

RCUK Science Bridges



WHY INTERNATIONAL?

“International collaboration is important if the UK is to stay at the leading edge of world science and innovation and benefit from the 90 per cent of the world’s scientific output that is produced elsewhere.”



*The Race to the Top
Lord Sainsbury, October 2007*





“Science and the arts belong to the whole world. The barriers of nationality vanish before them.”

Johann Wolfgang von Goethe
1749 - 1832

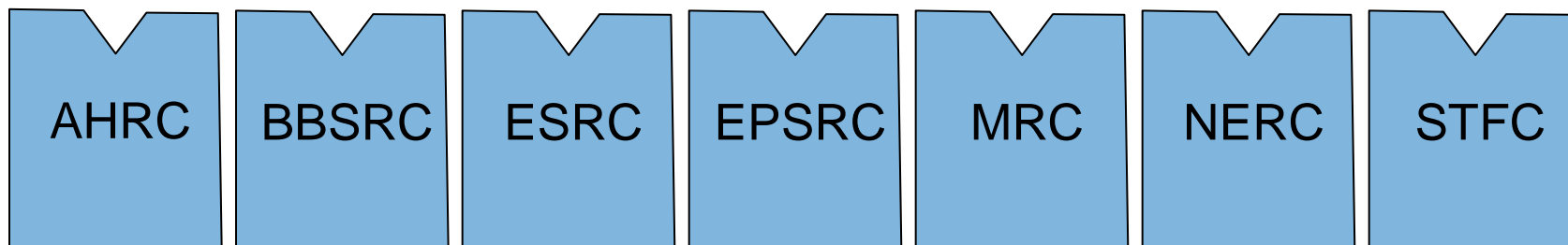
“There is no national science just as there is no national multiplication table”

Anton Chekhov, 1860 - 1904





HM TREASURY

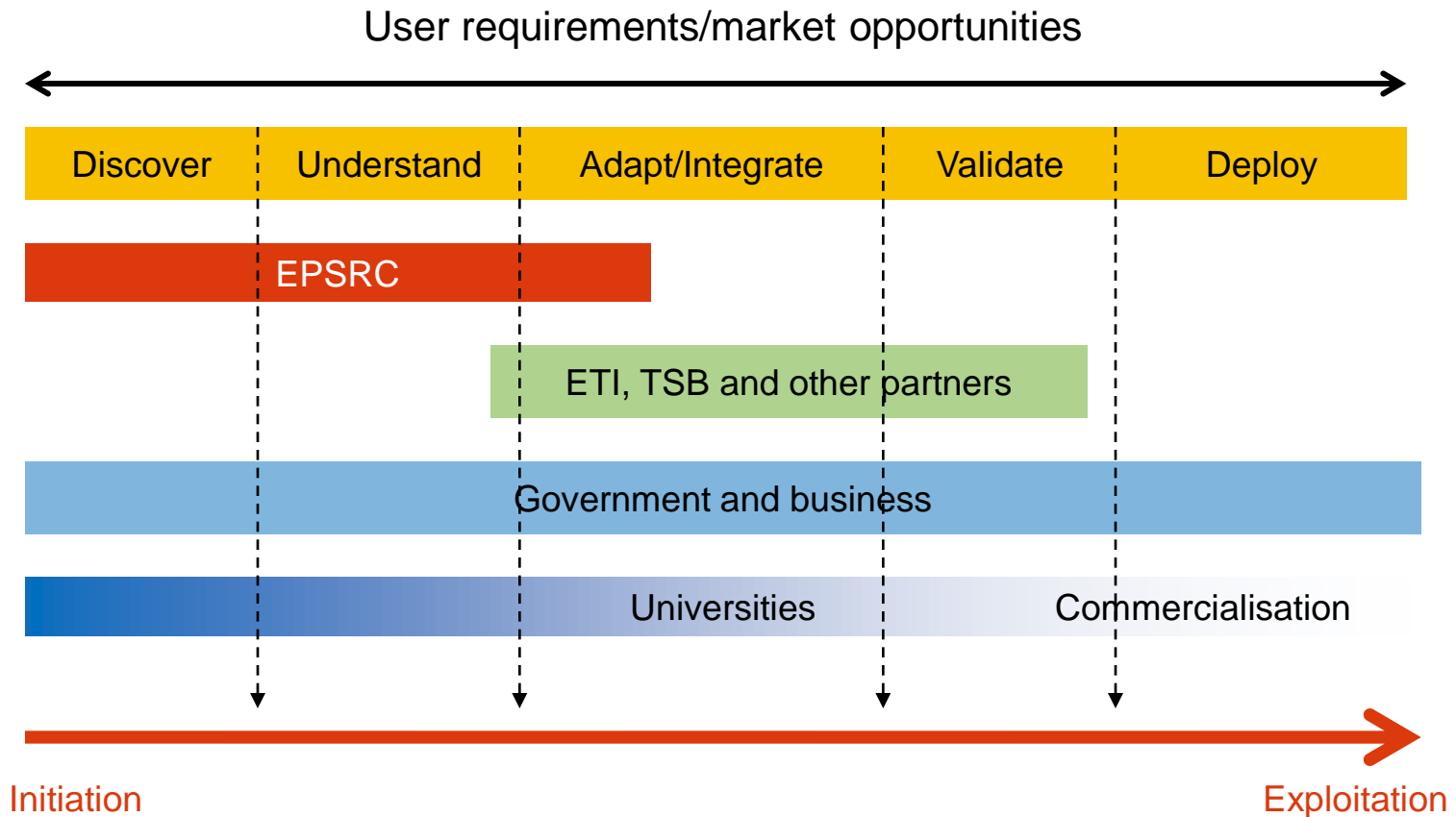


EPSRC

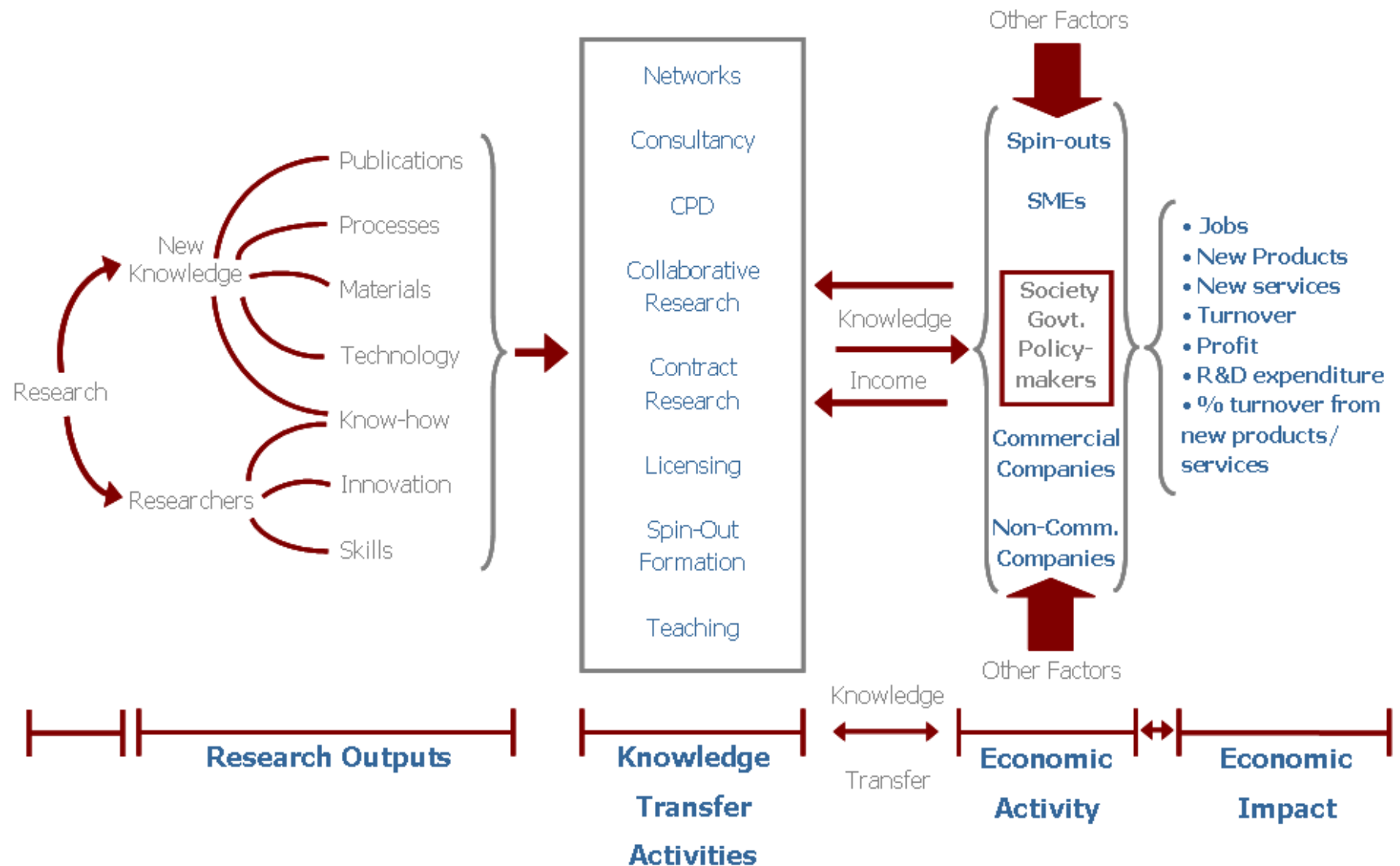
Engineering and Physical Sciences
Research Council



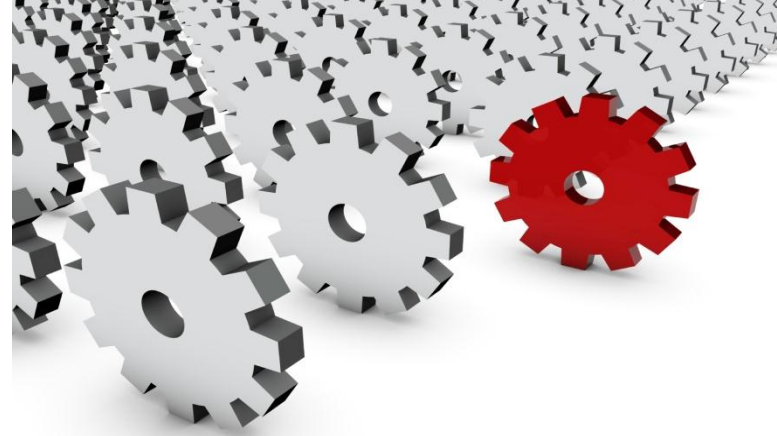
RCUK in the marketplace



Knowledge Transfer Model



Science Bridges - Rationale



Science Bridges are designed to:

“...raise the ***impact and profile of collaborative activity*** between the UK and these countries and ***facilitate innovation*** from existing research.”

“...accelerate the ***deployment of research knowledge***, deepen and strengthen current ***research links***, enable the acquisition of ***new skills*** and encourage ***wealth creation...***”



Science Bridges – A History

2006

- ‘Next Steps’ Science & Innovation Investment Framework outlines Science Bridges in USA.

2007

- ‘Race to the Top’ Sainsbury Review. Science Bridges, “helped develop skills, commercial development and expertise in spin-outs.”

2008

- Science Bridges launched with China, USA and India, “to facilitate innovation from existing research.”

2010

- Mid term review stated Science Bridges was, “...generating real results...and offered a good return on the investment.”

2012

- ‘Building Global Engagements’ allows Science Bridges to extend and gain a degree of continuity.

2013

- Science Bridges closes and wrap-up meeting planned for March

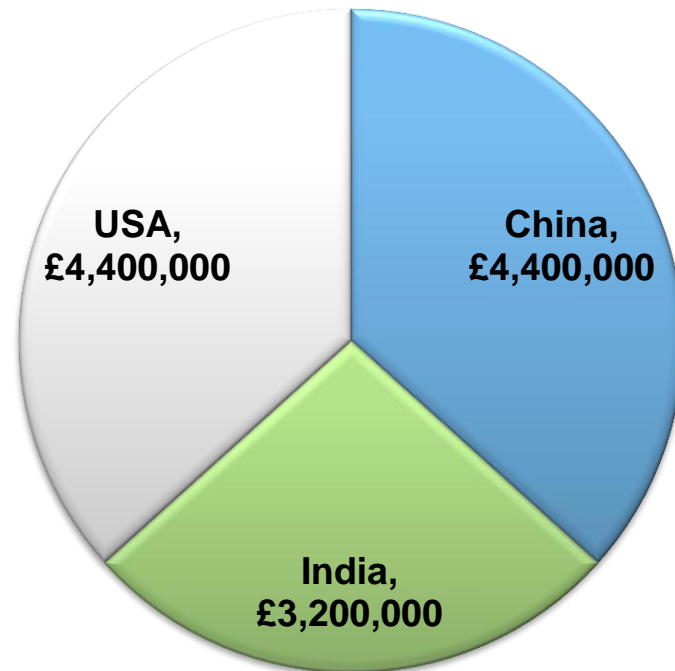


Science Bridges - Funding

- £12m of RCUK funding from EPSRC, MRC and ESRC.
- Additional £2.6m from DST for Bridges in India and priority funding for local partners in China from MoST.

- 10 Awards made:

- **4 China Bridges** (Bradford, Lancaster, Heriot-Watt, Queen's Belfast)
- **3 India Bridges** (Leeds, Nottingham, Aston)
- **3 USA Bridges** (Manchester, Strathclyde, Cambridge)



The Mid-term Review, November 2010

- Requested by RCUK to assess progress against objectives;
- 2-page report and short video showcasing achievements;
- Panel review and grading exercise;
- 4 Bridges were 'Fully' meeting objectives
- 2 Bridges were 'Broadly' meeting objectives
- 4 Bridges were 'Partially' meeting objectives



The Process

- Science Bridges operated a 2 stage review process – outline and full proposal.
- 88 eligible outlines were received and 30 selected to go forward.
- Full proposals reviewed on:
 - Knowledge Generation;
 - Knowledge Deployment;
 - Impact;
 - Collaboration and Partnerships;
 - Potential for Future Development.



Science Bridges in China

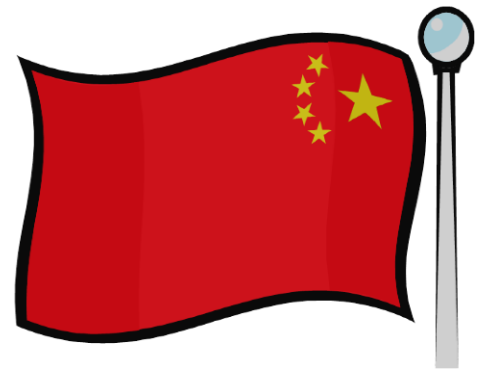
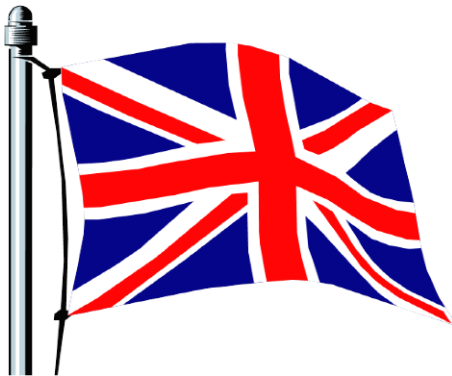
- The 4 China Science Bridges cover:
 - ***4G Wireless Comms (Heriot-Watt),***
 - ***Pharmaceutical Sciences (Bradford),***
 - ***Sustainable Energy & Built Environment (Queen's Belfast),***
 - ***Water Quality and Management (Lancaster).***
- Ministry of Science and Technology (MoST) preferential funding.
- Different models of management, organisation, delivery...
- New joint agreements, conferences & workshops, shared research information, innovation competitions, business partnerships...



The Future - Building Relationships

Both sides re-affirmed the commitment made at the China-UK Science and Innovation Joint Commission to work together to strengthen high quality research collaborations, particularly in the immediate priority areas of energy and renewable energy, food security and safety, and healthy populations.

4th UK-China Economic Dialogue, September 2011



EPSRC

Engineering and Physical Sciences
Research Council



What next for Science Bridges?

- Science Bridges is “...*generating real results*” and offers “...*a good return on the investment.*” [Mid-term review Panel summary]
- Bridges were announced as an experiment in KT funding.
- Sustainable models of support encouraged.
- Planning for ‘Wrap-Up’ meeting in 2013, with evaluation of impacts.
- Dialogue is ongoing but...

No immediate plans
for Science Bridges round 2.





Science Bridges - Achievements

Using nanoparticles of polymer containing curcumin to treat Alzheimer's.

World's first test-bed for 4G wireless

New retinal implants for the visually impaired

Over £25m geared funding from partners

Nanoscale drug delivery systems

Addressing global markets worth over £350bn

6 patents awarded or in progress

4 new spin-out companies

Over 50 companies involved in the Bridges

World-leading high efficiency LED lighting



Some Questions...

- What has been the best thing about Science Bridges?
- What would you change about Science Bridges?
- Would these interactions have happened without Science Bridges?

Your input would be much appreciated!



Thank you.

我希望这些信息对您有益。

如果您愿意进一步讨论，请随时与我联络。

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