HOSTED BY

UK Trade
& Investment

Innovate UK
Technology Strategy Board

INNOVATE UK 2014

THE GLOBAL SPOTLIGHT ON UK INNOVATION

GREAT
BRITAIN & NORTHERN IRELAND

ACCESSING GLOBAL INNOVATION HOTSPOTS

ACCESSING GLOBAL INNOVATION HOTSPOTS

Louis Barson

Deputy Director for Science and Innovation, UKTI

WHO ARE UK TRADE & INVESTMENT

- **Goals**
  - Help UK-based companies to win international business
  - Support international companies to set up in the UK
- **Long term targets (2020)**
  - Double UK exports to £1tn
  - Double inward investment stock to £1.5tn
- **Short Term Targets (2014/15)**
  - Support 50,000 businesses
  - Maintain No. 1 in Europe status for FDI

UKTI at a glance

107
Markets throughout the world in which UKTI operates

1,265
Staff based overseas

515
Staff based in our London and Glasgow headquarters

400
International Trade Advisers and support staff based in the regions

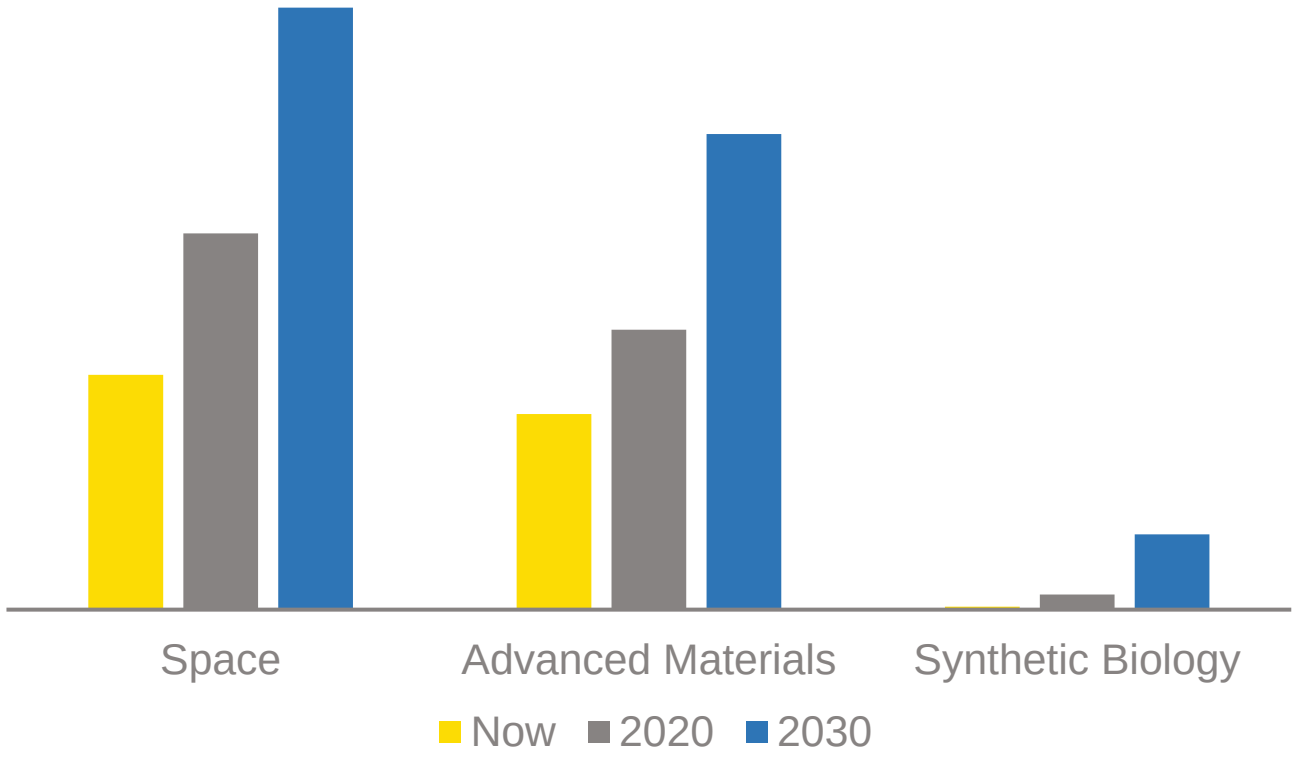
40
Offices located throughout England

WHY INNOVATION

Path to £1tn requires supporting new high growth technologies.

The UK has a really strong innovation system – but is too modest!

Exponential growth in market opportunity for the 8 GREAT!



INNOVATE UK 2014
THE GLOBAL SPOTLIGHT ON UK INNOVATION

WHERE INNOVATION

Working with SIN, I-UK, Leadership Groups in the 8 GREAT and Big Science to develop international strategy

Finding "innovation hotspots": mission targets for trade and FDI.

	USA	Japan	Germany	Canada	Gulf States	France	Switzerland	Australia	Emerging Europe
Space**	I	I		I	I			I	
Synthetic Biology	T+I								
RAS	T+I	T+I	T+I				T+I		
Advanced Materials	T+I	T+I	T+I			T+I			
Big Science						T	T	T	T

INNOVATE UK 2014
THE GLOBAL SPOTLIGHT ON UK INNOVATION

WHERE INNOVATION

Supporting global financial investors to find win-win opportunities in UK innovation.

Priority markets for Institutions					
Country	UAE	Qatar	Singapore	Canada	China
Funds	• ADIA • Mubadala	• QIA • QH	• GIC • Temasek • Vertex	• CPPIB • OTTPB	• CIC

Priority Markets for Venture Capital				
USA	Singapore	Hong Kong	India	Brazil
UAE	Japan	China	South Korea	Sweden
Israel	Norway	Finland		

HOW CAN UKTI HELP YOU?

- **Access to finance** (Institutional, Corporate, VC)
- Network of International Trade Advisors (ITA)
- Market Research / Access to customers.
- Events in the UK
- Missions to market (Entrepreneur missions)
- Campaign work (Innovation is GREAT!)
- Sign up on the website, and make sure you speak to your ITA!

INNOVATEUK2014
THE GLOBAL SPOTLIGHT ON UK INNOVATION

WHAT MORE CAN WE DO?

Louis Barson
Deputy Director for Science and Innovation
UKTI Innovation Gateway

E: louis.barson@ukti.gsi.gov.uk
T: +44 (0)20 7215 2872
www.gov.uk/ukti

HOSTED BY

UK Trade
& Investment

Innovate UK
Technology Strategy Board

INNOVATE UK 2014

THE GLOBAL SPOTLIGHT ON UK INNOVATION

GREAT
BRITAIN & NORTHERN IRELAND

ACCESSING GLOBAL INNOVATION HOTSPOTS

David Golding

Head of European and International Strategy,
Innovate UK

INNOVATE UK 2014
THE GLOBAL SPOTLIGHT
ON UK INNOVATION

EUROPEAN AND INTERNATIONAL STRATEGY

- Support to help businesses access Horizon 2020 – EU funding and opportunities
- Build relationships and activities with priority countries – China, India, Brazil and USA
- Identify and work with global innovation hot spots in priority areas
- Models of operation – information sharing, workshops, missions, feasibility studies, collaborative R&D projects …….

EUROPEAN AND INTERNATIONAL STRATEGY

Research shows that businesses seek international collaboration to:

- benefit from the complementary knowledge or resources of foreign firms
- form alliances with potential competitors, in order to reduce competition
- break down barriers to entry into new regional or product markets
- share resources to reduce the costs and risks or new ventures
- access skilled and cost-effective workforces

PRIORITY COUNTRIES

Build relationships and activities with priority countries

- India, China, Brazil and the USA.
- scale of the market and the scale of the opportunity across a broad range of areas
- access knowledge and large market opportunities and the potential to build supply chains.

Examples

- India – Collaborative R&D programme in energy and affordable healthcare
- China – Collaborative R&D programme in sustainable manufacturing
- Brazil and USA - missions

CLEAN AND COOL
MISSION 2013 COLORADO

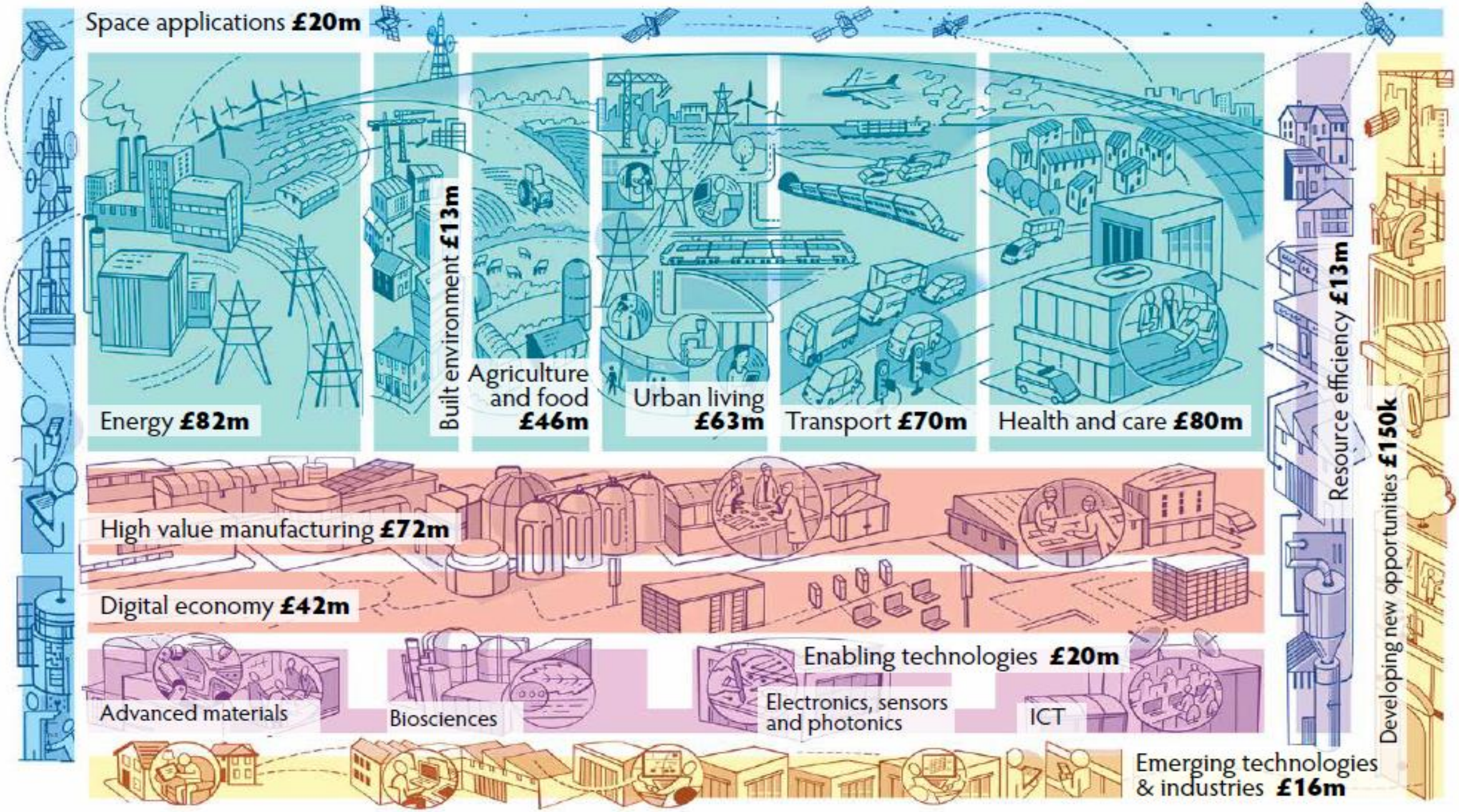
CLEAN AND COOL
MISSION 2013 BRAZIL

DEVELOP CUSTOMER AND
PARTNER OPPORTUNITIES IN INDIA

INNOVATION HOTSPOTS

Countries or locations within countries where there is a concentration or cluster of businesses, academia and facilities, viewed as globally leading in specific priority thematic areas.

- is there a large global market opportunity?
- does the UK have the capability to develop and exploit the technology?
- is the idea 'ready' – is the timing right?
- can Innovate UK make a difference?
- is there a clear benefit to UK business
- will it create added value in the UK
- does it provide access to knowledge, markets, or supply chains where there are complementary or peer strengths or help to fill UK gaps in expertise


Space applications £20m
Energy £82m
Built environment £13m
Agriculture and food £46m
Urban living £63m
Transport £70m
Health and care £80m
Resource efficiency £13m
Developing new opportunities £150k
High value manufacturing £72m
Digital economy £42m
Enabling technologies £20m
Advanced materials
Biosciences
Electronics, sensors and photonics
ICT
Emerging technologies & industries £16m

INNOVATION HOTSPOTS

Tidal stream energy applications

- UK world leading in wave and tidal energy
- Need to develop enhanced sensing technologies for tidal stream energy applications to provide better data acquisition, improved data analysis and collection methods
- Build partnerships where there are complementary strengths
- Nova Scotia and tidal expertise
- Each day 160 billion tonnes of seawater flows in and out of the Bay of Fundy during one tide cycle — more than the combined flow of the world's freshwater rivers
- Innovate UK working with the Offshore Energy Research Association of Nova Scotia jointly investing approximately £800k in collaborative R&D projects
- The aim to reduce risk, uncertainty and cost to the tidal stream energy industry

Knowledge Transfer Network

enterprise europe network

Business Support on Your Doorstep

CATAPULT

INNOVATE UK 2014

THE GLOBAL SPOTLIGHT ON UK INNOVATION

DAVID.GOLDING@INNOVATEUK.GOV.UK

INNOVATE UK 2014

THE GLOBAL SPOTLIGHT
ON UK INNOVATION

HOSTED BY

UK Trade
& Investment

Innovate UK
Technology Strategy Board

INNOVATE UK 2014

THE GLOBAL SPOTLIGHT ON UK INNOVATION

GREAT
BRITAIN & NORTHERN IRELAND

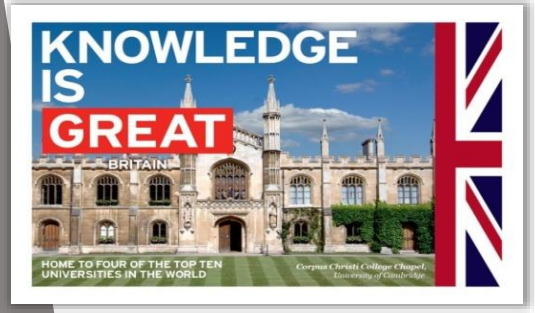
ROLE OF SCIENCE IN SUPPORTING UK ECONOMIC GROWTH: THE UK SCIENCE AND INNOVATION NETWORK

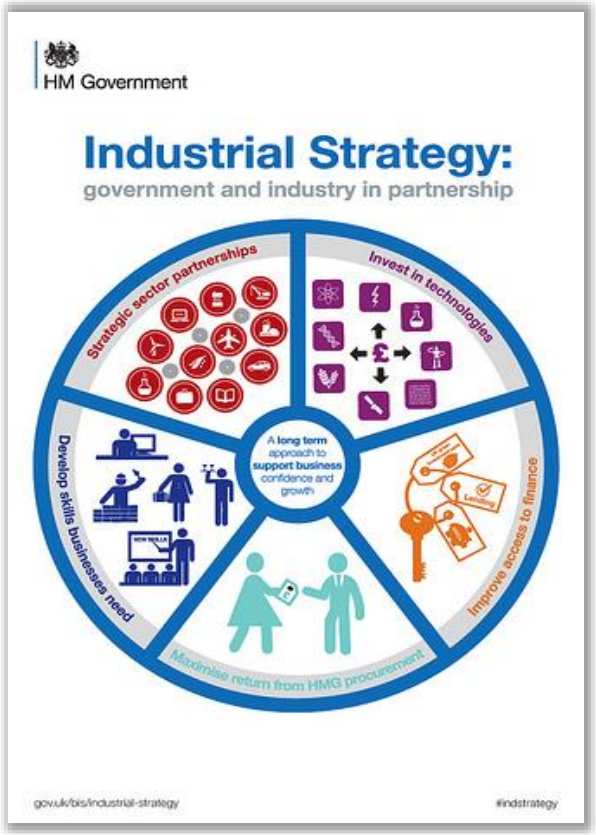
Andrew Jackson

Science, Innovation and Climate Change Department
Foreign and Commonwealth Office

INNOVATE UK 2014
THE GLOBAL SPOTLIGHT ON UK INNOVATION

SCIENCE AND INNOVATION DRIVING UK GROWTH





"Investment in science is an investment in our future"

George Osborne, 2013

Seven Catapult Centres

world-leading centres to transform the UK's capability for innovation

Eight Great Technologies

Science and Innovation: Tacking Global Challenges

Urbanisation

Population

Climate Change

Food security

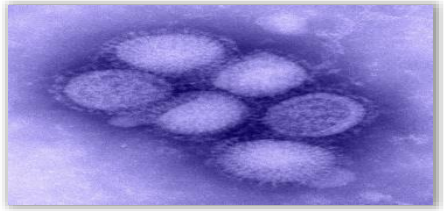
Energy

Biodiversity

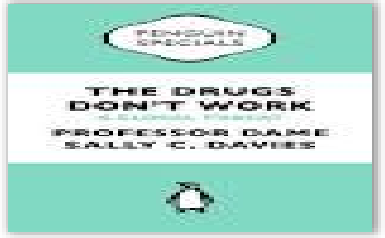
Water

Alleviating poverty

Ageing population



Human disease

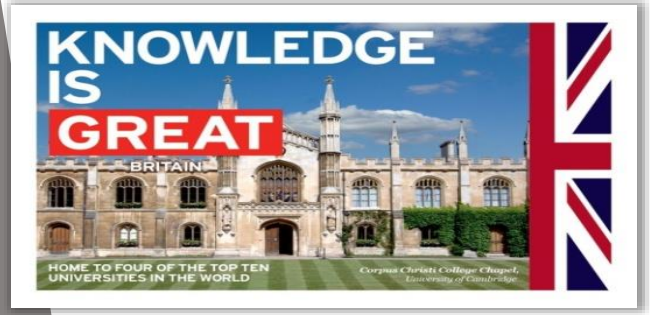


Anti-microbial resistance

Animal disease

Non-infectious diseases

SCIENCE AND INNOVATION: UK STRENGTHS



0.9% of global population:

4 of top 10 universities

4.1 % researchers

3.2 % R&D spending

6.4 % journal articles

9.5 % downloads

11.6 % citations

15.9 % most cited articles

2.4% global patents

Over 80 Nobel Prizes in science

20% UK workforce in science-based work in research/related industries (Science Council 2013)

£8.8bn foreign investment in R&D in the UK (2011) (ONS 2012)

3rd in Global Innovation Index (top G20 country) (WIPO 2013)

48% of UK published research articles have at least one international co-author (2012)

Prosperity Delivery: Objectives

Working with partners across Whitehall and in business we look to open up new markets overseas and to find opportunities for British business. All prosperity programmes and the prosperity fund are designed to deliver our objectives that flow from

"Creating the Conditions for Global Growth:"

OPENNESS	**REPUTATION**
We push for transparency and a rules-based international economic system. We break down barriers to trade and help negotiate Free Trade Agreements. We lobby on behalf of UK business against corruption, bureaucracy and protectionism.	We promote the UK as a creative and trustworthy partner; a world-class destination for business, tourism and study. We use the GREAT campaign and its private sector partnerships to build international awareness of UK business strengths and values, and to increase the impact of British companies abroad
SUSTAINABILITY	**OPPORTUNITY**
We work for a low carbon economy, underpinned by a binding global climate agreement. We aim to reduce threats to growth from energy insecurity, global resource volatility, and illicit financial flows. We champion the use of science to reduce the risks from modern challenges such as resource scarcity, global pandemic or natural disasters.	We support British business through political/cultural advice; networking; and finding relevant opportunities abroad. We create opportunities through supporting international partnerships in education, science and research; promoting innovation as a driver of growth; and building our foundations now with the economic powers of the future.

Newton Fund

Science and innovation partnerships that promote the economic development and welfare of developing countries.

People: fellowships, mobility schemes and joint centers
Programmes: research collaborations on development topics
Translation: innovative solutions on development topics

£350m over five years + partner funding.

Department for Business Innovation & Skills

Foreign & Commonwealth Office

UK Science & Innovation Network

Research Councils UK

British Council

Innovate UK
Technology Strategy Board

The Royal Society

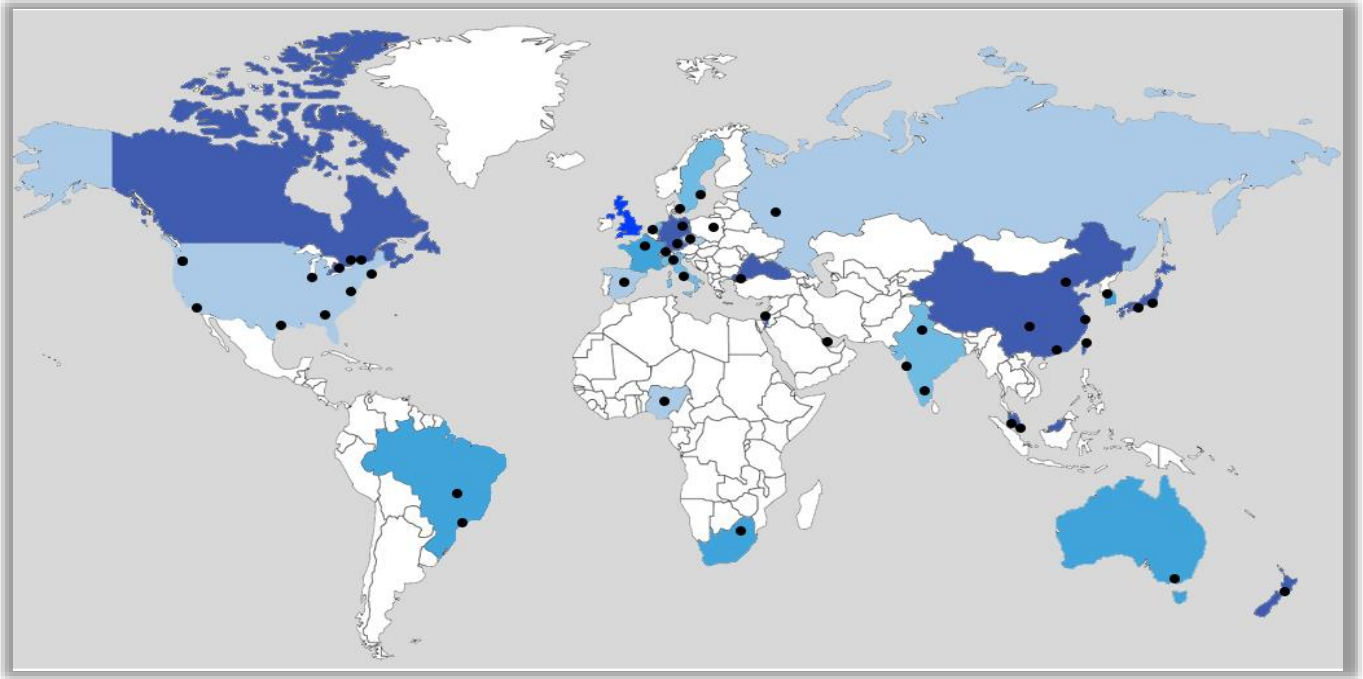
The Royal Academy of Engineering

British Academy

Met Office

UK Science & Innovation Network

90 people, 28 countries and territories, 46 cities



Europe (including Russia) Czech Republic (Prague), Denmark (Copenhagen), France (Paris), Germany (Berlin, Munich), Italy (Milan, Rome), Netherlands (The Hague), Poland (Warsaw), Russia (Moscow), Spain (Madrid), Sweden (Stockholm), Switzerland (Berne) Turkey (Istanbul) **Asia Pacific** Australia (Melbourne), China (Beijing, Chongqing, Guangzhou, Shanghai), Japan (Osaka, Tokyo), Malaysia (Kuala Lumpur), New Zealand (Wellington), Singapore, South Korea (Seoul), Taiwan (Taipei). **Middle East, Africa and South Asia** India (Bangalore, Mumbai, New Delhi), Israel (Tel Aviv), Nigeria (Abuja), Qatar (Doha), South Africa (Pretoria, Cape Town). **Americas** Brazil (Brasilia, Sao Paulo), Canada (Montreal, Toronto, Vancouver, Ottawa), USA (Atlanta, Boston, Chicago, Houston, Los Angeles, San Francisco, Washington).

(& joined up working with Prosperity officers (including new staff working on Newton Fund): eg Indonesia, Vietnam, Thailand, Philippines: funded separately but as SIN for most practical purposes, including access to project funds and SIN knowledge base)

INNOVATE UK 2014
THE GLOBAL SPOTLIGHT ON UK INNOVATION

UK Science & Innovation Network

SIN Report published (Dec 13)

Contents include focus on:

What is SIN? Why work with SIN?

SIN work on:

Industrial Strategy
Eight Great Technologies
Global Challenges

Other areas of UK S&I leadership

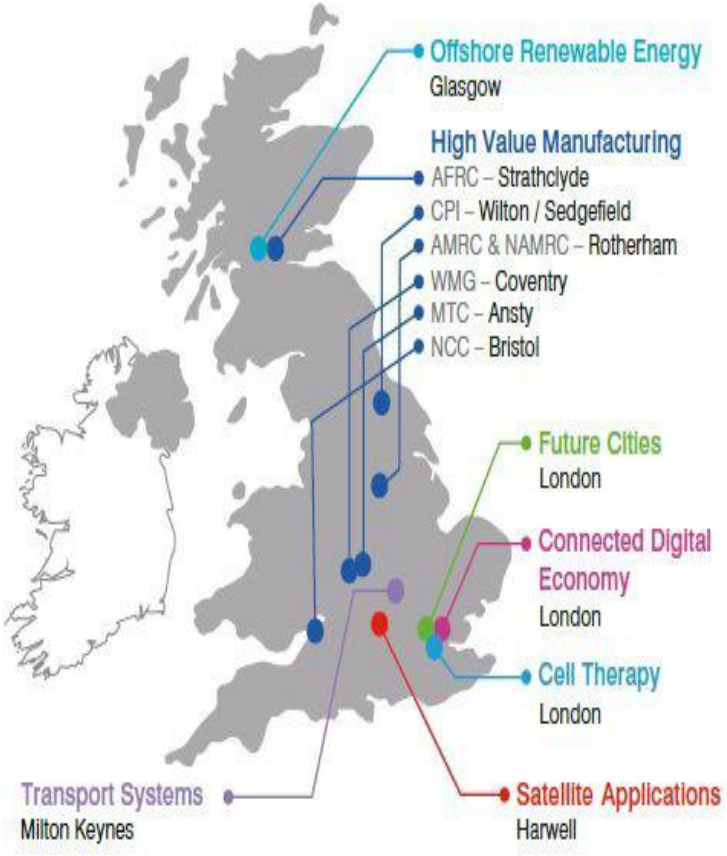
SIN work with Partners
(including cross-Government)

Full copy on SIN website

www.gov.uk/government/publications/science-and-innovation-network-annual-report-2013

SIN: WORK WITH UK PARTNERS: CATAPULT CENTRES:

UK Science & Innovation Network



CATAPULT

Europe:
HV Manufacturing: France, Switzerland, Germany
Transport Systems: Germany
Future Cities: Poland
Cell Therapy: France
Energy Storage: Germany ,France
Connected Digital Economy Turkey
Satellite Applications: Italy

Asia Pacific :
National Composites Centre: Japan
Cell Therapy: Japan

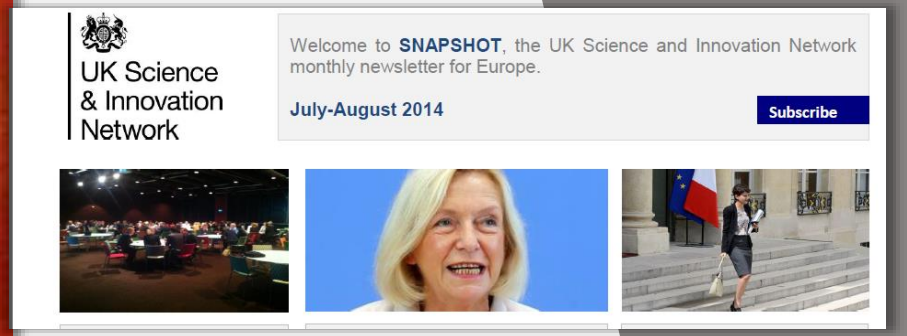
Middle East, Africa and South Asia:
Satellite Applications: South Africa
Advanced Manufacturing: India

Americas:
Satellite Applications: Houston and Washington
Cell Therapy: Los Angeles
Connected Digital Economy: Boston
Future Cities: San Francisco

SIN: WORK WITH UK PARTNERS REPORTS & COMMUNICATIONS

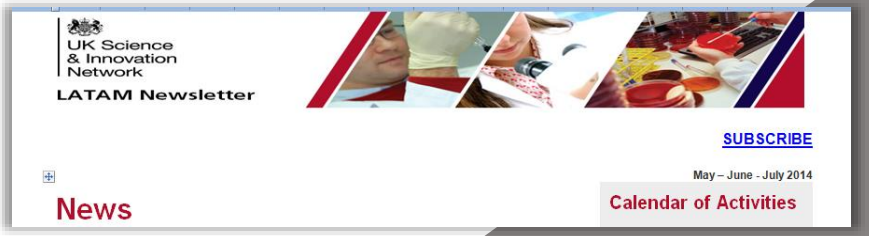
UK Science & Innovation Network

EUROPE



INDIA

LATIN AMERICA



INNOVATE UK 2014
THE GLOBAL SPOTLIGHT ON UK INNOVATION

SIN: WORK WITH UK PARTNERS:
A JOINED UP APPROACH - AND BROAD UK LANDSCAPE

Foreign & Commonwealth Office

UK Science & Innovation Network

Department for Business Innovation & Skills

BRITISH COUNCIL

RESEARCH COUNCILS UK

Innovate UK
Technology Strategy Board

UK Trade & Investment

Department of Energy & Climate Change

Government Office for Science

Department for Environment Food & Rural Affairs

Department for International Development

Department for Transport

Department of Health

Ministry of Defence

HM Treasury

Home Office

Intellectual Property Office

THE ROYAL SOCIETY

The Royal Academy of Engineering

BRITISH ACADEMY

The Academy of Medical Sciences

RSC
ROYAL SOCIETY OF CHEMISTRY

Universities UK

INNOVATE UK 2014
THE GLOBAL SPOTLIGHT ON UK INNOVATION

HOSTED BY

UK Trade
& Investment

Innovate UK
Technology Strategy Board

INNOVATE UK 2014

THE GLOBAL SPOTLIGHT ON UK INNOVATION

GREAT
BRITAIN & NORTHERN IRELAND

HOSTED BY

UK Trade
& Investment

Innovate UK
Technology Strategy Board

INNOVATE UK 2014

THE GLOBAL SPOTLIGHT ON UK INNOVATION

GREAT
BRITAIN & NORTHERN IRELAND