

# Technology Route Maps and Their Importance

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## Aims of TRM Session



- To illustrate the importance of using a Technology Road Map (TRM) approach in a national and regional sense in different parts of the world
- To position these in an international sense through the actions of the CSLF
- To address the benefits of such an approach and how best to transfer the experience gained to countries that are wanting to proceed in a similar manner

## Viewpoint on „Importance of TRMs“



- Personal Perspective to help set the scene
  - UK CSLF Technical Group Representative
  - UK Government Adviser and Chair of UK CAT Committee
  - Energy Advisor to the European Commission
  - Industry Stakeholder with over 35 years experience
  - someone very active in the “CCS arena”

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## Some important „touchstones“



- TRM = Technical Road Maps for CCS
  - ...but not just technology alone ....
  - .....must include the wider political context....
  - .....and so meet the ultimate policy objective
  
  - need for a holistic approach
    - R&D needs through to validation and demonstration
    - Regulatory impact
    - Fiscal frameworks and deployment
    - Public acceptance and communication
    - Skills and capability
    - Internationalisation aspects
  
  - need to cover the full chain
    - capture, transport/infrastructure and storage

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## Some more important „touchstones“



- “what is required when”
  - clear goals, milestones and timeframes
- engagement of full set of stakeholders
  - industry, research, NGOs as well as government
- a framework in which to operate
  - strong focus for action
- “live documents”
  - review mechanism necessary to ensure alignment with policy developments
- different country needs are not the same
  - each country/region needs to consider their own position/context

# A national approach : UK

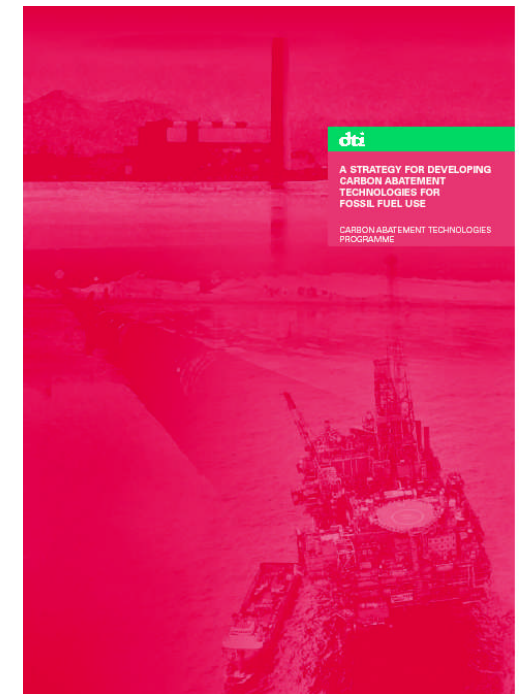
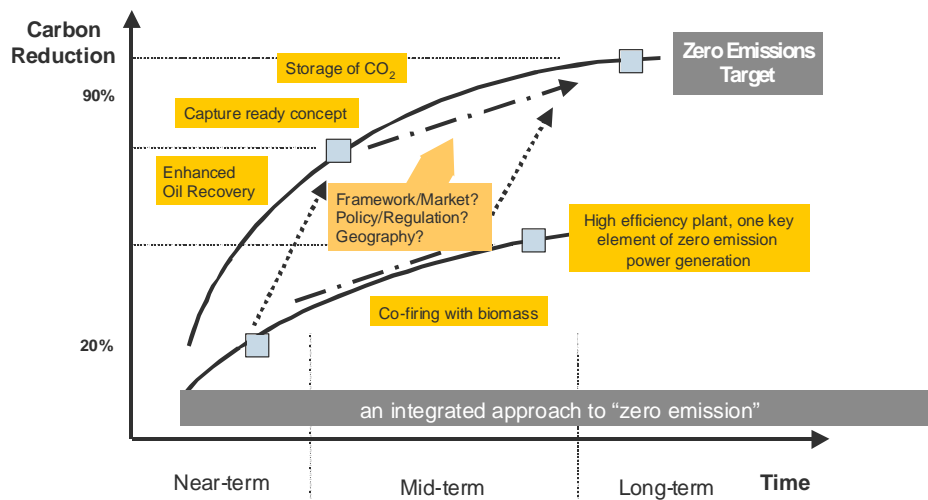
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## Action areas within the CAT strategy for the eventual deployment of CCS

- Research and Development;
- Demonstration;
- Development of a Regulatory regime;
- International collaboration and activity;
- Increasing public awareness and stimulating debate on the role of CATs;
- A financial regime which will reward the Carbon sequestered.

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## Dependent Twin Track Approach



## An international approach : CSLF



- CSLF is an international partnership and so its TRM has to be different from those of its member countries
  - more general in nature and setting an overall framework
  - high level milestones and timeframes
- The aim is to facilitate others in ultimately deploying CCS through the establishment of a framework for the key issues that need to be addressed
  - lower costs
  - secure reservoirs
  - measurement, monitoring and verification of storage
- Implementation of national and international pilot and demonstration projects regarded as a key element

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## A set of questions for today



Set the context for the presenters and basis for the ensuing discussion and panel session

Perspectives from Australia, Canada, Europe, Saudi Arabia and United States

- What are the benefits of adopting such a TRM approach?
- What have been the barriers to its implementation and how have they been overcome?
- What lessons have been learned? What advice would be forthcoming for others going down this route?



## Panel and Audience Session



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- What lessons have been learned? What advice would be forthcoming for others going down this route?

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