



# STRATEGY CCUS

A viable solution for a sustainable future

# Strategic planning of Regions And Territories in Europe for low-carbon energy and industry through CCUS

Coordination and Support Action (CSA)  
Budget: 3 M€

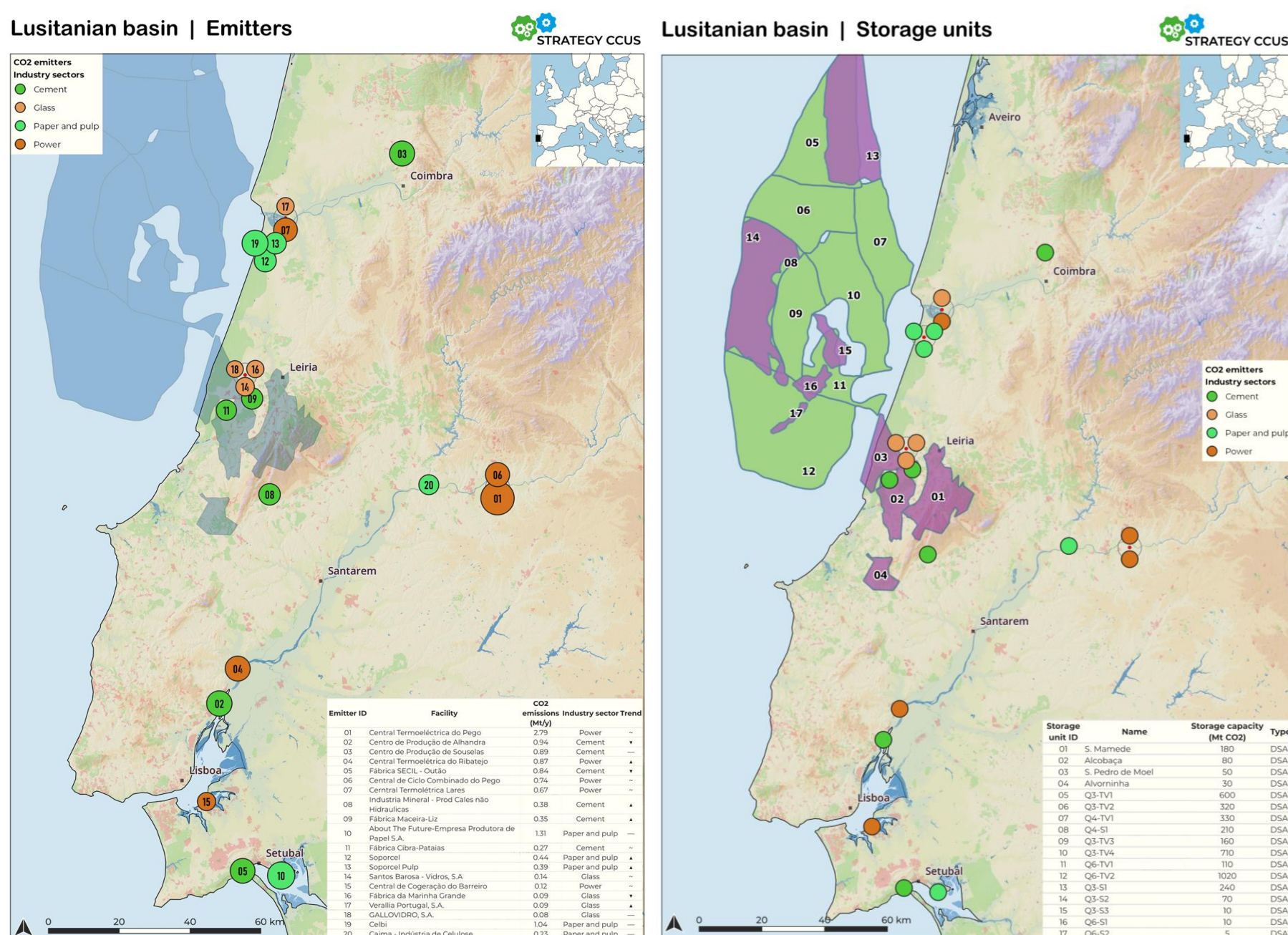
Lusitanian basin team: J. Carneiro, P. Fortes, P. Mesquita, P. Pereira, R. Aguiar, P. Rocha, L. Fazendeiro, R. Frazão, P. Martins, C. Ribeiro, J. M. Martins

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## Lusitanian Basin | Portugal

### Region Overview

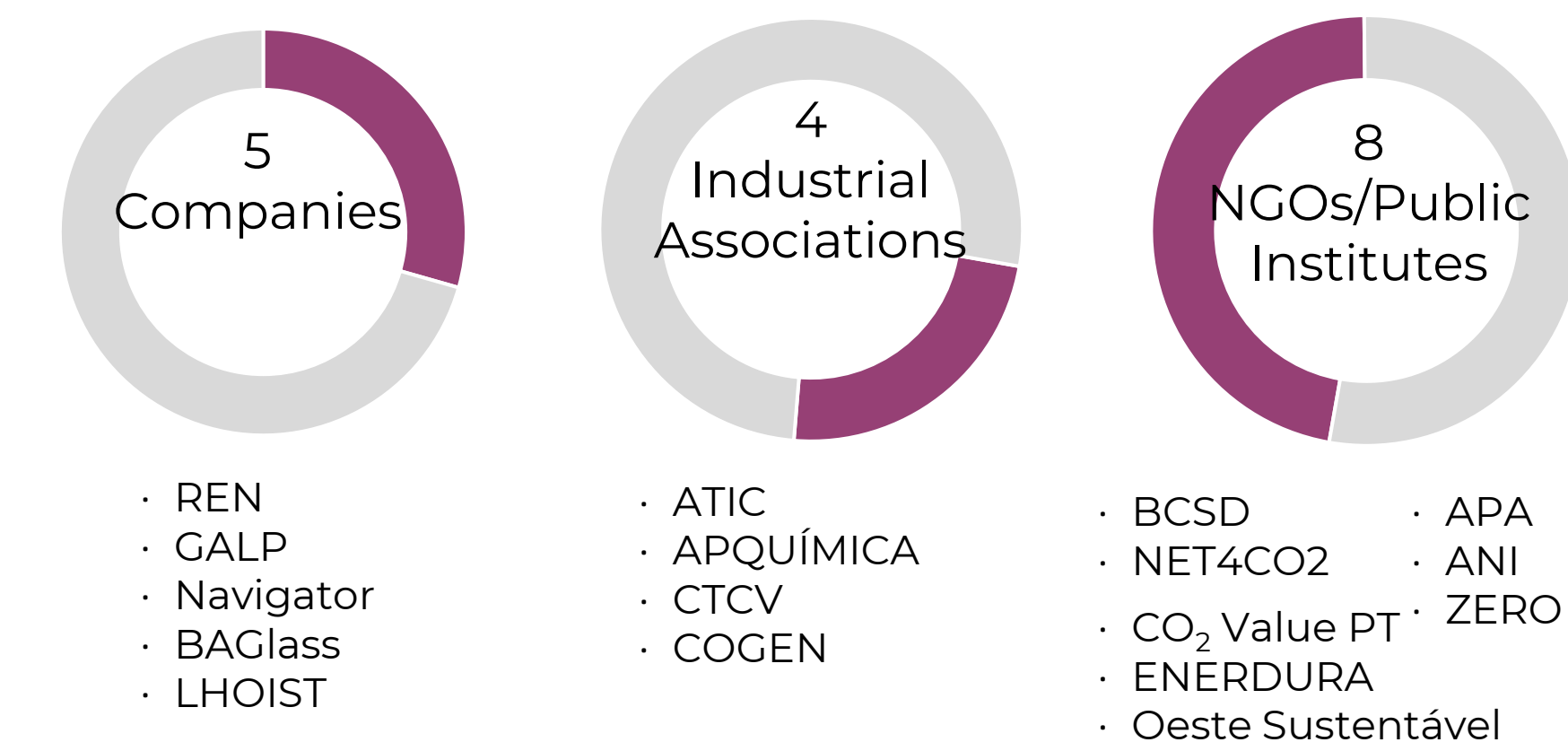


**20 emitters** with annual emissions > 80 kt CO<sub>2</sub> from cement, lime, glass, paper & pulp industries and power generation, emitting **12.7 Mt of fossil CO<sub>2</sub>** per year (2018)

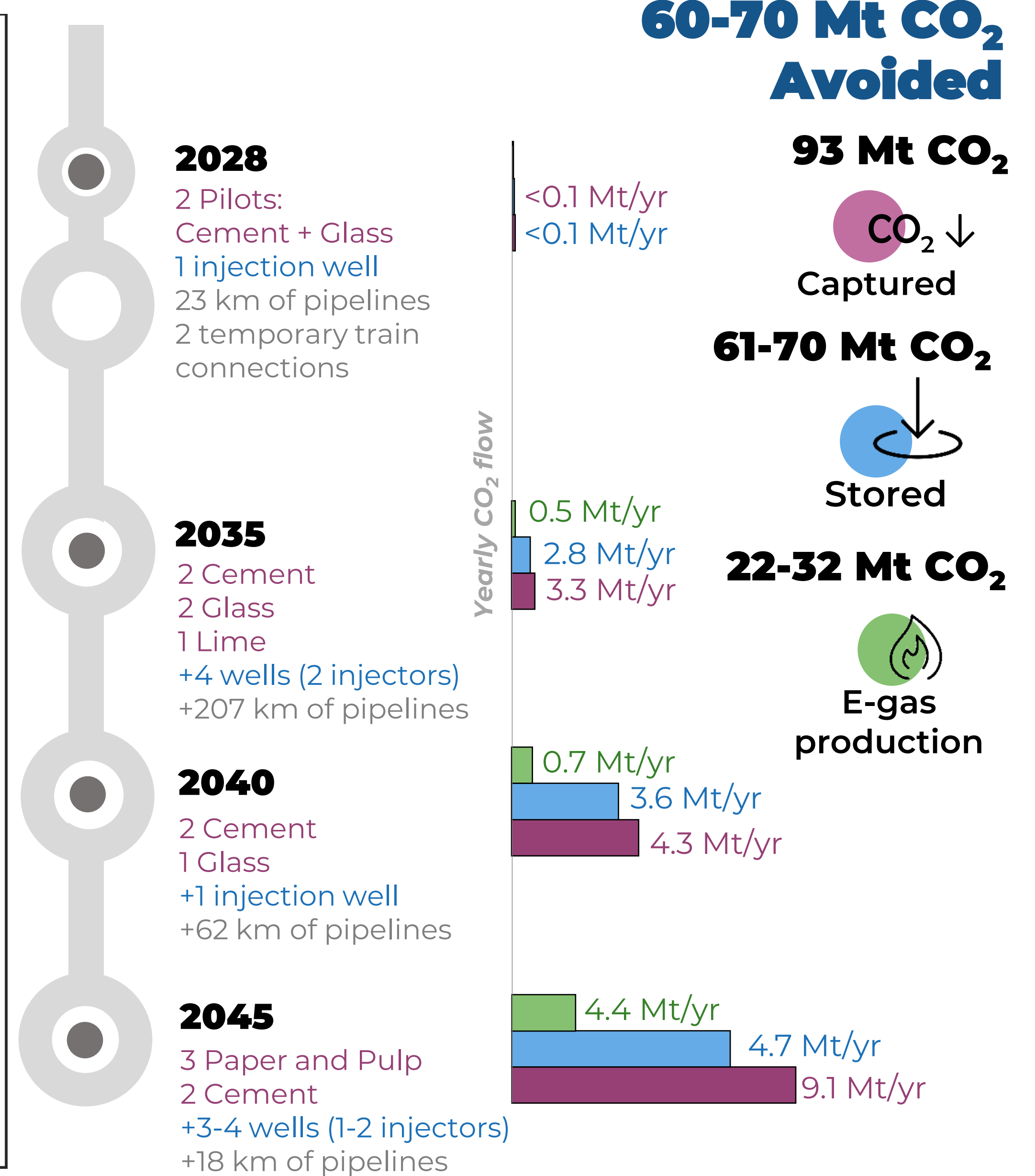
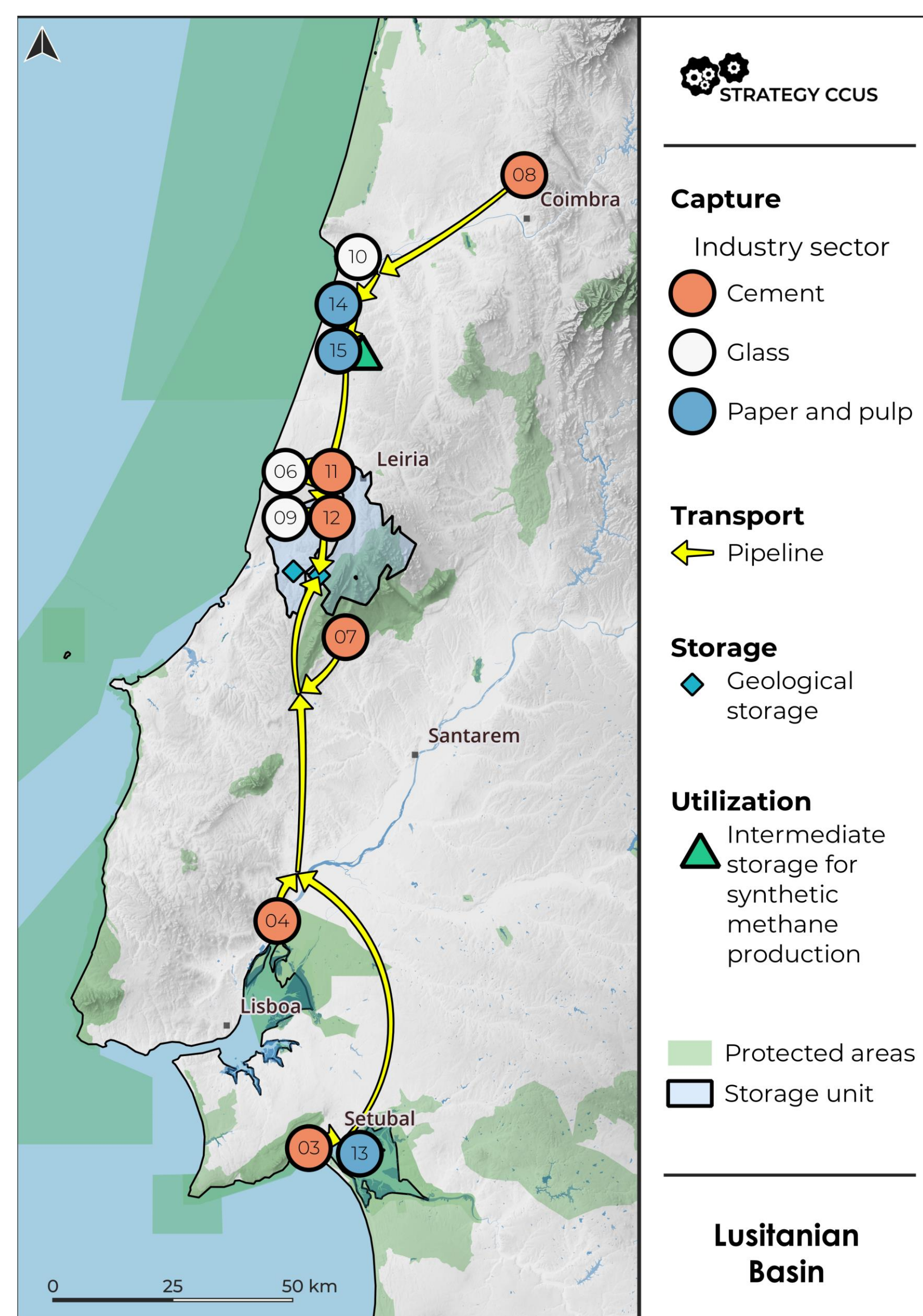
**17 geological storage sites** in deep saline aquifers  
Onshore storage capacity, Tier 2 **40 – 335 Mt CO<sub>2</sub>**  
Offshore storage capacity, Tier 1 **739 – 3470 Mt CO<sub>2</sub>**

### Regional Stakeholders Committee

#### 17 Stakeholders



### Main CCUS Scenario

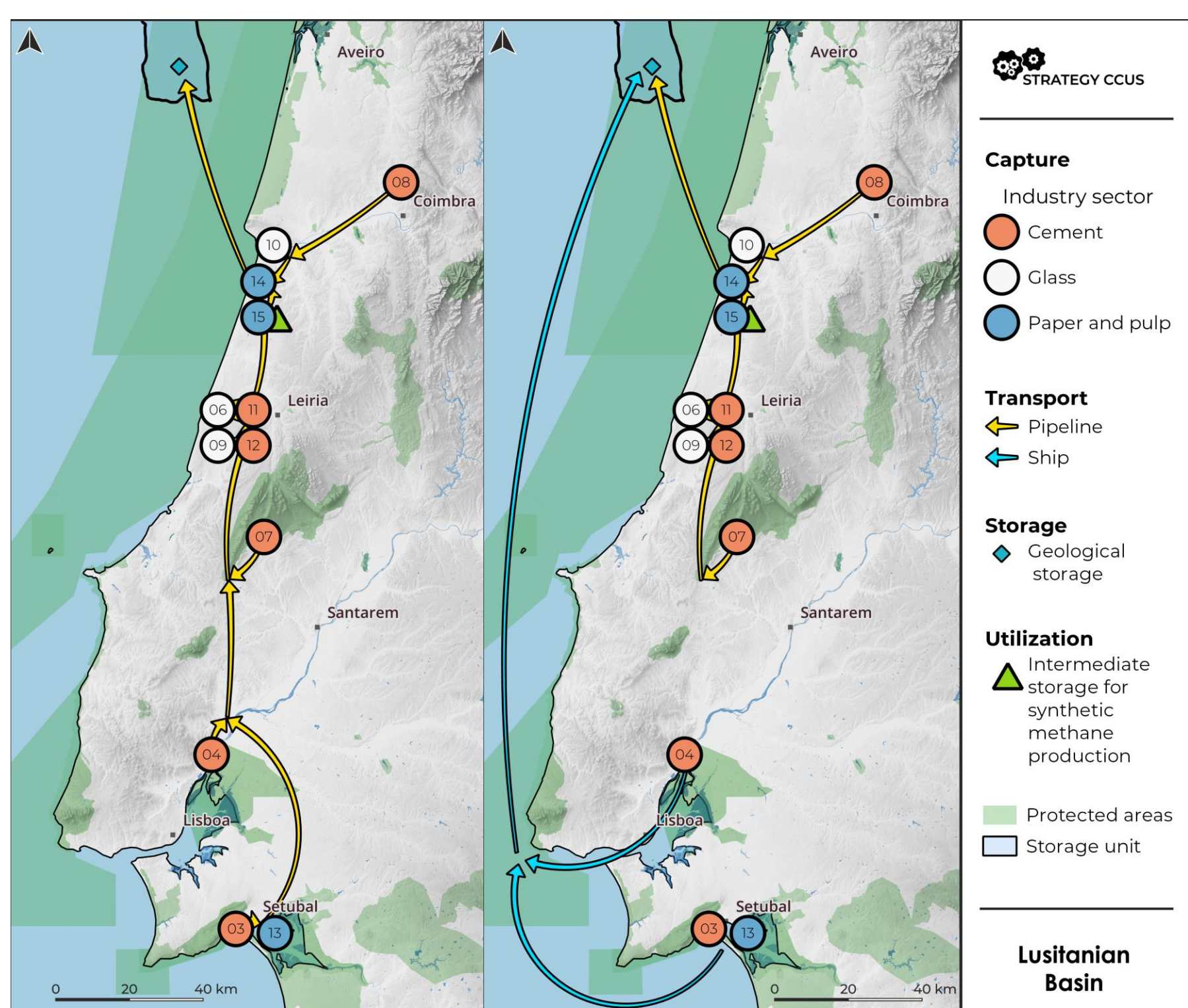


**4,333.2 million of €**  
total CO<sub>2</sub> capture, transport and storage costs

**62-72 € CO<sub>2</sub> avoided**  
for overall CCS chain (discounted values)

<b>Capture</b>	55.4 - 64.5 €/ton CO <sub>2</sub> avoided
<b>Transport</b>	1.6 - 1.9 €/ton CO <sub>2</sub> avoided
<b>Storage</b>	4.9 - 5.5 €/ton CO <sub>2</sub> avoided

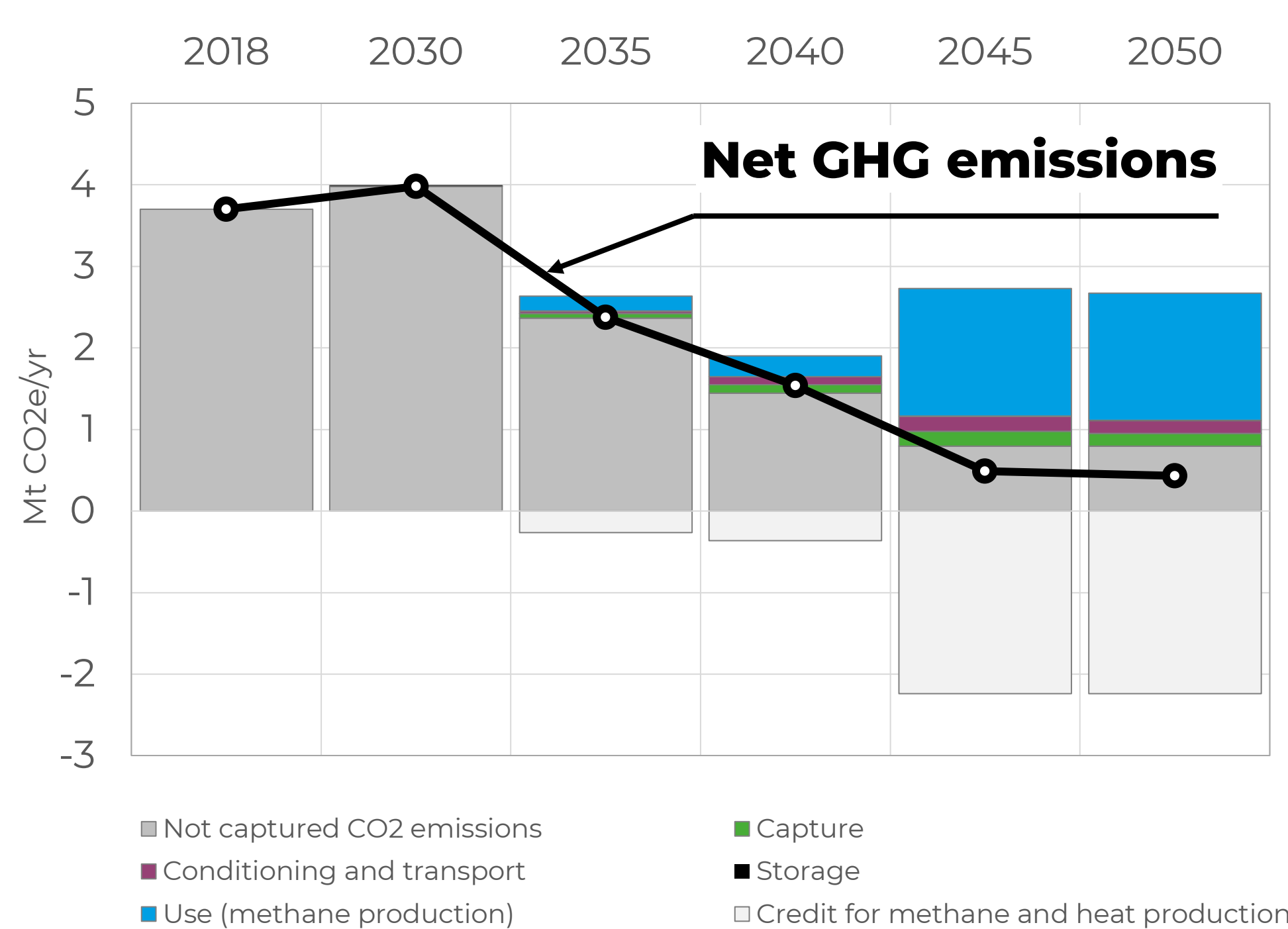
### Alternative Offshore Storage



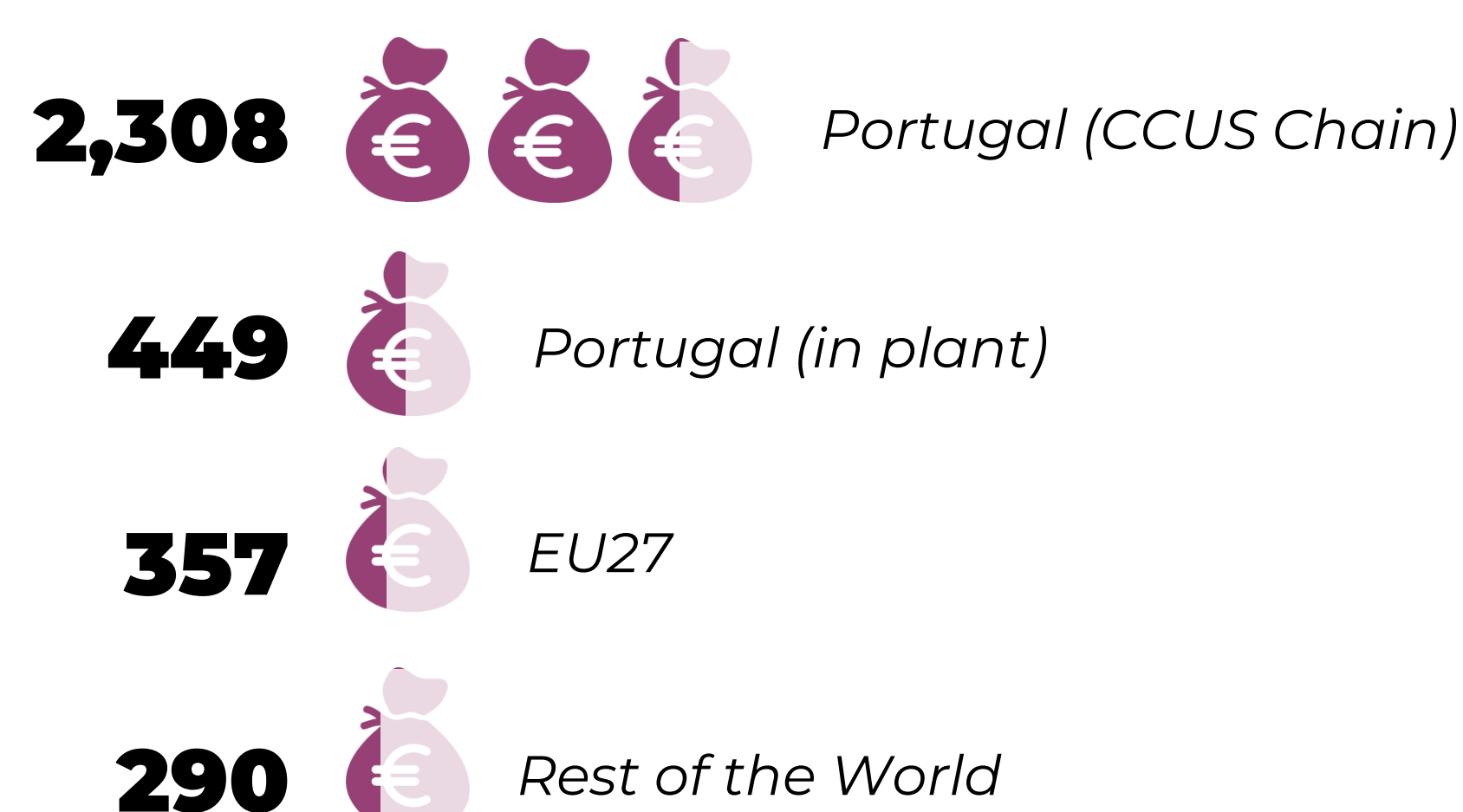
<b>Capture</b>	55.4 - 64.5 €/ton CO <sub>2</sub> avoided
<b>Transport</b>	3.6 - 7.6 €/ton CO <sub>2</sub> avoided (pipeline – pipeline/ship)
<b>Storage</b>	9.6 - 13.5 €/ton CO <sub>2</sub> avoided

**69-86 € CO<sub>2</sub> avoided**  
for overall CCS chain (discounted values)

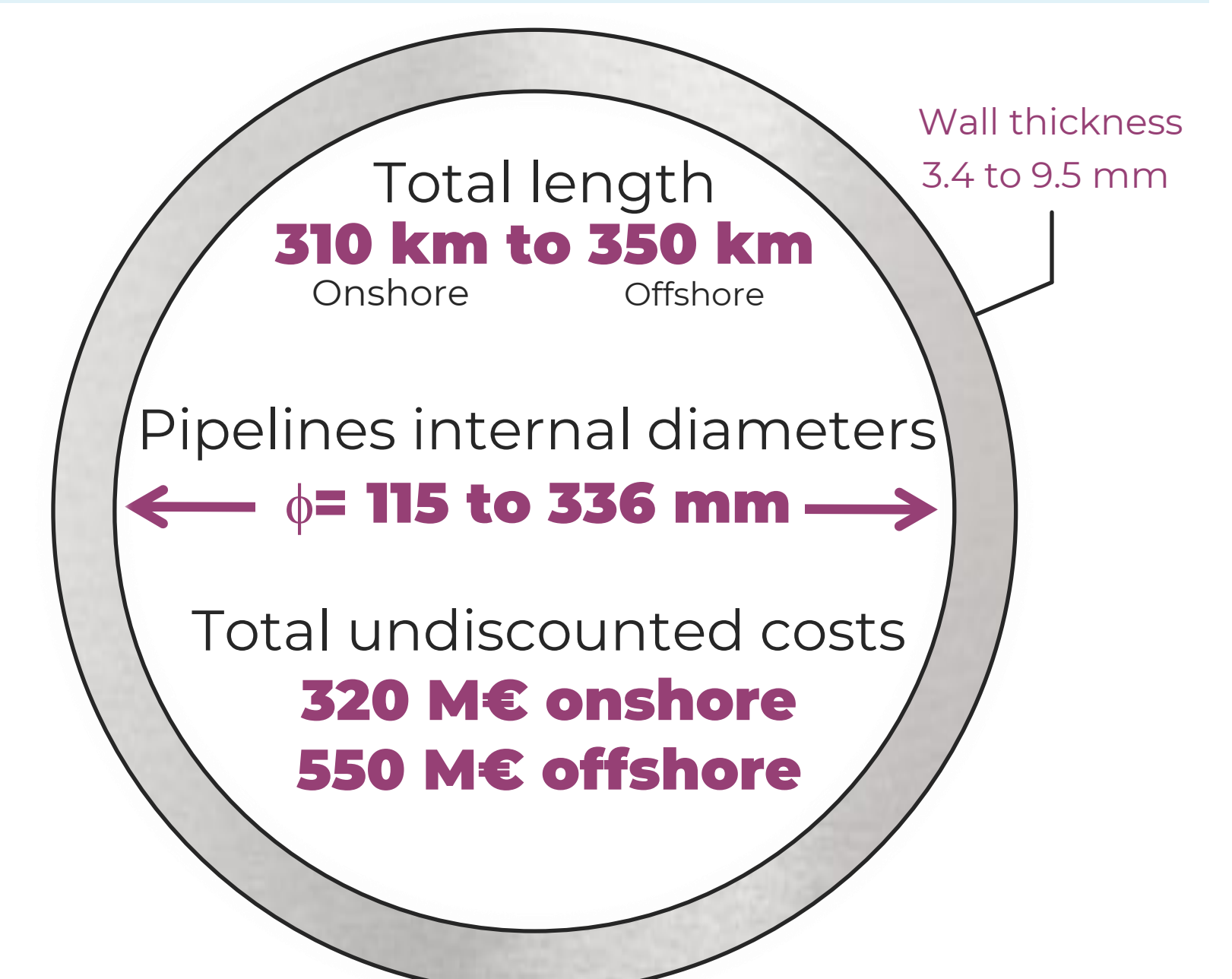
### LCA GHG Emissions



### Added Value (M€)



### Pipeline Transport



Train and ship transport also considered for increased flexibility

### Jobs Created (up to 2050)

