



CCS - Africa

CCS: A Capacity Building Effort in Africa

Carbon Dioxide Capture and Storage: An Overview

Tom Mikunda – Energy research Centre of the Netherlands (ECN)



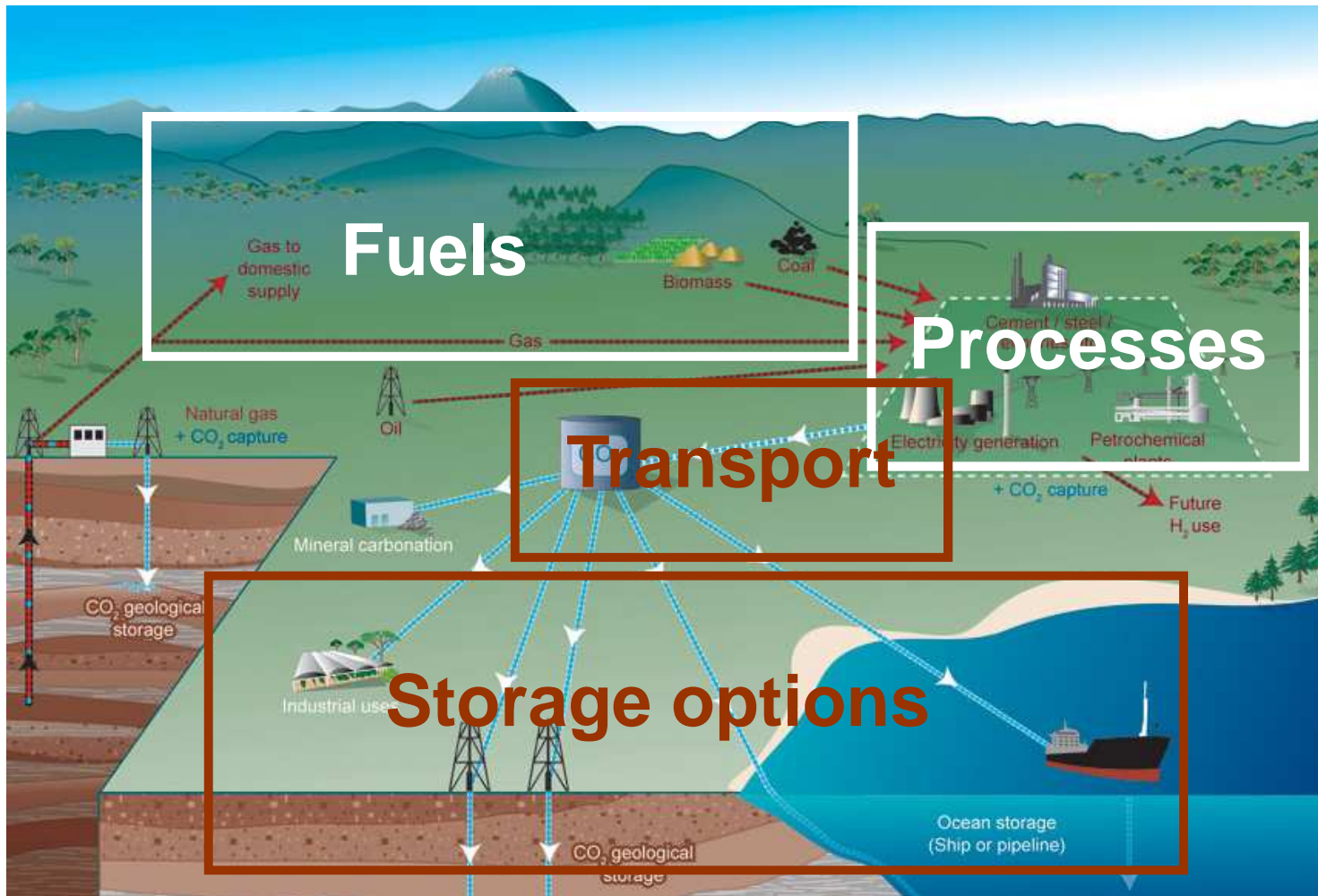
CO₂ capture and storage

Carbon dioxide (CO₂) capture and storage (CCS) is a process consisting of the separation of CO₂ from industrial and energy-related sources, transport to a storage location and long-term isolation from the atmosphere.

CCS is an option in the portfolio of mitigation actions for stabilization of atmospheric greenhouse gas concentrations.

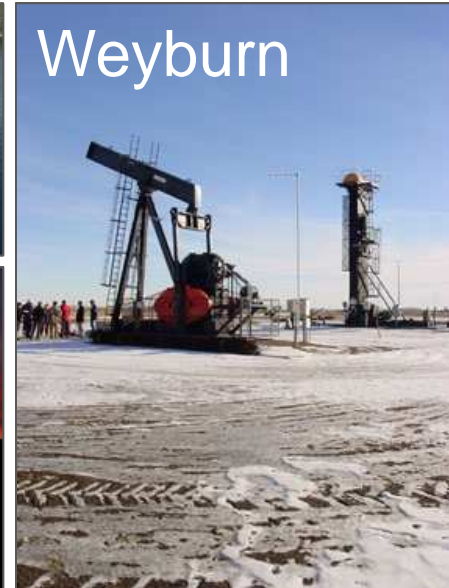
IPCC Special Report on Carbon Dioxide Capture and Storage, 2005.

CO₂ capture and storage

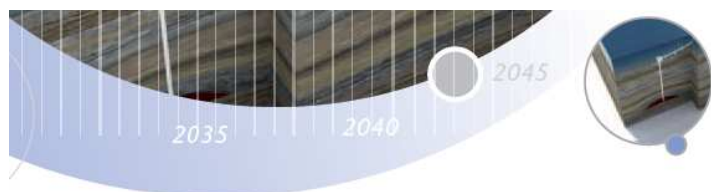


Source: IPCC Special Report on CCS, 2005

CCS is operational today...



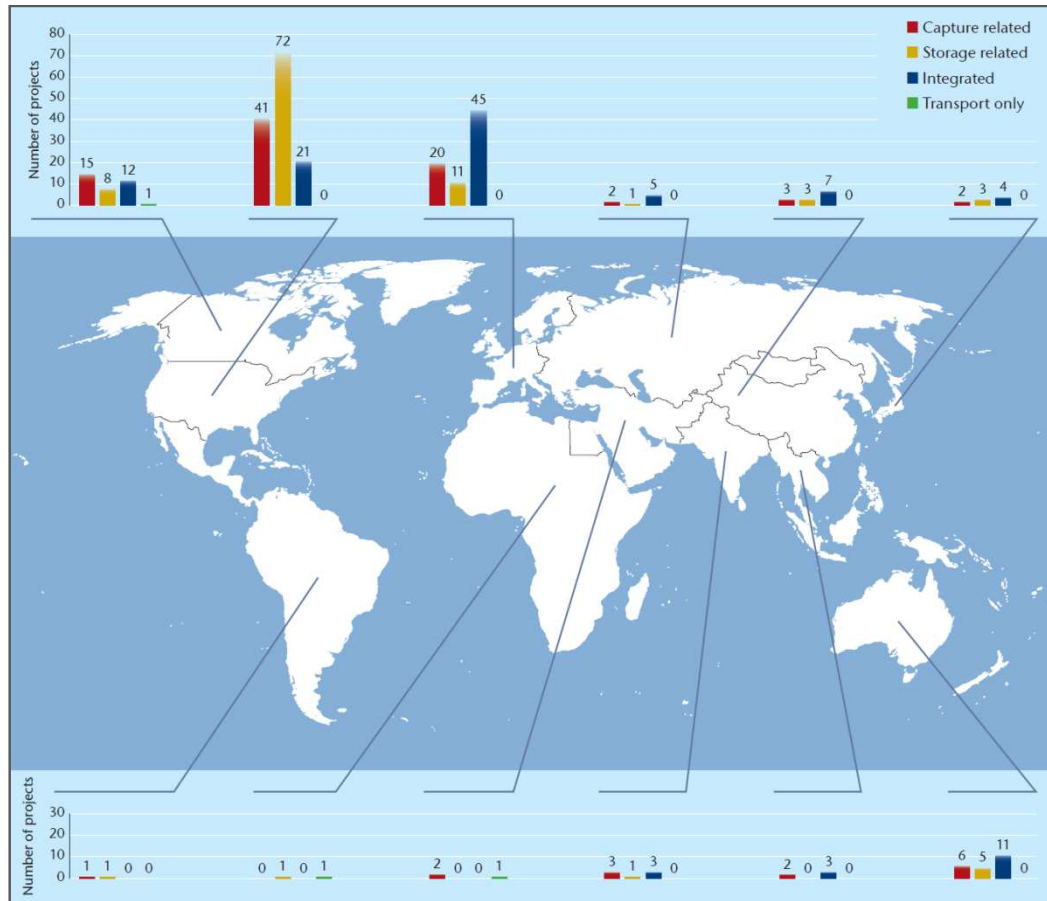
Five large-scale integrated projects are successfully storing CO₂



Technology Roadmap

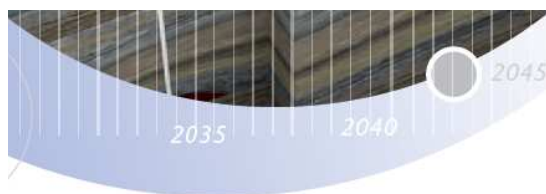
Carbon capture and storage

...with many more projects planned



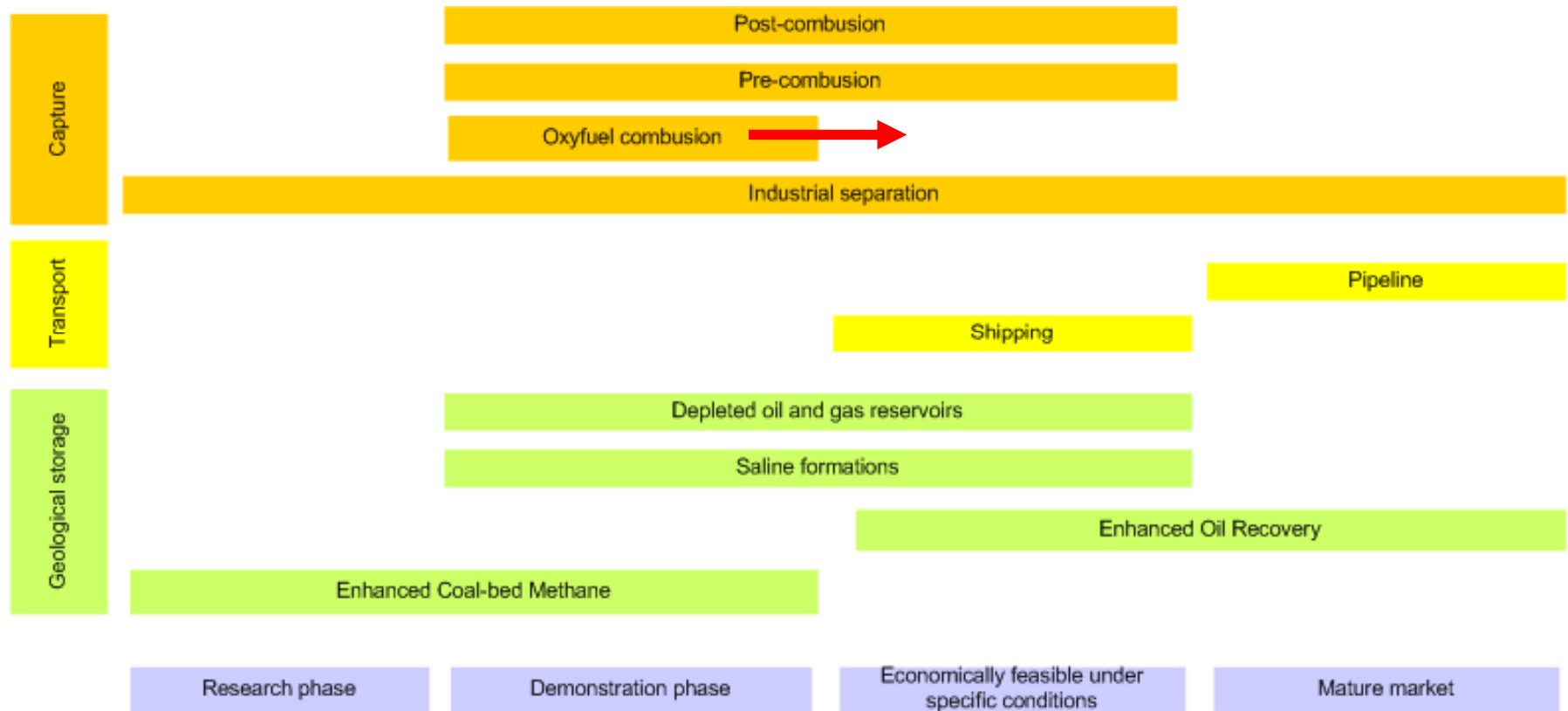
*Over 70
integrated
projects
planned*

Image courtesy GCCSI



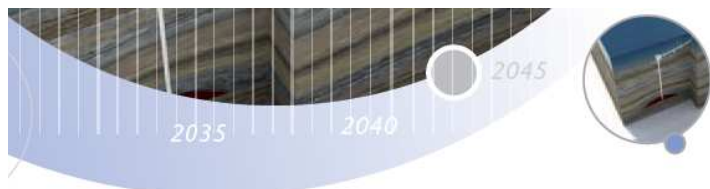
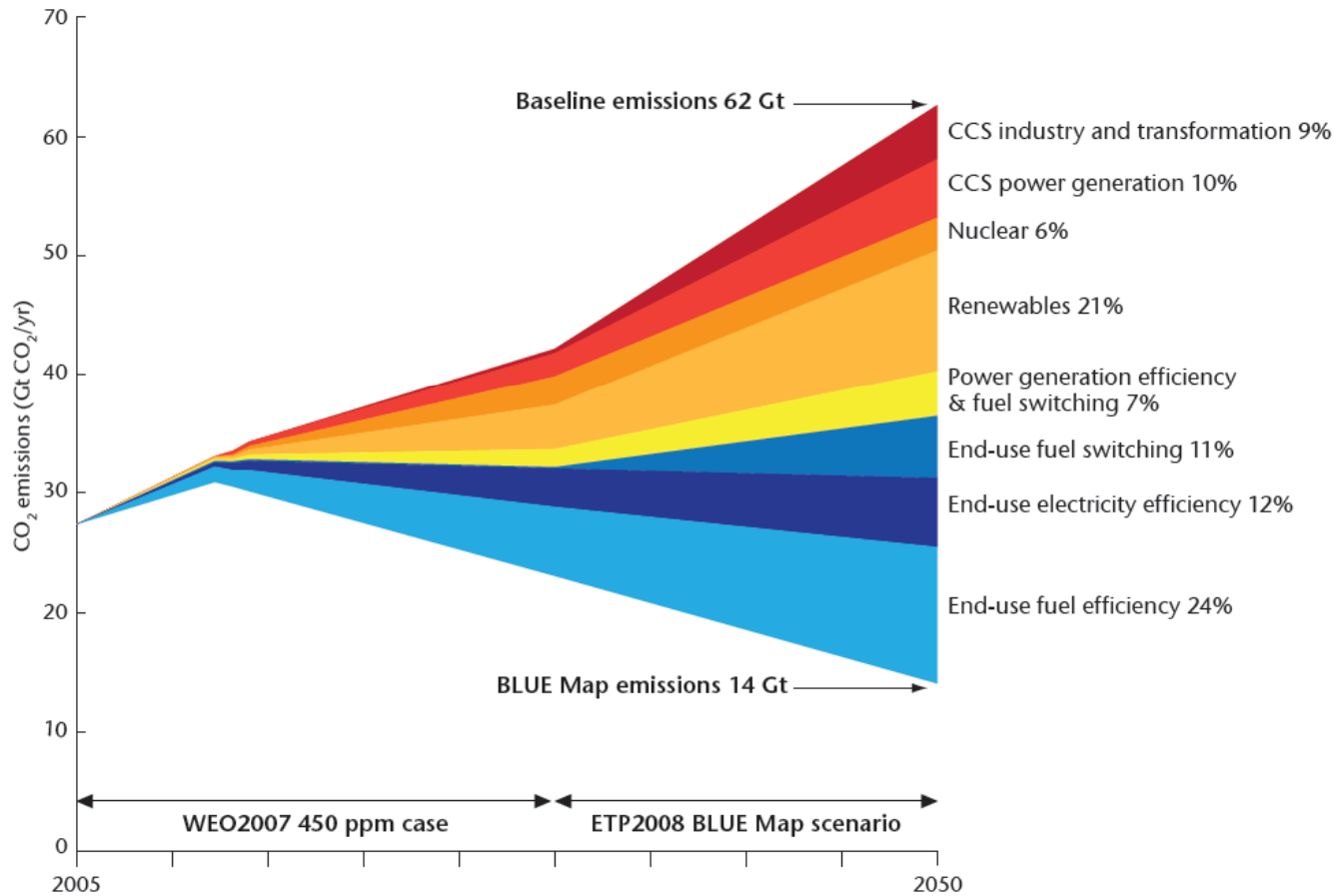
Technology Roadmap
Carbon capture and storage

CCS includes many technologies at different stages of development



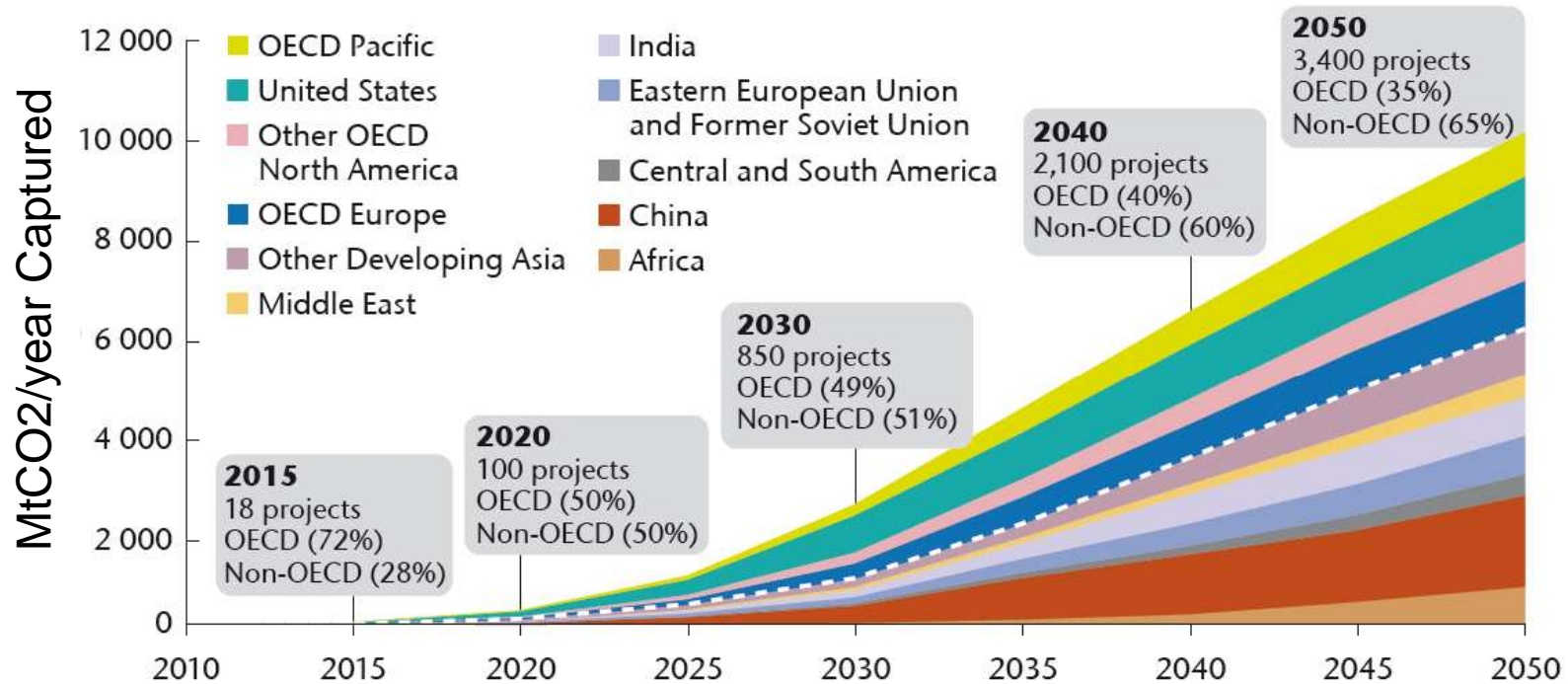
Based on IPCC Special Report on CCS, 2005

CCS could contribute 20% of global emission reduction

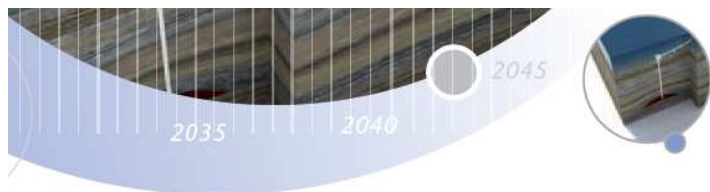


Technology Roadmap
Carbon capture and storage

But it will need to grow rapidly

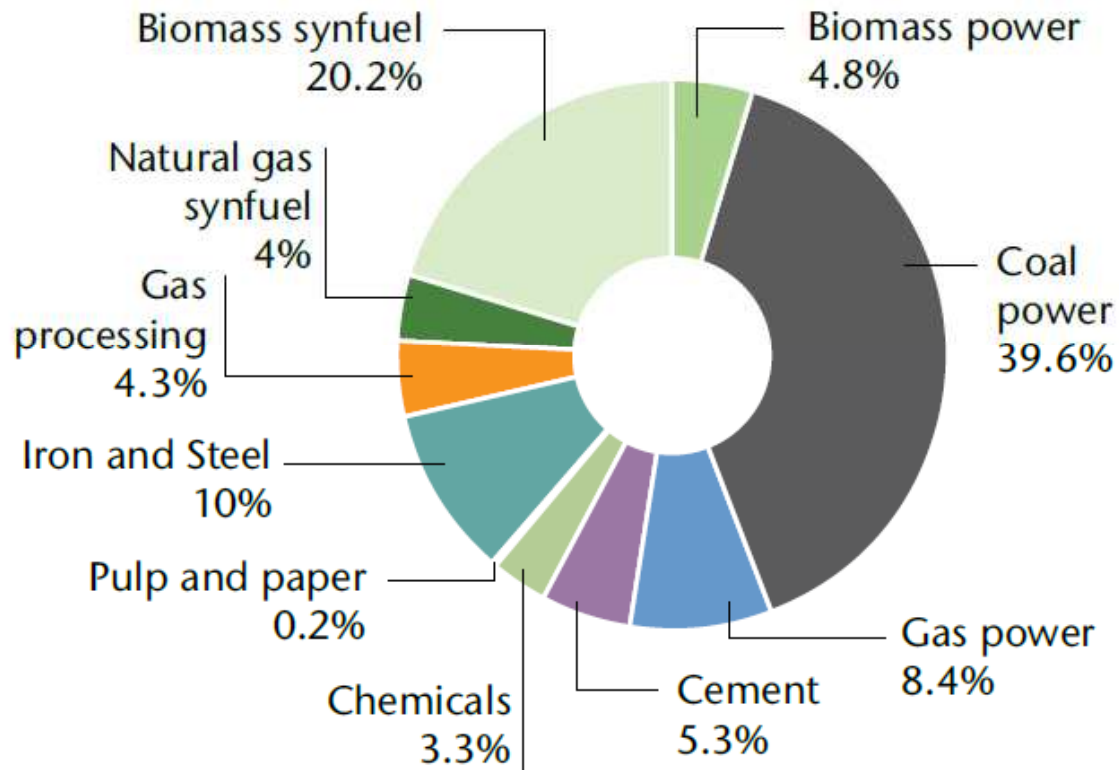


OECD regions must lead in demonstrating CCS, but the technology must quickly spread to the rest of the world

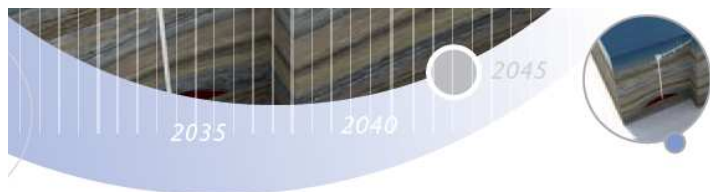


Technology Roadmap
Carbon capture and storage

CCS is not just “clean coal”



Coal power only makes up around 40% of stored emissions in 2050



Technology Roadmap

Carbon capture and storage



CCS - Africa

CCS: A Capacity Building Effort in Africa

Thank you

Tom Mikunda
mikunda@ecn.nl

