

The future of the UK research base and implications for the professional and career development of researchers

13 June 2011, Royal Society, London

Jointly hosted by Vitae, CBI and Research Councils UK on 13 June, the Strategy Forum looking at the future of research within the UK and the implications for the professional and career development of researchers was the second of a series of horizon-scanning events, attended by 50 representatives from the UK Research Councils, funding bodies, universities, employers, researchers, professional bodies, and other UK stakeholders.

The Forum debated challenges for the UK research base over the next ten years in light of constraints on research funding, the introduction of the Research Excellence Framework and changes to the structure of undergraduate funding including:

- agreeing the challenges, priorities and responsibilities in sustaining the UK research workforce
- forecasting and responding to the demand for high level skills across all employment sectors
- ensuring appropriate participation in doctoral study and flow of researchers in light of changing funding mechanisms and international competition
- equipping researchers with the strategic skills needed for research, business and policymaking
- encouraging and developing research leaders of the future.

Presentations from Drs Astrid Wissenburg, ESRC and David Sweeney, HEFCE, were followed by a panel session with representatives from universities, researchers and UK Trade and Investment provide a framework for the subsequent discussions.

There was broad consensus of the challenges and priorities over the next five years for ensuring that the UK continues to provide a flow of highly-skilled researchers for the benefit of the economy and society.

It was acknowledged that the UK has considerable strengths in its world-class research base complemented by world-leadership in the professional development of researchers resulting from the Research Councils' investment of Roberts funding and the work of Vitae. To maintain its position the UK must ensure that it remains internationally attractive for researchers, research-led organisations, and international businesses that require excellence in research.

While higher education institutions (HEIs) have a good record of engaging with employers in relation to research and researchers, it was recognised that this could be predominately through interactions with individual academics. There is a need to broaden engagement through more structured and extended activities, particularly increasing interactions with small and medium enterprises (SMEs). Improving knowledge exchange and innovation through people transfer and building long term collaborations was a strong theme.

The importance of sustaining the capacity and expertise for researcher development within a higher education system that is going through fundamental change was another common theme. The potential impact of new funding systems at undergraduate level and implications for supply into research, new and emerging models for doctoral education, more drivers

towards collaborations in an increasing competitive environment and significant financial challenges were highlighted.

Through plenary and workshop discussions participants identified six priorities and potential actions to inform future strategies and policies to secure the talent pipeline for all employers and develop research leaders of the future.

1. The importance of increasing the absorptive capacity of business for research, researchers and innovation, particularly through people transfer.
 - Emphasise the wider activity and impact of research by broadening the definition of the 'research base' to include all researchers in all sectors, including the public sector and third sector.
 - Broaden the range of companies engaging with HEIs' research activity and employing researchers; exploring how to encourage more innovation in non-research intensive sectors.
 - Ensure more organisations understand researchers' capabilities and their contribution by using the Vitae Researcher Development Framework to illustrate the breadth of researchers' capabilities.
 - Illustrate to companies where and how researchers are employed and their contribution to organisations using the evidence from Vitae's 'What do researchers do?' publications.
2. Finding ways for HEIs to engage effectively with SMEs, which increasingly will provide the majority of researcher employment opportunities.
 - Facilitate the development of regional collaborations between HEIs to increase local access and engagement by SMEs, including opportunities for people exchange.
 - Create opportunities for HEIs to interact with large companies and SMEs through sector-specific activities, for example through existing local clusters such as the creative industries cluster in the South East.
 - Develop good practice guides and a library of case studies illustrating effective engagement with SMEs, for example illustrating the experiences of the Scottish pooling and business engagement models.
3. Increasing awareness of the value and importance of cross-sector experience for knowledge exchange and innovation, particularly through placements and work experience.
 - Increase exposure to industry and business throughout the education system, including schools, undergraduate level, as well as for researchers.
 - Develop a national framework for people exchange along the lines of the Lambert Agreement for collaborative research.
 - Provide a UK mechanism to facilitate and broker opportunities for people exchange for researchers through work experience, placements and internships.
 - Provide online access for HEIs and companies to advice on how to set up placements, access to reflective learning resources and examples of good practice.
 - Provide a platform for HEIs and companies to explore issues relating to funding and different views of the appropriate length of placements.
 - Make better use of alumni to strengthen HEI and company links and provide role models to researchers.
 - Explore ways also to encourage transfers into higher education from other sectors.

4. Improve understanding and knowledge of researcher career paths and the capabilities and contribution of researchers across all employment sectors.
 - Extend the ‘What do researchers do?’ research into researchers’ career paths to explore further the contribution and impact of researchers to organisations and the UK economy.
 - Ensure researchers have realistic expectations of achieving careers within higher education, are informed of the wide range of employment options and have the skills to identify, develop and capitalise on career opportunities.
 - Support supervisors and principal investigators to provide objective and honest advice about career opportunities within higher education and are informed about, and give equal value to, opportunities and choices outside higher education.
5. Ensuring the supply of a highly-skilled workforce and sustainability of the UK research base by maintaining the capability and capacity of HEIs to train and develop researchers.
 - Build on the progress made through Roberts’ ring-fenced funding to ensure professional development of researchers is integrated in institutional missions, appropriately funded and incorporates the breadth of experience needed for the economy and society.
 - Engage more researchers in innovation by broadening the definition of enterprise to include social enterprise and public benefit and incorporating more innovation and enterprise skills within doctoral training and research careers.
 - Build on the experiences of the doctoral training centres and Knowledge Transfer Partnership (KTP) models to redefine the scope of research degree programmes by providing more interdisciplinary and international opportunities, blended learning programmes with industry, and integrated programmes of personalised professional development based on the Vitae Researcher Development Framework.
6. Maintaining and improving the international standing and attractiveness of the UK for researchers, research-led companies and international businesses.
 - The value of the UK as an open and creative environment for research and world class research base needs to be communicated more effectively internationally, particularly to counter any negative perceptions of the changes in the higher education funding environment and visa restrictions.
 - Create an effective concerted national campaign to demonstrate that the UK provides an excellent training environment and attractive location for international researchers, to counter increasing international competition.
 - Explore concerns from international companies considering investing in the UK about the supply pipeline of a highly-skilled workforce, particularly in some science and technology areas.
 - Provide examples of good practice of UK HEIs looking more globally and setting up international collaborations.

There was collective agreement of the value of providing further opportunities for continuing constructive dialogue between universities, employers and key stakeholders to take these priorities forward, particularly related to mechanisms to engage SMEs. Vitae, RCUK and the CBI will also explore the opportunities for facilitating work placements, building on Research Council initiatives. Vitae will continue its work to identify the wide range of employment opportunities and to ensure that researchers, supervisors, principal investigators and employers are aware of these.