

Dr Iain Cameron

Head of Research Careers



Tel: 01793 444038

Fax: 01793 444562

iain.cameron@rcuk.ac.uk

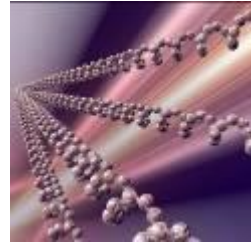
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RESEARCH CAREERS



A strategy for success



Overview of Research Council Strategy

Iain Cameron

RCUK

RCUK Key Foci

- PG training is part of a skills pipeline which works right across the academic lifecourse
- Devolution
- Flexibility
- Strategy
 - Health of disciplines
 - Holistic approach with physical infrastructure developments and cross council programmes

Supply of Researchers

Research staff:

Total 42,000: RC-funded 14,000

Postgraduate researchers:

Stock: 50,925 FT; 20,630 PT; 25,385 writing-up:
RC stock ~16,500

Annual PhD output Total: 17,400 – RC: 5000

(70% in STEM subjects – PSA target)

UK:

Mature students:

Returners to
education/research:

Employees

**UK Education
system**

Rest of world

~42%

EU ~13%

Devolution

- Most RC Studentships through block grants
- DTA/DTG Model EPSRC/MRC/BBSRC; NERC/STFC
- ESRC DTC/DTU Consultation
- AHRC Block Grant Partnerships

- Gives HEIs the opportunity to provide:
 - Early confirmation
 - Competitive stipends
 - Make decisions on best
 - Fit with HEI training strategy

- HEIs opportunity to work in partnership e.g. 'Research Pooling' in Scotland

Disabled Student Allowances (DSA)

RCUK aims to:

- Streamline DSA application procedures and speed up the decision making process
- Ensure that disabled students receive the additional support they require to undertake a specific course of postgraduate study
- Achieve consistency of process and decisions on DSA funding across Research Councils



Flexibility

- Within a commitment to training and research these provide an opportunity for a more HEI, project led personalised approach
- ESRC : 1+3; 2+2; +4
- Sciences: increasing moves to 4 yr (part-structured) PhD
- Aligns with Bologna

Diversity in delivery of doctoral training

Research Council	Typical/dominant Higher Education Path
Arts, Humanities & Social sciences (AHRC and ESRC)	3-yr Bachelor's + 1-yr Masters + 3-yr PhD Increasingly flexible 1+3, 2+2, 4 approach
Life sciences (BBSRC)	3-yr Bachelor's + 3-4-yr PhD Increasing structure in PhD
Environmental and Medical sciences (NERC and MRC)	Variable by HEI/discipline Flexibility of length in DTGs Strategic capacity building (3, 1+3, 4 years) by MRC - longer average PhD
Engineering and Physical Sciences (EPSRC and STFC)	4-yr integrated Bachelor's/master's + 3-4 year PhD Increasingly centres and 4-year structured PhD (EPSRC)

Strategy

- Health of Disciplines
- Align with resources and directed programmes
- Centres for Doctoral Training (EPSRC)
 - 45 new supporting ~2250 students over five years
 - 62 in all including EngD; Life Science; Complexity Science
 - CDTs enable PhD students to work across disciplines

Key doctoral issues for RCUK

- importance of the diversity of purpose, duration and delivery of doctoral education
- continued development of transferable skills within doctoral training
- importance of institutional autonomy in defining entry requirements – particularly entry to doctoral programmes
- emphasise learning outcomes from doctoral programmes, value higher level skills and employability throughout the economy
- understand careers and impact of PhDs



Health of Disciplines

- Demography of Academic Work Force
- Emerging Areas
- Examples:
 - Language Based Area Studies
 - Public Health
 - Quantitative Social Science

Links with resources/research programmes

- E-health human capacity through OSCHR
- ESRC links to longitudinal studies/ cohorts
- RCUK Cross Council programmes
 - Lifelong Health and Well-being
 - LWEC
 - Energy
 - Security
 - Digital Economy
 - Nanoscience

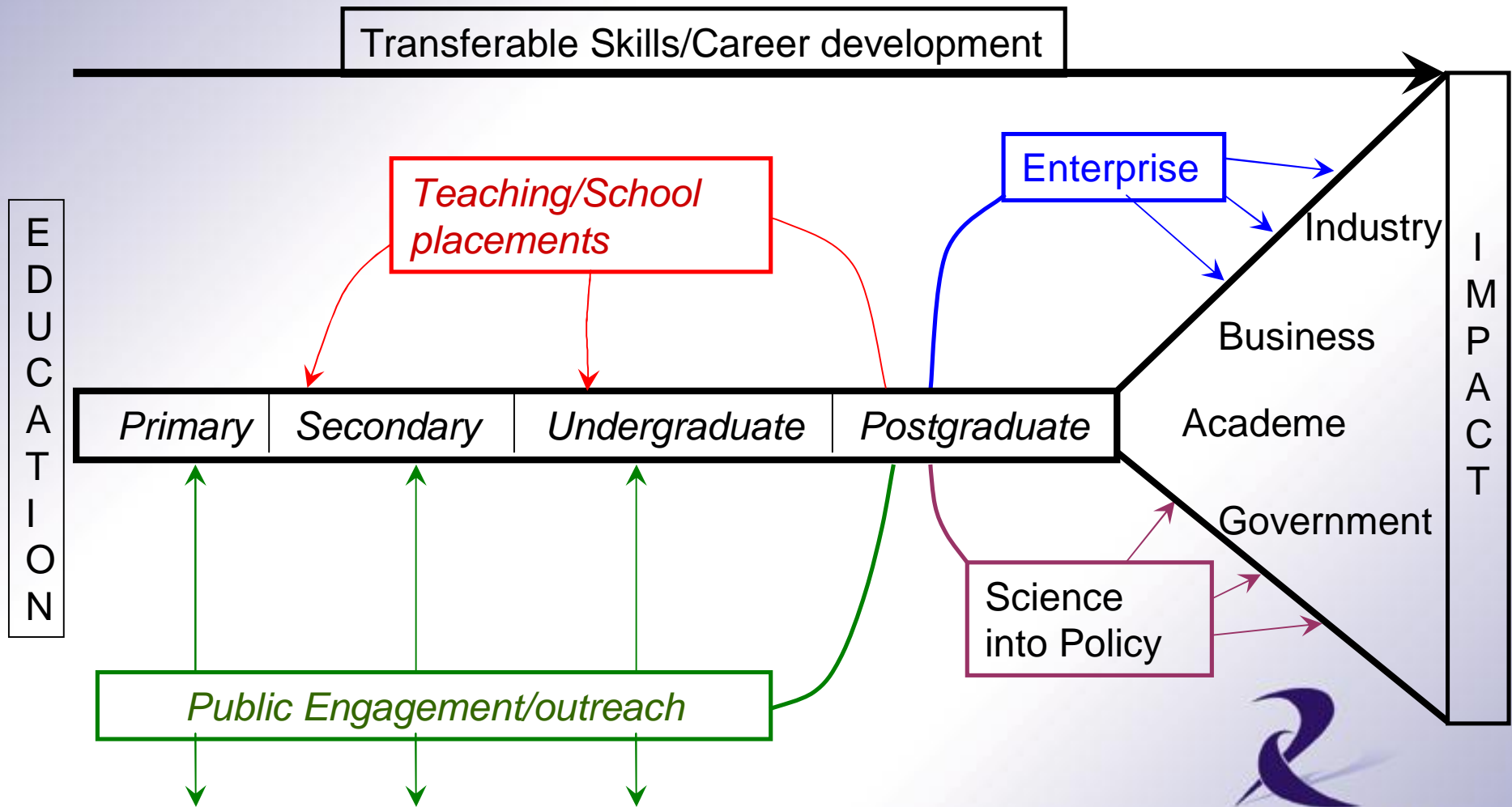
Skills and Impact

- Excellence with Impact
- Opportunities and Measurement

Employability and skills of doctoral graduates

- Key issue in RCUK strategy
- Transferable skills well established following Roberts
- UK strong in providing research and transferable (employability) skills
- Increasing focus on enterprise, outreach and policy skills
- UK ready to share its experience and learn from other countries

Researcher skills: acquisition and impact



Increasing the economic impact of Research Councils

Increasing the economic impact of Research Councils

Advice to the Director General of Science and Innovation
DfI from the Research Council Economic Impact Group

14th July 2006

RESEARCH COUNCILS

INCREASING THE ECONOMIC IMPACT OF THE RESEARCH COUNCILS

January 2007

EXCELLENCE WITH IMPACT

Progress in implementing the recommendations of the Wary Report on the economic impact of the Research Councils

RCUK Delivery Plan 2008/09 to 2010/11

Research Councils UK (RCUK) is the strategic partnership of the seven UK Research Councils. RCUK exists to increase the economic impact of the Research Councils and to provide a single point of contact for business and industry enquiries.

Each Research Council has a specific remit. RCUK is a body that is not a research council, but is funded by the Research Councils. It is a body that is not a research council, but is funded by the Research Councils. It is a body that is not a research council, but is funded by the Research Councils.

The Government of the United Kingdom has set a target for the UK to become a world leader in research and innovation by 2020. This target is supported by the Research Councils UK (RCUK) Delivery Plan 2008/09 to 2010/11. The plan sets out the actions that the Research Councils will take to support the Government's target and to increase the economic impact of the Research Councils.

Role of the Research Councils

The Research Councils exist to deliver world class research here and abroad. This means a high level of research impact and a high quality of skills in the UK. The impact of the Research Councils is to be measured in terms of the economic impact of the Research Councils.

Objectives

Research Councils UK will support the Government's target for the UK to become a world leader in research and innovation by 2020. This target is supported by the Research Councils UK (RCUK) Delivery Plan 2008/09 to 2010/11. The plan sets out the actions that the Research Councils will take to support the Government's target and to increase the economic impact of the Research Councils.

Key Messages

The Research Councils UK will support the Government's target for the UK to become a world leader in research and innovation by 2020. This target is supported by the Research Councils UK (RCUK) Delivery Plan 2008/09 to 2010/11. The plan sets out the actions that the Research Councils will take to support the Government's target and to increase the economic impact of the Research Councils.

Opportunities

- **Joint Studentships eg CASE; ESRC/WAG**
- **Internships/secondments eg ESRC, NERC**
- **Increased focus on transferable skills**
 - Need to understand which and effective delivery
 - 50% of Students develop careers outside academia
- **Roberts supported by Thrift, Wellings**
 - Suggested that earmarked funding impacted on culture
 - Example St Andrews conference

The HE debate – Thrift Report

Recommendations for Government

- Government should establish mechanisms to develop a more sophisticated long-term understanding of the supply of and demand for researchers across all sectors and disciplines. (p12)

Recommendations for Research Councils, Grant-Awarding Bodies and Subject Associations

- Research councils should work with universities, research institutes, charities and industry to develop a national Research Experiences Programme for undergraduate students. (p15)
- The Roberts funding for universities should be sustained over the long-term to ensure high-quality researcher development programmes become embedded across the sector. (p28)

Recommendations for Universities

- Universities should consider whether the widening participation agenda applies to postgraduate study and, if so, what might realistically be done to improve matters. (p23)
- Universities should consider whether they could do more to encourage greater transferability of researchers between academia and industry where appropriate. (p34)

The HE Debate – Wellings Report

Recommendation 8: (p13)

- The “Roberts Funding” should be continued and expanded. Additional resources should build on the current “employability” agenda and expand to include a broader set of courses specifically to assist in progressing the commercialisation of research.
- [Roberts] eligibility criteria should be expanded to cover all post-graduates and post-doctoral fellows, including international students...

Recommendation 9: (p14)

- HEFCE and RCUK should examine the nature and sustainability of the graduate school experience and the scale of training and development available to postgraduate research students in each region.
- They should be invited to review and coordinate their initiatives and funding mechanisms for universities with larger graduate cohorts in order to generate a more comprehensive suite of training opportunities and to expand regional capacity across disciplines.
- Special consideration may need to be given to some smaller specialist institutions which may need to be linked to regional hubs.

Measurement

- Academic Impact : improved capture of PhD research output
- Non-academic Impact
 - Improved capture of direct impacts
 - Longitudinal study of UK/EU domiciled students
 - Possibilities for parallel non-EU (DIUS)
- Implies greater use of HESA and other (new) data

Cohort Study

- Major longitudinal study of PhD graduates – up to 10 years post graduation (from 2003/04 cohort)
- Includes all contactable UK and EU domiciled graduates
- Target of 2500 responses
- Options analysis (April/June 2008):
 - Initial statistics via existing survey
 - Qualitative as well as quantitative analysis
 - “Impact” and employer views necessary but more difficult
- First data in May 2009
- Analysis (contracted) June-August 2009
- Case studies from Autumn 2009 as part of qualitative analysis
- Longer term maintaining contact – further studies

Thank you for your attention!



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