

Career Pathways in Academic Research

Birmingham Life Sciences Careers Conference 14 Nov 2012



Dr Simon Cutler, BBSRC Innovation & Skills

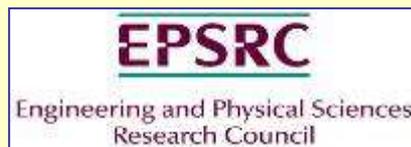
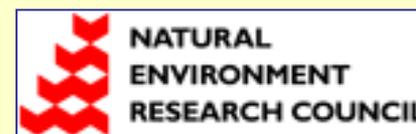
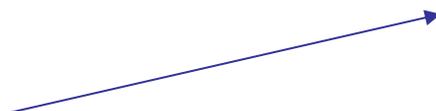


HM TREASURY



BIS

Department for Business
Innovation & Skills





BBSRC allocates around £445M p.a. (2011/12) to:

- Fund innovative, internationally competitive **bioscience research**
- **Train** bioscientists
- Support **knowledge exchange** and encourage **economic and social impact**
- Engage with the **public and stakeholders**



Food Security

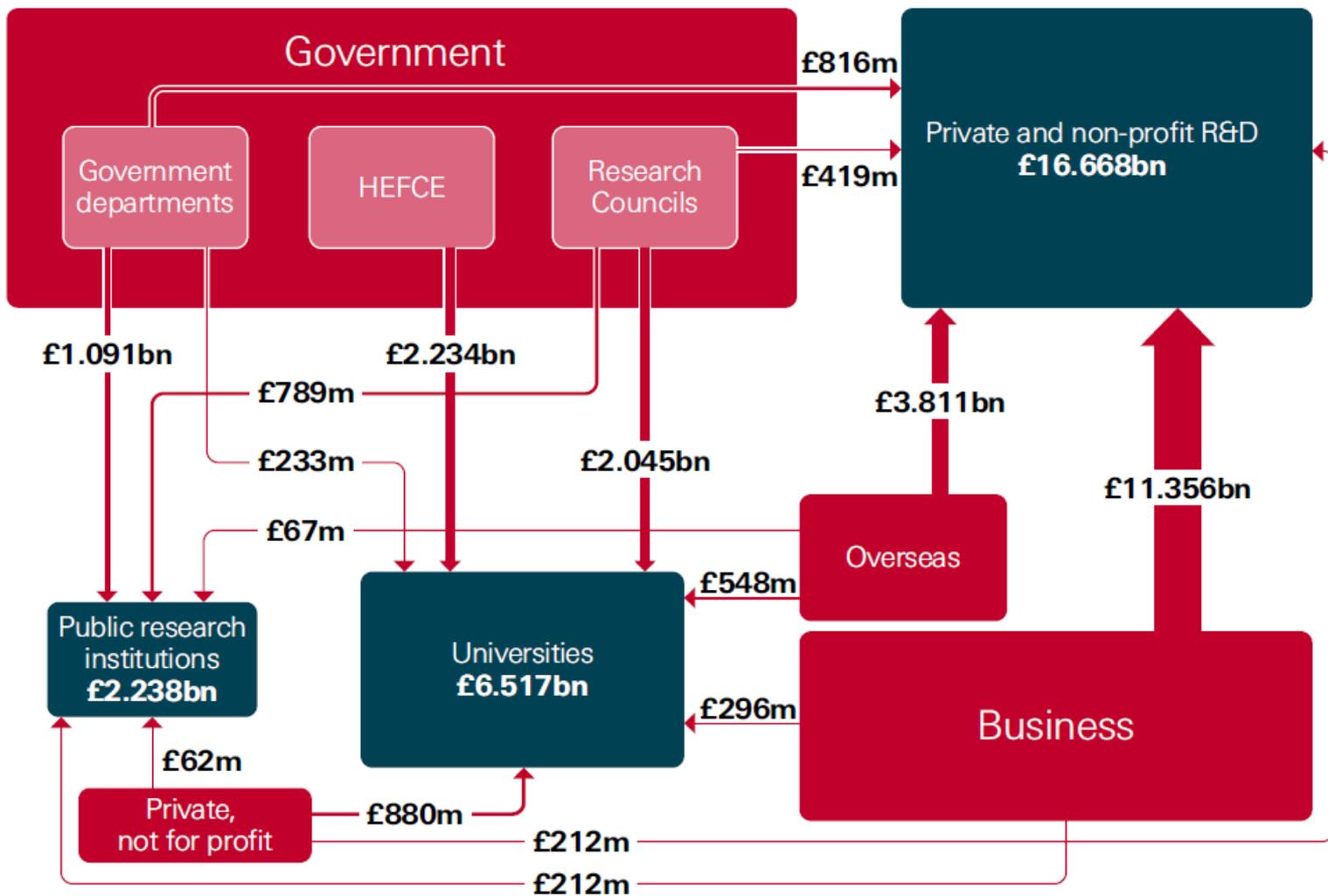


**Bioenergy and Industrial
Biotechnology**



**Basic bioscience
underpinning health**

Figure 1.9 Flows of funding in UK science⁴⁴



■ Source of research funding
 ■ Research activity

Career so far...



● **1989 BSc**
Biological
Sciences
(Brum)
**[1988
Medicine]**

● **1992 PhD**
Fungal
Genetics
(Brum)

● **1995 / 1997**
Postdocs
HRI -
mushrooms
Brum - with
Zeneca and
AgrEvo - wheat
pathogens

● **2000 BBSRC**
Science
Programme
Manager
IGF
GDB
2002 CE-SLO
2003 Innov PM
Business &
Innovation

● **2009 BBSRC**
Senior PM
Innovation &
Skills
Studentships
• DTP
• iCASE
People
Movement
Fellowships
Incentive
Competitions
YES

Roles within BBSRC Office

Strategic HR

Innovation

Government Relations

Peer Review
Management

Executive Support

Community Relations

Knowledge Exchange

Accountancy

Public Engagement



Media &
Communications

**Research Skills
& Training Strategy**

Financial Planning

Science Strategy

International
Relations

Business Interactions

Evaluation &
Evidence-base

Corporate Policy

Research Base Interactions



Why did I ever leave?





£67M investment in bioscience skills & training



"This... is excellent news for students, research organisations, industry and the UK as a whole. The **brightest and best students** will be finding solutions to some of the biggest challenges facing us all, from food security through to renewable energy.

"The **partnership approach** means that many institutions are combining their strengths to provide students with improved training and relevant work experience. **This will better equip them for future careers, be it in research, industry, or elsewhere.**"

*Rt. Hon. David Willetts MP
Minister for Universities & Science
24 January 2012*

Is one degree enough?

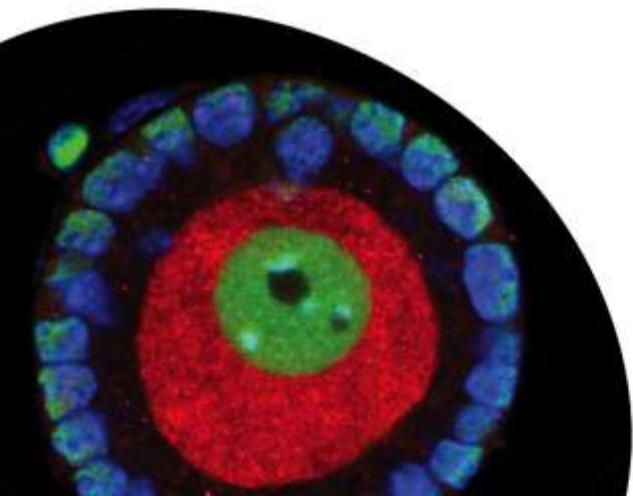
- Graduates with multiple degrees are more likely to get higher-paid and better jobs than those with only one degree
- Holders of postgraduate degrees are also more likely to be in work 3½ years after graduating.

- MSc
- MPhil
- MRes
- PhD
- MRes/PhD



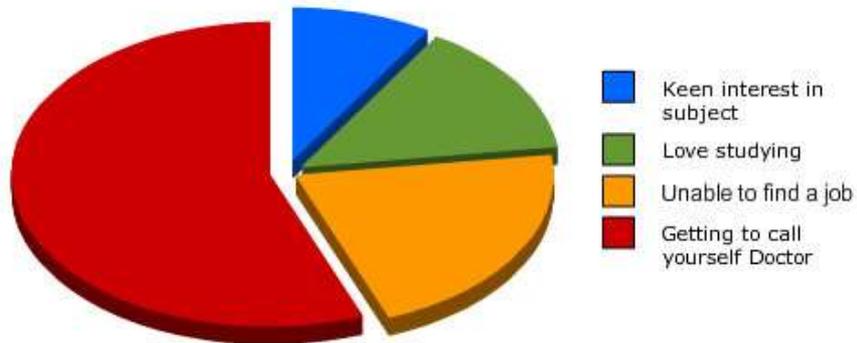
Why do a PhD?

- An opportunity to research an area of bioscience which grabs you
 - and produce a thesis which makes an original contribution to the field
- An opportunity to develop high-level skills and knowledge
 - which you can take into a range of research and research-related careers



Reasons why not to do a PhD?

Motivation for doing a PhD



GraphJam.com

- Because you can't think of anything else to do
- Because the job market at the moment is not good
- Because your lecturer thinks you should
- Because you want to put 'Dr' before your name

PhD planning

1. Science Area

2. Supervisor

3. Department

4. Type of PhD Programme

- Rotation first year
- Broader exposure to research techniques and skills
- Broader skills programme, teaching opportunities, etc
- CASE or placements e.g. PIPS?

5. Funding

- Current Research Council minimum stipend is around £14k (tax free) (+£2K in London)
- Eligibility conditions apply to RC funding ... seek advice from your prospective university
- We award funding to departments on a competitive basis
www.bbsrc.ac.uk/funding/studentships/index.html
- (BBSRC makes no awards directly to students)



Next steps

- Application
 - Make enquiries any time
 - Adverts mainly Dec-Mar, prestigious PhDs earlier
 - Apply for a project in time (final year, before exams)
 - Funding normally includes MRes/PhD (4 years)
 - Alternatively self-fund – EXPENSIVE
- Prospectus (University Websites)
- Careers Service
- Adverts on Web (e.g. www.jobs.ac.uk)
- Adverts e.g. *New Scientist*
- www.FindaPhD.com or www.FindaMasters.com
- Direct contact / Search widely



Postdoc opportunities

- **Postdoc positions** represent a major BBSRC investment in the development of scientists
- You need to have a lecturer position to apply for BBSRC grant funding
- But you can write a proposal with a PI and be funded as the '**researcher co-investigator**'
- But there are risks as well as opportunities to being a postdoc!
- Finding the right postdoc opportunity is crucial
- And important not to see it as a simple stepping stone into academia

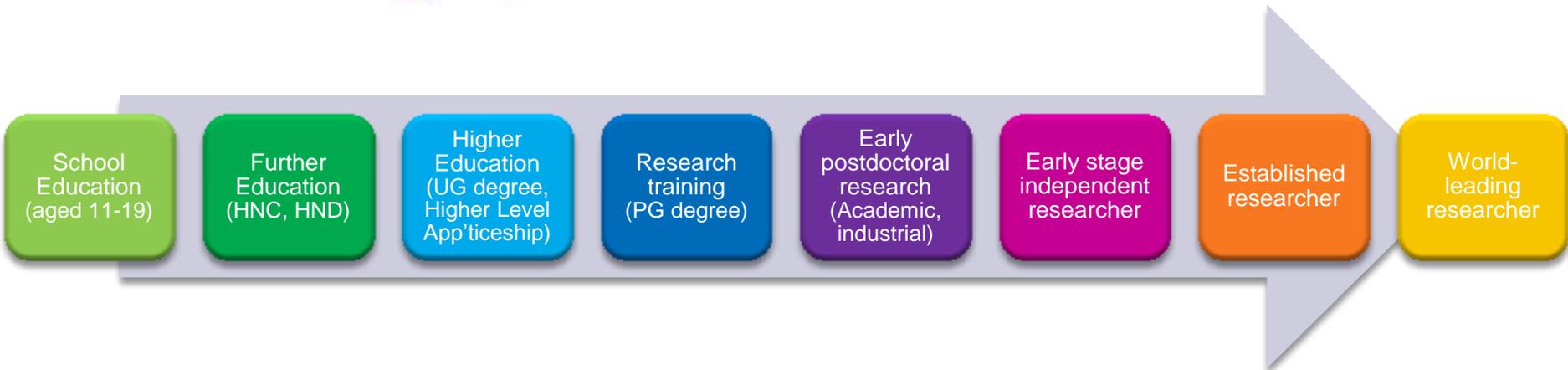
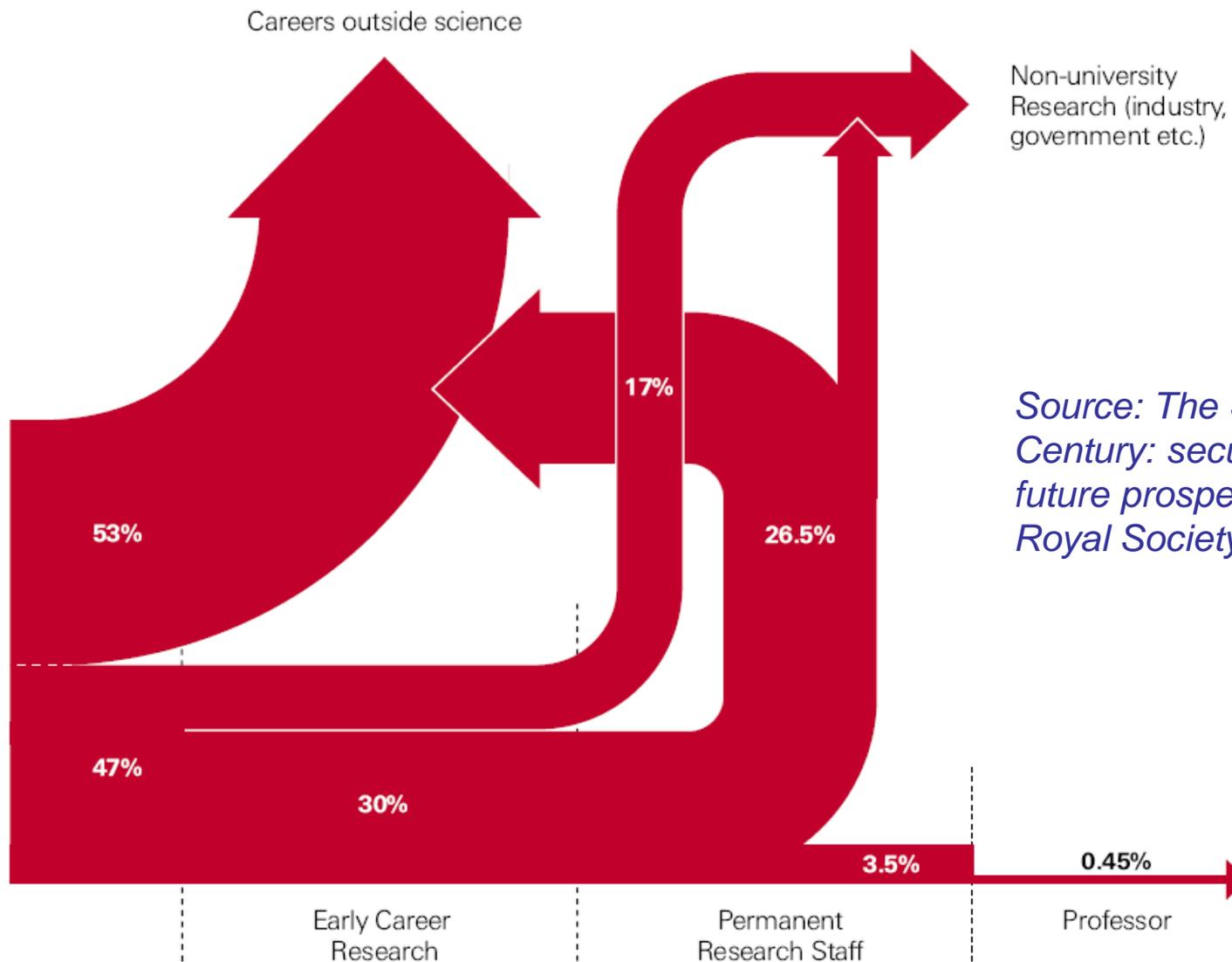
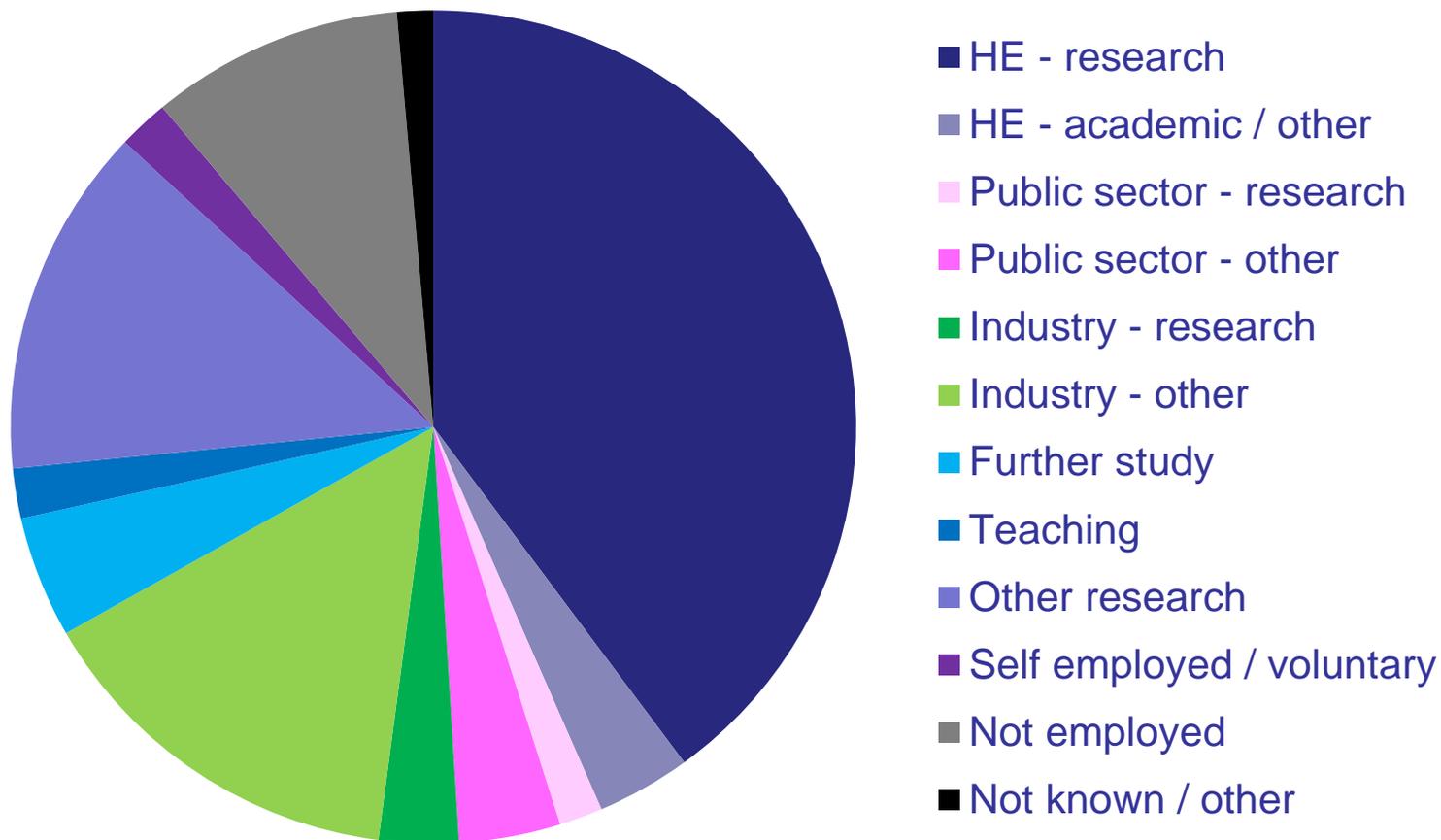


Figure 1.6 **Careers in and outside science**



BBSRC funded PhD students: destinations of students graduating between 31 July 2010 and 1 August 2011

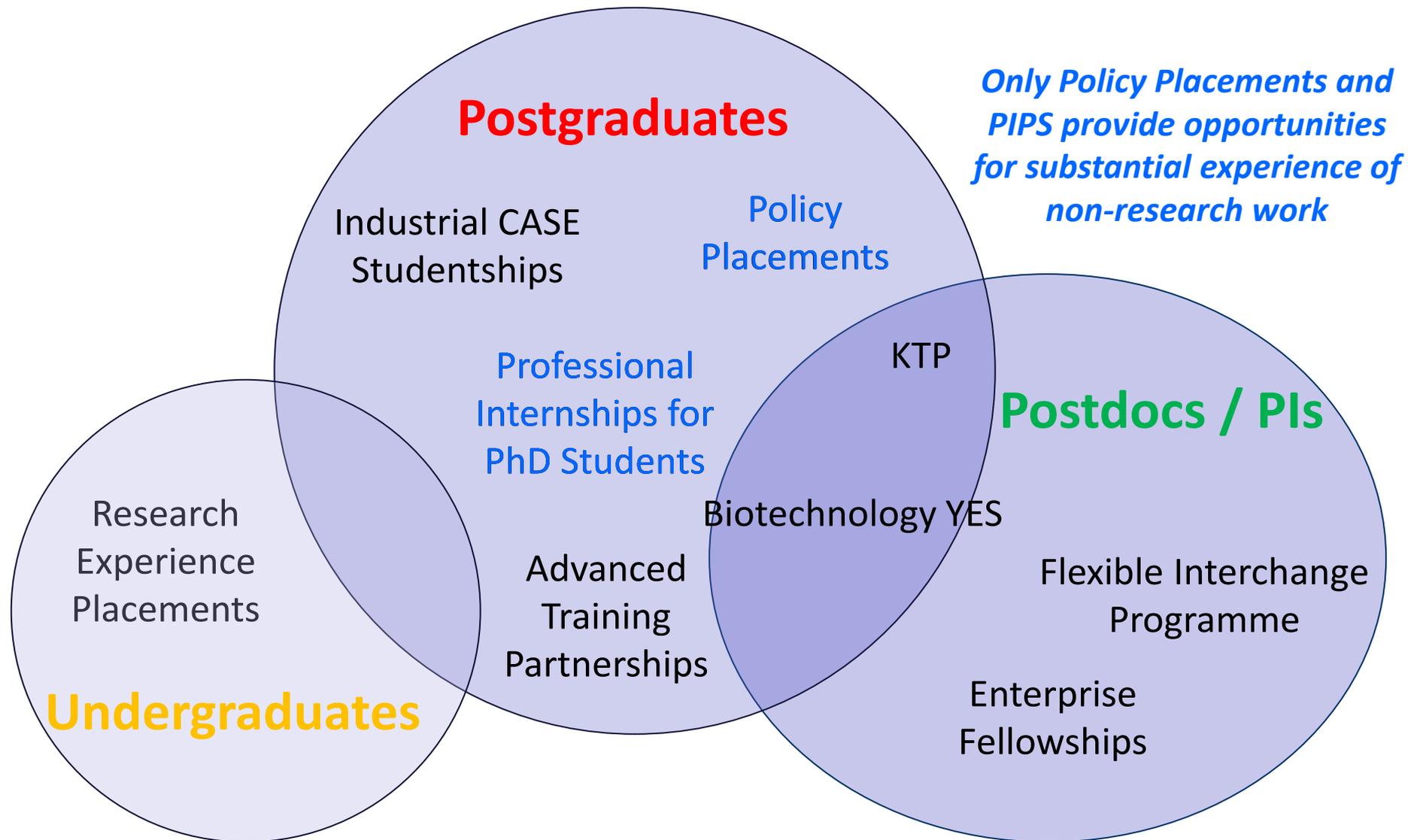




How can I make myself more employable?



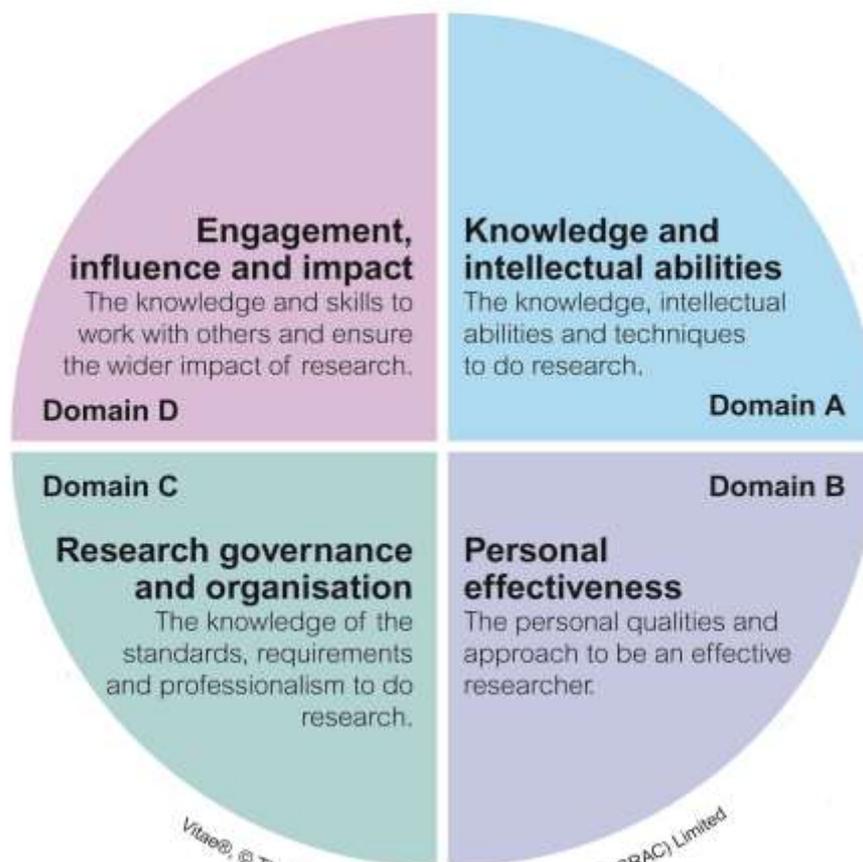
BBSRC support for enhancing employability



Biotechnology YES

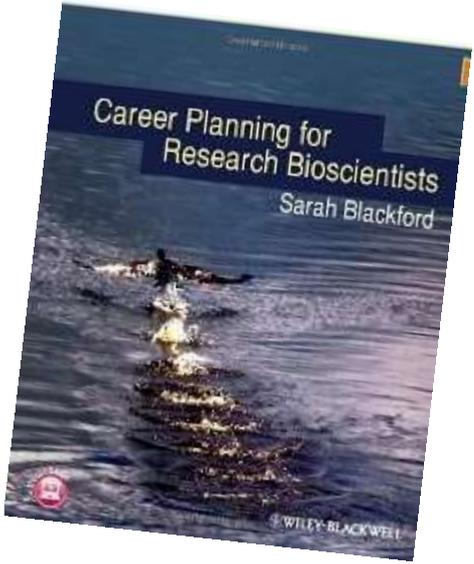


Researcher Development Framework



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Case studies





Top Ten Tips

1. Plan ahead
2. Be confident, assertive and persistent (“can do” attitude)
3. Play to strengths
4. Be inquisitive
5. Understand the market (skills vs demand)
6. Network (LinkedIn vs Facebook / not all jobs advertised)
7. Seek out challenges / avoid comfort zones / take risks
8. Have good references (it’s a small world)
9. Believe in yourself
10. Have fun, get the balance right and enjoy life!

Who knows...



Image: Jas Grewal

From an undergraduate degree at the University of Bradford to a first *Nature* paper in just six years. At age 25, Kieran Jones compares lab life in the US and the UK researching stem cells under a BBSRC PhD studentship...

Words of wisdom

“The product that the PhD student creates is not the thesis...the product of their study is the development of themselves”

– *Sir Gareth Roberts*





“It’s good to talk...”

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