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

Innovation chain

Fundamental R&D

Applied R&D

Demo & deployment

Research councils

TSB

ETI

RDAs

Carbon Trust

TRL 1-2

TRL 3-6

TRL 7-9
Dragons landscape - ground rules for funding

- **EPSRC** – TRL 1-3 Fundamental R&D - (academia only) 100%

- **TSB** - TRL 3-6, 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)
‘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**

- R&D 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
Questions?