

Supporting the career development of researchers in the UK - successes and challenges

Dr Iain Cameron
Head of Research Careers and Diversity
RCUK Strategy Unit
iain.cameron@rcuk.ac.uk



Structure of my talk

- Some brief contexts
- How we got to where we are today - the **PAST**
- What we are doing currently - the **PRESENT**
- The important **STRUCTURES** then, now and in future
- Where are we going next – the **FUTURE**

What is Research Councils UK?



- The name for the seven UK Research Councils working together
 - Together we spend £3.4bn a year of the £8.6bn UK R&D budget (2010/11)
- Increases the collective visibility, leadership and policy influence of the Research Councils
- Provides a single focus for collective dialogue with stakeholders including the Department for Business Innovation and Skills
- Ensures greater harmonisation of operational and administrative functions across the Councils



UK CONTEXT: Supply of PhDs and Research Staff

Research staff: Total 42,000: RC-funded 14,000

Postgraduate researchers: Total 50,925 FT; 20,630 PT; 25,385 writing-up: RC -funded ~19,000

Annual PhD output Total: 17,400 – RC: 5000 (70% STEM subjects)

UK:

Mature students:

Returners to education/research:

Employees

UK Education system

Rest of world
~42% of total
EU ~13% of total



Definition of transferable skills:



“Transferable skills are skills learned in one context (for example research) that are useful in another (for example future employment whether that is in research, business etc.)

They enable subject- and research-related skills to be applied and developed effectively. Transferable skills may be acquired through training or through work experience.”

Research Careers in Europe Landscape and Horizon

- ESF Member Organisation Forum on Research Careers
- report 2010



Timeline of transferable and career skills development for researchers

- 1968-2003 - **RC Graduate Schools Programme**
- 1997-2002 - **Research Careers Initiative (RCI)**
 - Implement the 1996 Concordat
 - Change the culture for Contract Research Staff
 - Provide a viable career structure
 - Adjust funding systems to enable change
 - Research Councils Joint Skills Statement
- 2002-2010 - **SET for Success – ‘Roberts Agenda’**
 - Funding for PhD training – principally transferable skills
 - Funding for Career Development for post-docs
- 2003-2007 - **UKGRAD**
- 2008-2012 - **Vitae**
- 2008-20?? – **New Concordat & Implementation**
- 2011-20?? – **Researcher Development**
 - Embedding skills into PhD training and Staff development
 - Increased focus on Impact of skilled researchers
 - Sustainable models for funding



Timeline of transferable and career skills development for researchers

- 1968-2003 - **RC Graduate Schools Programme**
- 1997-2002 - **Research Careers Initiative (RCI)**
 - Implement the 1996 Concordat
 - Change the culture of Contract Research Staff
 - Provide a viable career structure
 - Adjust funding systems to enable change
 - Research Councils Joint Skills Statement
- 2002-2010 - **SEI for Success – Roberts Agenda'**
 - Funding for PhD training – principally transferable skills
 - Funding for Career Development for post-docs
- 2003-2007 - **UKCRAD**
- 2008-2012 - **Vitae**
- 2008-20?? – **New Concordat & Implementation**
- 2011-20?? – **Researcher Development**
 - Embedding skills into PhD training and Staff development
 - Increased focus on impact of skilled researchers
 - Sustainable models for funding

PAST

PRESENT

STRUCTURES

FUTURE

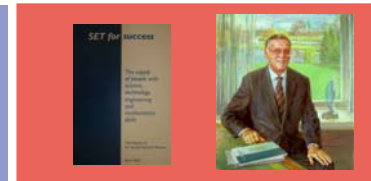




PAST: The pre-2002 period – a developing strategy

- One week career courses for Research Council PhDs
 - 40% attended in 2nd or 3rd year - requirement for EPSRC students
 - business awareness, transferable skills
 - grew to cover all disciplines
- 1996 Concordat provided a new focus on career development issues for contract research staff.
- Research Councils Joint Skills Statement for PhD (2002)
- RCI raised awareness of need for culture change in employing research staff in universities
- Good practice models developed for staff appraisal and training, transferable skills and career guidance.
- CROS (Contract Research Online Survey) survey tool established 2002



PRESENT: 2002-2010 'SET for Success' - the 'Roberts Agenda'



- SET for Success recommended (amongst other things):
 - Two weeks training a year particularly in transferable skills – addresses training needs of industry and students
 - Clear career development and training for post-docs e.g. two weeks a year to prepare for careers in industry & academia
- Government funding followed (~£20M p.a. £850 per head)
- RCs allocate funding by novel method
 - consolidated payments – ring-fenced – used strategically
- UKGRAD  2003-07 – Vitae  2008-10
 - Focus on research degree programmes (UKGRAD)
 - Inclusion of research staff agenda (Vitae)
 - provided drive, momentum and ways for institutions share strategies and ideas, resources and practice



2002: Roberts' Recommendation 4.2 two weeks training a year in transferable skills

Recommendation 4.2: PhD training elements

Despite the welcome current moves by the Funding Councils to improve the quality of PhD training, institutions are not adapting quickly enough to the needs of industry or the expectations of potential students. The Review therefore believes that the training elements of a PhD – particularly training in transferable skills – need to be strengthened considerably. In particular, the Review recommends that HEFCE and the Research Councils, as major funders of PhD students, should make all funding related to PhD students conditional on students' training meeting stringent minimum standards. These minimum standards should include the provision of at least two weeks' dedicated training a year, principally in transferable skills, for which additional funding should be provided and over which the student should be given some control. There should be no requirement on the student to choose training at their host institution. The minimum standards should also include the requirement that HEIs – and other organisations in which PhD students work – reward good supervision of PhD students, and ensure that these principles are reflected in their human resources strategies and staff appraisal processes.

Furthermore, in order to assure employers of the quality of PhD students, as part of these standards the Review recommends that institutions should introduce or tighten their procedures for the transfer of students to the PhD. In particular, the Review believes that HEIs must encourage PhD projects that test or develop the creativity prized by employers.

Government Response:
To encourage universities to address the skills acquired by PhD students and to ensure they are relevant to business...

...institutions are not adapting quickly enough to the needs of industry or the expectations of potential students.



2002 Roberts Recommendation 5.3 Career development for post-docs

Recommendation 5.3: A vision for postdoctoral researchers

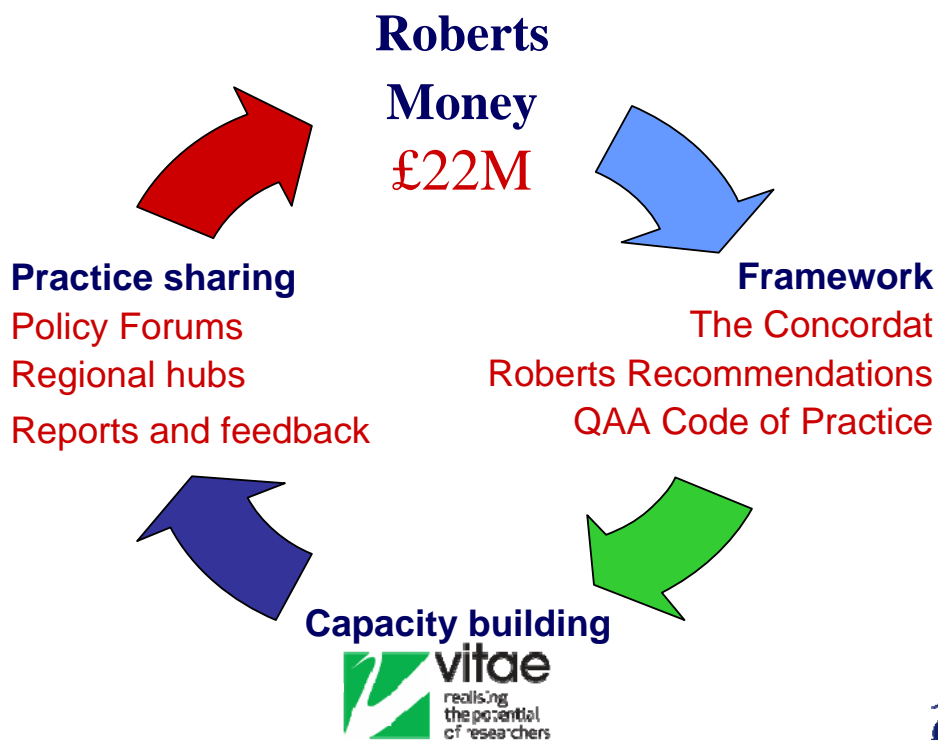
It is important for postdoctoral researchers to be able to develop individual career paths, reflecting the different career destinations – Industrial, Academic and Research Associate – open to them, and that funding arrangements reflect the development of these career paths. The Review believes that enabling the individual to establish a clear career path, and a development plan to take them along it, is critical to improving the attractiveness of postdoctoral research. The Review therefore recommends that HEIs take responsibility for ensuring that all their postdoctoral researchers have a clear career development plan and have access to appropriate training opportunities – for example, of at least two weeks per year. The Review further recommends that all relevant funding from HEFCE and the Research Councils be made conditional on HEIs implementing these recommendations.

It is important for researchers to be able to develop individual career paths reflecting the different career destinations open to them...

Government response:
[government funding] will help ensure that researchers are prepared for future careers in academy or industry.



2002-2010 A virtuous circle for researcher training



What skills are included



QAA: Code of Practice - 2004



Code of practice for the assurance of academic quality and standards in higher education

Section 1: Postgraduate research programmes - September 2004

Code incorporates Research Councils Joint Skills Statement



QAA Code – precepts 18-20

Development of research and other skills

18

Institutions will provide research students with appropriate opportunities for personal and professional development.

19

Each student's development needs will be identified and agreed jointly by the student and appropriate academic staff, initially during the student's induction period; they will be regularly reviewed during the research programme and amended as appropriate.

20

Institutions will provide opportunities for research students to maintain a record of personal progress, which includes reference to the development of research and other skills.

RCUK Joint Skills Statement

Seven 7 categories – 35 topics:

- a. Research skills and techniques(6 topics)
- b. Research Environment (7 topics)
- c. Research Management (3 topics)
- d. Personal effectiveness (7 topics)
- e. Communication skills (5 topics)
- f. Networking and team working (3 topics)
- g. Career management (4 topics)

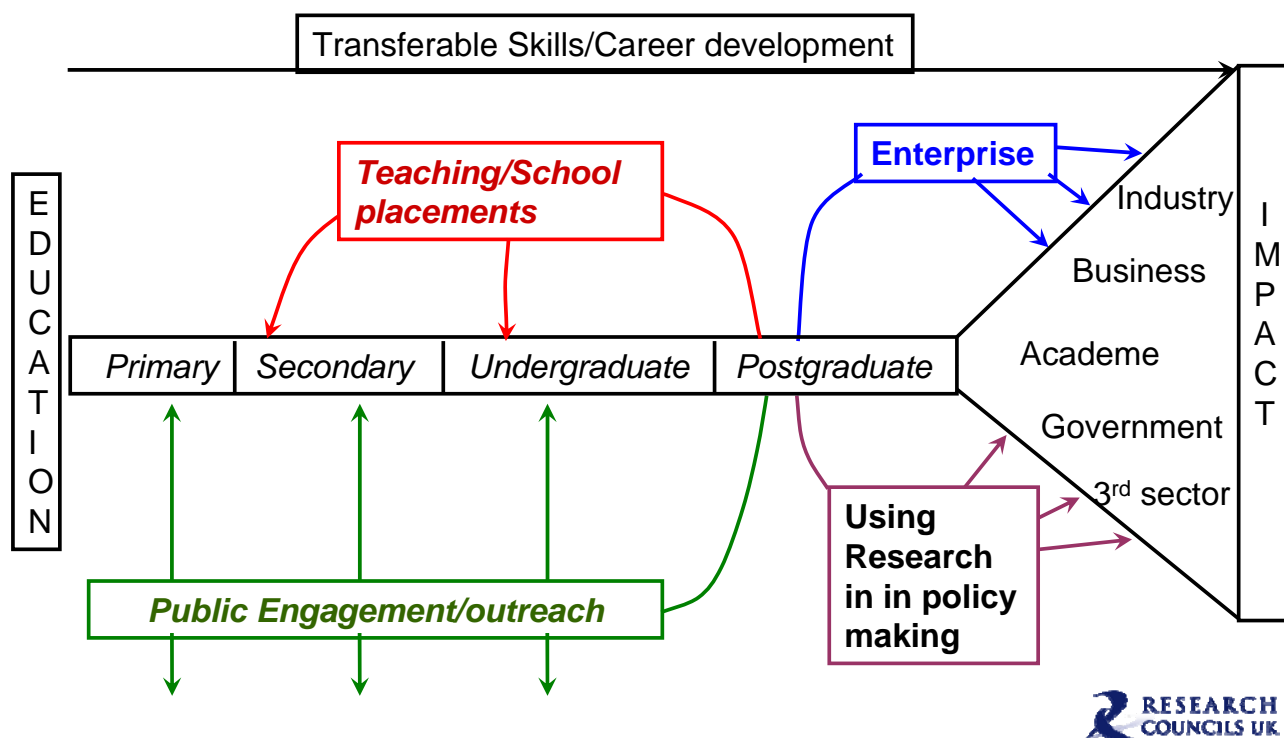
Research
competence

Transferable
skills

Published in QAA Code of Practice:

- Section 1 - Postgraduate Research Programmes

Researcher skills: Future priorities acquisition and impact



Reporting evaluation and outcomes

Annual reporting from Universities etc. 2004-2010

2004 – Outline Strategy

2005 Onwards – progress report including:

- Financial table
- Innovative practices
- Two page summary:
 - Managing the skills development programme.
 - Range of career development and training opportunities and uptake.
 - Use of reflection and feedback
 - Innovations in the last year and areas for development
 - Sharing practices



Reporting 2004-2009 – comparison of PGR provision

PGR 2004

Extensive provision for transferable skills: around 10% of ROs

Partial provision (some skills, some disciplines): over 80%

Not reported/ no provision: less than 10%

PGR 2009

Extensive provision for transferable skills: 70-80% of ROs

Partial provision (lack evidence of full range of skills/participants): 20-25%



Reporting 2004-2009 – comparison of RS provision

RS 2004

Extensive provision for career development and skills: less than 10% of ROs

Partial provision, tailored for RS: 25%

Access to general staff training: 33%

Not reported/ no provision: 33%

RS 2009

Extensive provision for career development and skills: 30-35%

Partial provision, tailored for RS: 20-25%

Access to general staff training: 15-20%

Not reported/ no provision: 20-25%

Reporting 2009 Activators and Barriers

Activators (Where distance travelled is striking):

- Researcher development championed at senior level
- Strategic drivers (e.g. impact of new Graduate Schools)
- Organisational 'learning culture'
- Planning, preparation and ongoing tactics (stakeholder engagement/embedding)

Reported barriers

- lack of funding (research organisations with low Roberts allocations)
- diverse researcher cohort (challenges in meeting a variety of needs cost effectively)
- difficulties in engaging various stakeholders

PRES (the Postgraduate Research Experience Survey)

Online survey tool designed by the Higher Education Academy to collect systematic feedback from current postgraduate research students.

- Introduced in 2007, and also ran in 2008 and 2009.
- 108 higher education institutions took part at least once from 2007-09 – 82 institutions took part in 2009.

PRES findings show that research students have generally very positive views about their experiences. Key findings include:

- Overall satisfaction levels for research students are very high: four out of five rated their experience as having met or exceeded expectations, and the proportion has increased slightly each year.*
- Opportunities to develop research and transferable skills were the areas*



Reporting Evaluation and outcomes

Target group	Policy/guidance source	Outcomes
PhD candidates	QAA Code of practice	✓Regular audit of universities ✓PRES
Research Staff	Concordat	✓Benchmarking projects ✓CROS ✓HR Excellence in Research (EU)
PhD candidates and research staff	Roberts recommendations 4.2 and 5.3	✓Assessment of distance travelled 2004-2009 ✓Independent Review of Roberts recommendations
All researchers	Use of Impact framework (Impact and Evaluation Group)	✓Institutional self analysis ✓National analysis and aggregation of reported outcomes

What is the Rugby Team Impact Framework?

© 2008 Rugby Team

The Rugby Team Impact Framework

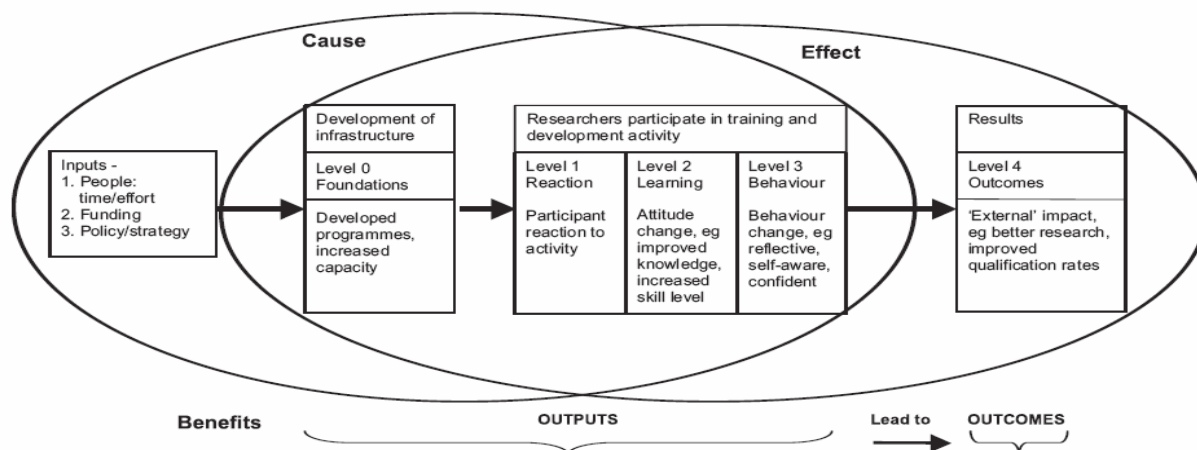


Figure 1: Schematic representation of projected benefits at different impact levels (levels 0 - 4)
See text for explanation of levels.



Incorporating the UK GRAD Programme and UKHERD

...plays a major role in the drive for high-level skills and innovation and in the UK's goal to produce world class researchers

www.vitae.ac.uk

Vitae is supported by Research Councils UK (RCUK),
managed by CRAC: The Career Development Organisation
and delivered in partnership with regional Hub host universities

Vision and aims

- ✔ For the UK to be world-class in supporting the professional development of researchers and researcher careers
- ✔ Championing the development and implementation of effective policy
- ✔ Enhancing higher education provision through sharing practice and resource
- ✔ Providing access to development opportunities and resources
- ✔ Building an evidence base to support the researcher development agenda

Vitae themes

- ✔ 5-year contract between RCUK and CRAC-Cambridge
 - £3.5M per annum
- ✔ Capacity Building in Universities
- ✔ Centre of Excellence
- ✔ 8 Regional Hubs
- ✔ Sharing of Practice
- ✔ Annual Researcher Development Conference
- ✔ Annual Policy Forum

Achievements

- ✔ Built visibility and credibility (esp. for res staff)
- ✔ Influenced policy - Concordat
- ✔ New training programmes for HEIs
 - Effective researcher programme in 15 HEIs
- ✔ New website dedicated to Research Careers
- ✔ Enable confident career decisions for researchers
 - GRADschools participants 95% positive
- ✔ Building evidence of range, impact and perceptions of researcher careers

www.vitae.ac.uk

for researchers, supervisors, research managers and employers

for policymakers and staff supporting the
development of researchers [visit](#)



[Home](#) | [Postgraduate researchers](#) | [Research staff](#) | [Careers](#) | [News](#) | [Supervisors & managers](#) | [Employers](#) | [Courses & events](#) | [Publications](#)

News

Vitae invites bids to £100k fund for innovation in researcher development

Leadership in action, 28 July BOOKING NOW

Secure your place at a three-day residential course exploring and developing researchers' leadership skills

The spring 2009 issue of 'overview' out now

Read PGR tips from part-time researchers

Events

▶ **YNE trainer and developers' forum - Part-time postgraduate researchers**

University of Newcastle upon Tyne
15 June 2009

▶ **Broadening horizons workshop 2009**

Nettle Hill, nr Coventry
22 June 2009 to 23 June 2009

Feature article

Feature: Top ten researcher development blogs, add your own!

Tristram Hooley provides a rough guide to the researcher development blogosphere. Where do you get your information about researcher development issues?...

[Read more](#)



Studying for a doctorate?

Information and guidance on many aspects of your doctorate, including planning, self-development, supervision, raising your profile, completing your doctorate and planning your career.

[FIND OUT MORE](#)




Employed as a researcher?

Information and guidance for research staff on all aspects of your development as a researcher, including developing your skills, collaborative working and exploring your career options.

[FIND OUT MORE](#)

Publications

 **overview - issue 6 - spring 09**

Size: 968KB

[overview - issue 6 - spring 09](#)

 **Vitae's programme for postgraduate researchers 2009**

Size: 224KB

[Vitae's programme for postgraduate researchers 2009](#)



Topics addressed by Vitae Researcher Development Conferences



2010

- ✔ **impact** of researcher development – major update
- ✔ **Concordat implementation** – survey of HEI responses.
- ✔ **RCUK independent review** of the Roberts skills agenda – initial outcomes
- ✔ **cost-effective** researcher skills and career development;
- ✔ Announce winners of Vitae **Innovate funding** 2010

2009

- ✔ **sustaining the investment** to build research capacity and remain globally competitive
- ✔ **impact** of researcher development – research and evaluation
- ✔ **Concordat, implementation** - benchmarking process
- ✔ **postgraduate researcher policy** - latest developments
- ✔ practice **supporting researcher skills** and career development.

2008

- ✔ **strategies for sustaining** personal and career support for researchers
- ✔ **researchers as professionals** - new models and approaches
- ✔ supporting **innovation** in skills development
- ✔ understanding, developing and promoting **researcher careers**
- ✔ **research, evidence and evaluation** relating to the skills and careers of researchers

Researchers careers

- ✔ **What do researchers do?**
 - First destinations by subject
 - Career profiles
 - Career profiles of doctoral entrepreneurs
 - Doctoral graduate destinations and impact three years on
- ✔ **Career stories portal**
 - database of careers stories
 - Career stories on film with icould
- ✔ **Employers' briefings**
 - targeting the postgraduate and researcher market
 - researchers' skills and competencies



WDRD? three years on*



- ✔ Experience of research degree programme
- ✔ Value of the doctorate (82% requirement or important)
- ✔ Employment
 - 2% unemployed
 - 54% have changed jobs
 - £34,000 median gross annual salary
- ✔ Satisfied with career to date (93%)
- ✔ Undertaking research (40% most of the time)
- ✔ Use of research (82%) and generic skills (91%)
- ✔ Impact on employment (94%) and beyond (89%)
- ✔ Unique doctoral occupations



www.vitae.ac.uk

* 2073 doctoral graduates from 2005 responded to the L-DLHE (45% response)

HE vs non-HE research – a comparison



- ✔ Work autonomously most of the time:
 - ✔ HE Research 65.8%, non-HE research 48.8%
- ✔ Work as part of a team:
 - ✔ HE Research 30.1%, non-HE research 44.4%
- ✔ Be innovative in the workplace:
 - ✔ HE Research 48.9, non-HE research 50.9%
- ✔ Make a difference in the workplace:
 - ✔ HE Research 38.7%, non-HE research 49.3%

www.vitae.ac.uk

Job movement over time: HE Researchers

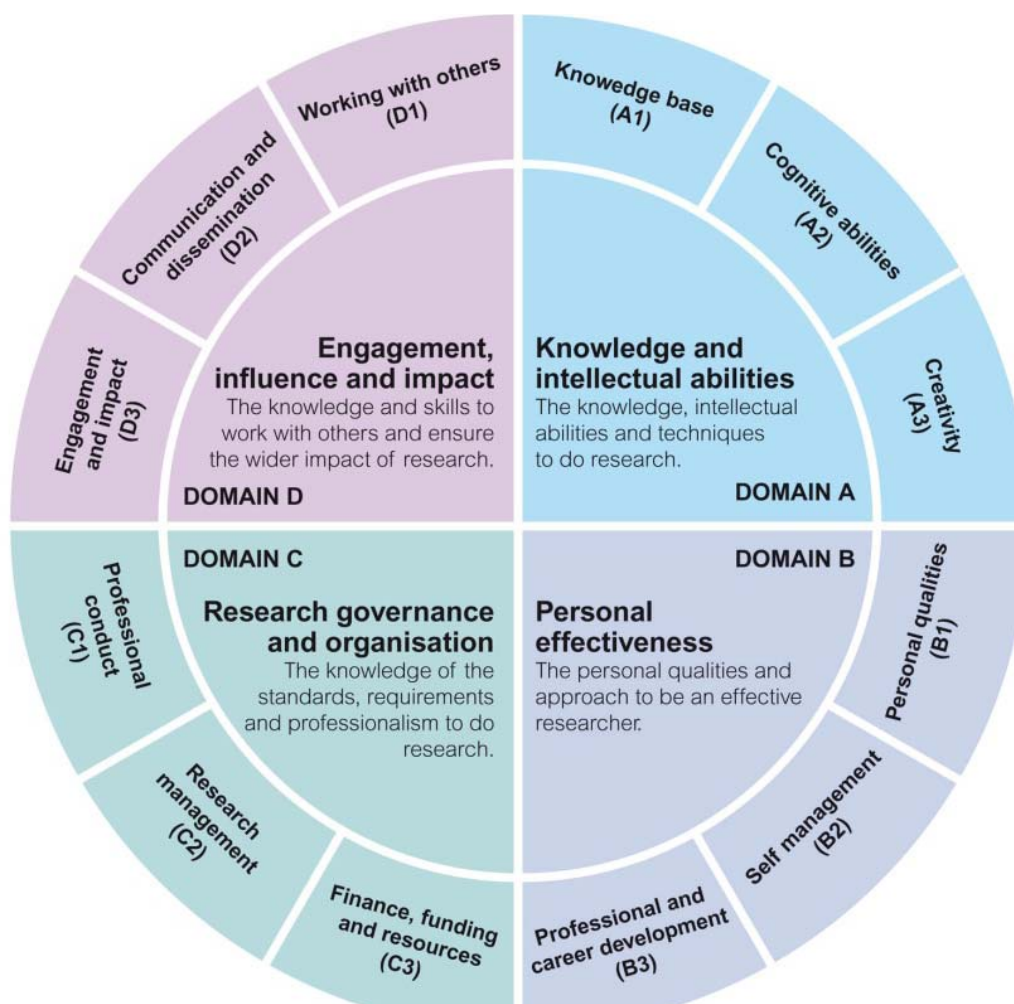
- 435 doctoral graduates were in HE Research at 6 months
- At 3.5 years the distribution between job clusters was:

■ HE Research	50%
■ Non-HE Research	13%
■ Teach/lecture in HE	17%
■ Other Teaching	3%
■ Other Common Doctoral	10%
■ Other	7%

Researcher Development Framework

- **Major new approach** to researcher development
 - evolution of the **Joint Skills Statement** for PGRs and research staff
 - describes **knowledge, behaviours and attributes** of researchers at different stages of development
 - providing a **language for communicating** researcher qualities
- **Researcher Development Statement endorsed by key stakeholders**
- **RDF website**
 - resources, FAQs
 - researcher profiles
 - JSS mapping
- **Professional development tool**
- **Consultation** on future development





The Concordat

to Support the Career Development of Researchers



The Concordat consists of:

- A set of principles for the future support and management of research careers and, under each principle, an explanation of how it may best be embedded into institutional practice;
- A clear statement of the signatories' collective expectations for the support and management of researchers.
- A section emphasising the responsibility of researchers to take control of their career and to further it through informed decisions.



Contents

- A. Recruitment and Selection***
- B. Recognition and Value***
- C. Support and Career Development***
- D. Researchers Responsibilities***
- E. Diversity and Equality***
- F. Implementation and Review***



Benchmarking

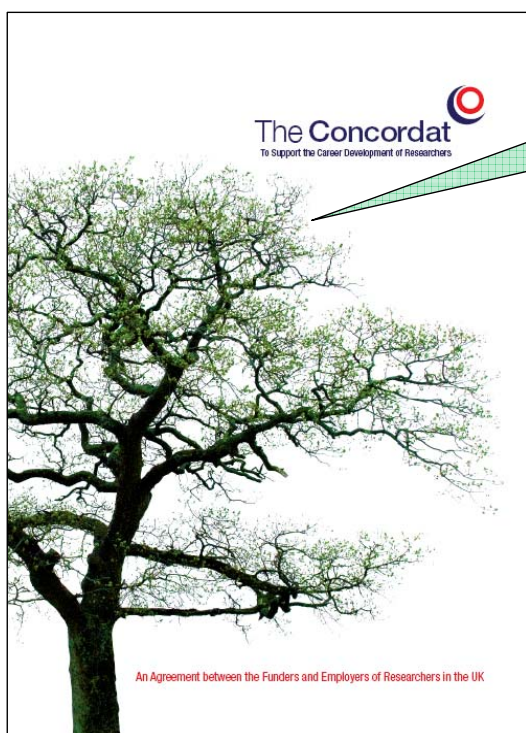
Six Projects

- Understanding the research staff cohort
- Exploring the experiences CROS (Mar-May of research staff through 2009)
- HEI approaches to embedding career development for researchers in HEI strategies
- Reviewing the use of fixed term contracts
- Views and perceptions of principal investigators
- Funders response to the Concordat

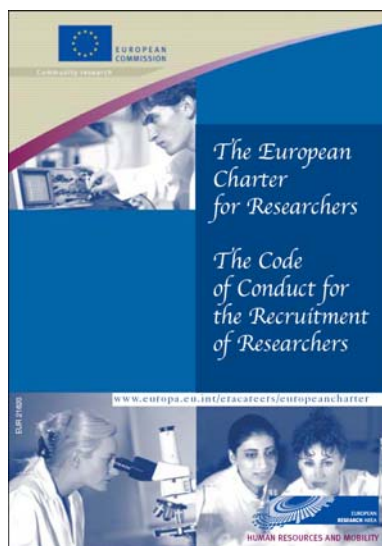


<http://www.researchconcordat.ac.uk/>

The Concordat and the European Charter and Code



"In endorsing the principles, we, the signatories, hereby adopt the principles of the European Charter for Researchers And Code of Practice for the Recruitment of Researchers"



<http://www.researchconcordat.ac.uk/>

The EU 'HR Excellence in Research' process and badge



The first ten UK universities have gained the 'HR excellence in research' badge from the European Commission.

The UK universities are:
Aston, Cardiff, Edinburgh, Exeter, Heriot-Watt, Newcastle, Queen Margaret University (Edinburgh), Reading, Salford and York

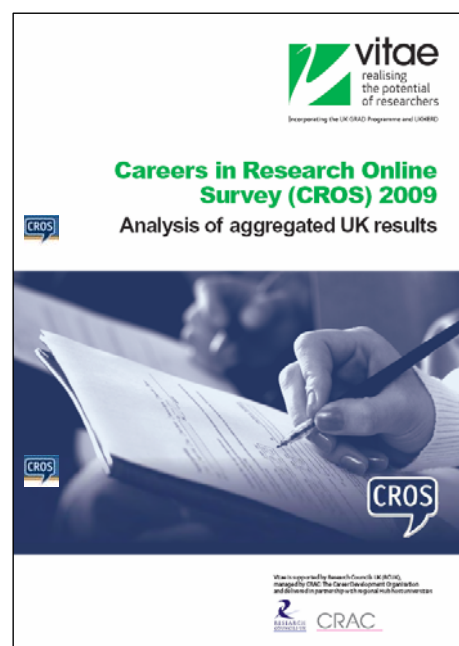


CROS (Careers in Research Online Survey) - 2009

- CROS anonymously gathers data about working conditions, career aspirations and career development opportunities
- 2009 survey - 5908 responses from 51 HEIs employing 74% of UK Research Staff, 21% response rate

NEXT AIM: To highlight similarities and differences between disciplines in CROS 2009

- Breakdown of the aggregate results by broad disciplinary groups:
 - Arts & humanities,
 - Social sciences,
 - Physical sciences and engineering,
 - Biological sciences and Biomedical sciences.



CROS and CPD

- Over half of respondents indicated that they would like training in career management (54%) and leadership /management (53%).
- Over 40% are interested in training and development in personal effectiveness, knowledge transfer and teaching.
- The areas reported of least interest were research ethics and governance (31% stated it to be of interest), and team-working (34%).

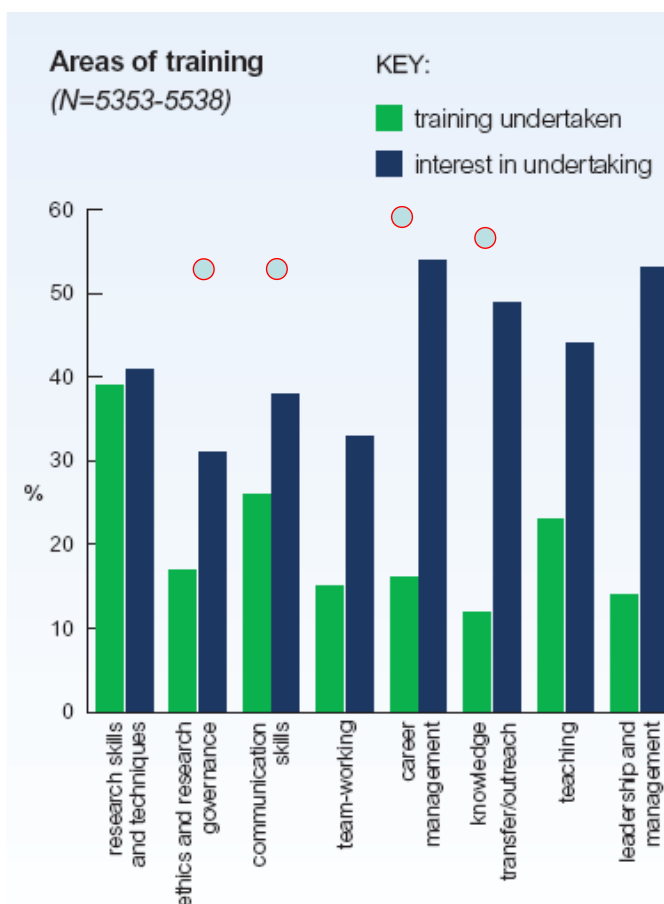
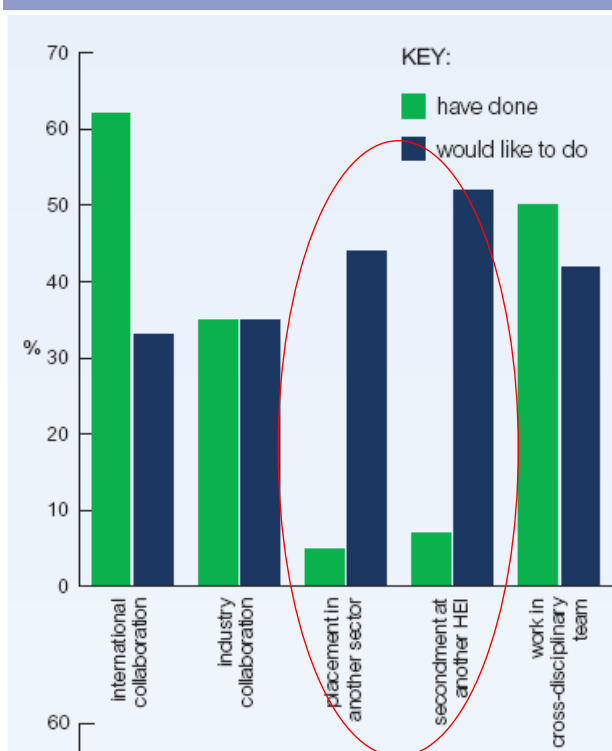


Figure 6 Areas in which training and development had been undertaken or was of interest to respondents (responses from question 20)

CROS findings – getting out more!



- The majority of respondents reported that they had collaborated with others: 62% internationally and 50% in cross-disciplinary teams and many more would like to do so.
- 35% had collaborated with industry and as many more wished to.
- Although only 5% had undertaken a placement outside HE, and 7% a secondment to another HEI, up to half of respondents reported that they would like that experience.

Messages from CROS 2009

- The overall picture from CROS is positive
 - Recruitment processes are generally transparent;
 - most researchers feel valued;
 - institutions appear to recognise the importance of supporting career development
- Nevertheless there are variations and there are concerns.
 - Institutions should identify areas of good practice and share these with the rest of the sector through the CROS and Vitae networks.
- Exchange of ideas will help researchers themselves and enhance their contribution to the UK's research agenda.



Successes 2002-2010

- The RCUK Joint Skills Statement
 - Developed into Researcher Development Framework (RDF)
- Quality Assurance Agency Code of Practice
- UKGRAD and Vitae
- Impact and Evaluation Group - Impact Framework
- What do Researchers do? publication - career information
- Postgraduate Research Experience Survey (PRES)
- Concordat to Support for the Career Development of Researchers
- Careers in Research Online Survey (CROS)





Thank you for your attention!



FUTURE challenges from 2011 onwards

- Implement Independent Review of the Roberts Agenda
- Ensure engagement with stakeholders:
 - Research Staff
 - Employers both HE and non-HE
 - Users of research outputs (knowledge and researchers)
- Maintaining the momentum of career development in a downturn
- Making the transition from ring-fenced funds to embedding funding and activity into 'normal' practice
- Monitoring progress to sustainability and measuring impact
- Demonstrating value to employers and the economy