TECHNOLOGY CENTRE MONGSTAD

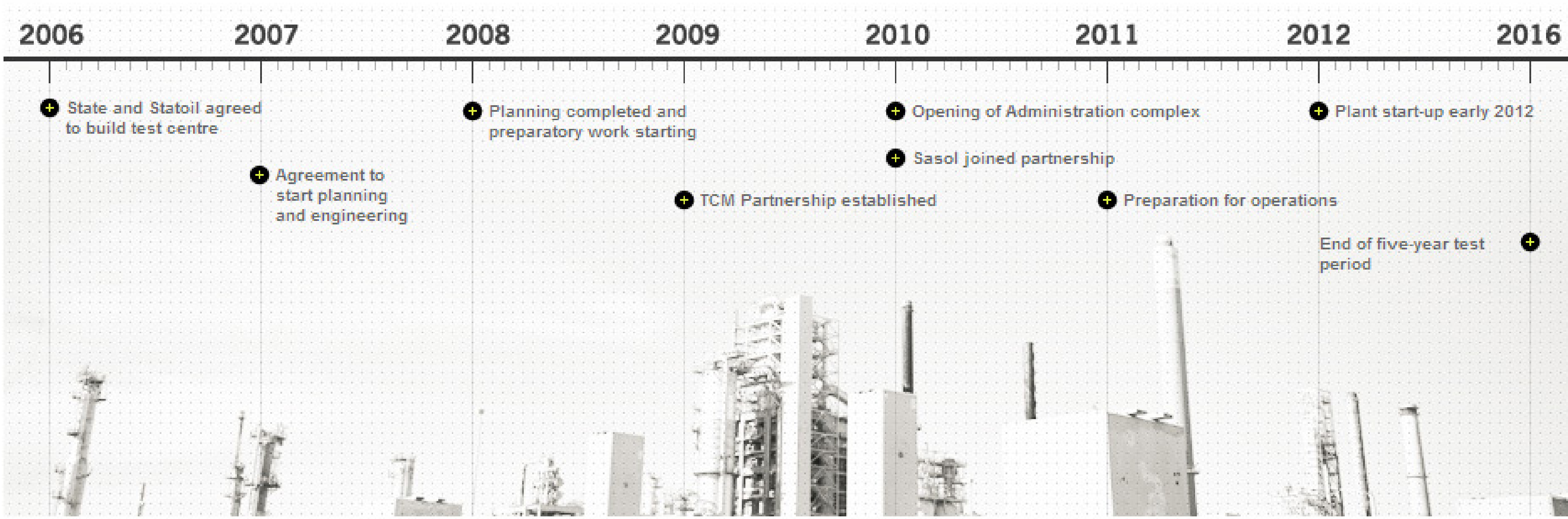
Technology Centre Mongstad

Technology Manager Olav Falk-Pedersen

– catching our future

TCM – Highlights

TCM HIGHLIGHTS



International Co-operation

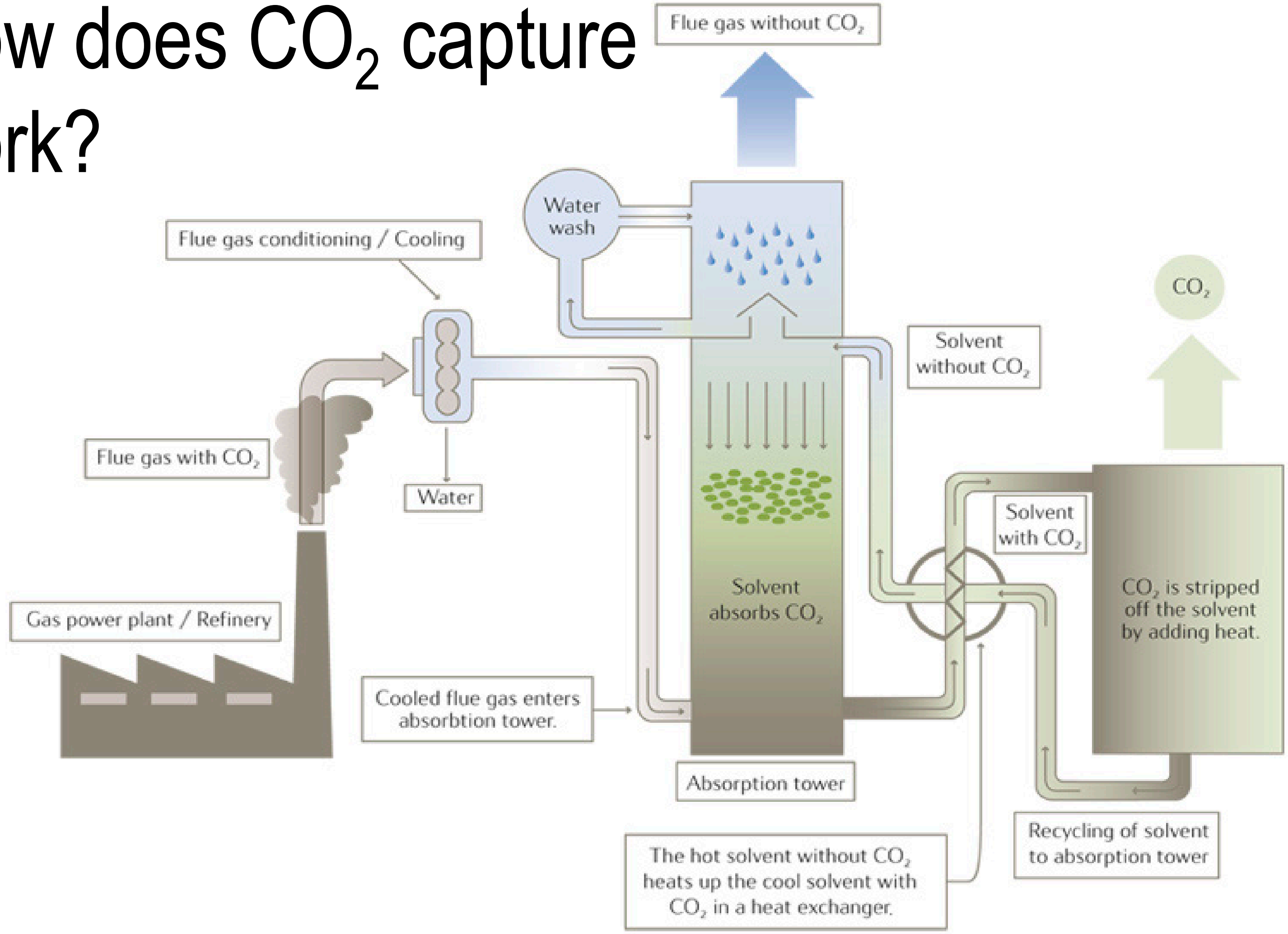
GASSNOVA	Statoil		sasol reaching new frontiers
75.12%	20%	2.44%	2.44%

Other potential partners to be invited

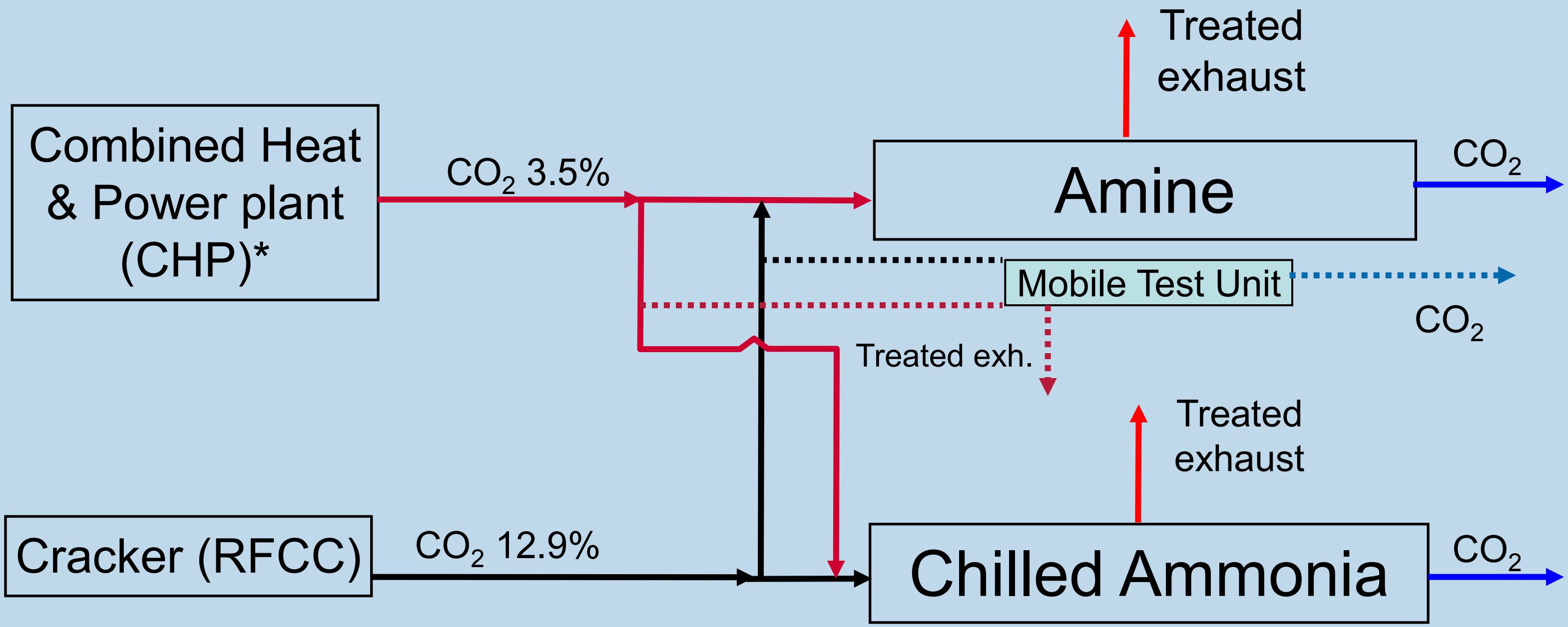
Ambitions

- Test, verify and demonstrate CO_2 capture technology owned and marketed by vendors
- Reduce cost, technical, environmental and financial risks
- Encourage the development of market for CO_2 capture technology
- Aim at international deployment

How does CO_2 capture work?



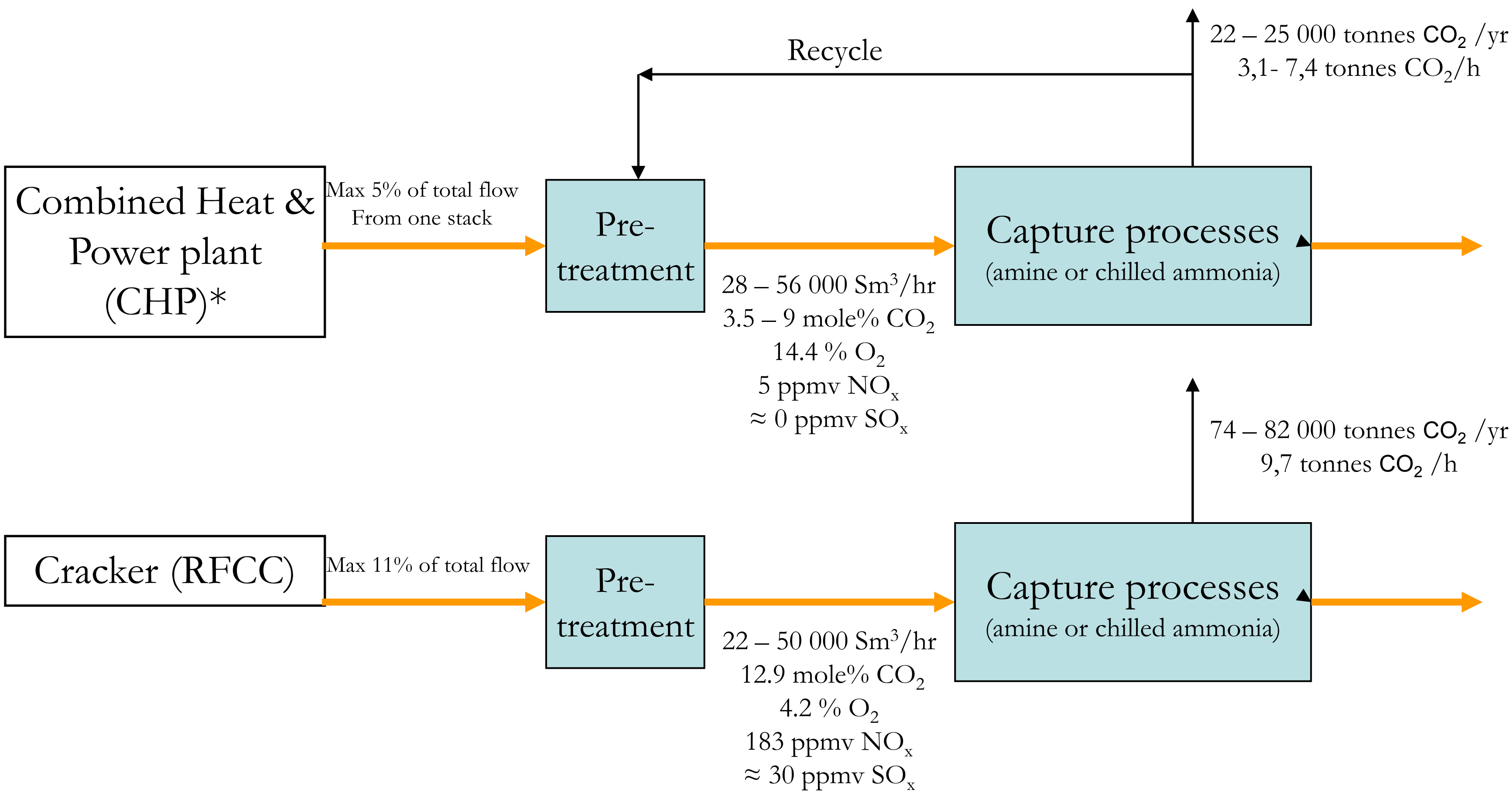
Test Strategy – Overall Concept



Total capacity 100 ktonnes CO_2 per year

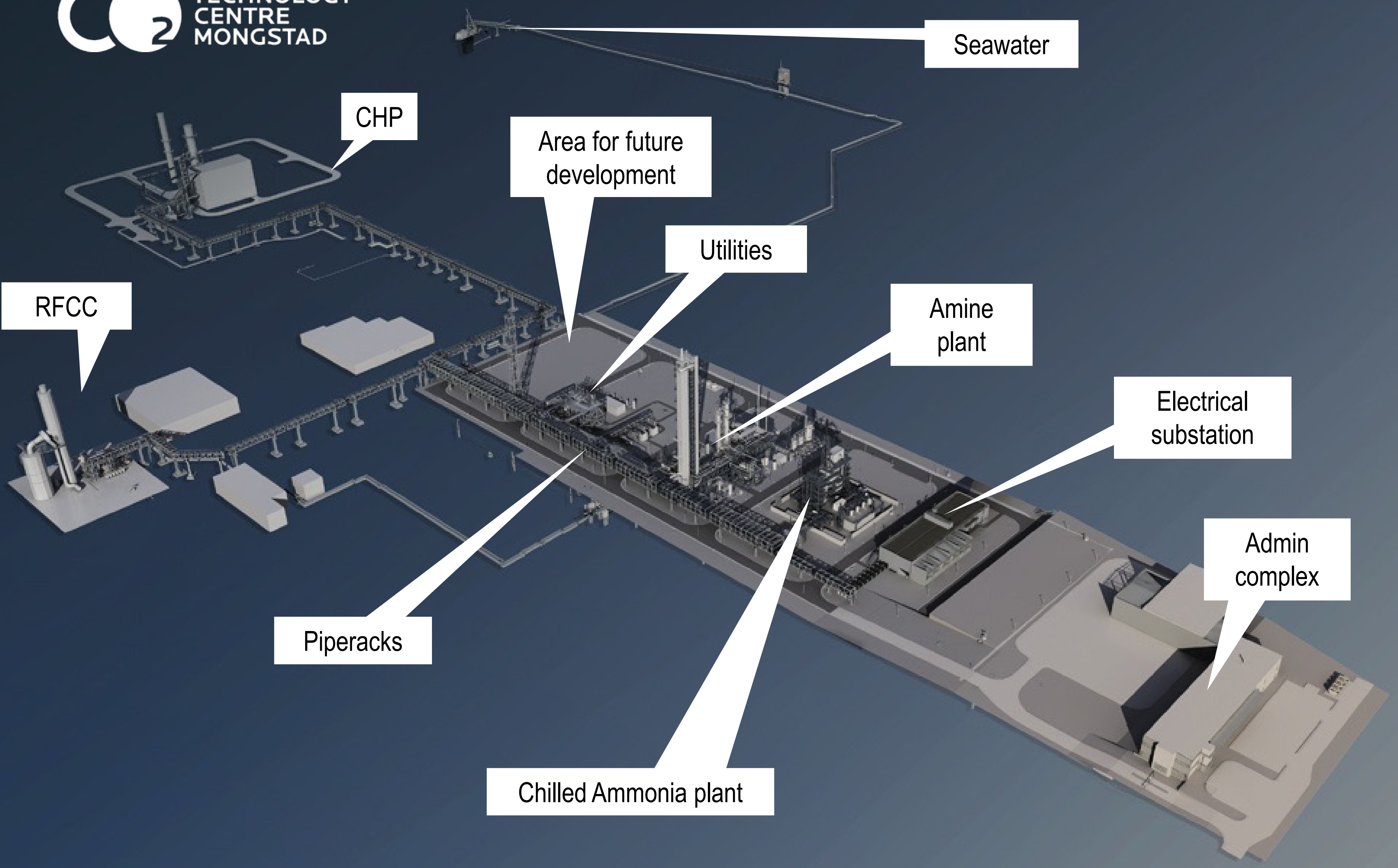
* CHP design capacity of 280MW electricity and 360MW heat.

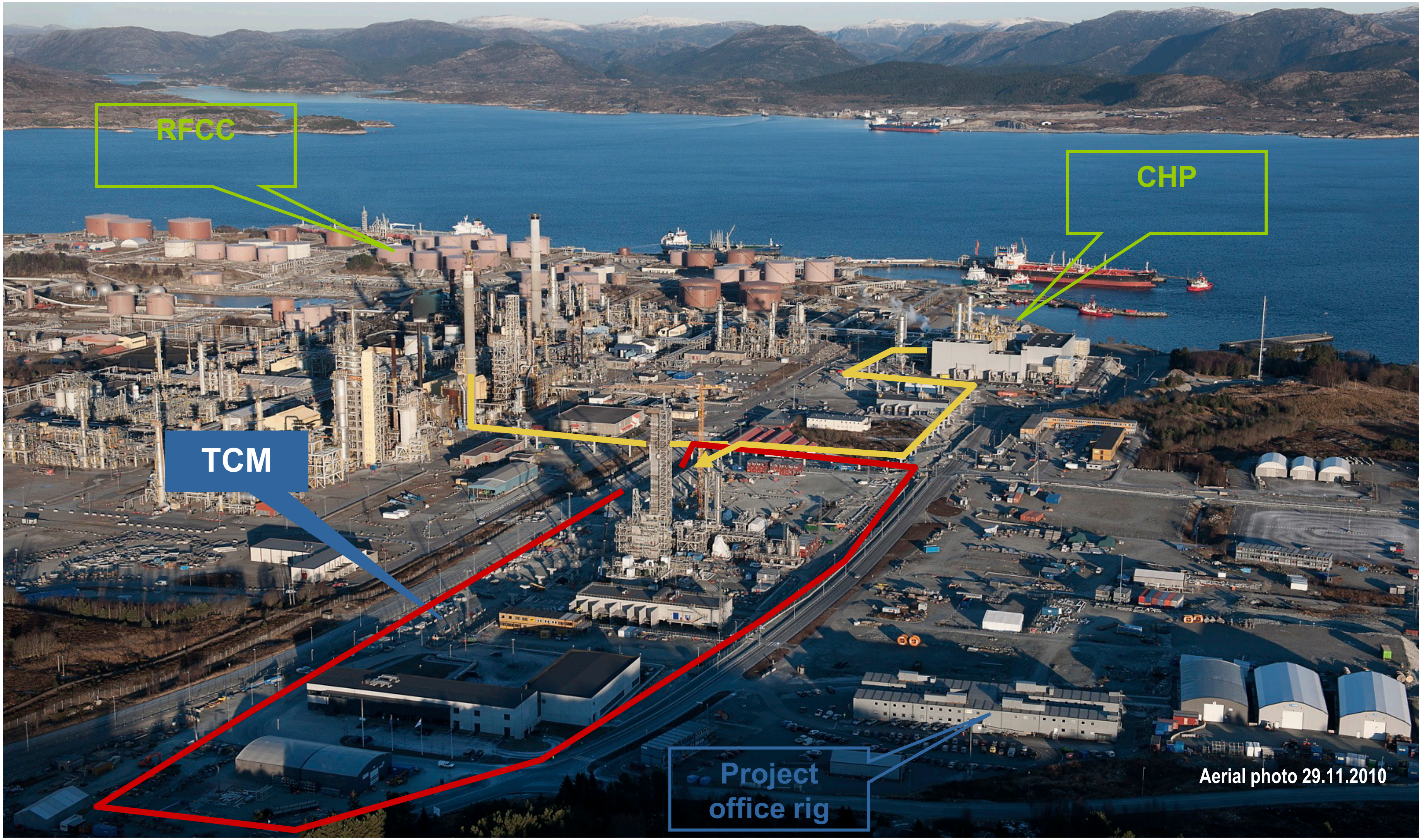
Two flue gas sources



Relevant for a number of industrial processes including gas and coal fired power plants.

* CHP design capacity of 280MW electricity and 360MW heat.


Seawater
CHP
Area for future development
Utilities
RFCC
Amine plant
Electrical substation
Admin complex
Piperacks
Chilled Ammonia plant


RFCC
CHP
TCM
Project office rig
Aerial photo 29.11.2010

TECHNOLOGY CENTRE MONGSTAD

TCM project

Start-up:

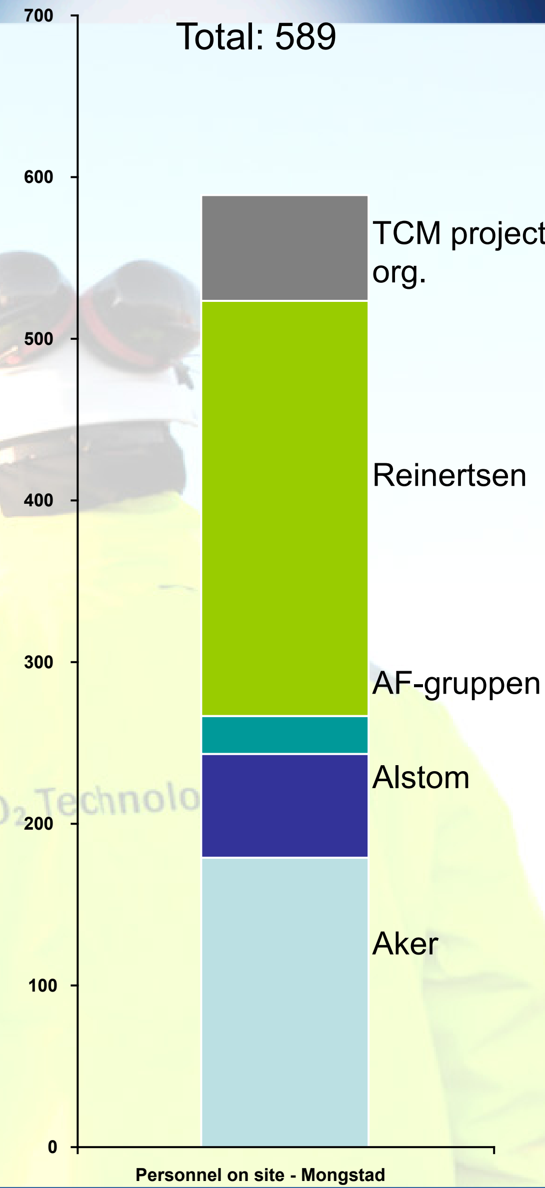
- First Technology Q4 2011
- Second Technology 2012

- End of May 2011:
  - 77 % completed
  - 3 495 000 manhours worked
  - 3,9 BNOK spent (465 M€ / 690 M$)
  - 900 people directly involved

PERSONNEL

Figures from week 23/2011

Total: 589



Key figures for TCM

Total TCM		
Structural steel	tons	2 917
Piping	tons	1 087
Electrical cables	m	234 400
Instrument cables	m	208 000
Instruments	no's	3 904
Equipment	tons	958

Construction philosophy

Area	Philosophy
Amine plant	Prefabricate modules Site-build of foundations Slip-form concrete structure
Chilled Ammonia plant	Stick-build at site Site-build of foundations Slip-form concrete structure
Utilities and infrastructure	Prefabricate modules Prefabricate concrete elements

Prefabrication

PAU assembly at Aker Stord

Fabrication of equipment

56” flue gas piping

Piperacks installed

Seawater intake

Mechanical installations

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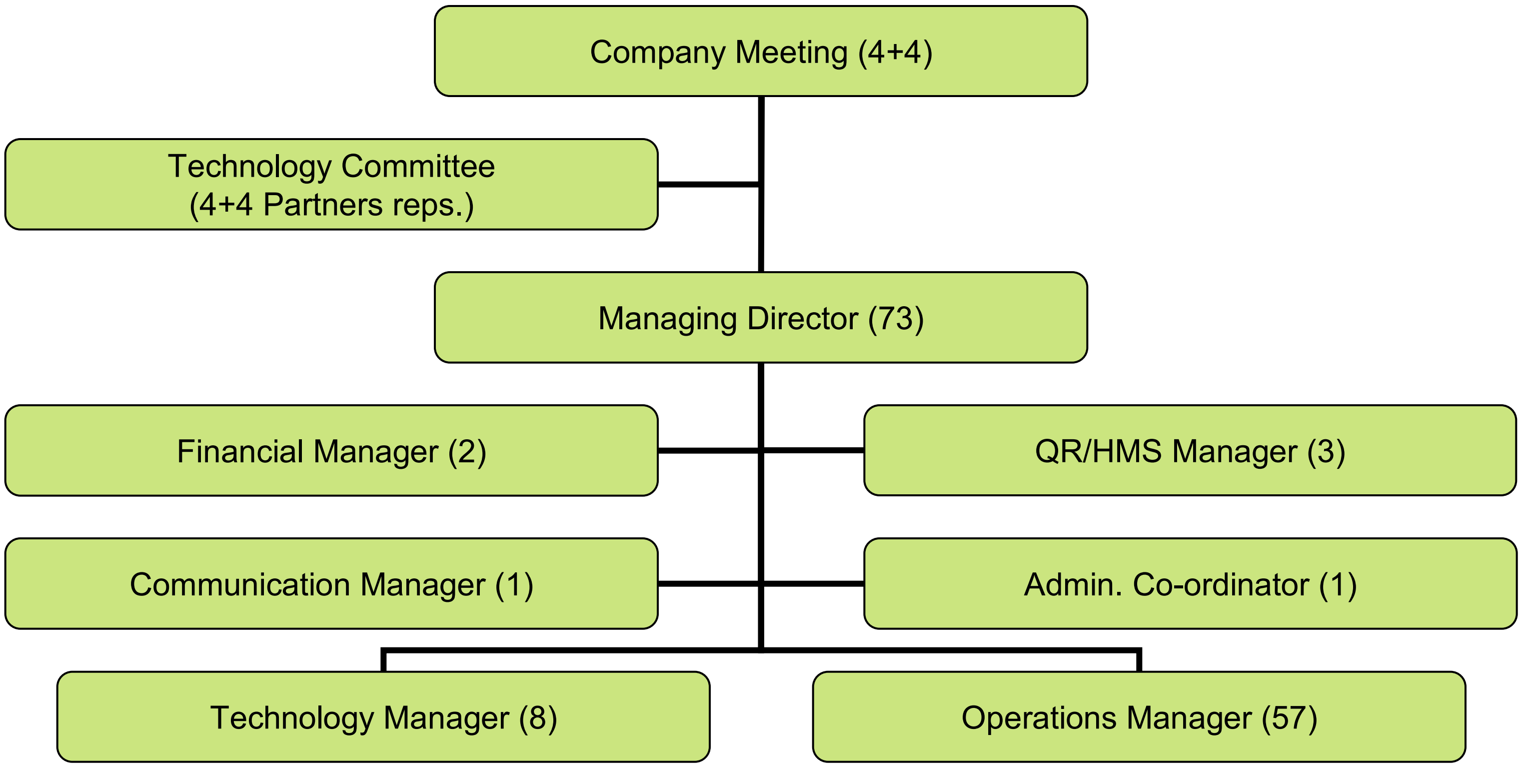
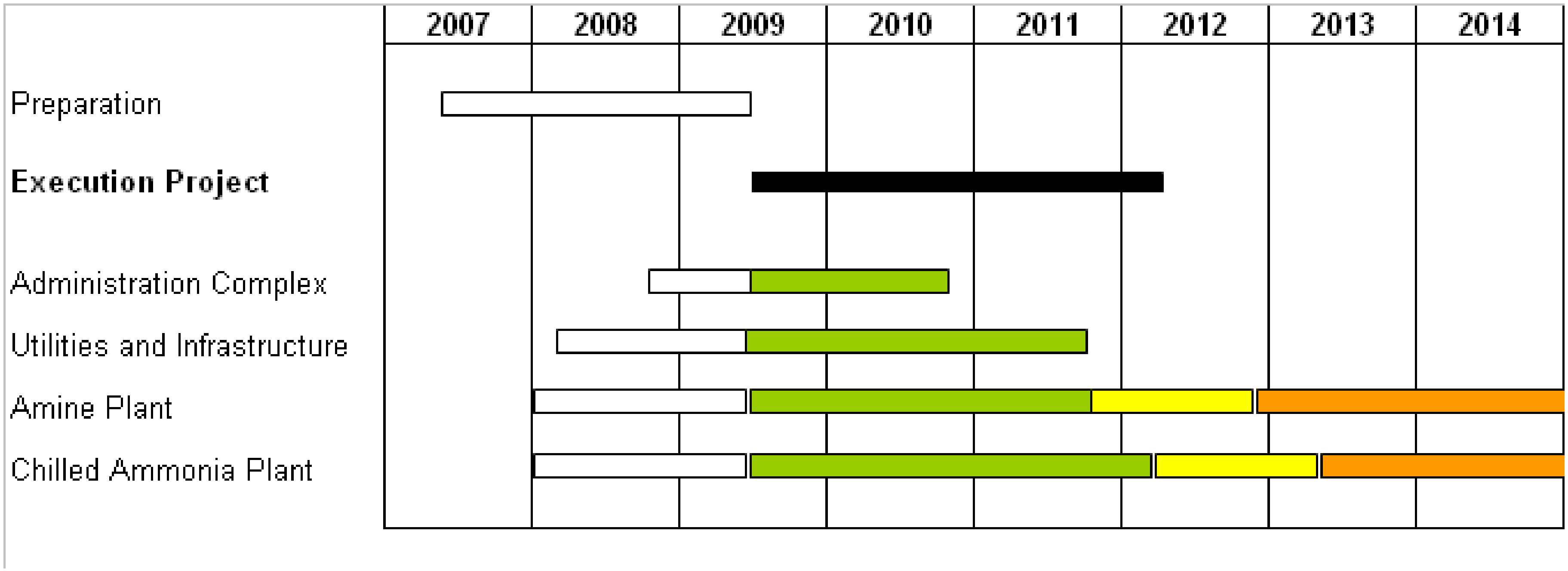
TCM organisation build up



Schedule


2007
2008
2009
2010
2011
2012
2013
2014
Preparation
Execution Project
Administration Complex
Utilities and Infrastructure
Amine Plant
Chilled Ammonia Plant

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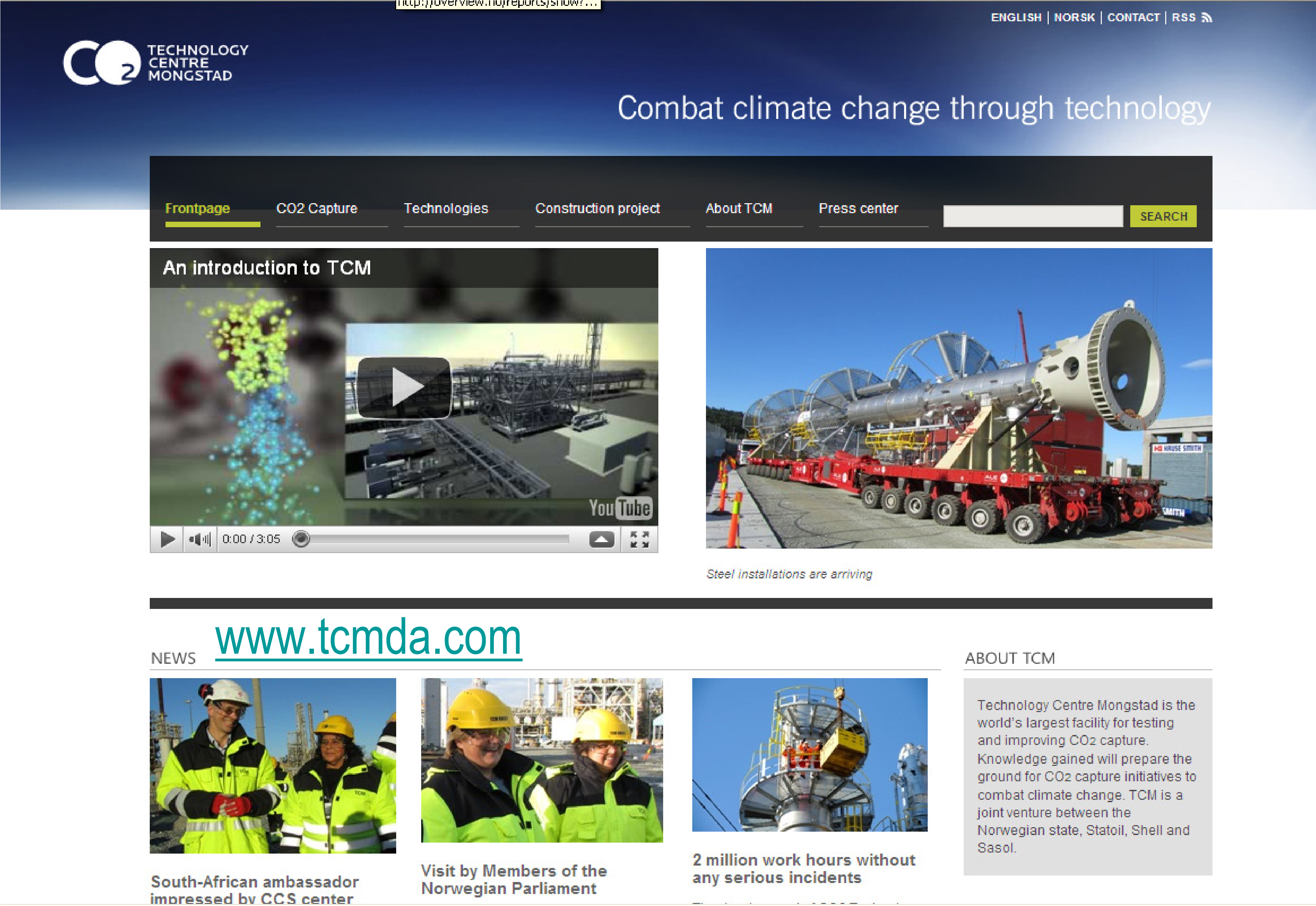
Knowledge sharing

- Co-operate with research organisations and other CCS projects
- Participate in CCS conferences and give papers
- Keep outside world updated on status through website
- Good communication with media and NGO's
- Subject to vendor confidentiality agreements



www.tcmda.com

Our Objectives

Improve and verify CO_2 capture technology for large scale

Become a globally recognized centre of competence on CO_2 capture