Status and First Programme Topics

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Background and Status

- 50:50 public private partnership
  - up to £110m p.a.
  - up to 11 core industry partners each committing up to £5m p.a.
  - HMG commitment already made - £550m over 10 years
- UK led energy Research, Technology development and Validation
- ‘HQ’ office at Loughborough Science Park
- Interim team in place
- Permanent team being recruited

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Energy Technologies Institute
- *addressing global energy challenges by ….*

- **Supporting R+D to**
  - **reduce CO_2 emissions from energy both in the UK and globally**
  - **realise security of the UK energy supply in conjunction with CO_2 mitigation**
  - ***UK target 60% overall CO_2 reduction by 2050***
- **Accelerating development and deployment of affordable, low carbon and efficient technology solutions**
  - ***Supply and end-use***
- **Achieving a step-change in funding, capacity and skills for energy R&D in the UK**
- **Promoting international technology collaboration**

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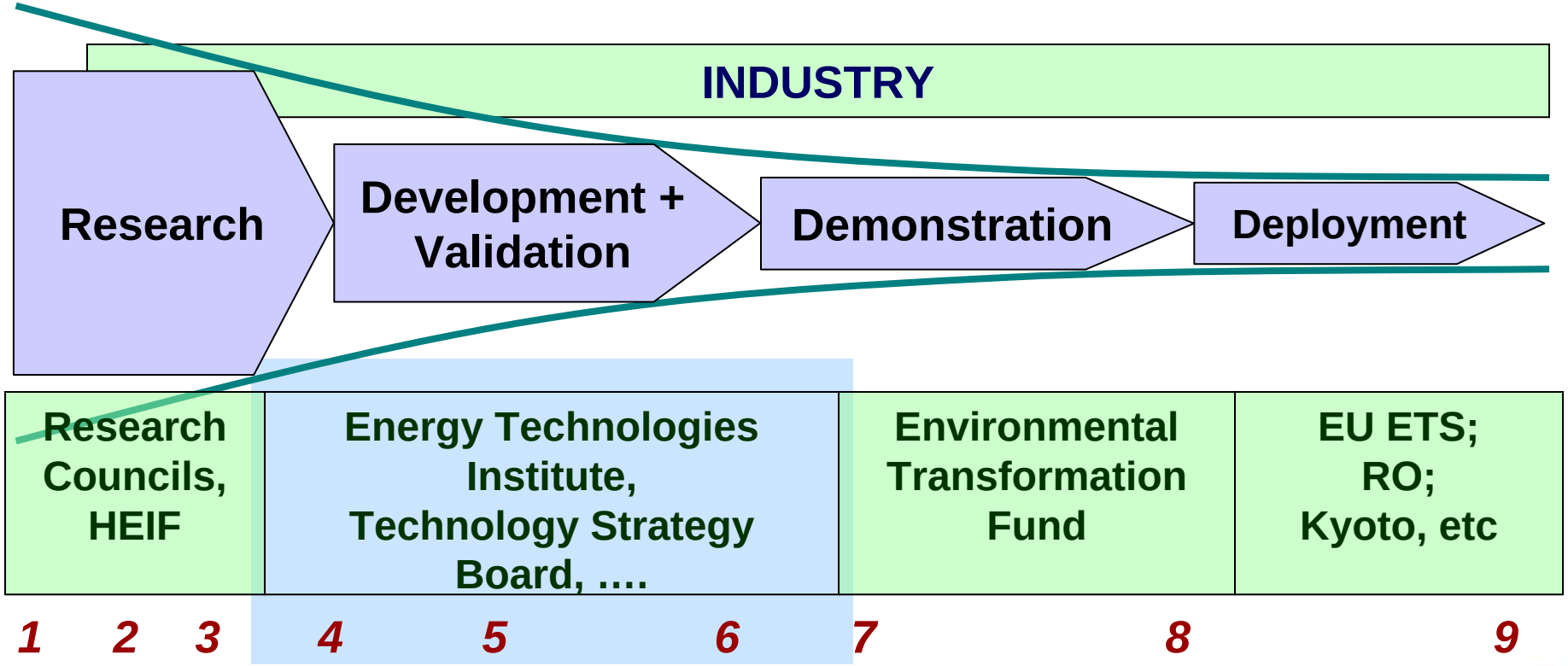
ETI is central in the landscape for UK energy R, D, D & D

Technology push & knowledge transfer...

… market pull & public policy



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Energy Technologies Institute
- Unique features

- Scale of funding
  - typical projects expected to be £5-25m
- Potential for ETI to fund 100% of project costs
- Access to shareholder capabilities
  - Skills, Technology, Market access

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Operation and physical form

- Focussed investment on those technologies with greatest potential for delivering step-change improvements in low carbon, secure, energy
- Collaborative R&D involving universities and research institutes, industry and other organisations
- Complementary to other bodies such as EPSRC, Carbon Trust, Technology Strategy Board etc.
- Universities funded to deliver additional research and teaching capacity
- Constructed on a distributed programme model
  - Network of physical locations and programmes
  - Each will have a world class reputation in relevant programme areas

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Initial listing of potential areas for ETI support

- Wind (primarily offshore)
- Marine
- Distributed generation
- Energy Networks – grid and management
- Carbon capture, handling and sequestration (CCS)
- Small-Scale Energy Conversion (inc Transport and non-hydrocarbon Fuels)
- Domestic and Commercial Buildings [efficiency]
- PV Solar
- Industrial Processes [Process effectiveness and Demand Reduction]
- Waste Heat Recovery and Conversion
- Large Scale Energy Conversion [efficiency improvement]
- Bioenergy Liquid Fuels and Bioenergy - Heat and Electricity
- Storage Technologies - Small scale & Large scale
- Fuel Cells
- Advanced Conversion technologies

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ETI – work scope

First call – December 17th, Offshore Wind, Marine

- Contribution to energy policy goals
- Technical and commercial attractiveness
- Not just technology R&D – also other areas necessary to accelerate deployment
  - Skills, standards, regulations
  - Economic models
  - Market development and understanding
- ETI open to strategic partnerships in specific technology areas
  - “Programme Associates”
- Flexible processes
  - Management and delivery mechanism tailored to programme and technology area

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Role of Materials

- Materials have underpinned many of the advances made in the energy sector from generation through to conservation.
- They will continue to do so as the emerging energy technologies evolve
- ETI sees materials as one of a number of key generic technologies which will help the ETI achieve its objectives as we move forward

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