Project presentation

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IFP Energies nouvelles, GreenFlex (Total)

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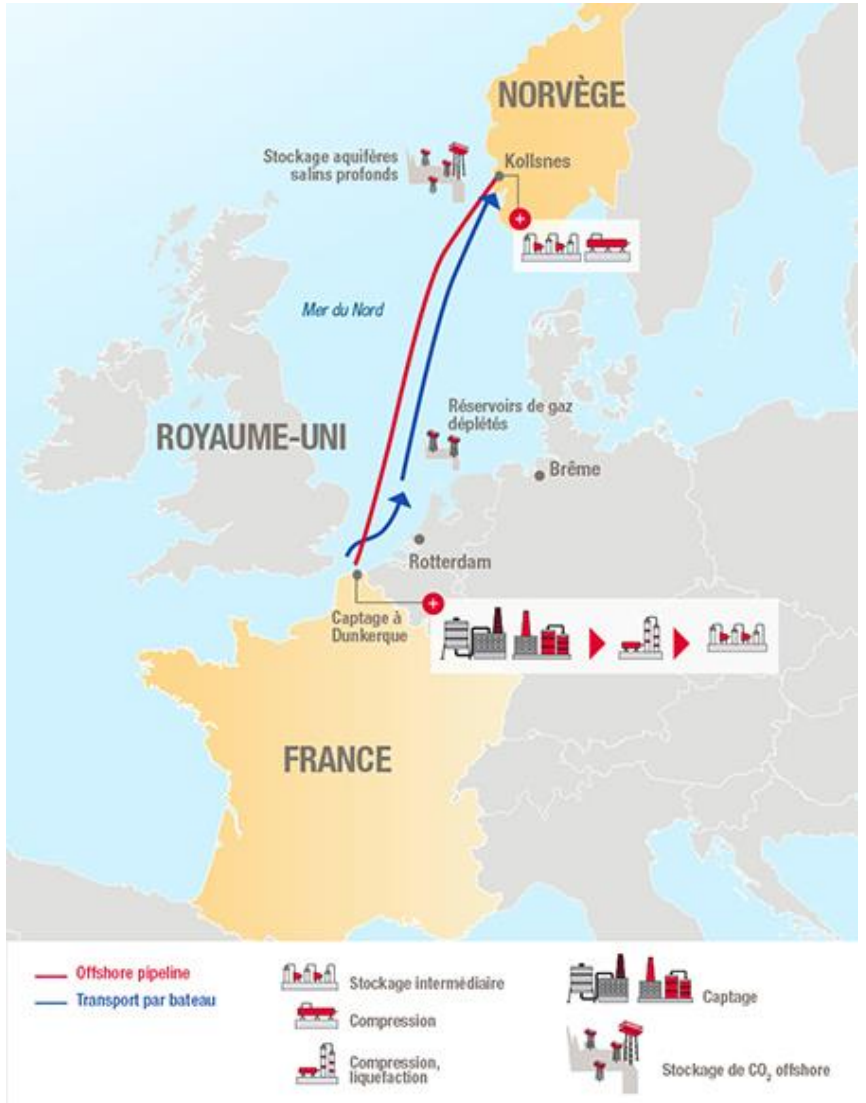
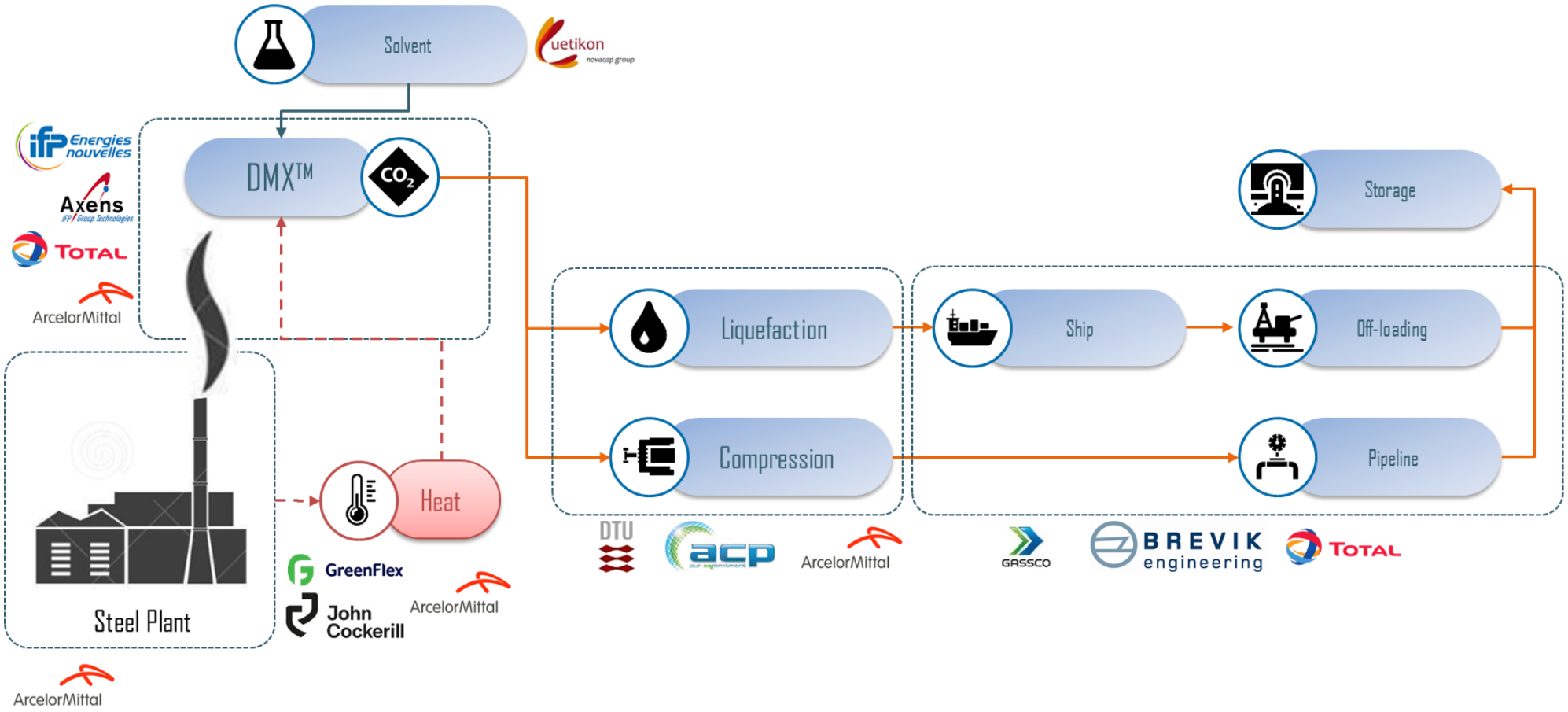
4th Workshop H2020 CCS/CCUS

3D in a nutshell

- H2020 Project (call 2018 / topic LC-SC3-NZE-1)
- Objectives
  - Demonstrate the **DMX™ process** for CO_2 capture
  - Prepare a first CCS large-scale demonstrator (**> 1M tCO_2eq/y**)
  - Study the CCS cluster 2035 Dunkirk-North Sea (**10 $MtCO_2eq/y$**)
- Project start-up: **May 2019**
- Duration: **48 months**
- Estimated eligible costs: **19,2 M€**
- EU funding: **14,7 M€**



The different partners working together

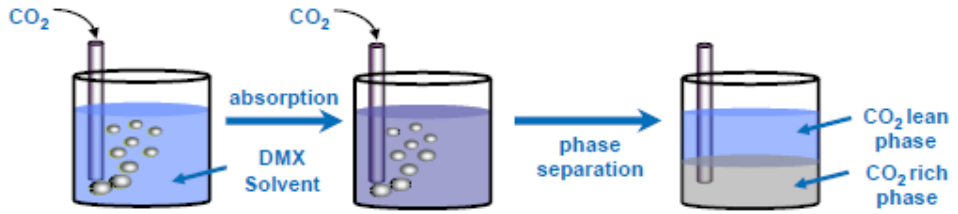


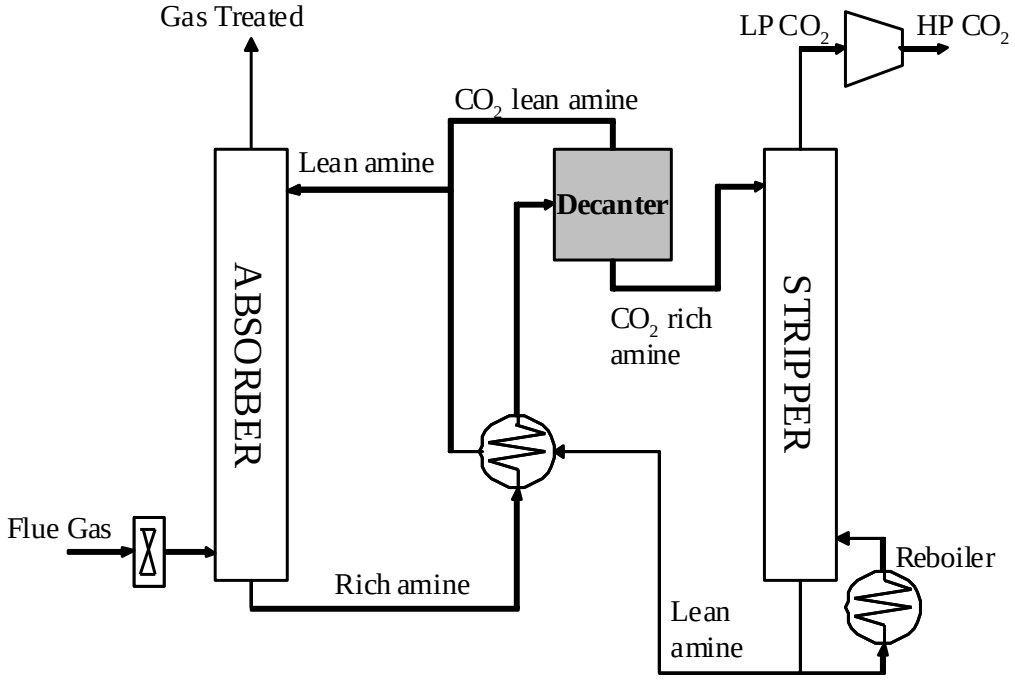
Social Sciences and Humanities, Life Cycle Analysis and Cost

CCS cluster 2035 in Dunkirk

Description of the DMX concept

- DMX technology is based on the principle of a specifically designed solvent, that forms 2 phases when contacted with CO_2
- The 2 phases can be separated and only the CO_2-rich phase is regenerated: **energy of C-capture is reduced by 30%**
- High capacity solvent (4 times MEA)
- Very stable solvent
- CO_2 produced in pressure

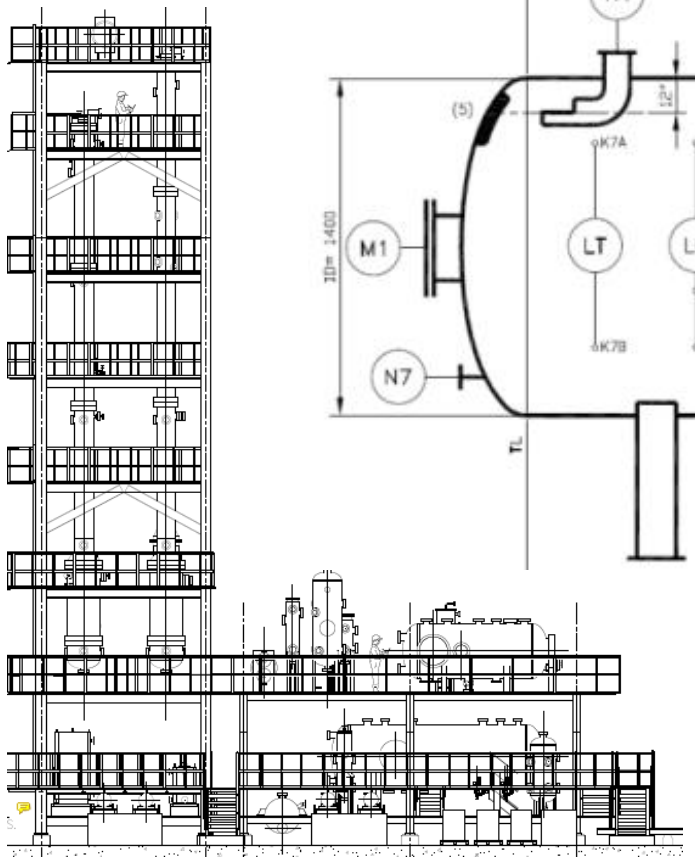


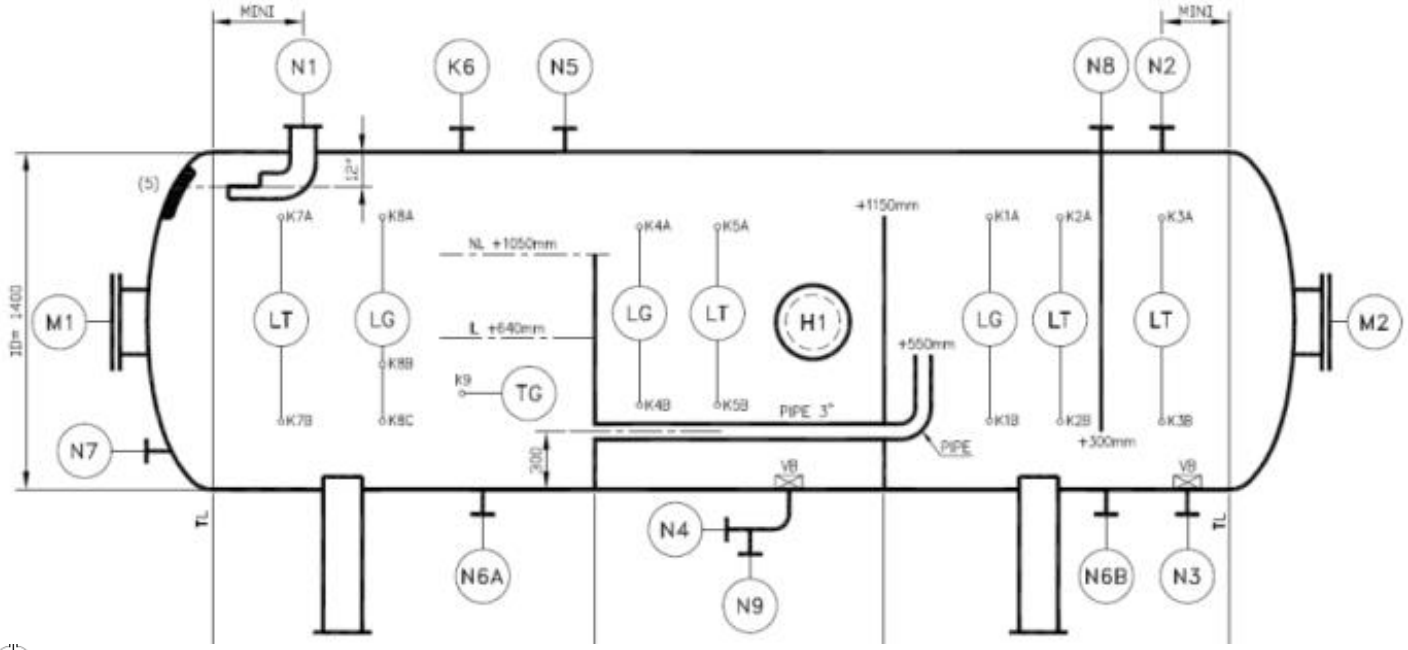


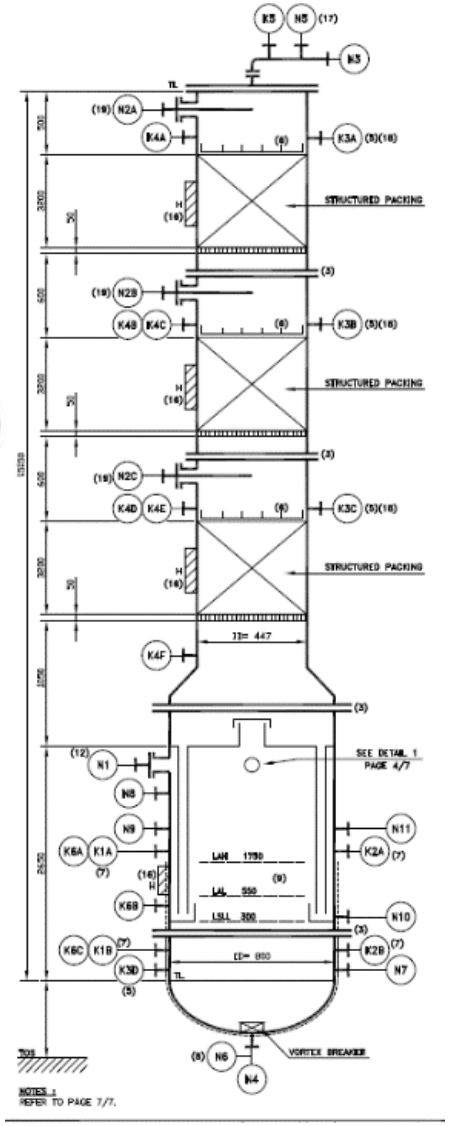
3D first achievements

Work Package	Task	Status
Kickoff meeting of the 3D project: May 22nd and 23rd in Dunkirk		Done
WP1 - DMX Pilot Studies	Design of the equipment	Done
	Engineering studies (FEED)	*In progress*
	HAZOP and HAZID studies	Done
	Construction Permitting Preparation	*In progress*
	Evaluation of the pilot plant cost	*Soon*
WP4 - Waste Heat Recovery	First project meetings to collect information	Done
	Validation of waste heat recovery scenarios	*In progress*
WP5 - CO_2 Conditioning	Location choice for the unit of CO_2 liquefaction	Done
WP7 - CO_2 Environmental and Societal Readiness Studies	*First project meetings*	*In progress*
WP10 – Dissemination	Logo creation and file sharing service	Done
	Data and dissemination management plan	*In progress*
	Website creation	*In progress*

WP1: equipment design

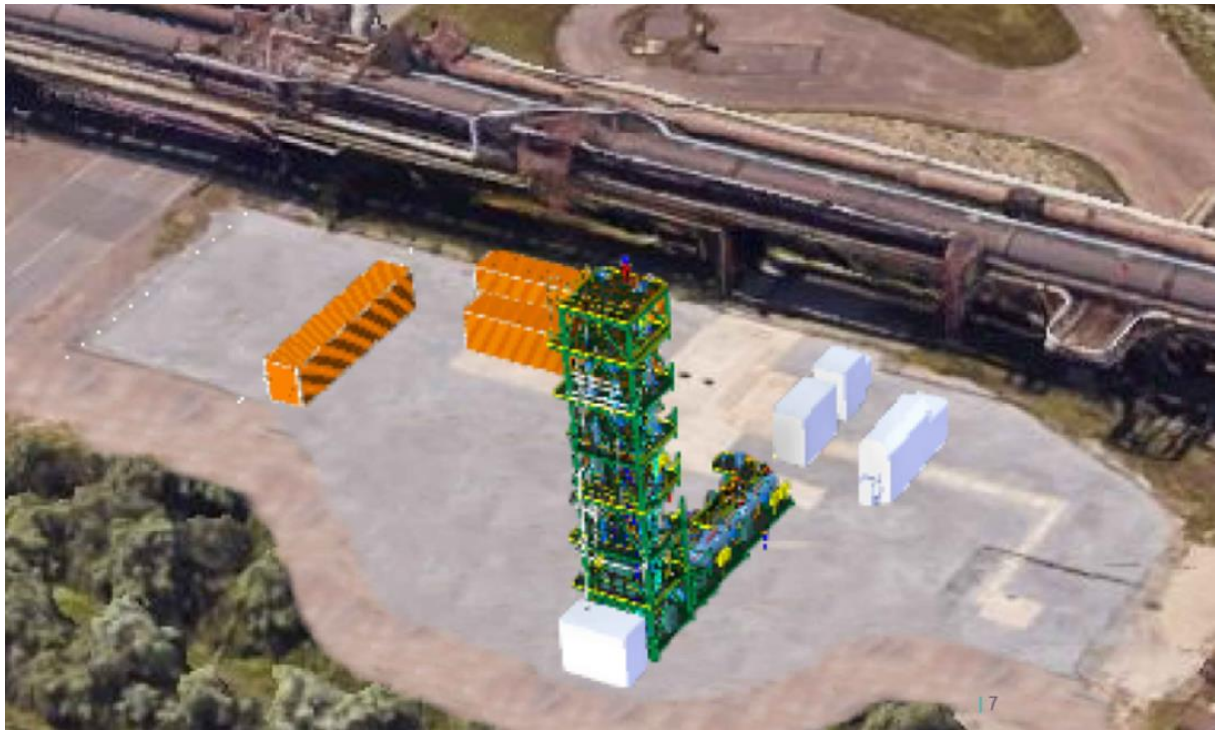






WP1: main barriers identified so far

- Major work to be done in order to have on time the unit cost estimation
- Cost of the pilot challenging to remain in the initial budget (10.5 M€)



WP10: dissemination strategy

Dissemination to non-experts

- Project communication toolkit (logo, leaflet, flyers, posters, roll-up, video)
- Project public website aimed at non-experts, with non-confidential information on the project background and objectives
- Progress updates to the project website with non-confidential information to increase relevance to the public and NGOs
- Annual updates on the project progress for sharing with stakeholders outside the consortium and communication to general public via Press, Radio, TV, Twitter
- Inauguration Day in Dunkirk with invitations for NGOs, stakeholders and the public – Organisation of a workshop

WP10: dissemination strategy

Dissemination to scientific and industrial community

- Conference presentations and peer-reviewed journal publications for the Energy community, especially Industry, CO2/CCS and Power-to-gas domains, national entities and innovation agencies

Market analysis and exploitation

- Estimation of the market potential for the products and services developed in the project.
- Production of an Exploitation Plan, containing a credible path to deliver the innovations to the market.
- Intellectual property rights (IPRs) from the project

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