



MEET THE GSEU

GEOLOGICAL SERVICE | FOR EUROPE

Mapping & Managing Sustainable GeoEnergy Capacities in Europe

CO₂ Geological Storage

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www.geologicalservice.eu



Funded by
the European Union





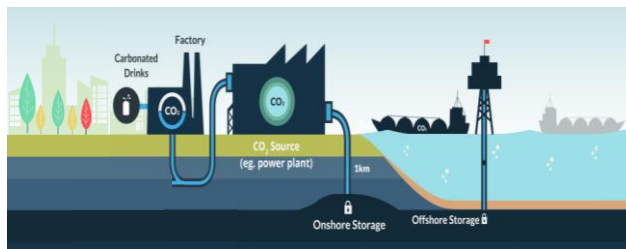
Technologies for Net Zero at 2050



Energy Efficiency
(Buildings & Processes)



Renewables
(solar, wind, geothermal,...)



CO2 Capture, Transport, Use and Storage (CCS)



Nuclear
energy



fuel switching
(Electrification, H₂ ...)



*"... And the Commission's model also shows that the EU will need to capture and use or store between **300 and 640 million tonnes of carbon dioxide per year by 2050** to meet its climate targets."*

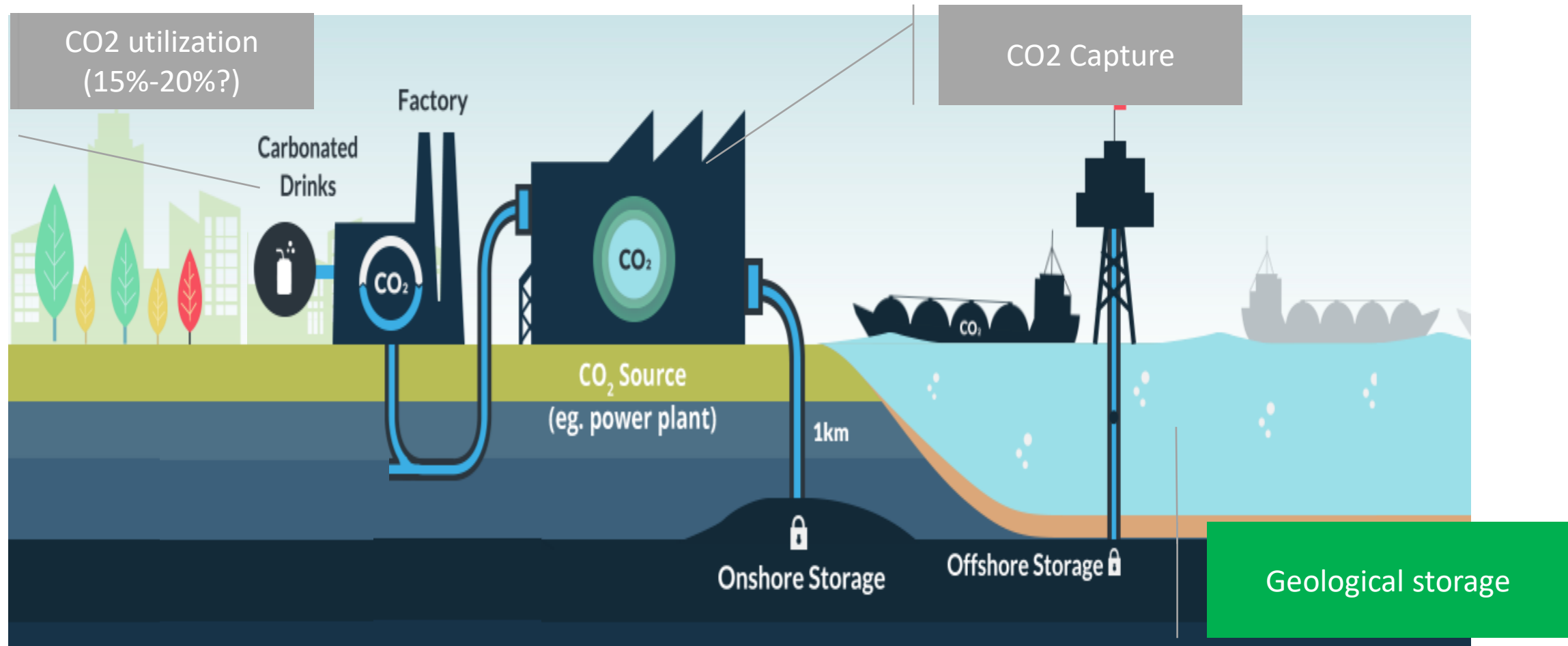
Kadri Simson, European Commissioner for Energy (2019-2024)
CCUS Forum*, 27 October 2022, Oslo

2023
CCS Facilities

Where	Total	Operating	In construction	Early development
Total	172* (x4)	29	6	57+80
Europe	54 (x5)	2	3	14+35



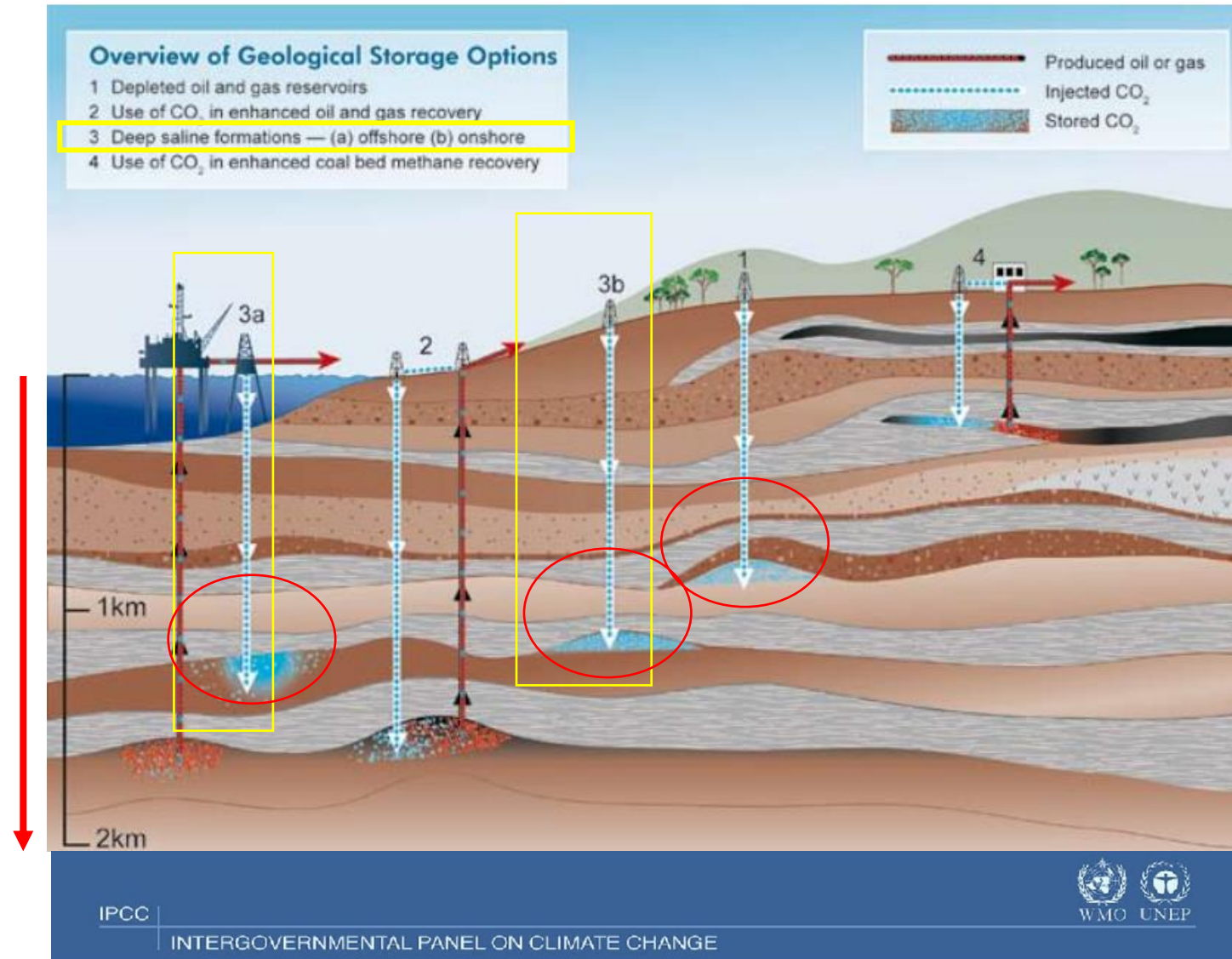
CCUS: Carbon Capture, Use and Storage



CO₂ Capture, Transport, Use and Storage (CCS)



Geological Storage options



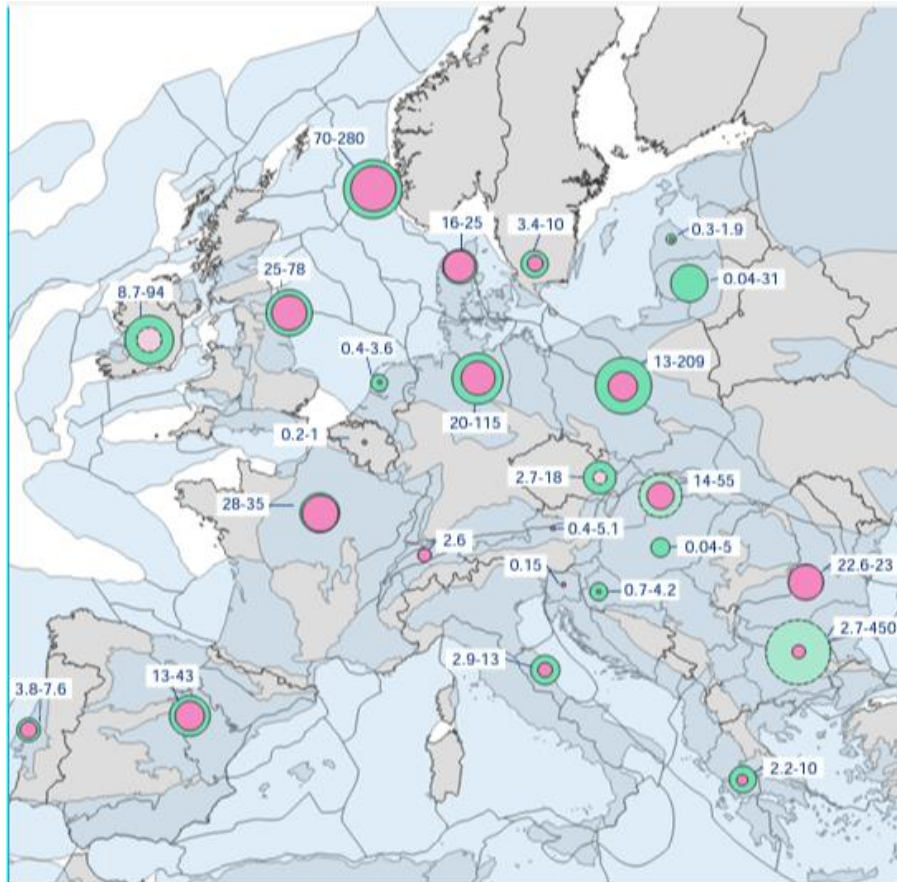
<https://www.ipcc.ch/report/carbon-dioxide-capture-and-storage/technical-summary/> (2005, 2022)



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European potential for CO₂ storage



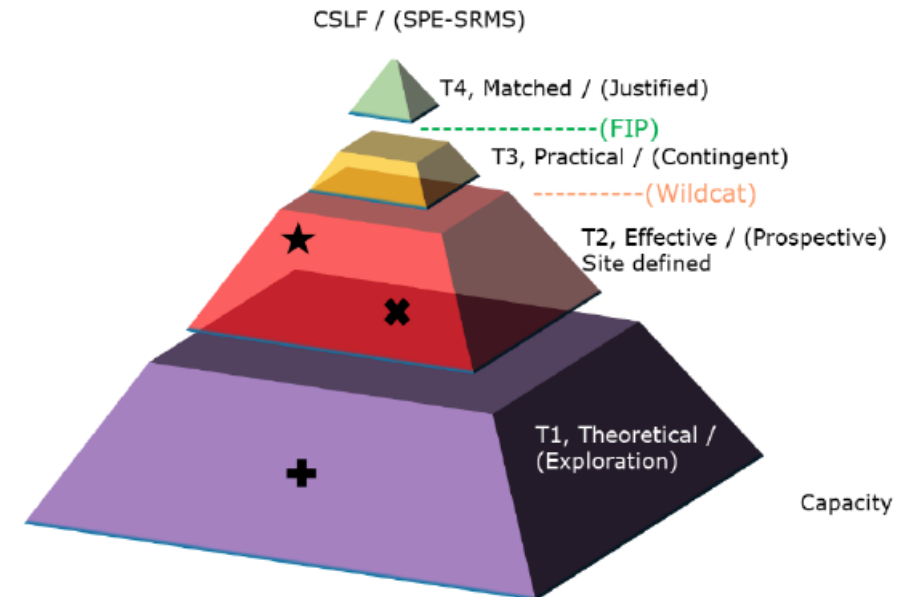
Theoretical storage capacity estimates for each country (GtCO₂)

- = 10 GtCO₂
- Sedimentary basins⁵
- High estimates
- Low estimates

CATF_European-CO2-Storage-Report_July-23.pdf

CAFT report: Theoretical capacity is estimated between 260 y 1500 Gt_{CO2}

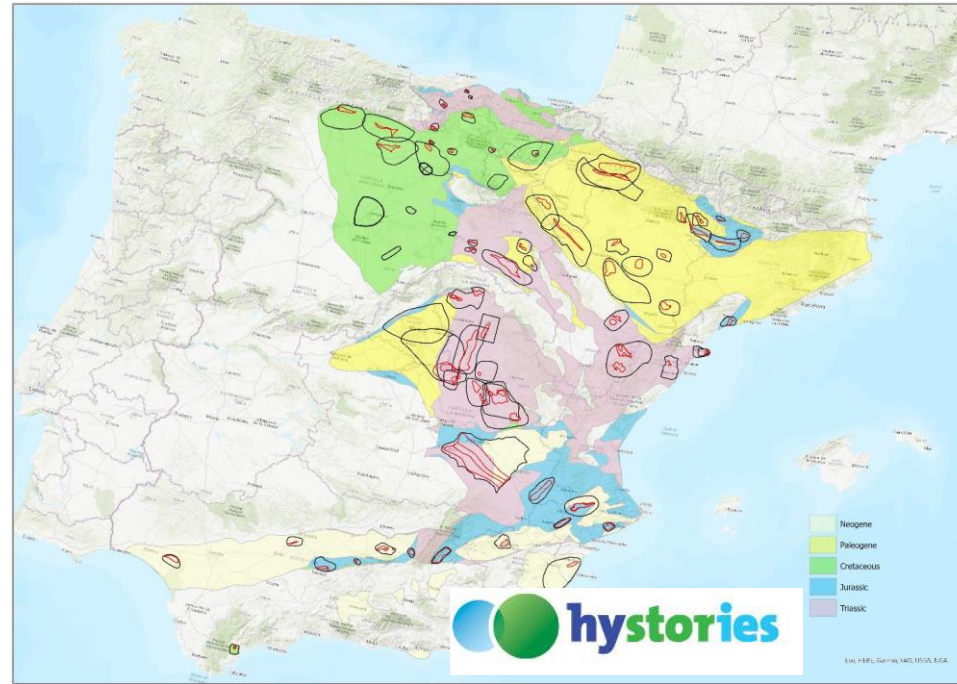
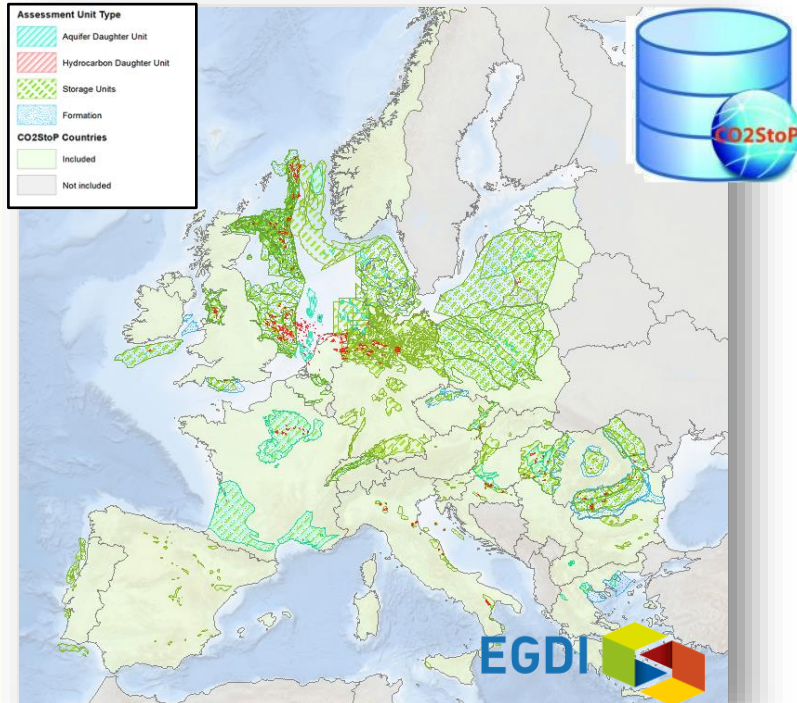
Tiers classification (DSA+DHF)



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CO₂ Storage: updating, EU covering, harmonizing & maturing



+ Storage readiness level!
= Pan-European CO₂ storage Potential

- Support for NZI Act
- Identify areas with higher potential
- Identify needs (investment)
- Support for Green European strategy
- Common approach at European level



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UNLOCKING EUROPE'S **NATURAL RESOURCES**

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