

IEA Regulatory Network meeting – CCS

22-23 April 2015

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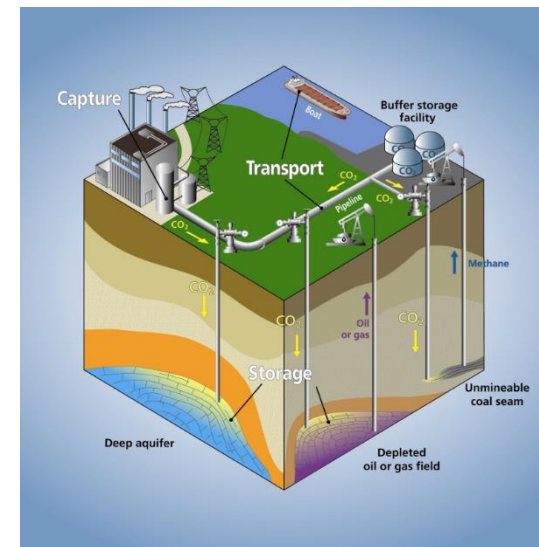


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Portugal's contribution to the 4th edition of the CCS Legal and Regulatory Review :

- Transposed the EU directive and was considering some further activities focused around CO₂ storage.



Portugal's approach

- The Directive is transposed into Portuguese law DL 60/2012 (2009/31/EC on the geological storage of carbon dioxide) - DGEG
- CCS is not considered as policy priority
- Some activity is running



CCS-PT: Perspectives for capture and sequestration of CO₂ in Portugal to initiate the debate about the role of carbon capture and storage technology in the country.

CO₂ CAPTURE AND STORAGE IN PORTUGAL

A BRIDGE TO A LOW CARBON ECONOMY Júlia Seixas et al. 2015

S U P P O R T E D B Y



Study on CCS aiming to set up the Pt roadmap on CCS.



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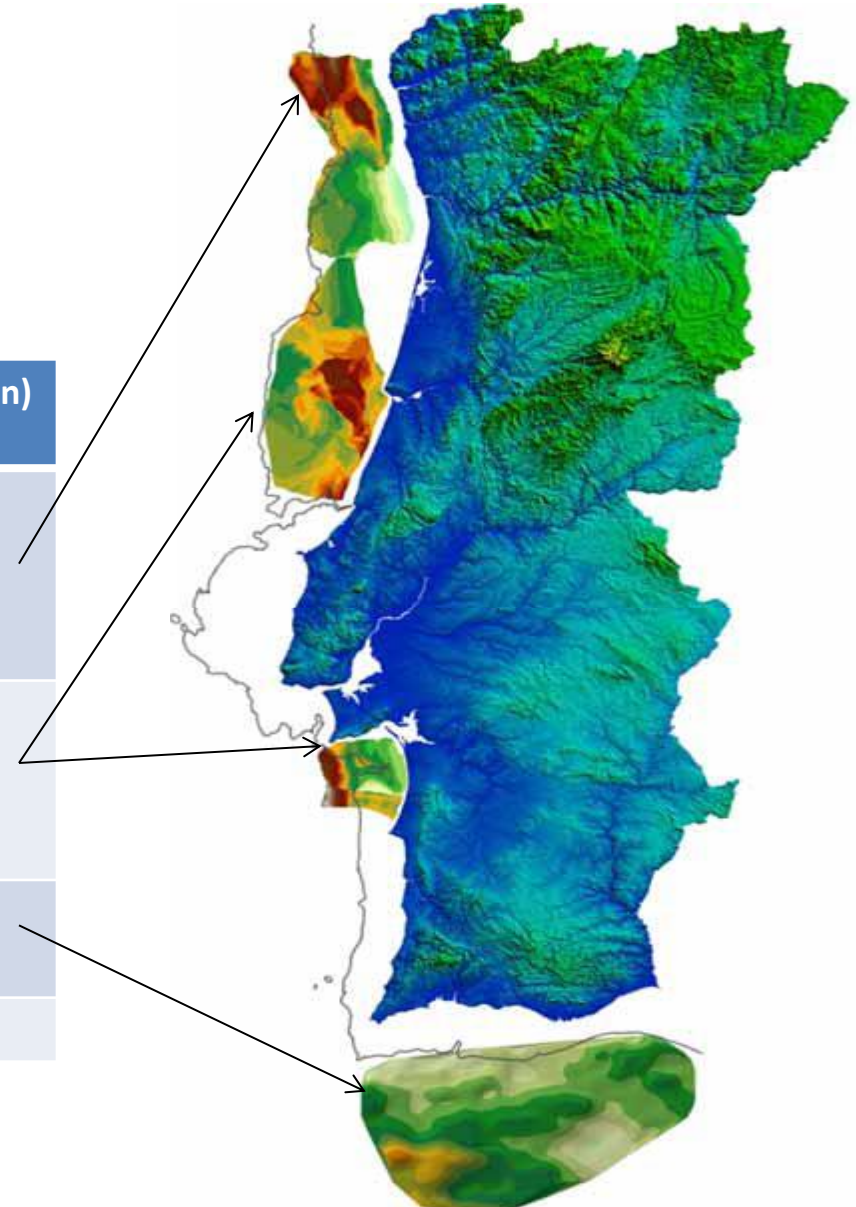
More information on *CCS-PT* is available on <http://ccsroadmap.pt>



Potential locations to CO₂ storage identified:

- Porto Basin (offshore)
- Lusitaniana Basin (offshore e onshore)
- Algarve Basin (offshore)
 - 7.5 Gton CO₂ >95% offshore

Basin	RESERVOIRS (Formações detríticas)	CAPACITY (Mton)
Porto	Torres Vedras (Cretaceous Inf .) Silves sandstone (Triassic)	2004
Lusitaniana	Torres Vedras Cretaceous Inf .) Silves sandstone (Triassic)	3888
Algarve	Sands of Miocene (Early Cretaceous)	1247
		Σ = 7140





CCS in Process Industries- State-of- the-Art and Future Opportunities

A Joint Workshop organized by IEA Greenhouse Gas R&D Programme (IEAGHG) and
IEA Industrial Energy-related Technologies and Systems (IETS)

10th – 11th March, 2015
Lisbon, Portugal

General aims of the workshop: present an overview of the current state-of-the-art technology in industrial CCS and to improve understanding to the different challenges in deploying CCS in the oil refining, chemical/petrochemical, and pulp and paper industries, exchange information / discuss different issues that could impact the development and future deployment of CCS in the different sectors.

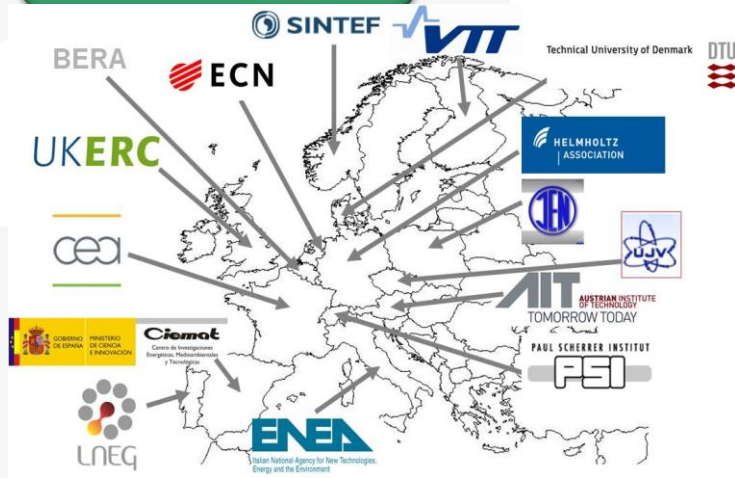
Collaboration from IEA: Stanley Santos, Project Manager IEAGHG Capture & Integrated Systems

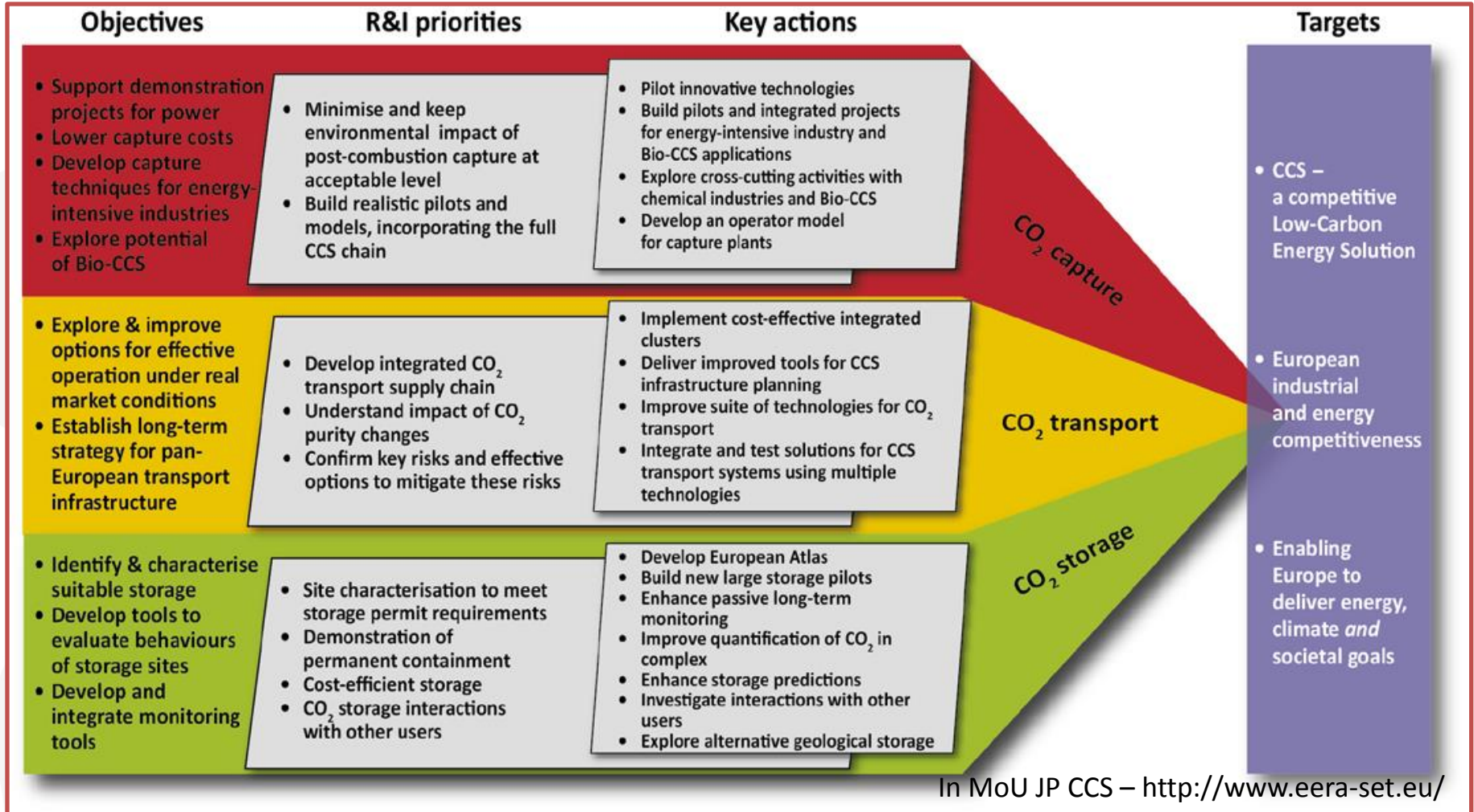


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European Energy
Research Alliance





R&I priorities for CCS in Europe in order to achieve wide deployment by 2030



Former studies highlights:

The [National Low Carbon Roadmap 2050 \(RNBC\)](#) (July 2012) pointed to the adoption of CCS by some power plants and industries as a cost-effective option for the mitigation portfolio.

Findings in the [FP7 COMET project](#) :

- CCS will play an important role in reducing the national CO₂ emissions to the atmosphere, even under moderate mitigation targets (80% reduction in 2050, when compared to 1990 emissions level) capable of avoiding the emissions up to 3 Mt CO₂ to the atmosphere in 2030 and to 7 Mt CO₂ in 2050, mainly associated with **cement sector**;
- **Main corridors** defined for a transport net for CO₂, accounting for costs and land criteria;
- Study on transport and interconnected networks for CO₂ storage among Portugal, Spain and Morocco;
- Findings should consider a set of uncertainties, namely regarding the evolution of fossil fuel prices over the next decade, the projections of industrial production (both domestic consumption and exports), the availability of natural resources such as hydrological conditions;
- The performance and the expected costs for CCS in the future emerges as a major barrier to its deployment.



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