

Centre's for Doctoral Training in the UK



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Lesley Thompson-Director Research Base



UK Context

- Browne review
- Government funding cuts-research relatively protected
- Increased research investment in other countries
- We must make every pound we invest count, more so than ever!

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Our three Strategic Plan goals

Delivering Impact

- Embedding impact throughout our portfolio by creating an environment in which it arises naturally, in whatever form, from the knowledge base;

Shaping Capability

- Ensuring we have the right people, with the right resource, in the right places to deliver the highest quality long-term research in areas where the UK leads internationally and where there is current or future national need;

Developing Leaders

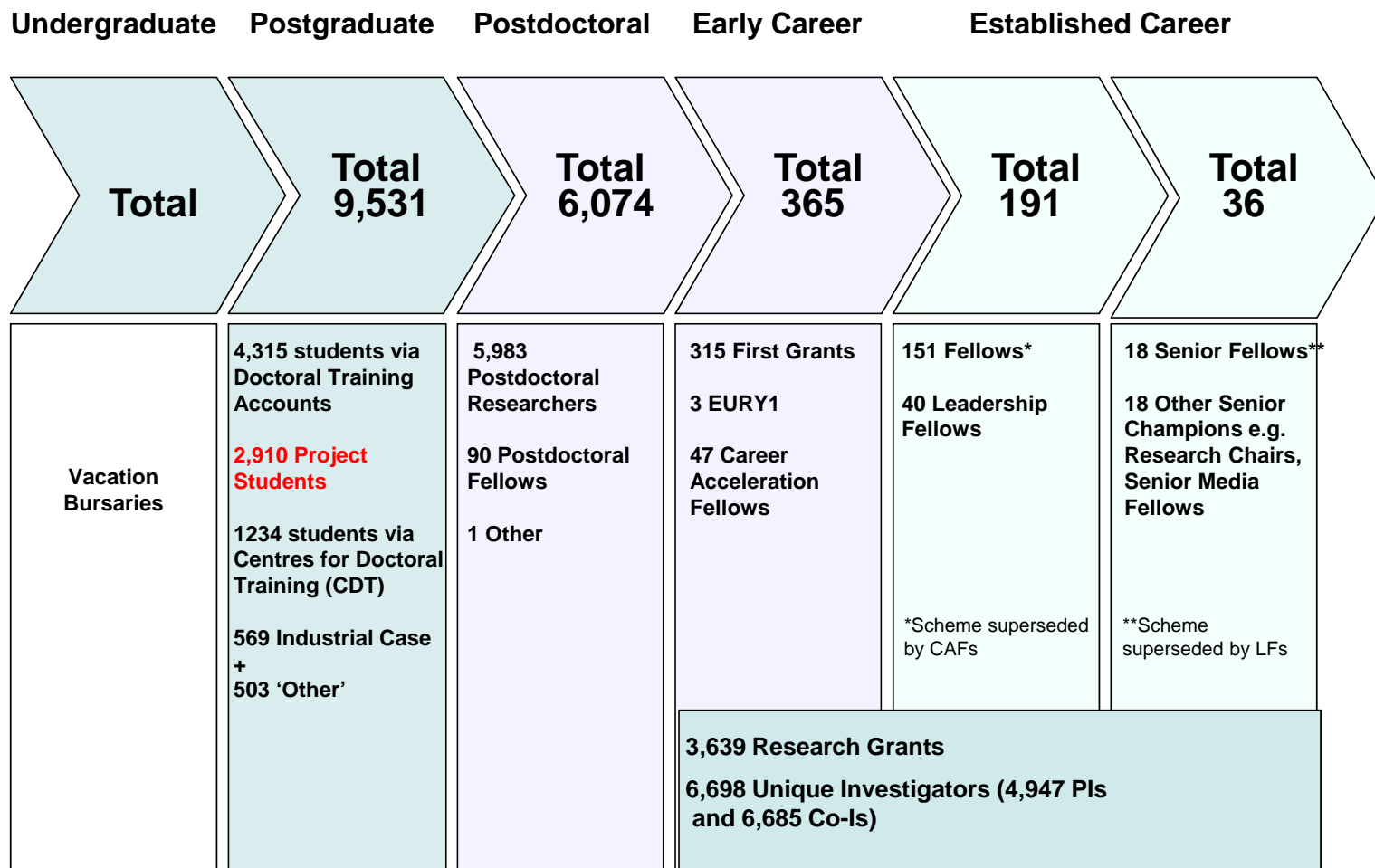
- Nurturing the visionary leaders who set research agendas and inspirational team leaders who act as role models;

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EPSRC Current Portfolio -2010

Number of people supported by EPSRC across the career path – current portfolio 2010



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Future plans

We will:

- Set a **balance** between national capability and challenge themes of **60:40**;
- Help **rebuild** the UK economy;
- Further **embed impact** so that universities deliver it as normal business;
- Emphasise the role of research leaders;
- **Give priority to PhD quality**;
- Drive **efficiency** and **effectiveness**;

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Priority PhD quality

- Traditionally UK PhD 3 years after 3 or 4 year first degree
- UK PhD is not competitive- Numerous international reviews tell us
- EPSRC has provided funding for average 3.5 years with flexibility- but universities have favoured volume
- Industry concerned that UK PhD's are often too narrow and lack softer skills
- Are PhD's able to contribute effectively to challenge lead multidisciplinary research
- New approaches built on strong evidence

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Development of Doctoral training centres

- Industry offered to host PhDs for significant periods, lead to Eng Doc started in late 80's- employment statistics great
- Wellcome Trust-4 year centres for doctoral training- Outcomes significantly better
- To enhance interdisciplinary approaches 2001- 2 life sciences interface CDT's established (Oxford, Edinburgh)
- 5 further centres 2002 (IC, Warwick, UCL, Leeds/Sheffield, Strathclyde)

All this provided evidence of: Quality of students, Industry funding, Research income growth, Centres networked together, Directors had different skills sets .

Universities saw benefit!

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So in 2008

50 centres, £280m of investment was made in CDT's

All thematic, in strong research leading environment with major university commitment. Strong cohort (10 minimum pa) based training over 4 years, technical and broadening. Both require high calibre committed Directors

Two types

Industrial Doctorates	Doctoral training centres
<ul style="list-style-type: none">• Need wide range of industrial sponsors• Students spend 75% of time in company• Companies select students	<ul style="list-style-type: none">• First year enhances technical knowledge• Students tend to pick supervisors• Best UG tend towards DTCs

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CDTs – a high volume new investment

Speaking at the launch in December 2008, Lord Drayson said:

“Britain faces many challenges in the 21st Century and needs scientists and engineers with the right skills to find answers to these challenges. EPSRC’s doctoral training centres will provide a new wave of engineers and scientists to do the job”.

Is this relevant to Australia?

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CDT Evaluation framework for 2011

- Aim to demonstrate the success of centres based on the original objectives of their strategic importance, international standing and training, supervision and management at host research organisations.
- This includes the effect the centre is having on:
 - The students themselves and their subsequent careers
 - The host research organisation
 - The wider community nationally and internationally.

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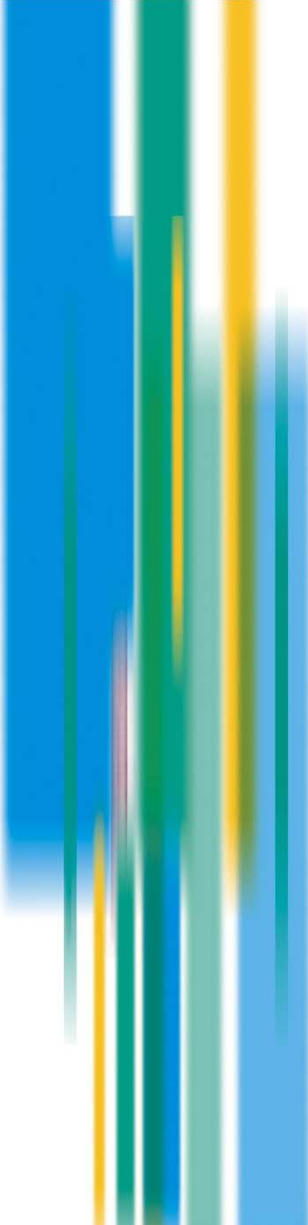


Advice and Next Steps

- Flexible provision that adds real value to the individual and allows widening of horizons – no automatic move to 4 year PhD.
- Better career advice pre-entry.
- EPSRC statement of expectations and University statement of how EPSRC support is being used strategic
- 10% international eligibility and 10% PhD+
- Future focus research leadership! Ideas most welcome
- EPSRC evolves from a funder to a sponsor

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Thank you for your attention and the
invitation

Questions and queries?

Lesley.Thompson@epsrc.ac.uk

Monitoring and evaluation framework at:

www.epsrc.ac.uk/funding/students/centres/framework/Pages/default.aspx

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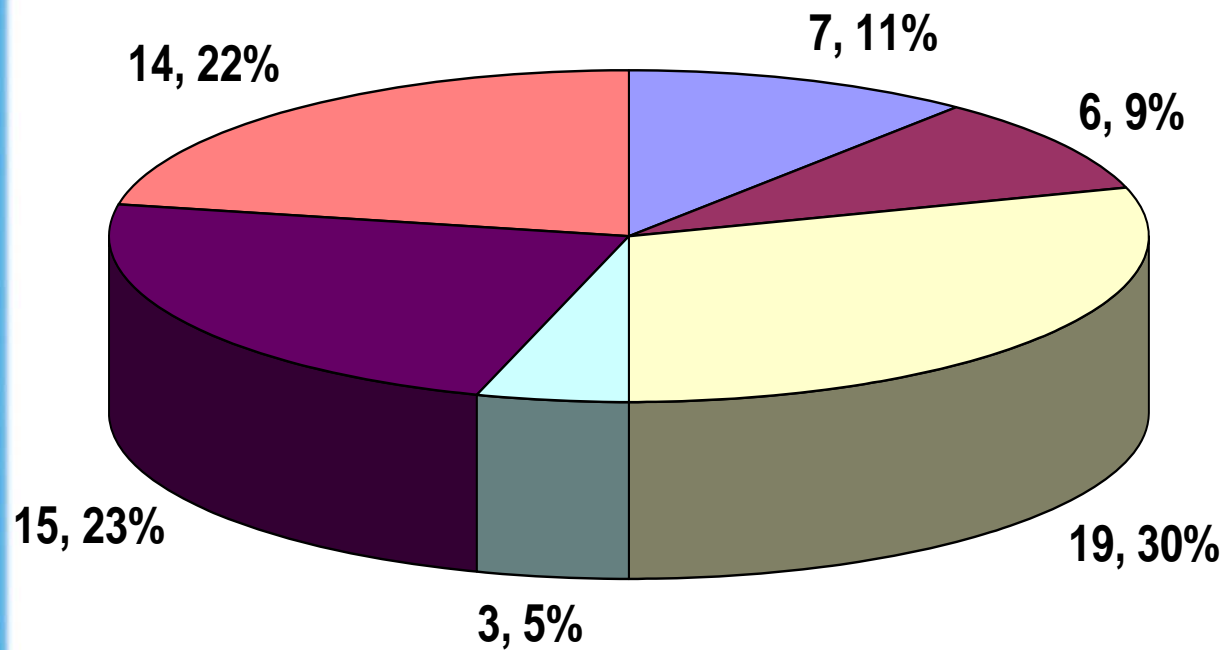
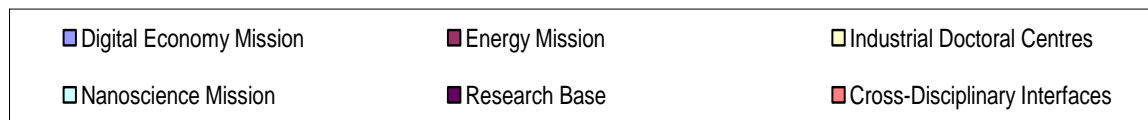
Spending Review Allocation (2011/12 – 2014/15)- Excellence with Impact

Resource	Capital	Admin
“Flat cash” & ring fenced	Overall reduction ~ 50%	Overall reduction ~ 34 % with inflation
4 year allocation	Yr 1 fixed, Yrs 2 – 4 indicative	Yr 1 fixed, Yrs 2 – 4 indicative
Total S & R £18.3bn HEFCE £6.7bn RCs £10.4bn	Total S & R £1.9bn RCs £800m	
EPSRC £3bn (by end of CSR 3% cash reduction, 12% reduction with inflation)	EPSRC £116m	EPSRC £62m

CDT Portfolio by Area

CDT PORTFOLIO BY MISSION AREA

64 FULL CENTRES (including one remaining Engineering Doctorate Centre and 14 original Life Sciences Interface and Complexity Science Centres)

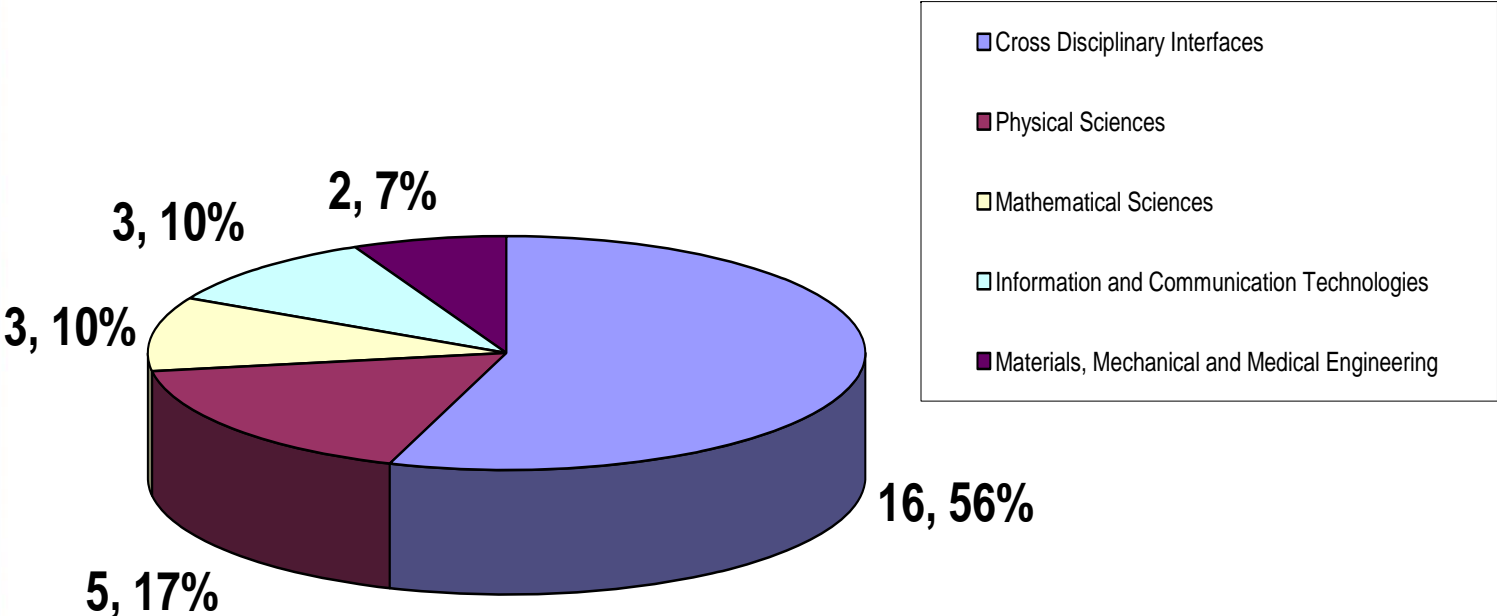


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Research Base CDTs by Programme area

'RESEARCH BASE' CDTs BY PROGRAMME
15 new centres and 14 current centres in cross-disciplinary
Interfaces including complexity science





Some final thoughts on facilitating centres:

- How can Centres share their experience/benefits of the Centre/cohort approach to training more widely - within their Institutions, within their fields?
- How can Centres share experience and successes amongst themselves and learn from each other most effectively?
- What can Centres share and learn about exposing students to broader experiences and environments outside the host Institution?