



# **CSLF Technology Road Map Update**

**CSLF Technical Group  
Project Interaction and Review Team**

---

**Washington, USA  
16<sup>th</sup> November 2008**

**Nick Otter**  
United Kingdom

# Technology Route Map :

## Current Status November 2008



### Actions following Cape Town PIRT Meeting 14<sup>th</sup> April 2008

- Input from EC via INCACO2 team (led by France) on gaps and technology updates relevant to CO<sub>2</sub> capture : May 2008
- Completion of INCACO2 contract and hence no further resource from EC : May 2008
- Special PIRT meeting hosted by GeoScience Australia in Canberra to address TRM drafting attended by representatives from Australia, UK and USA : 23-25<sup>th</sup> September 2008

# Technology Route Map :

## Current Status November 2008



### Action Plan from Canberra Meeting on 23-25<sup>th</sup> September 2008

- Discussion of Timeline for Completion of Update
  - to be completely finished in time for 2009 Ministerial meeting on 16-18<sup>th</sup> November 2009 as it will be a key deliverable for the meeting
  - review of progress will take place at PIRT meeting set for Washington PIRT meeting on 16<sup>th</sup> November 2008
  - a `robust` draft will be required for PIRT meetings planned for February and April 2009
  - subsequent review/agreement by Technical Group at an anticipated meeting in April 2009
  - submission to Policy Group for review and endorsement in May 2009

# Technology Route Map :

## Current Status November 2008

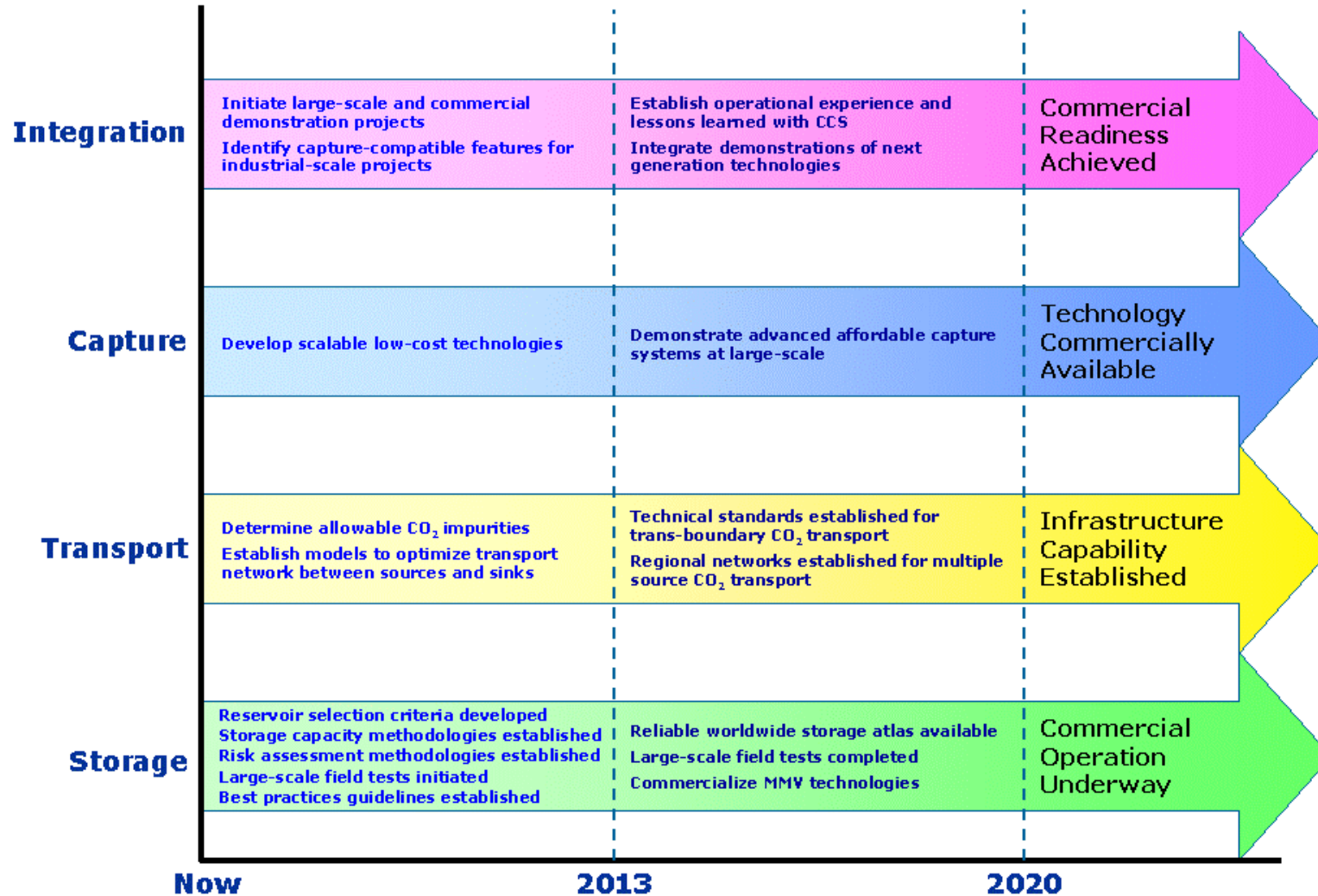


### Alignment of TRM Update with CSLF Strategic Plan Development

- Consistency with IEA/CSLF/G8 Recommendations finalised at Calgary Workshop in November 2007
  - currently recommendations are being reviewed as to which ones should be undertaken by CSLF
  - importance of integrated large scale demonstration to be reflected in TRM update as a critical step to deployment of CCS
  - identification of areas to be addressed by new or extension of existing CSLF Projects

# Technology Route Map :

## Current Status November 2008



# Technology Route Map : Consistency with other TRM Actions

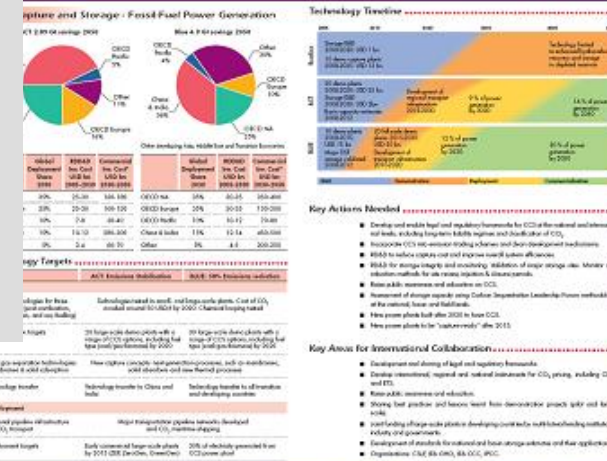


## Alignment of CSLF TRM Update with IEA CCS TRM and demonstration actions : 1

### ➤ IEA CCS Route Map activity

- part of response to G8 Action Plan
- input to G8 meeting in Rome in June 2008
- initial workshop held in Paris 6-7<sup>th</sup> November 2008
- follow up workshop to be held on 2-3<sup>rd</sup> February 2009
- draft to be completed May 2009

### admaps – Example CCS of CO<sub>2</sub> reduction potential in BLUE Map



# Technology Route Map : Consistency with other TRM Actions



## Alignment of CSLF TRM Update with IEA CCS TRM and demonstration actions : 2

- IEA WPF/IEA CCC CCT Route Map
  - started September 2008
  - focus on CCT but will address CCS
  - draft to be completed May 2009



Coal CCT CCS roadmap for IEA WPF

Colin Henderson  
IEA Clean Coal Centre

Technical Roadmap Workshop  
6 - 7 November 2008  
International Energy Agency, Paris

[www.iea-coal.org.uk](http://www.iea-coal.org.uk)



Coal CCT CCS roadmap for IEA WPF

- Includes non-technical issues that are important constraining factors on time to implementation:
  - Development of regulation - particularly with respect to transmission and storage
  - Finance, including the role of CO<sub>2</sub> trading schemes
  - Public awareness/acceptance
- Review of China, India and South Africa will identify how the technologies and the non-technical issues differ from the OECD situation and suggest capacity building, to bring the situation in the developing countries close to that in OECD area

© IEA Clean Coal Centre

[www.iea-coal.org.uk](http://www.iea-coal.org.uk)

# Technology Route Map :

## Consistency with other TRM Actions



### Alignment of CSLF TRM Update with IEA CCS TRM and demonstration actions - 3

- vital to ensure consistency of message
  - complementary nature of documents
  - same time frame to establish Route Maps
  - lead up to COPMOP in Copenhagen in 2009
- 
- agreement in principle to liaise and share information established at IEA CCS Workshop in Paris on 6-7<sup>th</sup> November 2008
  - liaison meeting set next IEA CCS Workshop on 2-3<sup>rd</sup> February 2009, informal interaction/exchange in December 2008



# Technology Route Map :

## Outcome of Canberra Meeting - 1



### Structure of TRM Update

- Using same basic structure as existing TRM
  - Module 0 : Introduction, Positioning and Rationale
  - Module 1 : Current Status of Technology
  - Module 2 : Ongoing Activities in CCS
  - Module 3 : Gap Identification
  - Module 4 : Roadmap and role of CSLF

# Technology Route Map :

## Actions to complete - 1



### Status of Modules

- **Module 0 : Introduction, Positioning and Rationale**
  - virtually complete : **UK to complete**
  
- **Module 1 : Current Status of Technology**
  - approximately 70% done
  - update on CO<sub>2</sub> storage (IPCC report) : **review Australia draft**
  - update on power station performance (McKinsey CCS Report of September 2008 and subsequent EU ZEP work due for release in November 2008) : **UK+ to do**
  
- **Module 2 : Ongoing Activities in CCS**
  - major rewrite needed, 95% still to do including `then-and-now` maps
  - **requires input from PIRT/TG members to complete**

# Technology Route Map :

## Actions to complete - 2



### Status of Modules

- **Module 3 : Gap Identification**
  - ~80% complete in content but needs tidying up
  - using input from EU on capture : **UK+ to do**
  - using input from Australia on storage : **review draft**
  
- **Module 4 : Roadmap and role of CSLF**
  - tidy up action needed together with identification of specific CSLF actions (consistency with Strategic Plan needed) : **UK to do**

# Technology Route Map :

## Actions to complete - 3



### Actions and Immediate Timeline Issues

- **TRM Version to be issued 5<sup>th</sup> December 2008**
  - PIRT core members for comment
  - Floating Group members for comment
    - ☐ CSLF project contacts
    - ☐ CSLF stakeholders
  - **response by 9<sup>th</sup> January 2009**
  
- **Technical Group Input**
  - Members not part of PIRT
  - Module 2/ on going CCS actions` input
    - update on country actions
    - in addition to IEA CCS Report of November 2008
  - **Need explicit contact point**
  - **Need response by 19<sup>th</sup> December 2008**

# Technology Route Map :

## Actions to complete - 4



### Actions and Immediate Timeline Issues

- **PIRT TRM Review Meeting**
  - 4-5<sup>th</sup> February 2009 in Paris
  
- **Technical Group Review**
  - Next meeting of Technical Group in April 2009?



# **CSLF Technology Road Map Update**

**CSLF Technical Group  
Project Interaction and Review Team**

---

**END**

**Washington, USA  
16<sup>th</sup> November 2008**

**Nick Otter**  
United Kingdom