers must be: to attract highly talented graduates from the international pool of talent; to support realisation of a researcher's potential for creativity; and to maximize benefit to knowledge, learning and society. To do this,

we must maximize the potential for high achievement and provide an attractive career framework.

- Realising the potential for high achievement depends upon:
 - a research environment with a wide variety of researchers working on cognate topics, strong links with other disciplines in a cross-disciplinary setting, good international connections, cross-fertilisation of ideas from external researchers, and access to appropriate facilities.
 - independence and responsibility at an early stage of a research career.
- An attractive and efficient research career structure requires:
 - well-designed posts that are adapted both to research needs and career prospects of researchers;
 - well-structured career perspectives that clearly indicate avenues for progression including posts outside academia;
 - strong funding and facilitating processes that permit competitive salaries to be offered;
 - career development support;
 - advice and support for diverse career pathways;
 - shared responsibility for research careers between all key stakeholders, comprising universities, governments and those from public and private sector who fund research.
- We identify five principal functional types of research post that we believe exist amongst those researchers not holding a full-time academic position:
 - Personal research fellowships, which we strongly advocate should be extended to five years or more;
 - Research associates employed through research grants;
 - Enterprise fellowships that offer holders support in developing commercial applications from their research;
 - Research assistants employed through highly specific research contracts;
 - Research assistants/high-level technical officers.

The principles described in the previous paragraph should be applied in different ways to all these functional types.

There are considerable differences between research careers in different European countries. A four-stage model of research careers which permits comparison between different European systems is presented. together with career maps that illustrate the patterns of progression between these stages across Europe. They are designed for researchers in planning their futures. The patterns reflect historical and cultural differences and must be understood before any attempts are made to unify elements of career structure across Europe.