

PROGRAM DAY 1

Breakup Room 1		Breakup Room 2	
Opening & Plenary sessions (chairperson Fausto Gallucci)			
9:00-9:30		All coordinators - Introduction to projects	
9:30-10:00		Dr. E. De Coninck (CTO ArcelorMittal) - The zero Emission Plant	
10:00-10:30		Dr. Walter Eevers (CO2 Value Europe)	
10:30-11:15		Coffee break and posters	
Session 1A (chairperson Jose Luis Viviente)		Session 1B (chairperson Camel Makhloufi)	
11:15-11:35	Dr. O. David - A review of the membrane development steps from material to final product	Dr. M. Noponen and Dr. X. Sun - High temperature electrolysis and co-electrolysis	
11:35-11:55	Dr. V. Spallina - System simulation for integration of CO ₂ capture technologies into steelworks and CCUS clusters	Prof. J Serra - Direct electrocatalytic conversion of CO ₂ into chemical energy carriers in a co-ionic membrane reactor	
11:55-12:15	Dr. M. Saric - Methanol membrane reactor: modelling and experimental results	Dr. V. Middelkoop - CO2Fokus at a glance: CO ₂ utilisation focused on DME production, via 3D printed reactor and solid oxide cell based technologies	
12:15-12:35	Dr. Adam Deacon - Realising the potential of MOFs through efficient scale-up	Dr. M. Tsampas - The KEROGREEN CO ₂ plasma route to CO and alternative fuels	
12:35-12:55	Dr. M. Etxeberria-Benavides - PBI based mixed matrix hollow fiber membranes for pre-combustion CO ₂ capture	Dr. G. Bonura - 3D-printing in catalysis: Development of efficient hybrid systems for the direct hydrogenation of CO ₂ to DME	
12:55-14:00		Lunch break	
Plenary session (chairperson Fausto Gallucci)			
14:00-15:00		Dr. Angels Orduna (Spire 2030)	
Session 2A (chairperson Giampaolo Manzolini)		Session 2B (chairperson Vesna Middelkoop)	
15:00-15:20	Dr. G. Garcia - LCA and TEA of the COZMOS technology	Dr. M. Sleczkowski and Dr. Pablo Ortiz - Turning gas separation membranes green with biobased block copolymers	
15:20-15:40	Dr. A. Mattos or Dr. A. Mitchell - How can public policy and business model innovation be developed to address challenges of CCUS and realise the opportunity?	Dr. A. Benedito - CARMOF Project: a CO ₂ capture demonstrator based on membrane and solid sorbents hybrid process	
15:40-16:00	Dr. L. Engelmann - Perception of CO ₂ -based fuels and their production in international comparison	Dr. R.H. Heyn - Introduction to the COZMOS project	
16:00-16:20	Dr. N. Dunphy - Social studies in REALISE project	Dr. L. Petrescu - Converge technology for efficiency methanol production with negative CO ₂ emissions: energy and environmental analysis	
16:20-17:05		Coffee break and posters	

Breakup Room 1**Breakup Room 2****Opening & Plenary Sessions (chairperson Fernanda Neira D'Angelo)**

9:30-10:00 All coordinators - Introduction to projects

10:00-11:00 Dr. K. Bakke - Northern Lights – concept, plans and future

11:00-11:45 Coffee break and posters

Session 3A (chairperson José Serra)**Session 3B (chairperson Oana David)**11:45-12:05 Dr. A. De Paula Oliveira - SER and SEWGS for CO₂ capture: experimental resultsMsc. A. Sliousaregko - Industrial membrane requirements for CO₂ removal from different gas mixtures - Current practices and developments

12:05-12:25 MSc. S. Poto - Membrane reactors for DME production

Dr. I. Kim - Technologies demonstration in REALISE

12:25-12:45 Dr. U. Olsbye - Catalyst development within the COZMOS project

Dr. N. Kanellopoulos - Hybrid VTSA pilot plant and design of industrial demo plant for CO₂ capture12:45-13:05 Dr. S. Krishnamurthy - CO₂ capture using 3D printed PEI adsorbents supported by carbon nanostructures

Mr. Paul Cobden and Prof. C. Abanades - Pilot preparation for demonstration in the C4U project

13:05-13:25 Dr. S. Perez - Process intensification in the conversion of CO₂ with a milli-structured reactor

Mr. T. Swinkels - Decentralized FA based power generators

13:25-13:45 Dr. F. de Sales Vidal Vazquez - The KEROGREEN syngas route to alternative fuels and chemicals

Dr. L. Roses - Design and development of a membranebased post-combustion CO₂ capture system

13:45-14:30 Lunch break

14:30-15:30 **Round table and questions - closure (chairpersons Fausto Gallucci and Fernanda Neira)**