



Department  
for Business  
Innovation & Skills

---

## **UK Science and Innovation**

**Amanda Brooks – Director Innovation  
Department of Business, Innovation & Skills**

**[Amanda.brooks@bis.gsi.gov.uk](mailto:Amanda.brooks@bis.gsi.gov.uk)**

** @AmandaBrooksBIS**



## Knowledge and Innovation:

Knowledge & Innovation is key to the Government's Industrial Strategy.

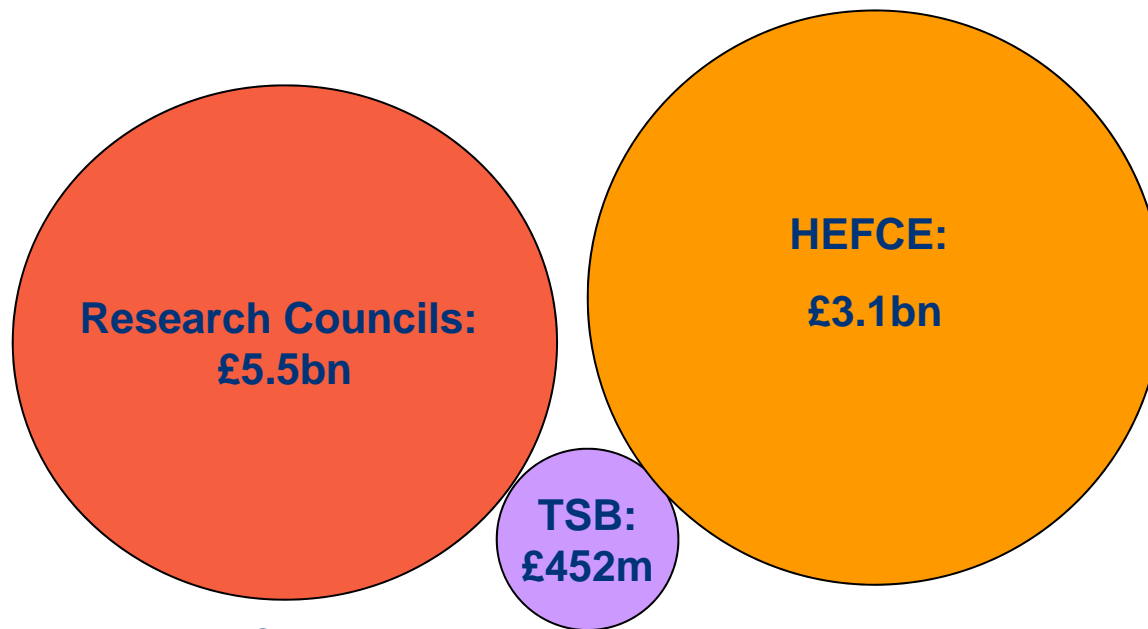
**Higher Education, Research and Innovation** power UK growth. They deliver the technological advances and skilled people that are needed to sustain an advanced, competitive economy.

We deliver **impact** on the economy by:

1. Providing **high-level skills** to the labour market;
2. Supporting the creation of **new businesses**;
3. Improving the performance of existing businesses;
4. Attracting **inward investment**;
5. Improving **public policy**;
6. Achieving Government objectives across many Departments. 2



## Funding is complementary



### Research Councils

- Set strategic research priorities and encourage larger, multi-disciplinary projects
- Often collaborate with business and TSB

### HEFCE:

- Supports widening participation, and social mobility through Higher Education
- Provides a flexible block grant allowing universities to invest strategically in inquiry-driven research and respond to emerging priorities
- Provides infrastructure for knowledge transfer activities

### Technology Strategy Board: (TSB)

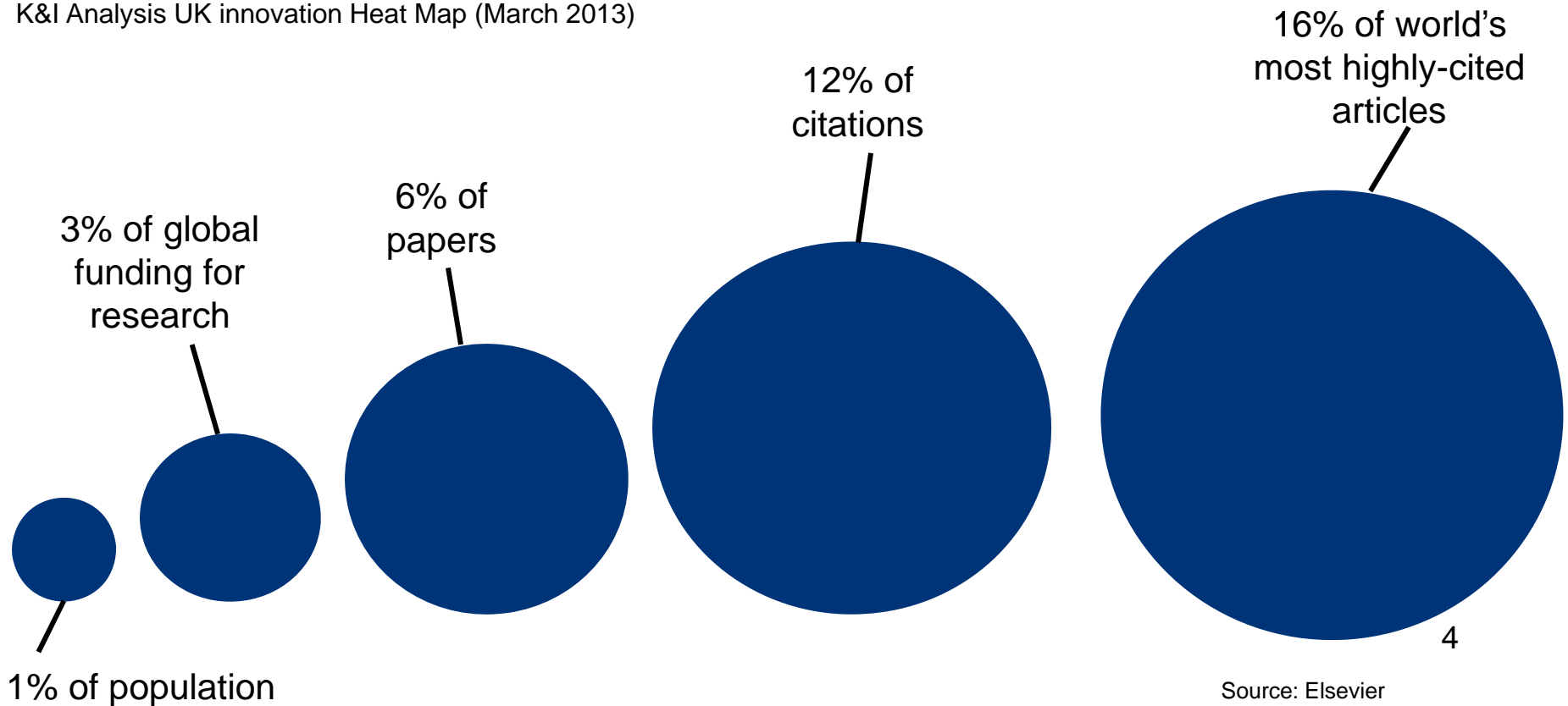
- Provides funding to business directly
- Supports business innovation – often, but not always based on university research



## UK share of global science

UK has a higher share of 10% most cited articles than Germany.

K&I Analysis UK innovation Heat Map (March 2013)





## Research collaboration

- UK researchers are highly mobile, with 72% researchers displaying international mobility over the period 1996-2012



- FWCI suggests that the quality of research co-authored by UK researchers with researchers from other countries is twice as high as the world average. **This is higher than any other country in the G8 and G20.**



## Higher Education

Generated £59 billion in 2009 in output for the UK economy

- Provided employment for 1.2% of the UK workforce.
- Nearly 2.5 million students studying at UK higher education institutions in 2011-12.
- Graduate skills accumulation contributed 20% of GDP growth from 1982-2005
- Graduates earn £32k (average) compared to £20k for non-graduates.
- 86% of professionals are graduates, half of these are managers



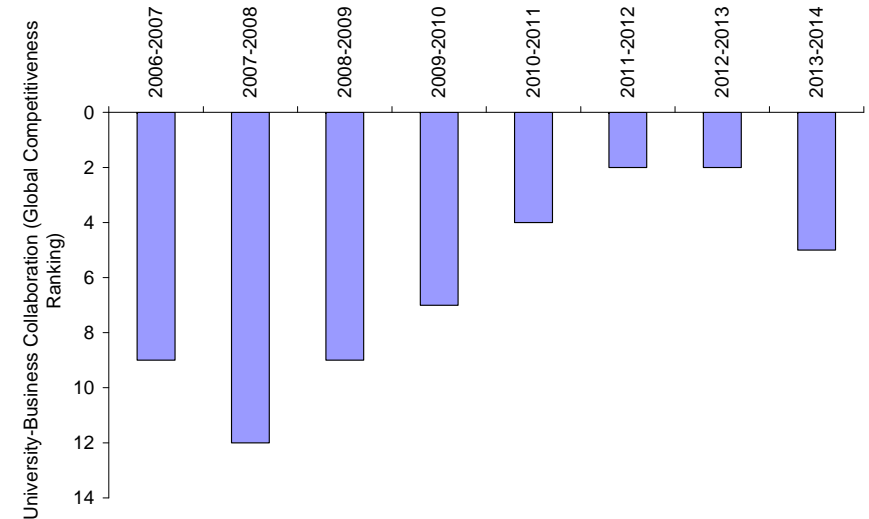
# World rankings

3<sup>rd</sup> in the world (highest of the G20)  
in Global Innovation Index

Global Innovation Index (average)

Rank	Country	Score	Value	Percentage Rank	Score View
1	Switzerland	66.6	--	92.1	
2	Sweden	61.4	--	61.7	
3	United Kingdom	61.2	--	58.1	
4	Netherlands	61.1	--	82.2	
5	United States of America	60.3	--	39.7	
6	Finland	59.5	--	53.1	
7	Hong Kong (China)	59.4	--	23.4	
8	Singapore	59.4	--	14.8	
9	Denmark	58.3	--	45.3	
10	Ireland	57.9	--	60.2	
11	Canada	57.6	--	52.4	
12	Luxembourg	56.6	--	77.3	
13	Iceland	56.4	--	79.4	
14	Israel	56.0	--	73.7	
15	Germany	55.8	--	72.3	
16	Norway	55.6	--	43.2	
17	New Zealand	54.5	--	36.8	
18	Korea, Republic of	53.3	--	33.3	
19	Australia	53.1	--	18.4	

5th in the world for university-industry  
collaboration





---

## **Government Support for Innovation**

- **the right foundations**
- **product development**
- **skills**
- **money**
- **customers**





Department  
for Business  
Innovation & Skills

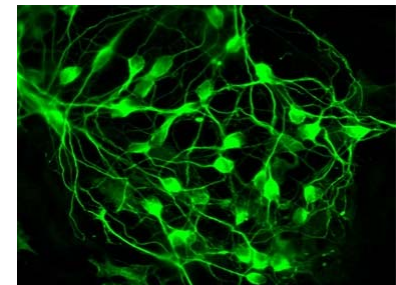
# Innovation Foundations





## The Technology Strategy Board

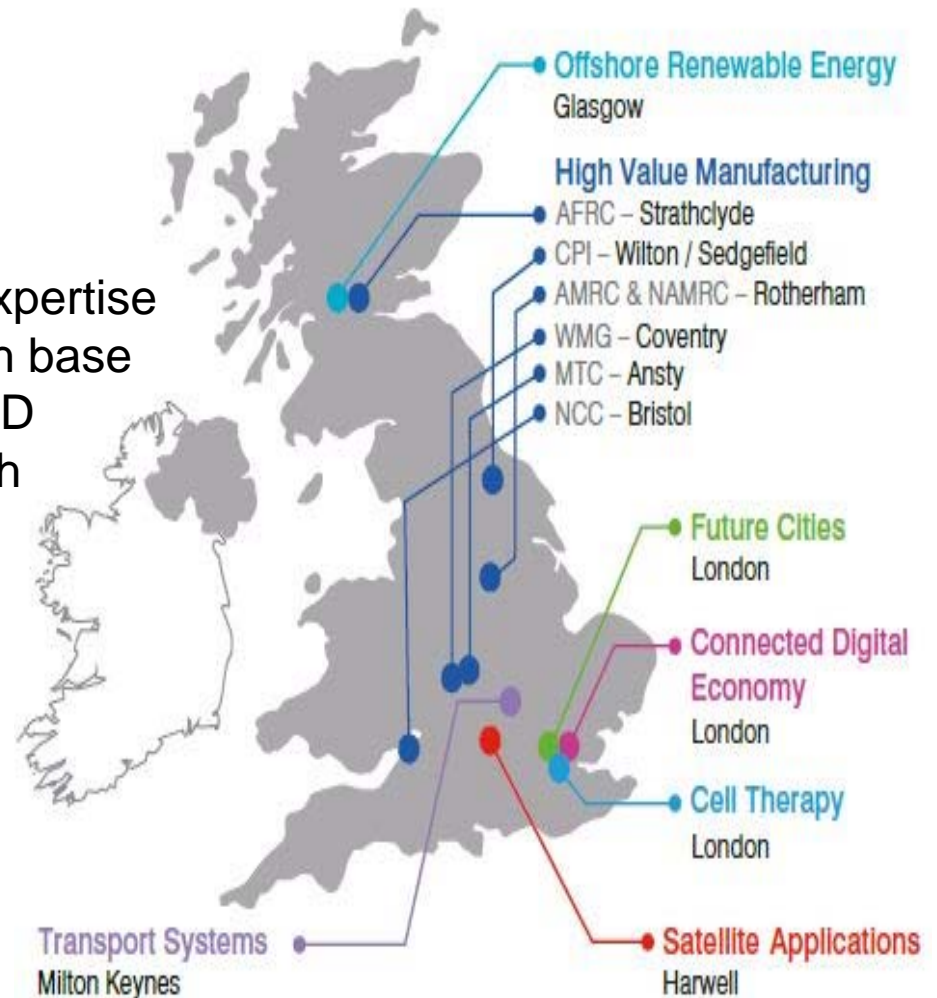
- Enables people and companies to work together, share ideas and make innovation happen through connections and networks
- Offers funding to de-risk development of innovative products and services;
- Helps business to understand future markets and the opportunities created by the challenges of today
- Runs competitions for R&D funding;
- Helps join up the innovation landscape so that companies can get the right help at the right time.





## Catapult Centres

- access to world-leading technology & expertise
- reach into the UK's world-class research base
- capability to undertake collaborative R&D
- capability to undertake contract research
- a critical mass of activity
- skills development at all levels





## Skills

- **Growth Accelerator**
- **Elite institutions**
- **Apprenticeship reform**



## Encouraging investment in R&D

- Creating the most competitive corporate tax regime in the G20
- Providing one of the world's most competitive R&D tax credit schemes
  - 225% qualifying R&D expenditure to SMEs
  - 130% for large companies
- Patent box
  - makes it easier to protect and profit from new inventions.
  - incentivises UK-based businesses to retain and commercialise existing patents and to develop new patents in the UK



## Wider funding sources –

- British Business Bank
- Green Investment Bank
- Horizon 2020



Department  
for Business  
Innovation & Skills

**INNOVATION  
IS  
GREAT**  
BRITAIN

85 NOBEL PRIZES IN SCIENCE  
AND TECHNOLOGY ALONE

*Touch Bionics  
Livingston, Scotland*

[www.ukti.gov.uk](http://www.ukti.gov.uk)