

General for Research & Innovation and the Qatar National Research Fund organised the workshop in Doha focussed on carbon capture and concentrated solar power technologies. Representatives of ASCENT project were invited to present recent results in the field of advanced solids cycles for CO2 capture

## ASCENT in a nutshell



16 European Partners:

- 4 Universities: UNIVAQ, TUE, POLIMI, IMP,
- 5 Industrial companies: JM, ARI, MTEC, ZEG, CALIX
- 4 Research centres: ECN, IFE, QUANTIS, SINTEF
- 1 Public research institute: INERIS
- 2 national research agencies: CSIC, ENEA
- 7 Countries:
- 5 Member States: Netherlands, UK, Italy, France, Spain
- 2 Associate Countries: Norway, Swiss
- 4 years duration:
- Starting date: on March 1st, 2014

Budget size: 9.2M €: 7.0M € EC grant 2.2M € own Partners funding



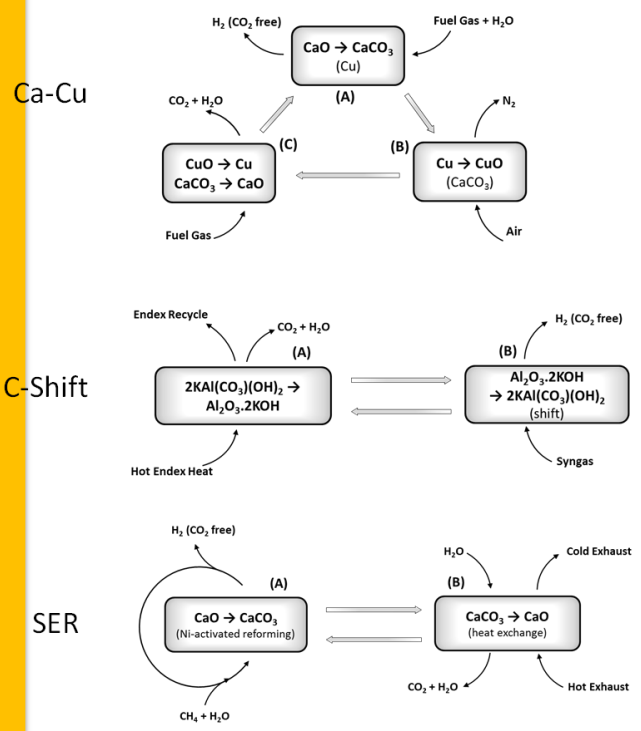
ASCENT ([www.ascentproject.eu](http://www.ascentproject.eu)) will provide a robust proof-of-concept of three related high temperature processes; each will lead to a step-change in efficiency of carbon removal in three types of pre-combustion capture, producing H<sub>2</sub> needed for highly efficient low-carbon power production. ASCENT, Advanced Solid Cycles with Efficient Novel Technologies, addresses the need for original ideas to reduce the energy penalty associated with capturing CO<sub>2</sub> during power generation.



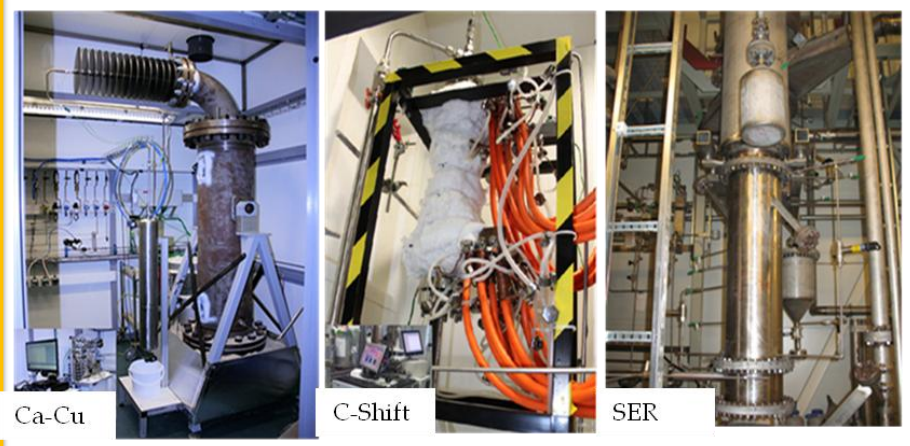
Each technology will be proven under industrially relevant conditions of pressure and temperature, at a scale that allows the use of industrially relevant materials that can be manufactured at a scale needed for real implementation.

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Each process matches both endothermic and exothermic heat requirements of associated reactions and sorbent regeneration in an integrated *in situ* approach.



The synergies between the three technologies are strong ranging from kinetic models to CO<sub>2</sub> acceptor and reactor engineering and allowing both multiple interactions between the different work packages and allowing a consistent framework for cross-cutting activities across all the technologies.



# ASCENT around the world



ASCENT consortium is twinned with Australian partners Australian National University and the University of Sydney member of CO<sub>2</sub>CRC. During the EU-Au workshop (9<sup>th</sup>-14<sup>th</sup> March 2014) the European and Australian

partners of ASCENT project have interacted in order to valorise complementarities within the consortium.

To explore new directions for developing advanced and innovative CCS technologies representatives from ASCENT consortium have participated to the 1st Korea-EU CCS workshop in Jeju Island (South Korea) on 9<sup>th</sup> February 2015. The event was hosted by Korean Ministry of Science and European Commission and organized by Korea CCS R&D Center.



Collaboration between EU and countries of GCC (Gulf Cooperation Council) is being strengthened paving the way for future synergies and links in research and innovation. An EU-Qatar workshop in Doha has been held back to back to the EU-GCC meeting in Riyadh on 2 and 3 March 2016. Directorate-