

**Press Release**

**Wednesday 16<sup>th</sup> April 2003**

**Ireland has a good base on which to build strong  
research capabilities for the future - Forfás**

**Review of Public Research System in the  
ICT and Biotechnology Sectors**

Research conducted in Ireland in the area of biotechnology has performed slightly above the world average and ICT (information and communications technologies) research has performed at or slightly above the world average during the period 1991 – 2000, according to a report launched by Forfás today (Wednesday 16<sup>th</sup> April 2003). However, while the report shows that there is a good base upon which to build strong research capabilities, it also highlights that there is still work to be done to create robust and sustainable research centres in Ireland capable of competing with the best in the world.

The report, entitled “**Baseline Assessment of the Public Research System in Ireland in the areas of Biotechnology and Information and Communication Technologies**”, focuses on three main areas:

- The level and quality of ICT and biotechnology research and the capabilities of the Irish research base
- How Ireland’s current research compares with best international practice
- The parameters against which the progress of Science Foundation Ireland (SFI) could be evaluated over the coming years

The study, conducted by a team of international experts in research evaluation, is intended to assess research capability in Ireland before the introduction of major new initiatives funded by Science Foundation Ireland (SFI). The findings will form the basis on which the success of SFI will be evaluated.

The report highlights a number of underlying issues for the future development of research in the ICT and biotechnology areas. It cautions that the large recent injections of funding into the system must be sustained, otherwise Ireland will be unable to exploit the benefits of the research capability it aims to develop over the next 4-5 years.

The report found that, while there are strong areas of research competence in ICT and biotechnology spread around the different research institutions, a high degree of fragmentation exists within Irish research. Research groups often lack the critical mass to generate economies of scale and to protect themselves against fluctuations in research funding. Lack of funding, until recent years, has meant that Irish research managers have become highly resourceful and entrepreneurial; however, few research departments have much experience of managing significant central resources and of formulating and implementing departmental level research strategies.

The study suggests that it was unclear as to whether all of the current research managers had the experience to manage large research groups in a period of rapid growth in funding and manpower. In light of this, Ireland will need to address the barriers that currently exist for overseas scientists who might want to join the Irish research community. The absence of a proper career structure for professional researchers is one of the most serious of such barriers.

The report also addresses the importance of the issue of the measurement and evaluation of publicly funded research and proposes indicators which might be used in the benchmarking of the performance of researchers. It also highlights the importance of ongoing performance assessment of Science Foundation Ireland (SFI) investments to ensure that groups that receive funding are accountable to the rest of the research community for their use of resources.

## **Biotechnology**

It was found that Ireland was performing reasonably strongly in certain subfields of biotechnology and that there were two world-class research departments and a handful of strong research departments that would be capable of becoming world-class over the next five years. However, research in certain modern and developing areas of biotechnology was found to be sub-critical and there were insufficient resources in this area to compete at international level. The average research group appears to be too small and to have too few post-doctoral level researchers.

## **ICT**

The report indicated that many groups in ICT research have performed well, particularly in the light of the constraints of the limited funding of the recent past. One world-class research group already exists and a handful of others can become world-class in the next five years. However, the current research base will not be able effectively to continue to utilise large injections of project-based funding. There is a need to expand the research base and, in the short-term, researchers will need to be recruited from abroad. Also, the system is concentrating on producing graduates and MSc students; there are insufficient numbers of PhD students compared with leading international research groups.

Ends.

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**The report can also be downloaded in full at <http://www.forfas.ie>**

## **Forfás**

Forfás is the national policy and advisory board for enterprise, trade, science, technology and innovation. It is the body in which the State's legal powers for industrial promotion and technology development have been vested. It is also the body through which powers are delegated to Enterprise Ireland for the promotion of indigenous industry and to IDA Ireland for the promotion of inward investment.