Enhancing researcher development across doctoral training cohorts

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Presentation

Enhancing researcher development across doctoral training cohorts

- Employment and broader context
- Professional development planning
- Structures and expectations
- Challenges and opportunities

The Pillars of Vitae - World-class professional development of researchers

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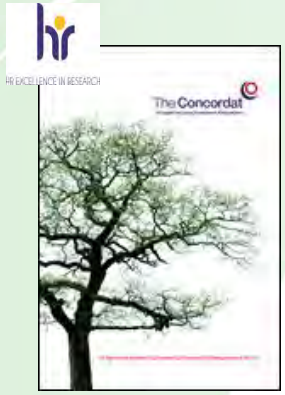

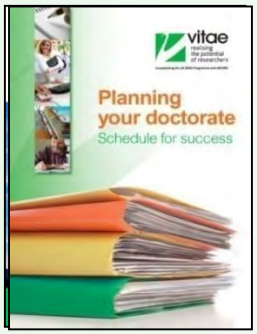

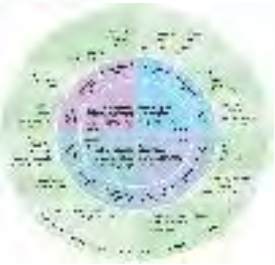

Inform Strategy & navigate Policy

Strengthen Institutional Provision

Support Researcher Developers in their professional development

Inspire researchers to realise their potential

Demonstrate Impact - Evidence researchers' careers

Vitae membership - Networking & Collaborating

Salzburg Principles: Nature of doctoral training and status of doctoral candidates

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i. **The core component of doctoral training is the advancement of knowledge through original research**……recognising that doctoral training must increasingly meet the needs of an employment market that is wider than academia.

iv. **Doctoral candidates as early stage researchers:** should be recognized as professionals who make a key contribution to the creation of new knowledge.

viii. **The promotion of innovative structures:** to meet the challenge of interdisciplinary training and the development of transferable skills

RCUK Statement of Expectations for Postgraduate Training

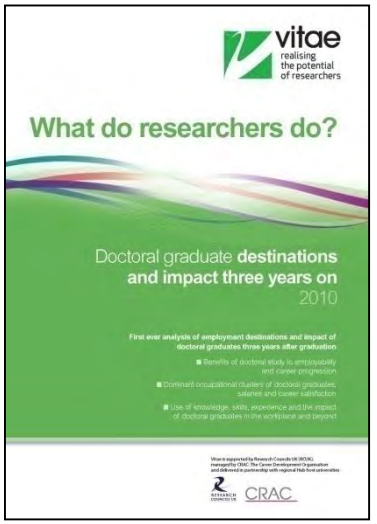
- Career advice should be provided (both prior to PhD and ongoing) to enable students to
- choose the most appropriate type of PhD
- have the confidence and skills to explore impact they can have in a wide range of relevant sectors and so manage their careers

http://www.rcuk.ac.uk/RCUK-prod/assets/documents/skills/statementofexpectation.pdf

What do researchers do?
Doctoral graduate impact three years on

- Use generic skills (> 90%)
- Innovative some or all of time (>90%)
- Positive impact in employment (> 90%) and beyond (89%)
- Value of doctorate (> 80% - important or requirement)
- Use research (> 80%)
- Undertake research (40% most of the time)

- Employment pattern varies with discipline
- Unemployed (2%)
- Employed in HE (44%)
- Occupational clusters



Doctoral graduate destinations and impact three years on, Vitae, 2010

Destinations three years on

Other common doctoral occupations:
Health professionals (18%); Functional and production managers and senior officials (25%); Engineering professionals (14%); ICT professionals (10%); Business, finance and statistical professional and associate professional roles (15%)

Doctoral graduate destinations and impact three years on, Vitae, 2010

Employment clusters by broad disciplines

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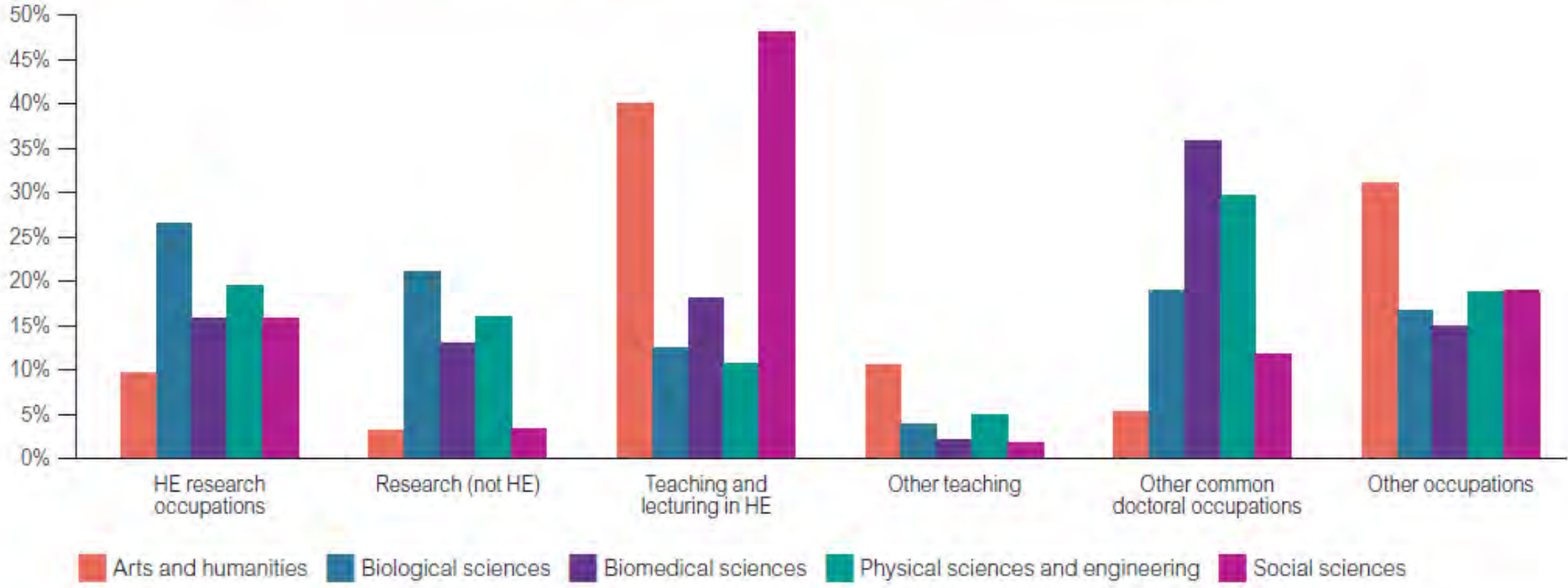
Figure 3 Occupational clusters for doctoral graduate respondents in UK employment by disciplinary group



What do researchers do? Early career progression, Vitae 2013

The impact of doctoral researchers

- Over three quarters of UK employers believe that losing doctoral graduates from their workforce would have a major impact on their business
- One in five consider doctoral graduates to be ‘business critical’
- Doctoral graduates improve the effectiveness of their colleagues
- Vast majority contributed to improving problem solving and creative-thinking in others.

http://www.rcuk.ac.uk/innovation/impactdoctoral/

Employers' expectation of researchers

	Group 1	Group 2	Group 3	Group 4
Data analysis	100%	100%	91%	91%
Problem Solving	100%	88%	89%	83%
Drive and Motivation	100%	84%	59%	74%
Project Management	83%	36%	70%	39%
Interpersonal Skills	67%	56%	39%	26%
Leadership	67%	28%	24%	17%
Commercial awareness	50%	20%	28%	22%
Overall	**81%**	**59%**	**57%**	**50%**

Employer categories

Group 1: actively target doctorates

Group 2: strong interest

Group 3: some interest, occasionally recruit

Group 4: no interest

Recruiting researchers, 2009, 104 employers

RCUK Statement of Expectations for Postgraduate Training

- Research Councils expect the provision of transferable skills to form a fundamental part of doctoral training.
- Students will be expected to develop the higher-level capabilities as outlined in the Researcher Development Statement.
- Students enter doctoral programmes with a diverse range of skills and experience.
- ……mechanisms in place to assess and monitor individual student needs and put in place appropriate development opportunities.

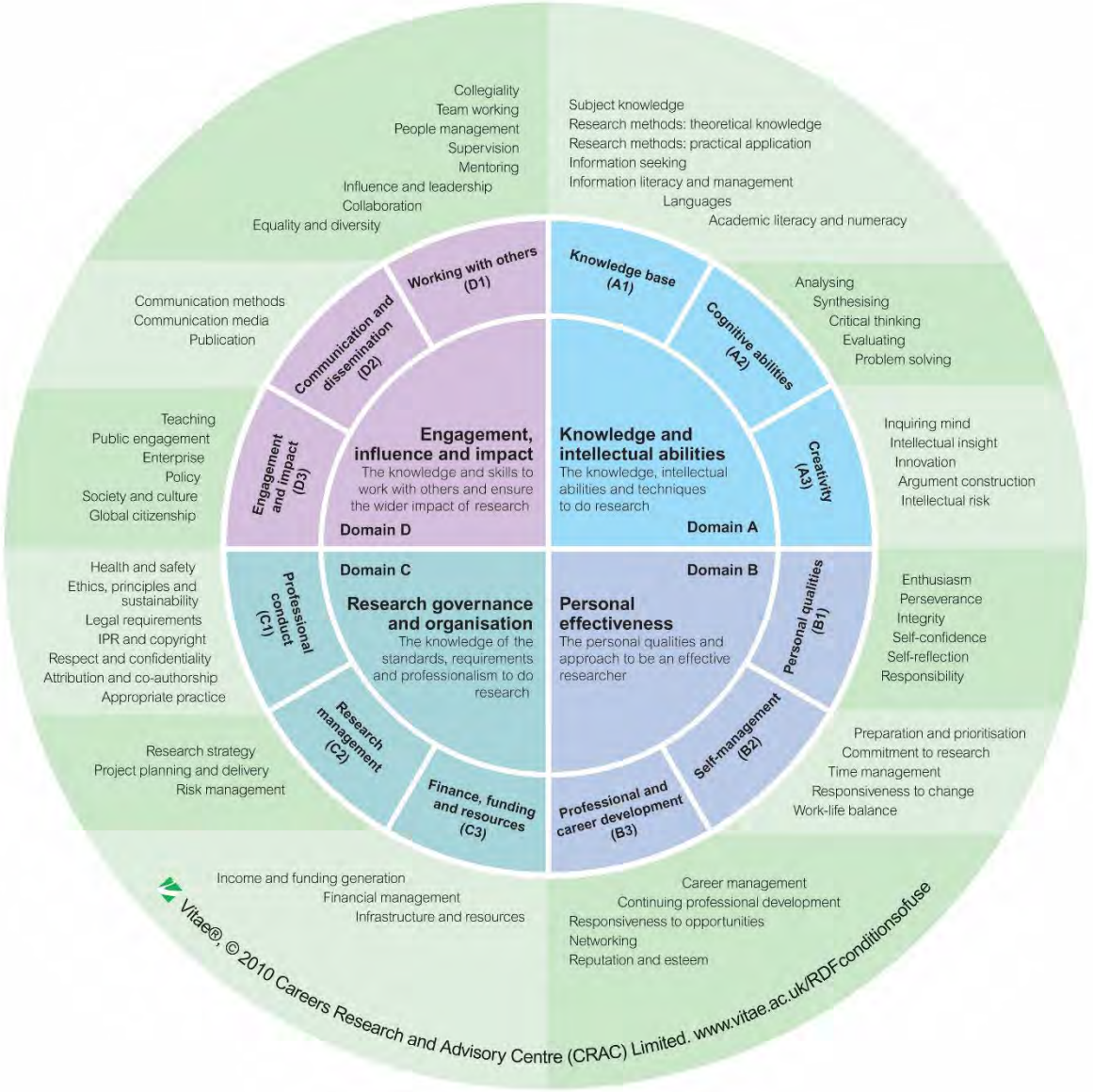
http://www.rcuk.ac.uk/RCUK-prod/assets/documents/skills/statementofexpectation.pdf

Professional Development Planning

Professional Development Planning is…

"A structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement and to plan for their personal, educational and career development."

The Vitae Researcher Development Framework



- Statement endorsed by over 30 stakeholder organisations, RCs, FCs, UUK, university mission groups
- Embedded in QAA Quality Code for research degrees
- Widespread institutional use in UK and internationally including translations
- ESF European trial recommendations for European Framework
- Developed for researchers by researchers, describing successful researchers capabilities

House of Lords review of HE STEM, July 2012
'…we were pleased to hear that the Researcher Development Framework (RDF), developed by Vitae in consultation with employers, has gone some way to improve the employability skills of postgraduates and guide the knowledge, behaviour and attributes of a successful researcher '

Using RDF Lenses to access the Vitae Researcher Development Framework

Focus on clusters of researchers' capabilities

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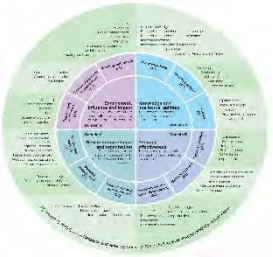

Within the RDF

- Employability (surveys)
- Enterprise (EEUK, NCEE, RCUK)
- Leadership (LFHE)
- Knowledge exchange (AURIL)
- Intrapreneurship
- Mobility (EURAXESS)

Under development

- Impact
- Placements
- Publishing
- Independent researcher
- Supervision
- Strategic

Bridging to other professional frameworks

- Teaching (UKPSF)
- Engineering (Engineering Council)
- Public engagement (NCCPE, RCUK)
- Information literacy (SCONUL)

Collaborative approach – Expert validation

http://www.vitae.ac.uk/researchers/437191/Increasing-the-impact-and-engagement-of-researchers.html

RDF descriptors in the employability lens for careers outside of academia

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Domain A

- Subject knowledge, Research methods
- Analysing, Critical Thinking, Problem Solving

Domain B

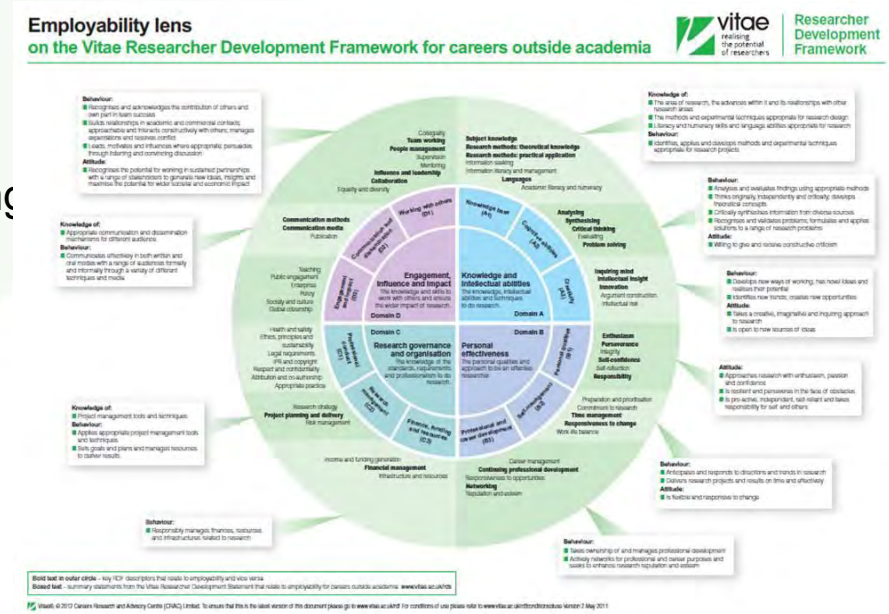
- Enthusiasm, Perseverance
- CPD, Self –confidence, Self-reflection,
- Responsibility, Time management
- Responsiveness to change
- Networking

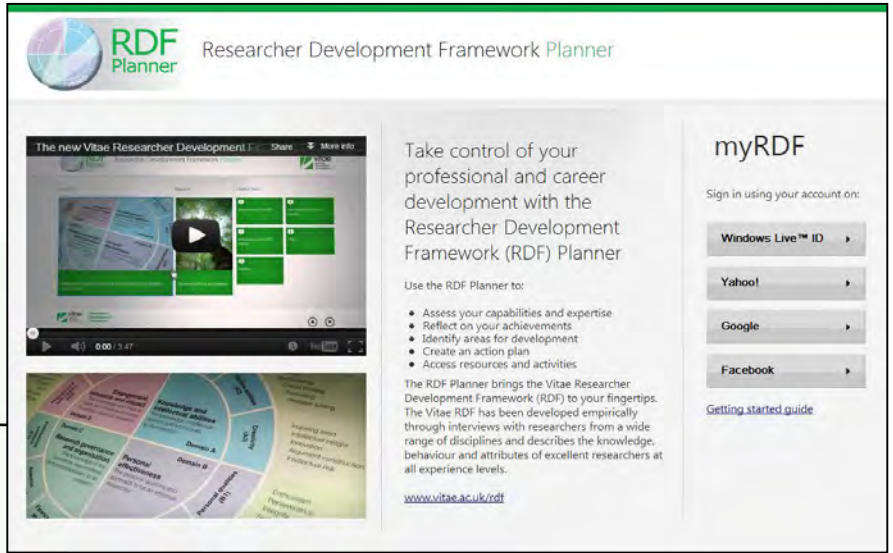
Domain C

- Financial Management
- Project management

Domain D

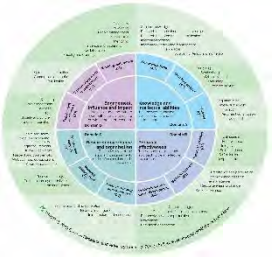
- Communication
- Collaboration
- Team Working
- Influence and Leadership





RDF Phases for development

Developing and delivering projects



Phase 1

- Applies effective project management through the setting of research goals, intermediate milestones and prioritisation of activities.
- Acts on decisions agreed with supervisor/line manager and delivers results.

Phase 2

- Independently defines a manageable research project.
- Understands project management cycles and is able to draw on a range of project management techniques and tools.
- Allows for wider public access to and long-term preservation of research information/findings.
- Manages problems and conflict.

Phase 3

- Defines large research projects, draws up long-term plans for research.
- Uses range of project management strategies.
- Clarifies priorities; sets expectations, keeps project on track.

Phase 4

- Effectively manages multiple research projects and both the research agenda and bureaucracy for various projects.
- Able to take unpopular but evidence-based appropriate decisions.

The ‘value’ of professional placements

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Researcher benefits

- Working in commercial environment, team working skills, self confidence, broadening horizons, problem solving, applying research out of academia, demonstrating impact, networking, informing career plans

Business benefits

- Innovation, new ideas, developing solutions, getting the job done, new resources, recruiting new talent, increasing visibility

University benefits

- Promoting postgraduates, offering learning experiences, showcasing doctoral researcher skills, adding value to researchers, experience, bridging the gap, engaging with industry, and demonstrating impact

(Researcher work experience: Placements/internships outside academia
http://www.vitae.ac.uk/CMS/files/upload/Vitae_Placements_outside_academia_Nov_2011.pdf)

RCUK Statement of Expectations for Postgraduate Training

- Supervisors should recognise doctoral study as a wider training opportunity and encourage and support students in developing their careers.

http://www.rcuk.ac.uk/RCUK-prod/assets/documents/skills/statementofexpectation.pdf

Career and management responsibilities of supervisors

PIRLS bi-annual surveys

- ‘People management’ roles perceived less important than ‘leadership’ activities (or core research), and less valued

- Lowest confidence in giving career advice, performance management, conducting appraisals, managing finance

‘The **active engagement of principal investigators** in human resources management and the career development of their researchers is well recognised as an ongoing challenge.’

The Vitae Career Framework for Researcher Developers (CFRD)

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- Emerging new professional specialism
- Supports career development
- Collaborative development by practitioners
- Accounts for wide range of different roles and responsibilities
- Maps to other professional development frameworks
- Role elements in 3 stages to show possible progression

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Process

- ✓ Informal and formal cross sector/cultural experiences, placements and work experience
- ✓ Career conversations throughout doctorate
- ✓ Ownership - Professional Development Planning
- ✓ More than ‘courses and workshops’
- ✓ Affirmation of researchers’ capabilities
- ✓ Information on different career pathways
- ✓ (Peer) Mentoring
- ✓ Role models – alumni and others

Culture

- ✓ Celebrate being a professional researcher ‘for life’
- ✓ Manage divergent career expectations with integrity
- ✓ Equality of opportunity