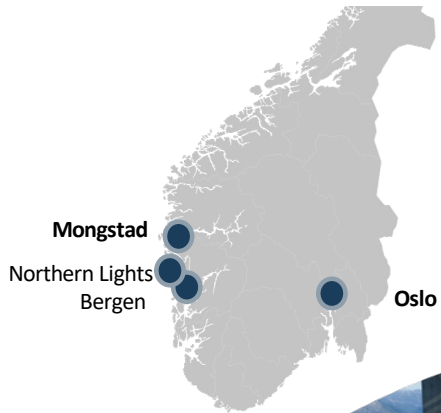


 TECHNOLOGY  
CENTRE  
MONGSTAD  
*- catching our future*

# Technology Centre Mongstad

Company Presentation





# WE enable carbon capture deployment

## Who

The world's largest post-combustion CO<sub>2</sub> capture test centre

## Why

To create and accelerate a competitive carbon capture market

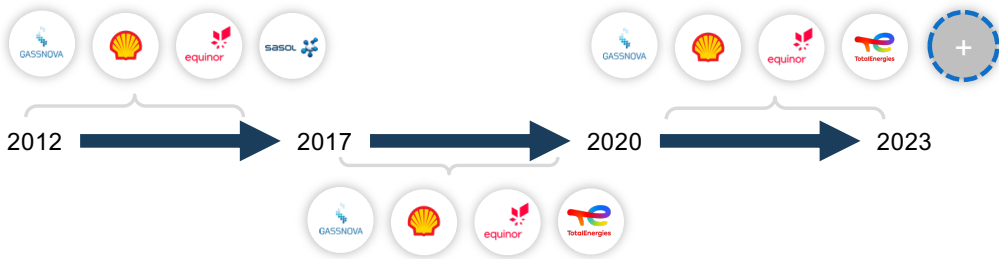
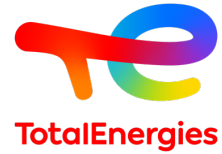
## How

By offering facilities and capabilities for taking the last step before commercialization

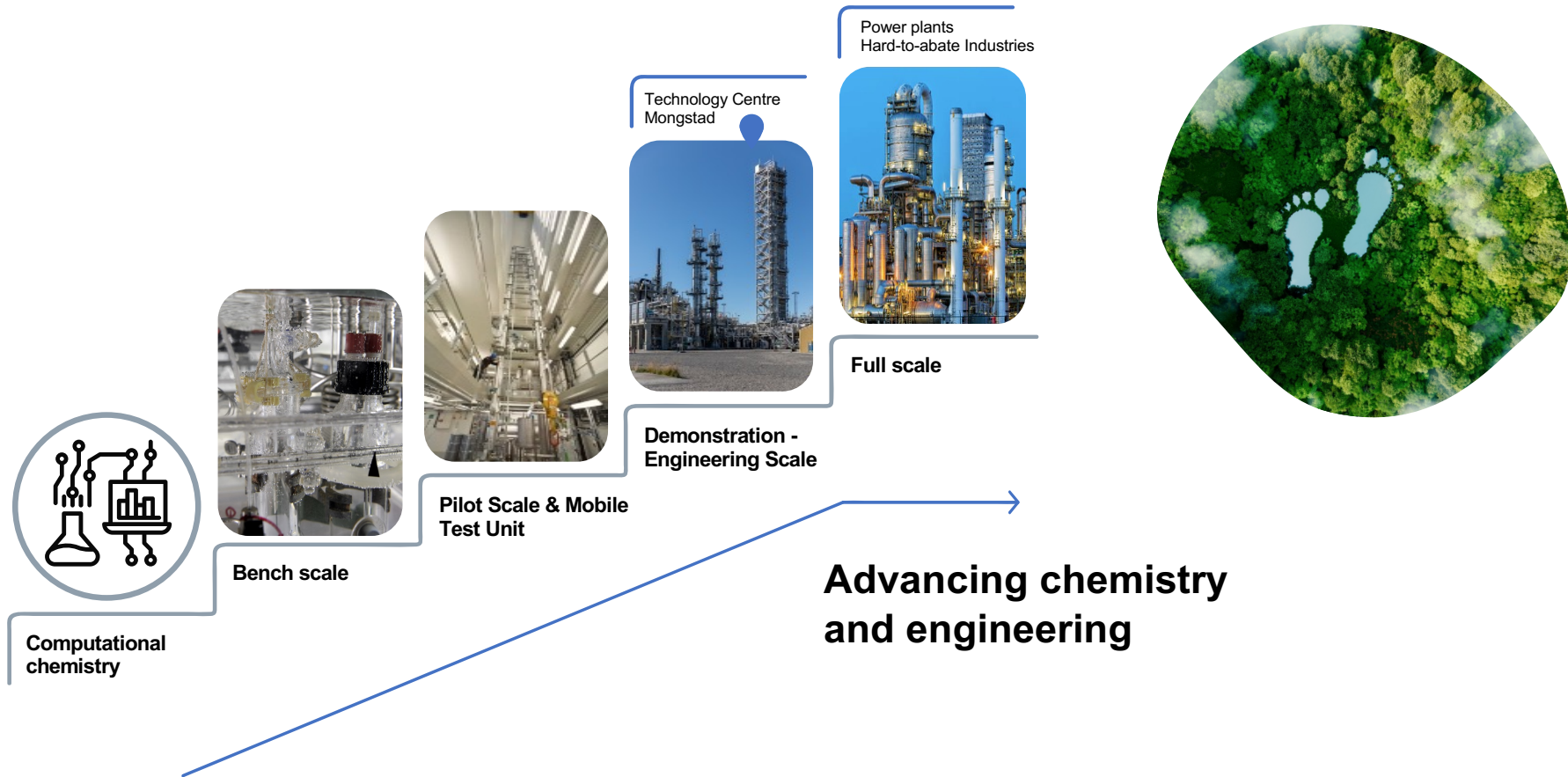
## What

- Technology testing to support technology developers
- Sharing knowledge with the public domain
- Advisory services to support technology buyers

# Our OWNERS



# TCM last step before Commercialization



# Technology Developers TESTED AT TCM

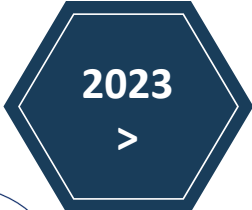


Amine technologies  
Membrane  
Hybrid Membrane - Adsorbent  
Rotating packed bed with enzyme  
Metallic Organic Framework  
Solid Sorbents

Solvent  
Technologies



Start 2012



Start 2020

Emerging  
Technologies



> 30.000 hrs  
Proprietary Campaigns



# AMINE PLANT at TCM

## Industrial environment

Two industrial flue gas sources with different levels of CO<sub>2</sub>  
Recycle & Dilution capabilities (1–20 % CO<sub>2</sub>).  
24/7 operations.

## Capacity

75,000 tons CO<sub>2</sub> per year.

## Analytical & laboratory capabilities

Sophisticated analytical methods  
State of the art laboratory

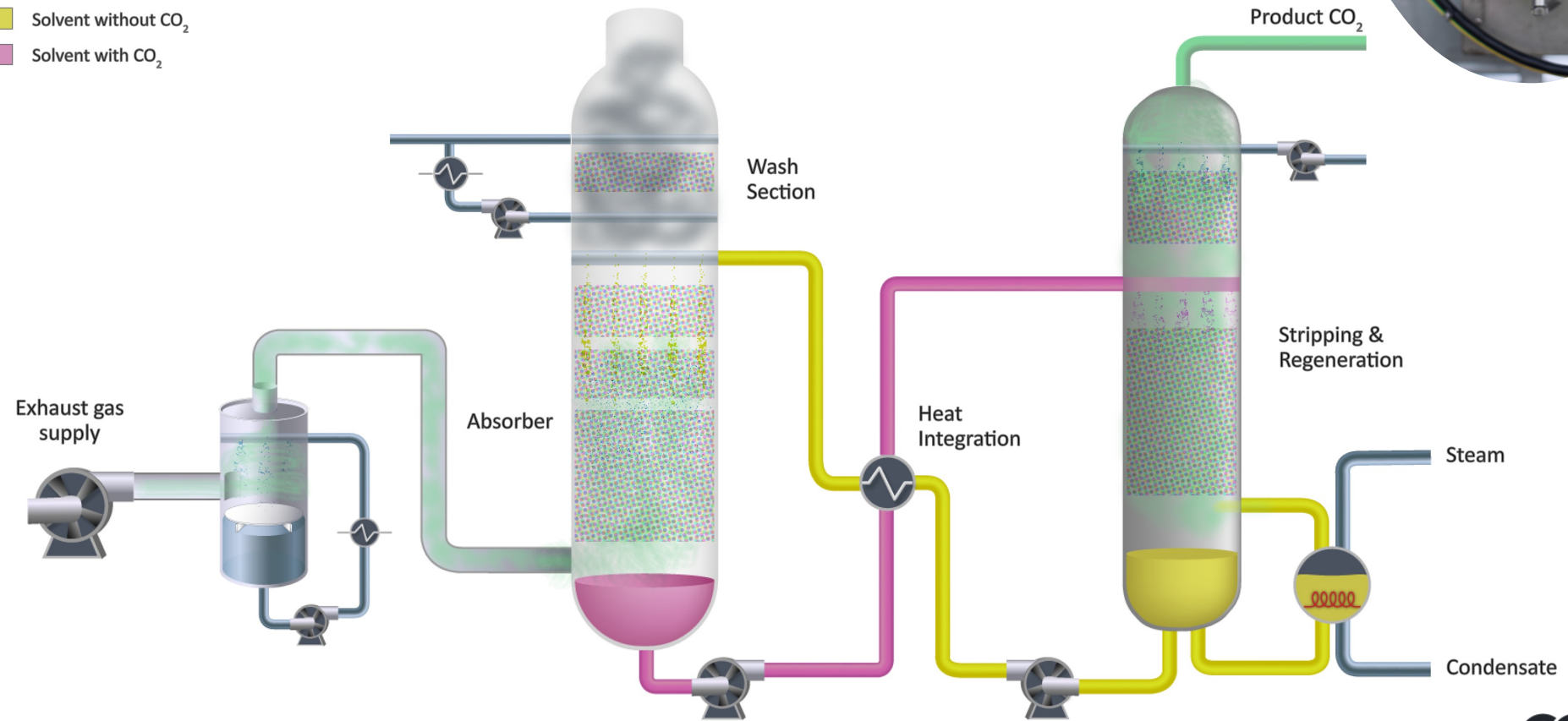
## Technology Readiness Level

Entry point: 5 or above  
Brings them to: 6 & 7



# How it works; CO<sub>2</sub> Capture State-of-the-art Technology

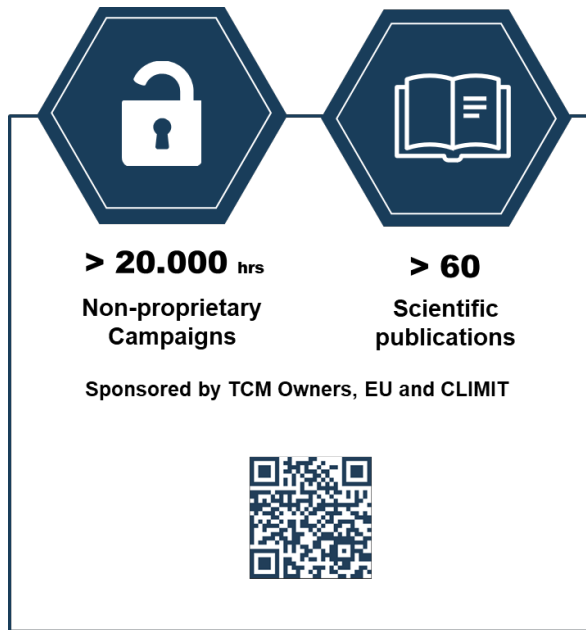
- Gas with CO<sub>2</sub>
- Solvent without CO<sub>2</sub>
- Solvent with CO<sub>2</sub>







# KNOWLEDGE generation & sharing



- TCM has established 4 different 3<sup>rd</sup> party verified baselines with non-proprietary solvents (MEA, CESAR1)
- Large operating windows are explored
- Different mode of operations explored: dynamic, cold and hot startups, shutdowns etc.
- HSE aspects successfully demonstrated

# TAKEAWAY



- TCM has proved instrumental for commercial deployment.
- First generation Post-Combustion Capture is ready for deployment.
- Pace of deployment needs to be expedited.

- Cost of CO<sub>2</sub> capture should be reduced in parallel to deployment.
- TCM is, and will remain, an important arena for de-risking and expediting upscaling Carbon Capture technology.



