



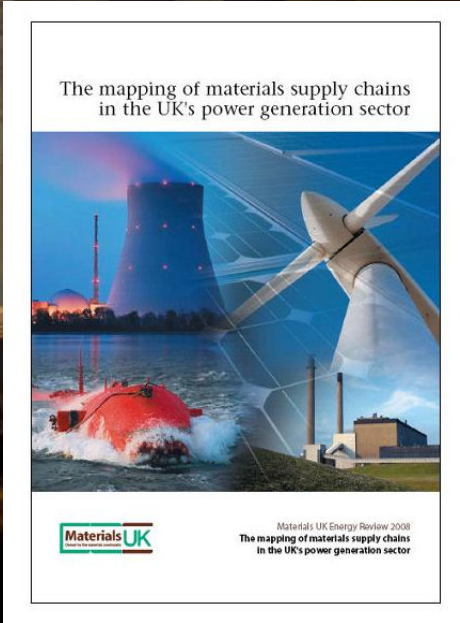
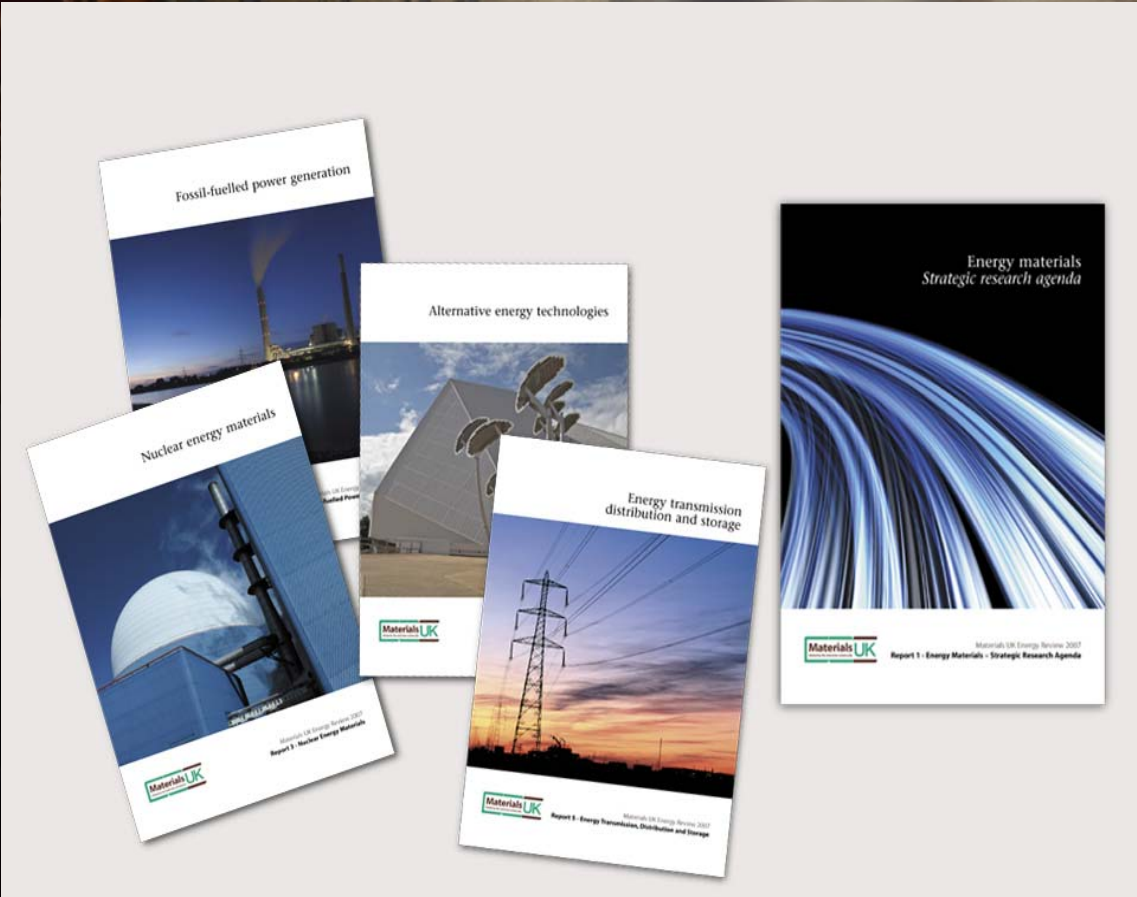
DRAGONS DEN-

Energy Materials , June 2009

The Day

- *Background*
- *Objectives*
- *Agenda*
- *Format*
- *Roles*
- *Interactive voting*

Energy Materials - What has already been delivered?



Dragons Den-objectives

Helping to implement recommendations of the SRA by:

- *Prioritisation of technologies based on business case (value to UK business)*
- *Assessment of where technology lies in funding landscape*
- *Identifying who are appropriate funders?*
- *Maintain high profile of Energy Materials with funding agencies*

Agenda

09.15-10.00 Registration & Coffee

10.00-10.30 Introduction & Format of the day

10.30-12.30 4 x Presentations and Questions from Dragons

12.30-13.30 Lunch

13.30- 15.00 3 x Presentations and Questions from Dragons

15.00-15.30 Break

15.30-16.15 Audience voting & close

Format

- 15 minutes max 'pitch' from 'Entrepreneurs'
- 15 min 'interrogation' from Dragons
- Dragons decide whether 'in' or 'out'
- Interactive vote – audience decide who should be 'in' or 'out' (2 questions)

The Entrepreneurs Brief

- Present a business case
- Content 65% business, 35% technical
- Present facts and evidence that are supportable
- The importance of the technology to the UK (climate change, jobs, markets, value, etc)
- Can the UK make a difference? (a) with the technology, (b) by supporting materials R&D
- Try and quantify the size of investment needed for materials R&D

Role of the Dragons-

- *To challenge the presenters business case*
- *Decide whether it is 'fundable' for their organisation/where technologies lie in terms of TRL*
- *They are either 'in' or 'out' (or potentially co-fund)*

Role of the Audience-

- *Participation through interactive Electronic Voting after each presentation and on a number of questions posed at end*

The Entrepreneurs

Biomass/Waste- John Oakey (Cranfield Uni)

Fossil Energy- Jonathan Wells (RWE)

Fuel Cells- Nigel Brandon (Imperial College)

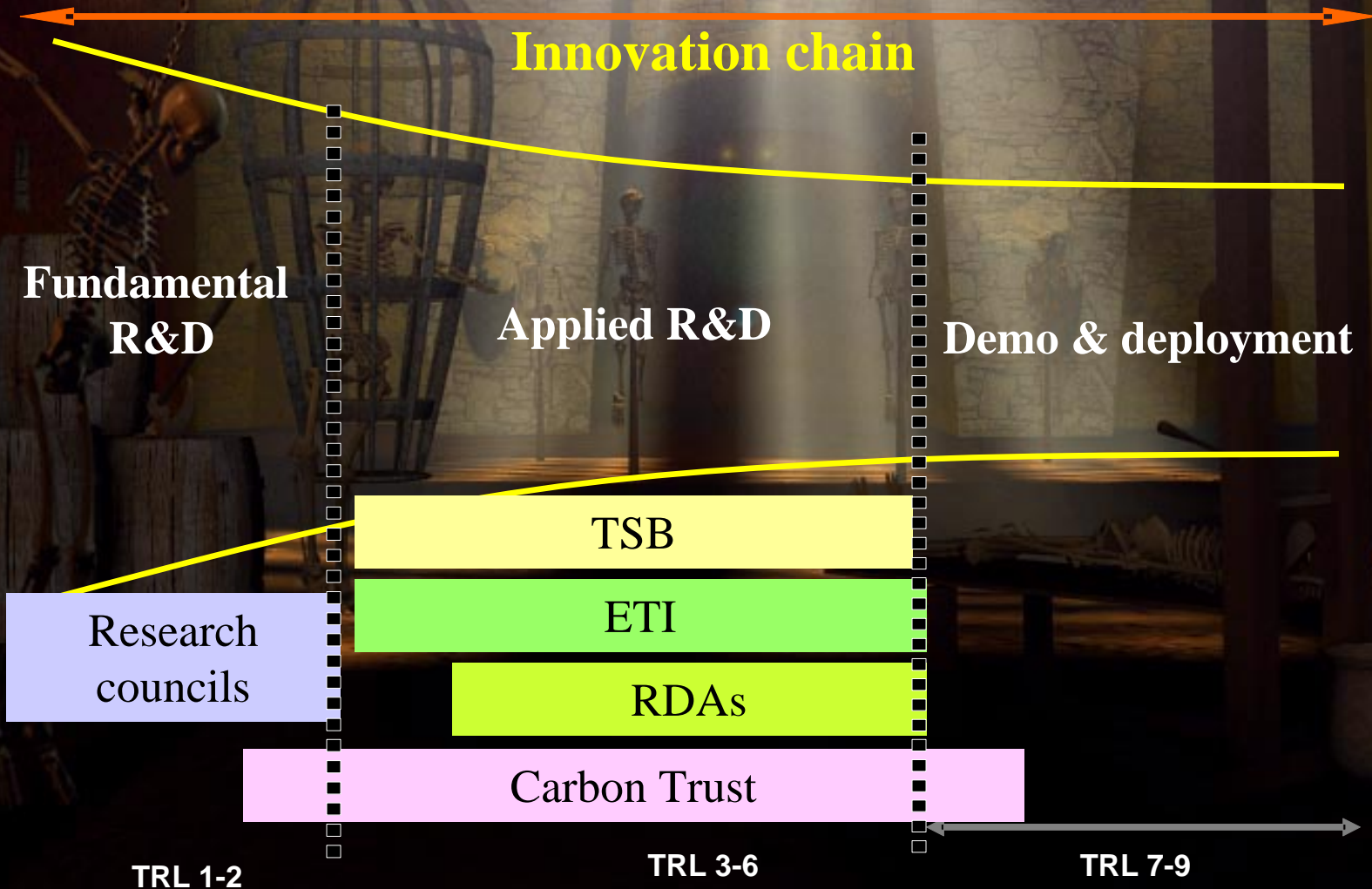
Marine- Stephen Wilson (NAREC)

Nuclear- 'Team' Oxford (Oxford University)

Offshore Wind- Bruce Valpy (BVG Associates)

Solar pv- Stuart Irvine (Optic Technium)

The Energy Landscape



Dragons landscape- ground rules for funding

- EPSRC – TRL1-3 Fundamental R&D- (academia only) 100%
- TSB- TRL3-6, Business led applied R&D (wealth creation UK)
Funding business ~50% and academia ~80% FEC
- ETI- TRL 3-6, Accelerate deployment of low C technologies
(Funding business and academia) up to 100%
- CT- TRL 2-7 Commercialisation of innovative low carbon technologies. Funding business up to 50%
- RDAs -TRL 4-6 Regional business devt. skills, infrastructure, capacity building. Funding business up to 50% (R&D)
- DECC/ETF -TRL 6+ Demonstration of technologies (25% funding to business)

A dark, atmospheric scene of a museum gallery. In the foreground, a skeleton is suspended by a chain from the ceiling. To its right, a large, empty metal cage hangs from the ceiling. In the background, several other skeletons are visible, some standing and some lying on the floor. The room is dimly lit, with a bright light source in the center background creating a strong lens flare. The walls are covered in ancient-looking murals or hieroglyphs. The overall mood is mysterious and macabre.

'Enter the Dragons'

Enter the Dragons

Name- Alan Hooper



- *Organisation - Technology Strategy Board*
- *Position- Lead Technologist, Advanced Materials*
- *Investment potential ~£30m pa (business & academia)*
- *Business focus TRL 3-6*

Key drivers for investment

- *UK capacity, market opportunities, additionality
timeliness & impact*

Enter the Dragons

Name- Andrew Haslett



- *Organisation – Energy Technologies Institute*
- *Position- Strategy Director*
- *Investment potential ~£60m pa (business & academia)*
- *Business focus TRL 3-6*

Key drivers for investment

- *Energy policy, Low Carbon technologies, Acceleration to market*

Enter the Dragons



Name- Ivan Buckley

- *Organisation – Regional Development Agencies*
- *Position- Strategy manager (Advanced Materials)*
- *Investment potential £10-50m (excl DA's)
(business & academia)*
- *Business focus TRL 4-6*

Key drivers for investment

- *Regional business devt./competitiveness,
skills, infrastructure, capacity building*

Enter the Dragons

Name- Jason Green



- *Organisation – EPSRC*
- *Position- Head of Energy Research Capacity*
- *Investment potential ~£105m pa (academia only)*
- *Business focus TRL 1-3*

Key drivers for investment

- *ReID capacity building through supporting high quality research and postgraduate training*

Enter the Dragons

Name- Rachael Nutter



- *Organisation – Carbon Trust*
- *Position- Investment Manager*
- *Investment potential ~£20-30m pa (business)*
- *Business focus TRL 2-7*

Key drivers for investment

- *Commercialisation of innovative low carbon technologies, Carbon Savings, Venture Capital returns.*



The Voting and order of play

*Matt Emmerson (from Sounds
Commercial)*



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Next Steps

- *Follow up meeting of Dragons to discuss prioritisation and mechanisms to support energy materials*
- *Wider circulation of 'materials' questions to community*
- *Analysis of data and feedback*
- *Continued engagement of EMWG with key stakeholders*
- *Continued implementation of SRA recommendations*

A dark, atmospheric scene, possibly a prison or a place of execution. In the center, a skeleton is visible inside a large, ornate metal cage. To the left, another skeleton is suspended from a gallows. The room is dimly lit, with a bright light source at the top center creating a strong lens flare. The walls are made of stone or brick, and there are wooden pillars and beams. The overall mood is somber and mysterious.

Questions?