

ENCAP-CASTOR Workshop

CASTOR and ENCAP: The twin brothers

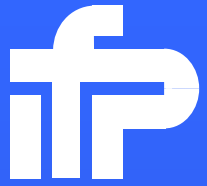


CASTOR

and

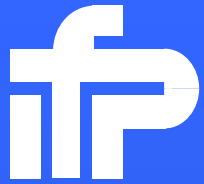
ENCAP

A.Rojey

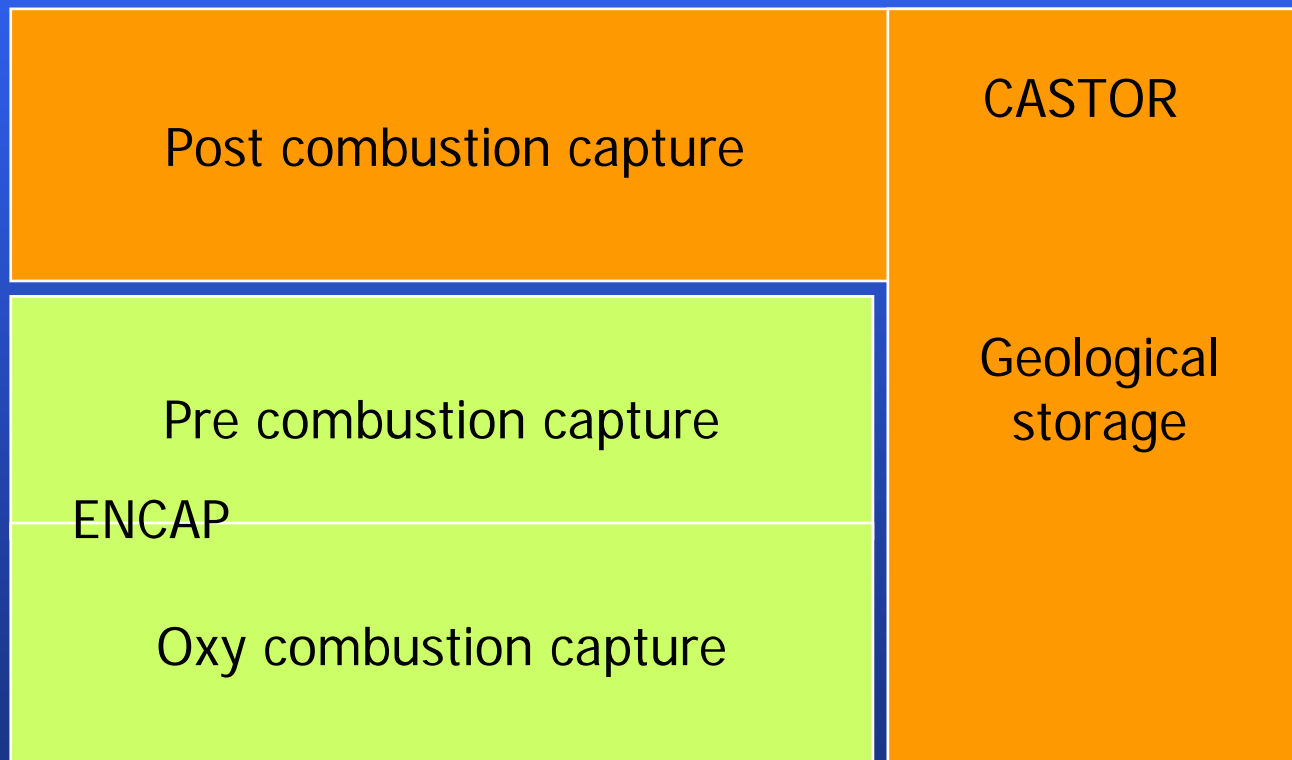


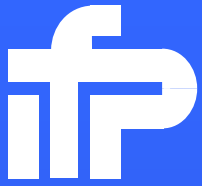
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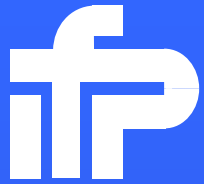
The objectives





ENCAP Objectives

- Technologies that meet the target of at least 90% CO₂ capture rate and 50% CO₂ capture-cost reduction.
- Develop new pre-combustion CO₂ capture technologies and processes for power generation based on fossil fuels - mainly hard coal, lignite and natural gas - affordable and clean, to be integrated within sustainable energy systems.



CASTOR Objectives

- Define the overall strategies required to effect a 10% reduction of EU CO₂ emissions and to monitoring the effectiveness of the strategies (from capture to storage) from a techno-economical point of view.
- Obtaining data on capture and geological storage capacities from Southern and Eastern Europe (extension of GESTCO project). Impact of the overall strategies on EU countries to be taken into account.



CASTOR Objectives: Post-combustion capture

- Development of solvents, with a thermal energy consumption of 2.0 GJ/tonne CO₂ at 90% recovery rates
- Resulting costs per tonne CO₂ avoided not higher than 20 to 30 €/t CO₂, depending on the type of fuel (natural gas, coal, lignite)
- Pilot plant tests showing the reliability and efficiency of the post-combustion capture process

CASTOR

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CO₂ specifications for transportation and storage



Cost for CO₂ transportation and storage



Cost for CO₂ postcombustion capture



CO₂ purity from
oxycombustion / precombustion capture



Cost for CO₂
oxycombustion / precombustion capture



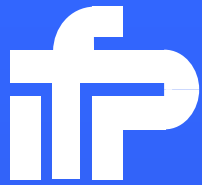
Prepare future steps

- Federate different communities
- Build-up upon acquired experience
- Prepare FP7 through the ZEFFPP TP

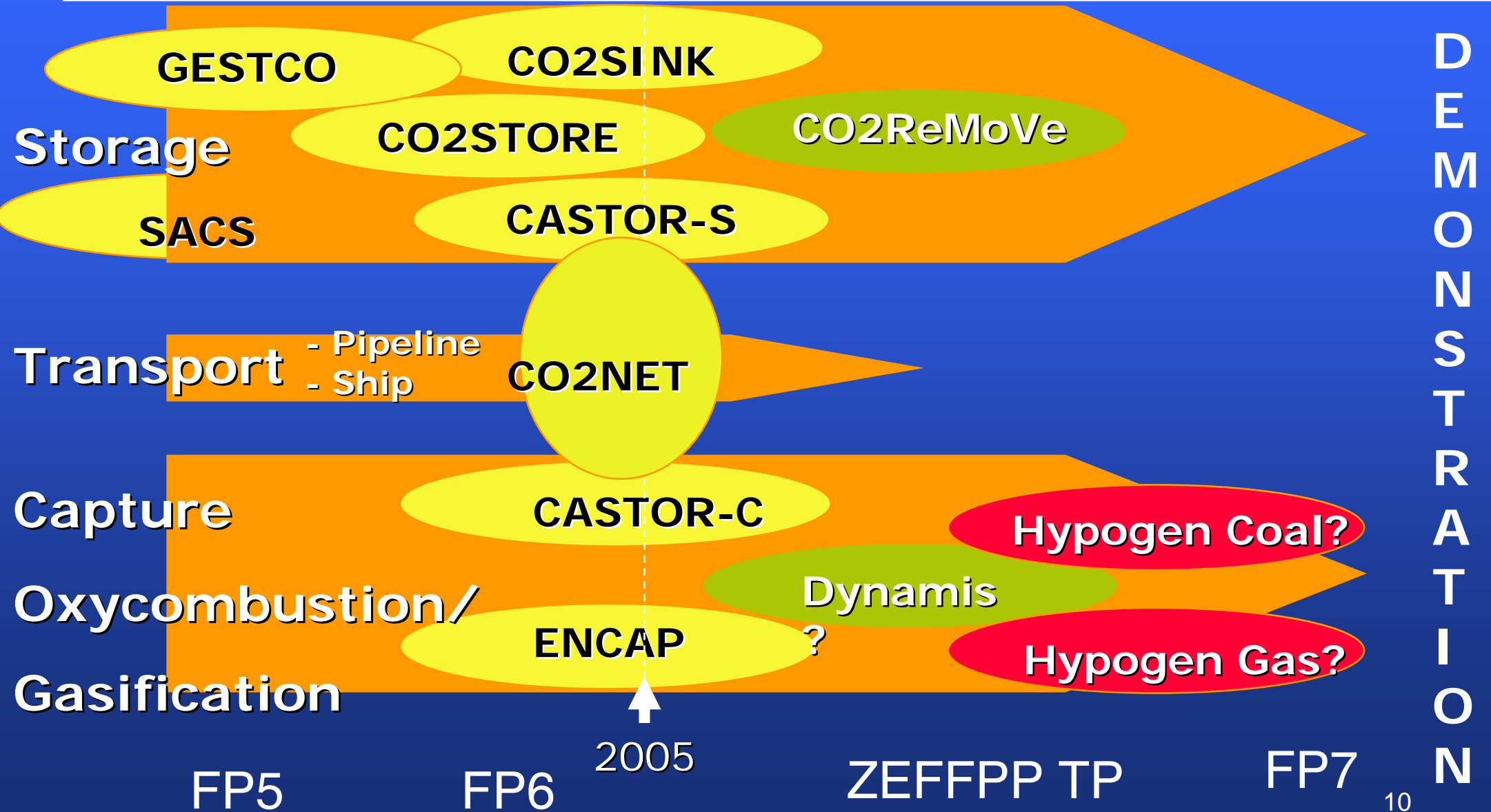


Federate different communities

- Electricity producers
- Oil & Gas companies
- Equipment manufacturers
- Research



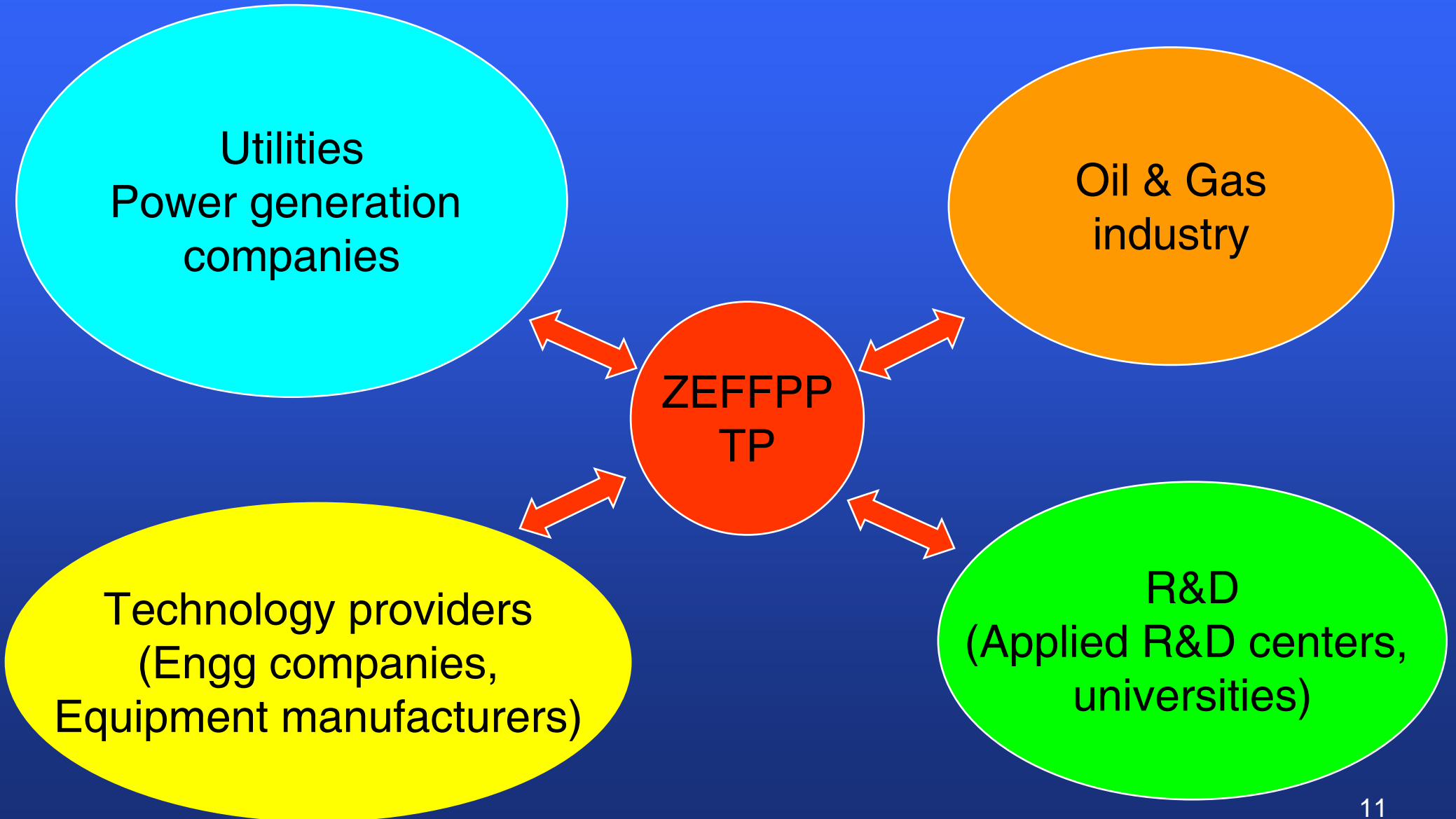
Build-up upon acquired experience



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Prepare FP7 through the ZEFFPP TP



- Strong interactions

objectives, stakeholders, programs...

- Good complementarity

- Joint future