

# **Government Social Research Unit Horizon Scanning Seminar**

**8 January 2008**

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<http://www.foresight.gov.uk/horizonscanning/>**

Prime Minister and Cabinet

Professor John Beddington  
Government Chief Scientific Adviser and Head of GO-Science

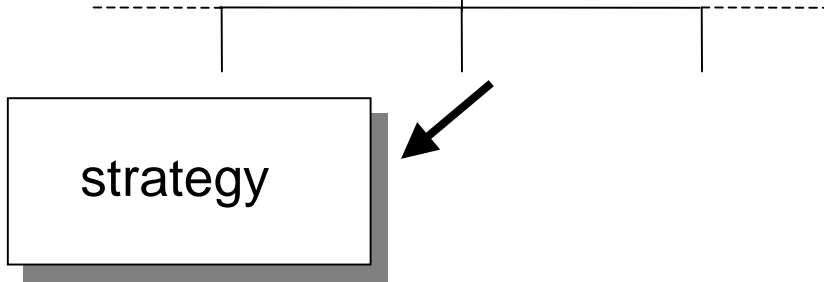
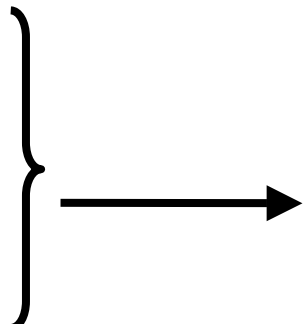
Government Office for Science  
(GO-Science)

Foresight

**Horizon Scanning Centre**

Foresight projects

- Social
- Technical
- Economic
- Environmental
- Political



## **What is the aim of Foresight in the UK?**

To strengthen strategic policy-making by embedding a futures approach across Government

***HSC (from 10 year S&I Investment) – launched March '05***

***Aims***

- Inform strategic prioritisation
- Capability-raising

***Implemented through:***

- Targeted projects
- Training
- Strong networks

*Future Analysts Network (FAN)*

*Future Security & Intelligence Outlook Network (FUSION)*

30+ projects, 30+ depts., 1000+ in training / networking events

**Direct impacts on Govt. Strategy, Policy, Skills, Prioritisation**

## Influencing others to deliver our mission

Working with NSG & Cabinet Office to embed Horizon Scanning  
in Govt Skills Agenda

- ***Horizon Scanning is already part of good practice in policy making –***

**PSG – Analysis and Use of evidence / Strategic Thinking**

**NSG / PMSU / HSC June 2008 Strategy Conference**

Treasury Risk Programme (2002)

Treasury – Risk, Good Practice in Government (March 06)

CSA Guidelines 2005

Strategic Capability (PMSU)

Better Regulation (Risk / RIA / PIR)

HMT Green Book

## Horizon Scanning Centre – who's who

*Largest single component of Foresight, but not a huge team .....*

- **Head, HSC (vacant)**

### Project Leaders

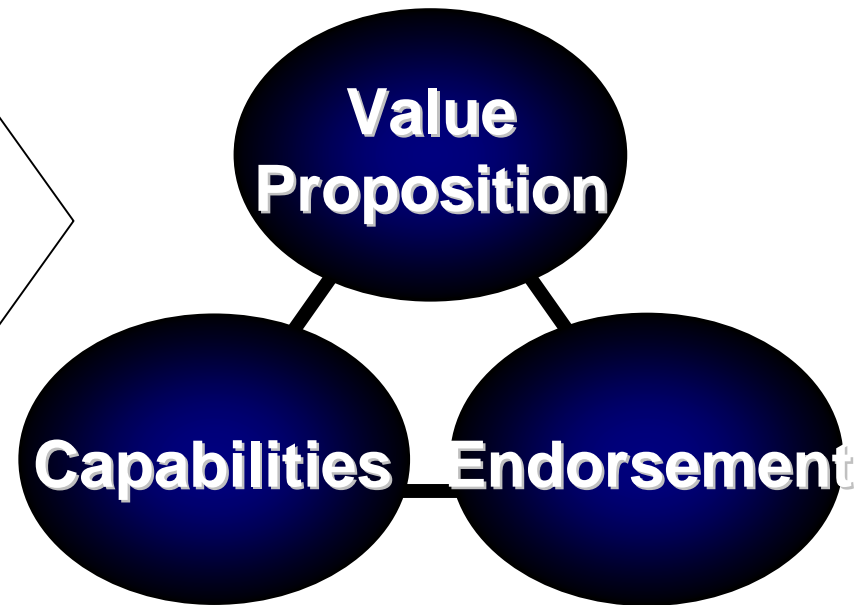
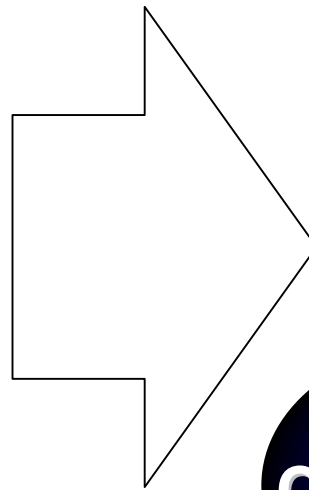
- **Alex King :** science & technology, scenarios and strategy
- **Alun Rhydderch :** geo-politics, social & economics, Sigma Scan
- **Brian Brader :** coaching, training, FAN Club
- **Harry Woodroof :** science & technology, intelligence & security, Delta Scan
  
- **Admin team**

## From definition, to useful business model

### Horizon Scanning is...

.... the **systematic** examination of potential **threats, opportunities** and likely developments including but not restricted to those at the margins of current thinking and planning. Horizon scanning may explore novel and unexpected issues as well as persistent problems or trends.”

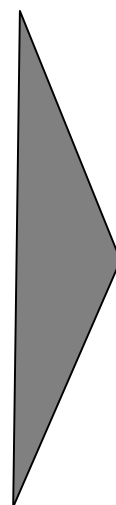
*(Chief Scientists Advisers  
Committee, 09/04)*



## Horizon scanning is.....

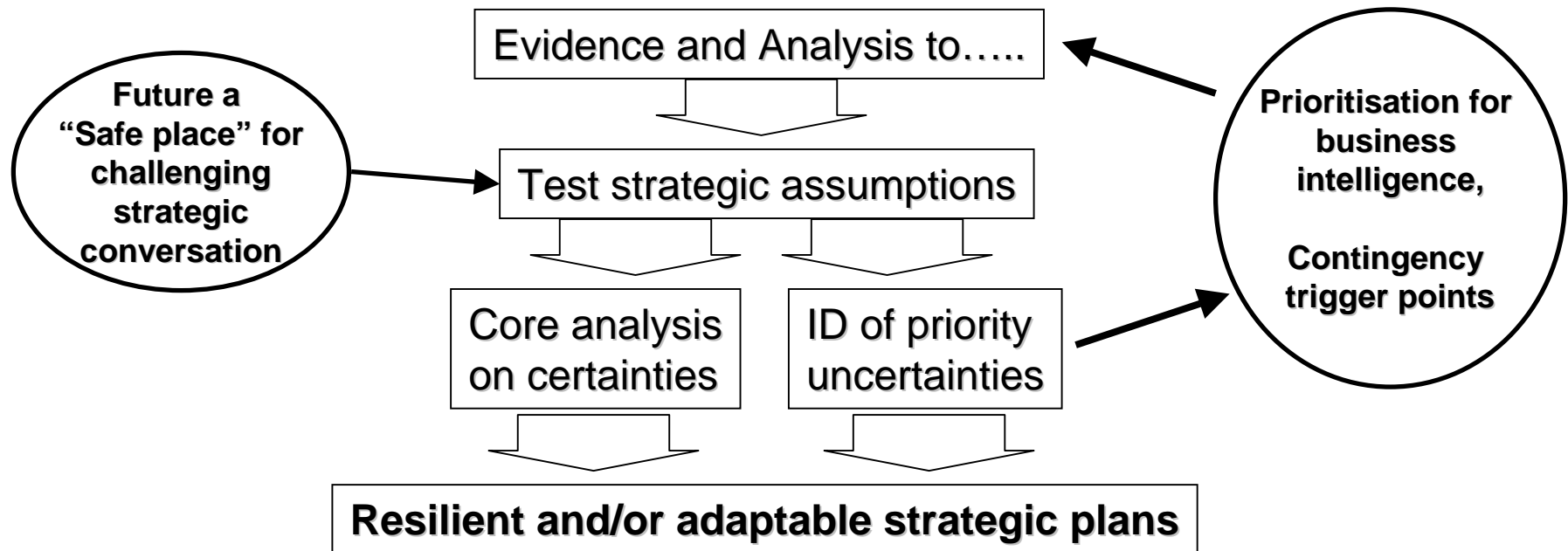
**Looking ahead** –  
*beyond usual timescales*

**Looking across** –  
*beyond usual sources*



**beyond  
a 'single  
expected future'  
to  
a 'range of  
possible futures'  
to consider  
implications for  
today's decisions**

**....resilience and adaptability in strategy**

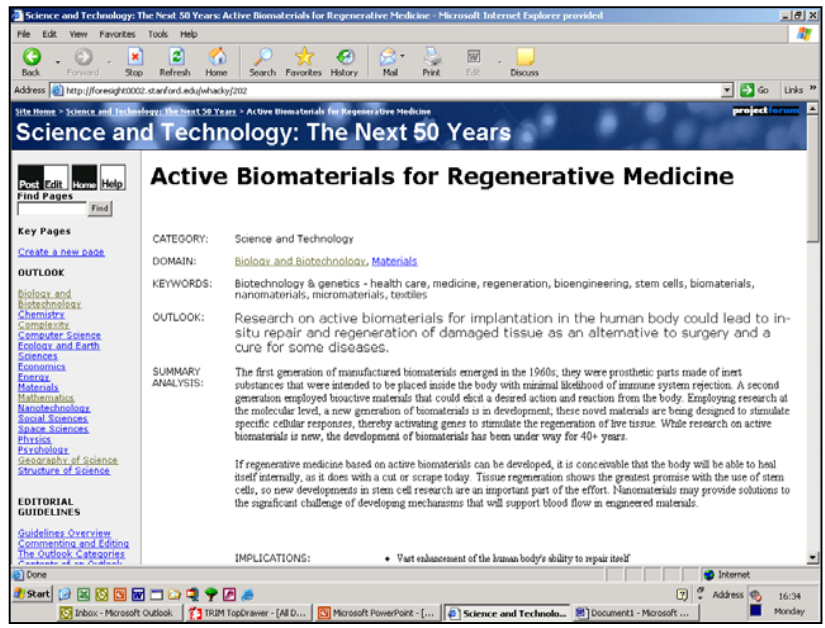


## Horizon Scanning – Evidential Tools (published 12/06)

[www.sigmascan.org](http://www.sigmascan.org)

**Sigma Scan:**  
synthesis of best  
global futures work

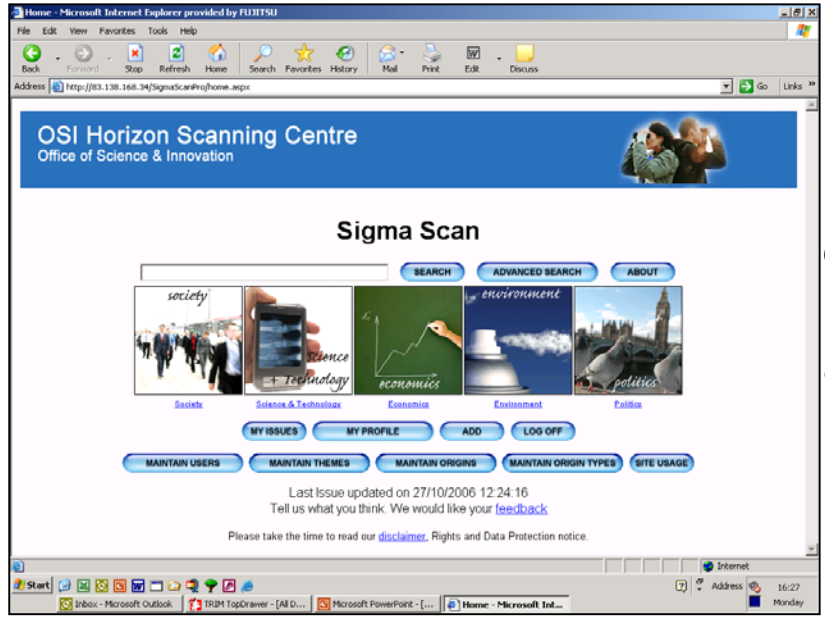
*Institute for the Future*



**Delta Scan:**  
cutting-edge perspectives  
of over 250 S&T experts

context

[www.deltascan.org](http://www.deltascan.org)



*Outsights / Ipsos MORI*

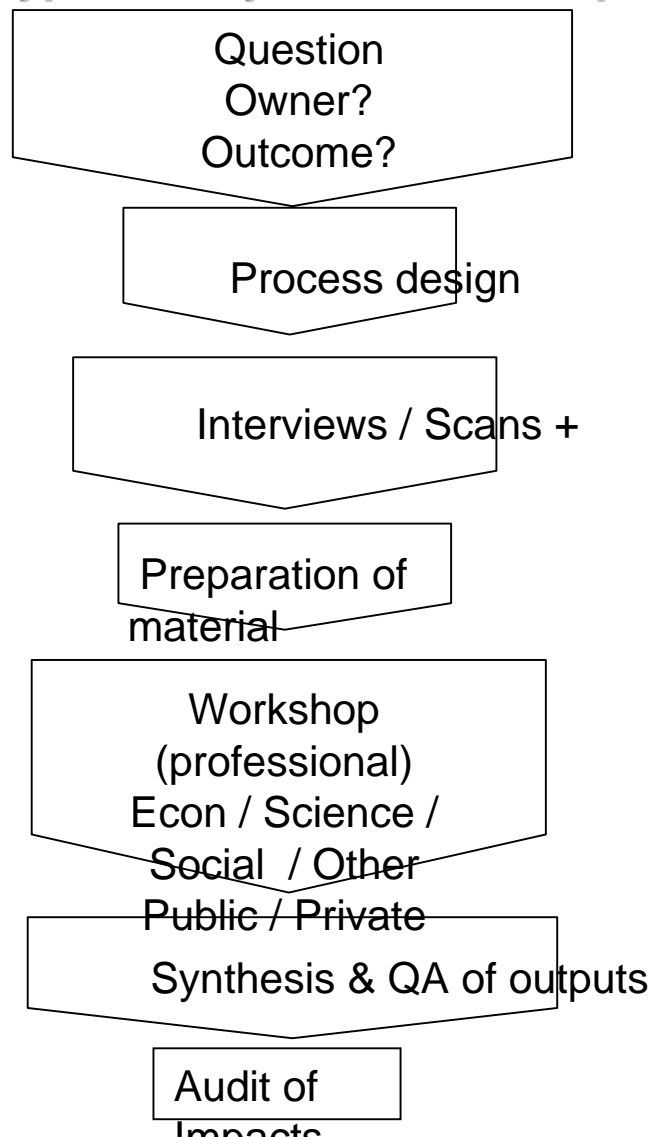
## Sigma scan

- Right to live: right to die?
- Global courting : the supremacy of international law.
- Increase in e-commuting.
- UK rules OK : isolationist Britain.
- End of public broadcasting.
- 'Ghettoisation' of minority populations.
- Landfill capacity limits reached.
- Economic impact of ageing.
- The 'rights' of robots.
- Corrupting aid flows
- .....

## Delta (S&T) scan

- Active biomaterials for regenerative medicine.
- Quantum chemistry for pollution abatement.
- Nanowire sensors for DNA testing.
- Advent of molecular archaeology.
- Computing on the human platform.
- Solar: the energy wild-card.
- From ink-jet printing to personal fabrication.
- Brazil's expanding technology

## ***Typical Project Model – Rapid Delivery of Context & Insight***



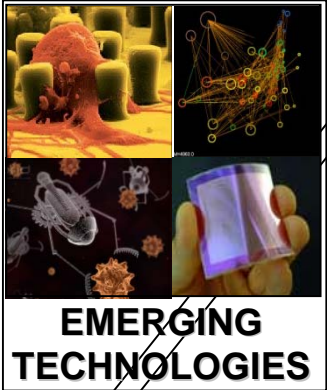
- **Building commitment and impact**
- **Stakeholder management**
- **Rapid assembly of diverse context**
- **Building endorsement**
- **Cognitive Challenge / priming**
- **Multiple interactions**
- **Challenge, insight,**
- **Co-creation**
- **Managing authority / credibility**
- **Evolve and promote project**

## Limitations of horizon scanning

- **Excessive expectations – *we don't predict the future!***
- **Use of 'soft' evidence sources – *wikis, blogs, "weak signals" etc as well as peer-reviewed material***
- **Challenges accepted wisdom**

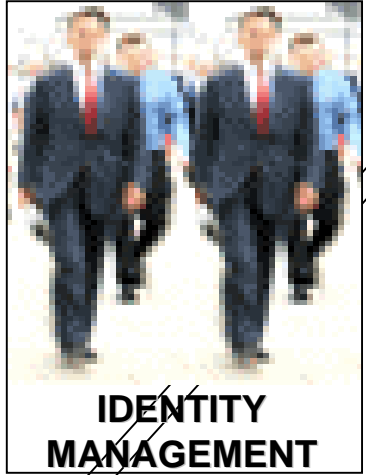
***Used well, these are strengths!***

Asia Task Force, PBR 05,  
Instrumental in shaping trade policy  
& UKTI Strategy,



14 Depts. prioritisation  
HMT CSR Publication  
SR Guidance  
Informs public dialogue  
MoD strategic trends  
HSE future of work  
OSI CSR bid

Examples of Project Impacts



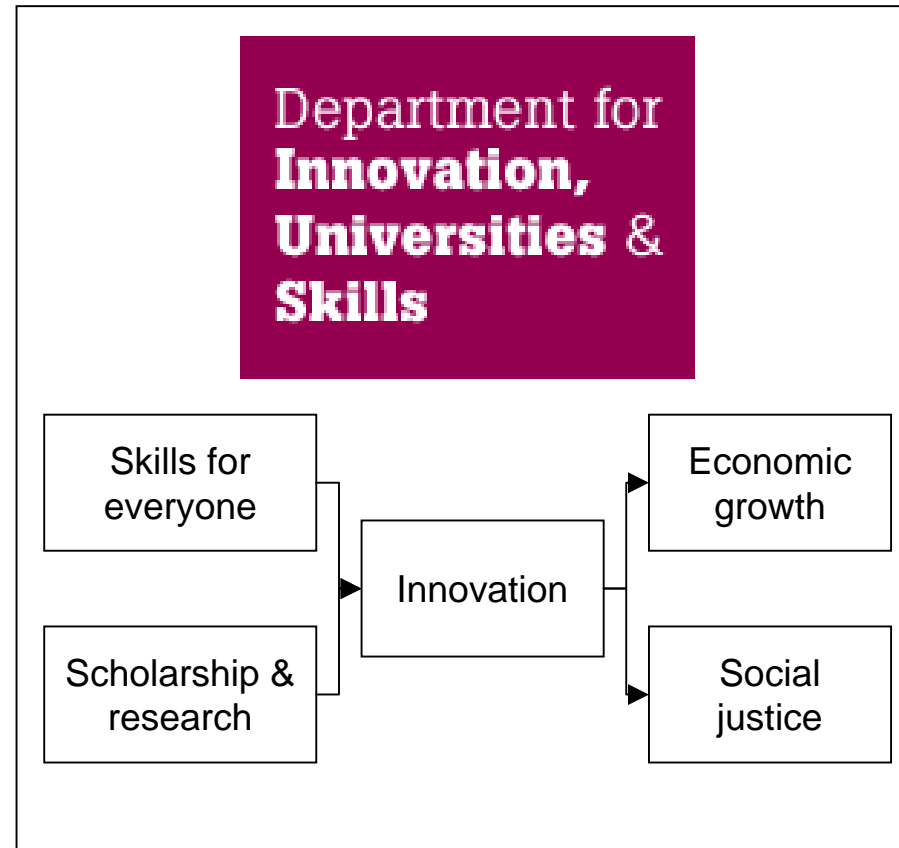
20 perm secs, 13 depts –

Crosby/HMT – public/private forum  
Key statement on ID policy architecture  
[HMT, HO, Industry, LSE, Liberty]

HMT (International Institutions)  
FCO/DfID/MoD – cross-dept strategic issues  
UKTI – comparative advantage  
GO Science International Strategy  
BERR – Board strategy

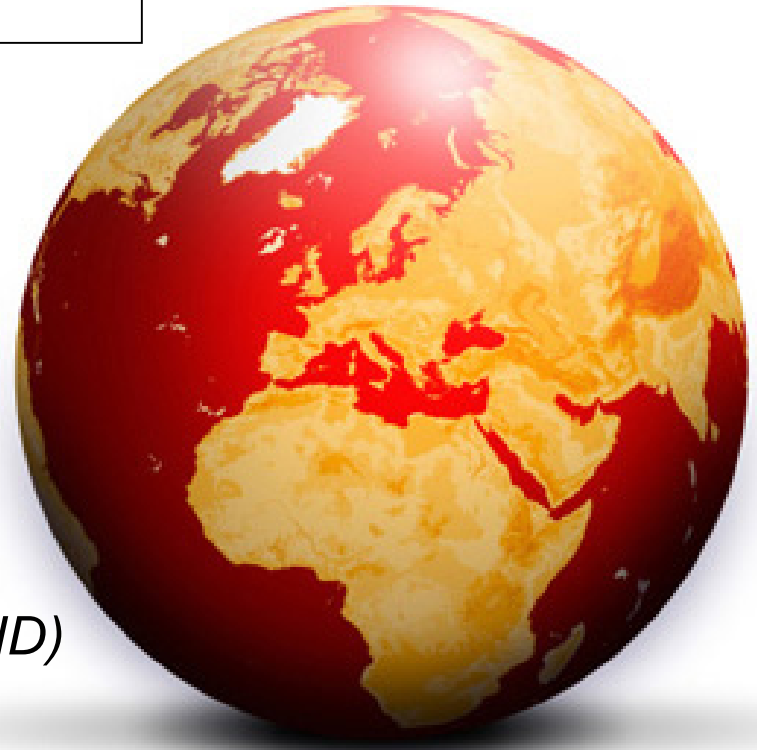
## DIUS Scenarios

- Objective: develop a set of scenarios to improve robustness of DIUS policies
- Scenarios will be built on evidence base of drivers of change (demographic change, innovation, etc.)
- Strong support from ESRC in developing evidence base
- Project overseen by Key Stakeholder Group and Expert Analytic Group



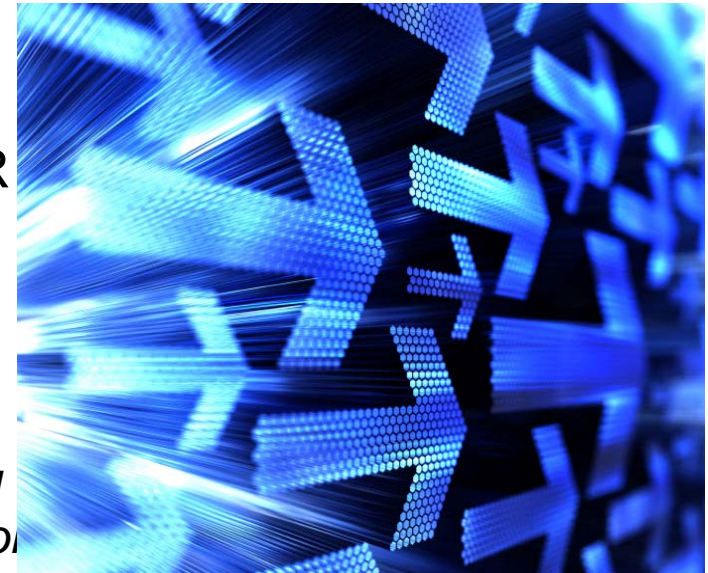
## Scenarios for the Future International Environment 2010-2020

- Scoped & endorsed by 20 Perm Secs
- Steered by 17 DGs / Directors
- Developed by 50+ officials in 13 Depts in 3 workshops
- Challenged by external experts
- Now being deployed to -
  - *stress-test strategic objectives (BERR)*
  - *develop joint strategies (FCO-MoD-DFID)*
  - *prioritise areas for research (UKTI)*
  - *guide Board's horizon scanning (DFID)*
  - *inform senior cross-Govt groups (e.g. FPSG)*



# Wider Implications of Science and Technology (WIST)

- Safety, health, environmental, ethical, regulatory & social implications
- Based on HSC view of key new S&T for CSR
- Expert workshops, on-line surveys (150+)
- Public engagement (2400+)
- 16 major themes e.g.
  - Being human in an engineered world*
  - Better modelling enhances social understanding*
  - Brain imaging finds many non-medical applications*
  - Enhancement of the mind and body*



.....  
Findings now on Govt-only website (access via [Harry.Woodroof@dius.gsi.gov.uk](mailto:Harry.Woodroof@dius.gsi.gov.uk))