EURAB 02.051 final

Some Issues Affecting the Future of University Research in the EU

Recommendations

1. In an effort to understand the true cost of research, EURAB recommends that concerted efforts are made to stimulate the use of simple, transparent and comparable accounting systems in universities across Europe. As a first step, EURAB urges the European Commission to support benchmarking initiatives in this area via the setting up of a joint task force with a body such as the European Universities Association (EUA).
2. As a means of promoting research excellence, EURAB proposes that new mechanisms to stimulate competition are explored and evaluated by Member States across the EU In particular, EURAB proposes that the feasibility of a competitive scheme co-financed by the European Commission and Member States in which research teams compete for additional funds is explored and evaluated via trial competitions in specific science and technology areas.
3. In order to improve the mobility of researchers within the EU, EURAB urges the European Commission to provide a prioritised list of potential barriers and problems which the Council should be then be asked to resolve as soon as possible.
4. EURAB is convinced that valuable lessons could be learned from a comparative study of Member States' attempts to improve the career prospects for researchers, including efforts at an early stage to attract young people into the world of science.
5. EURAB also considers that there is scope for experimentation with schemes similar to that already proposed for a European competition for additional research funds.

Introduction

The recommendations presented here focus on a few key issues likely to affect the efficient and effective functioning of research activities within European universities. Initial discussions amongst EURAB members highlighted a number of potential topics of concern, but the eventual list for inclusion was only decided after a process of consultation with external parties. Key contributions, for example, were made by representatives of UK and Austrian universities, the German Rectors' Conference (HRK) and the European Universities' Association (EUA).

Other key issues not dealt with here will be addressed in future EURAB reports, though some other recommendations which also relate to the role of university research in the EU are made elsewhere in this publication. In particular, one set of recommendations focuses on ways of improving innovation via enhanced university-

industry linkages, while another set considers ways of increasing the attractiveness of science, technology and engineering careers by linking research with education.

Vision: University Research in ERA

The long-term vision which drove and inspired the recommendations presented here was that of a European university research system able to attract leading-edge researchers and to compete successfully with research systems elsewhere in the world in terms of the quality of the research performed.

In order to achieve this objective, the recommendations focus on three issues, all of which have an important bearing on the overall goal of a strong, competitive research system.

Finance: The first of these relates to the financing of research. If the EU is to reach its goal of becoming the most dynamic and competitive knowledge-based economy in the world, the resources devoted to research will almost inevitably have to increase. So too will the effort devoted to improving the efficiency of research allocation systems and the financial management of research resources.

Performance: A second issue concerns efforts to improve the overall research performance of individual universities via comparative schemes which benchmark certain aspects of performance – leading either to the reallocation of research funds or to endogenous efforts to improve overall positions in the 'league tables' which such schemes produce.

Mobility: Thirdly, the issue of mobility and its relevance to the goal of strengthening the university research system within the ERA is addressed.

Future recommendations will address a number of other important issues. They will, for example, explore the interface of research with education, particularly the desirability or otherwise of strengthening research capabilities via initiatives which concentrate research in select centres of excellence. The need for linked and coherent research, education and innovation policies will also be scrutinised in the context of the 'Barcelona target' for research funding of 3% of GDP by 2010, since achieving this goal will inevitably make large demands on the education system if skills bottlenecks are to be resolved.

The Cost of Research: Transparency and Trust

Understanding the true cost of research is an essential element in the drive to improve research performance. Failure to implement accurate and comprehensive accounting systems can create intolerable financial problems for universities if research activities are continually under-funded. Conversely, the public purse suffers if over-funding occurs. Implementing effective schemes inevitably carries an overhead, particularly in terms of the administrative burden associated with tracking the use of staff time, but in the long run it is in everyone's interest to implement simple but effective accounting systems.

The use of such schemes by individual universities has obvious benefits in terms of the insights gained into the efficiency or otherwise of administrative systems and procedures. The use of a standardised system across universities in national or

European contexts may have even more to recommend it. The transparency this would offer has the potential to benefit both universities and funding agencies alike, building trust between all parties and enabling the latter to ensure that research is adequately funded across all institutions. In all likelihood, universities would also benefit from the benchmarking opportunities which transparent national systems would offer, enabling performance to be compared and best-practice to be emulated. Furthermore, the use of comparable accounting systems across Europe would be a further spur to enhanced research performance via the enlarged opportunities for benchmarking and self-improvement which transparent European efforts would provide.

Such transparent systems would also allow industry to assess the feasibility and cost-effectiveness of supporting and commissioning research in European universities – an important source of potential research income for universities. If the EU is to reach its target of increasing R&D funding to 3% of GDP by 2010, research expenditure by the private sector will have to rise considerably. Part of this privately-funded research could be performed by universities, but this will only occur if industry can trust and compare the costs involved.

EURAB thus suggests that concerted efforts are made to stimulate the use of comparable accounting systems across Europe. In the first instance this could take the form of European network or 'User's Club' in which funding agencies and universities share experiences and compare the feasibility in different contexts of rival accounting systems. **In particular, as a first step, the Commission should support benchmarking initiatives in this area via the setting up of a joint task force with a body such as the European Universities Association (EUA)**.

Subsequently, perhaps via a process similar to that of the Bologna process, Member States and organisations such as the EUA could play a part in the accreditation of 'best practice' in this sphere, with national funding agencies encouraging indigenous universities to adopt recommended accounting frameworks.

Excellence through Communication, Collaboration and Competition

Strengthening the European university system within ERA will require continued collaboration and pooling of efforts across Europe. Much has been achieved via past Framework programmes and other multinational initiatives and it will be important to maintain this momentum in the future. In particular, it is vital that universities continue to play a significant part in ERA and exploit the opportunities provided by Networks of Excellence and Integrated Projects in FP6 to tackle large-scale problems. Furthermore, basic research should be strengthened and high levels of ambition and new foci for research encouraged. Major investments will also be needed in communication technology if the new instruments are to be successful.

There is scope for new initiatives, however. EURAB is convinced that competition is the main driver of excellence within research systems and that enhanced competition between centres of excellence is the key to a stronger European university research system. **EURAB therefore proposes that new mechanisms to**

stimulate competition are explored and evaluated by Member States across the EU.

One possible mechanism involves the use of EU funds to leverage comparable contributions from national research funding sources. The combined pot of money could then be used to finance a series of European competitions in different science and technology areas, with 'national champions' – i.e. those research groups submitting the highest ranked proposals in national competitions based on excellence – competing for additional funding which would allow them to deepen or broaden their research agendas.

Such a two-step scheme would involve low administrative costs and would not increase the bureaucratic burden on researchers. Direct comparison with rival centres across Europe and the prestige associated with winning would also spur the research community to new levels of competition and, hopefully, research performance. The general standard and quality of research proposals is also likely to improve over time. If used to encourage really exciting and innovative (and possibly inter-disciplinary) research, this could also give critical additional seed funding to institutions with the potential to become centres of excellence in new areas of science and technology.

EURAB proposes that the feasibility of such a scheme is explored by Member State governments and evaluated via trial competitions in specific science and technology areas. The competitions could be administered by the ESF or another relevant body (e.g. EMBO in the field of molecular biology) and funded via a select number of willing national agencies contributing a small percentage (1% of their budgets for a particular science or technology area) into a common pot, together with a commensurate sum from the EU. Each national agency would then launch a call for proposals in the prescribed areas and enter the very best of the successful proposals into the new European competitions, with the ESF responsible for handling the budget and organising the selection of the 'European Champion' in each of the areas. In due course, an evaluation of the trial competitions would comment on their effectiveness and advise on strategic and operational issues such as future funding levels (±1%?), appropriate organisational structures (ESF or another body?), improved administrative procedures and selection criteria etc.

Mobility and Career Structures

Improved mobility of researchers across national boundaries is an integral feature of the ERA and a pre-requisite for a strong and competitive European research system. At a student level, mobility is needed in order to facilitate ready access to first class training and teaching. At the research staff level, mobility is necessary to ensure that research frontiers can be explored by teams composed of the most appropriate researchers, whatever their nationality. And at all levels, mobility is the key to the consolidation of a genuine European research culture and community.

Many initiatives in the past have encouraged mobility and will continue to do so. A number of barriers still need to be overcome, however, before an open European research community becomes a reality. Some of these relate to the development of

more favourable conditions for the pursuit of research careers within individual Member States, but many others lie outside the scope of research policy and relate to the development of comparable and commensurate pension, housing and employment regimes across the EU. These have to be tackled as a matter of urgency, and **EURAB thus urges the European Commission to provide a prioritised list of barriers and problems which the Council should be then be asked to resolve as soon as possible**.

Within the scope of research policy, initiatives are also needed across Europe to attract people into research careers and to support them via the establishment of minimum levels of training, better contract arrangements, higher salaries and efforts to ensure that researchers are accorded higher levels of esteem – all of which are preconditions for the success of mobility initiatives. **EURAB is convinced that valuable lessons could be learned from a comparative study of Member States' attempts to improve the career prospects for researchers, including efforts at an early stage to attract young people into the world of science**.

EURAB also considers that there is scope for experimentation with schemes similar to that already proposed for a European competition for additional research funds. In this instance, the objective would be to make extra funds available to the most able young research scientists, thus enabling them to follow more ambitious research agendas at European centres of excellence of their own choosing. Again the intention would be to pump-start the initiative with EU funds, with national funding agencies contributing to a common pot, and again the scheme would minimise bureaucratic demands on the research community by selecting the winners from the winners of existing national competitions. Such a scheme has already been tabled by EUROHORCS and is deserving of further attention.