The European Carbon Dioxide Utilisation Summit

Dusseldorf
5th-6th October 2022

Addressing legislative issues and technical developments in the CO₂ Utilisation industry

Key Topics
- Reviewing International Legislation and Effects of the Green Deal on Europe.
- Addressing Challenges and Opportunities in Financing CCU Projects.
- Case Studies of CCU Projects.
- Recent Technological Advances for Carbon Dioxide Utilisation.
- Fuels, E-Fuels and Power to Liquid Projects.
- Chemical Production from Carbon Dioxide.
- Mineralisation.
- Carbon Capture, Storage and Transportation Developments.

RWE Site Visit

Sign up now for waiting list

On Tuesday 4th October, in the afternoon prior to the conference, a limited number of attendees will be permitted the unique opportunity to visit RWE’s Innovation Centre at the Niederaussem Power Station. Please register your attendance for the site visit when booking for the conference.

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With ever increasing focus on sustainability and decarbonisation, many industries are looking for ways to use CO$_2$ to both remove harmful emissions, and find value from this perceived "waste" material. This event will focus on new CO$_2$ utilisation developments and technologies in the oil and gas, chemicals, energy, building and E-Fuels industries, as well as other-end markets. The conference will also highlight international legislation; updates and requirements of the industry, as well as an overview of the market since the 2015 Paris agreement.

Already on the 18th edition of a successful series, ACI is delighted to announce the 2022 European Carbon Dioxide Utilisation Summit. The event will bring together senior executives and experts from the utilisation industry, as well as policy makers, consultants, technology innovators and leading market analysts.

Site Visit

Tuesday 4th October 2022
RWE’s Coal Innovation Centre at the Niederaussem Power Station

How can CO$_2$ that results from energy generation be made into a usable raw material? To answer that question, the EU and German government have funded three new scientific research pilot projects at the RWE Innovation Centre in Niederaussem. These CCU Projects are developing innovative processes to create high-quality raw materials for the chemicals industry and general-use propellants.

The three projects, known as ALIGN-CCUS, OCEAN and LOTER.CO2M are investigating different processes with different synthetic end products.

Registration Is Simple

If you would like to register for this event or wish to find out more information, you can contact Rohan Baryah using any of the following methods:
Tel: +48 (0) 61 646 7022
Email: rbaryah@acieu.net

Conference Fees

Conference (Includes Documentation Packet) £1,895
Documentation Packet Only £495

Members and customers of all supporting organisations are entitled to a discount off their conference package.

Opportunities to Meet Your Target Audience:

Showcase your technologies to the industry, with opportunities to demonstrate the capabilities of your latest products and services. Companies can gain direct access to our senior level audience and have an increased level of visibility and exposure through branding and networking at the conference. This will allow you to attract new business and forge lasting commercial relationships.

For information on available commercial opportunities, please contact:
Hubert Sosnowski
Tel: +48 61 6467 059
Email: hubert@acieu.net

Who Will Attend?

- Oil, gas, energy and chemical companies with alternative energy departments.
- Biofuel, liquid fuel and E-Fuel companies.
- Start-up tech and utilisation companies.
- Venture capital firms and funding organisations.
- Petrochemical, oil and gas consulting firms.
- Research Centres and Institutes.
- Universities.
- Policy, Regulation & Environmental Associations.
- Chemical product manufacturers.
- Building and construction companies.
DAY 0
Tuesday 4th October 2022

12:00  SITE VISIT TO RWE’S INNOVATION CENTRE

12:00  Leave Hotel for Site
13:00  Arrive at Information Center, PSA and Introduction
13:30  Tour of CCU at RWE Power Innovation Center
14:15  Tour of 1000-MW-lignite unit with lift to Retour to the information center, final Q&A and coffee break.
16:00  Departure for Hotel

19:00  WELCOME DRINKS HOSTED BY:

ACI
Active Communications International

DAY 1
Wednesday 5th October 2022

08:00  REGISTRATION & COFFEE

09:00  CHAIRMAN’S OPENING REMARKS

Robert Grosser
Innovation Consultant
12V – Innovation to Value

09:15  SESSION ONE
Reviewing International Legislation and Effects of the European Green Deal

09:15  CCU in EU Climate Policies: 2022, a Landmark Year?
- CCU: What definition at EU level.
- EU legislations: why 2022 is a pivotal policy moment at EU level for CCU.
- Beyond 2022: Policy challenges & opportunities ahead.

Tudy Bernier
Senior Policy Manager
CO2 Value Europe

09:40  Paul Zakkar
Director
Carbon Counts

eMethanol under Fit for 55 – An Accelerated Path Towards Circular Value Chains
- Replacing fossil hydrocarbons by combining CCU and electrolysis.
- The conflicting perceptions of CCU among EU policymakers.
- Fit for 55 package: Threats, opportunities and market outlook.

Matthías Ólafsson
Chief EU Representative
Methanol Institute

10:30  Panel Q&A

10:50  MORNING REFRESHMENTS
**11:20**
SEASON TWO
Carbon Capture, Storage and Transportation Developments

**11:20**
Direct Air Capture - An Enabler for Sustainable Utilization
- Carbon dioxide levels in the atmosphere have increased from 227 ppm prior to the industrial revolution to about 420 ppm today.
- This corresponds to around 2 trillion tonnes of CO₂, a potentially vast raw material source for carbon utilization.
- Focusing on Direct Air Capture (DAC) technology and how it can be an enabler for sustainable carbon utilization technologies.

**11:45**
CO₂ - From Pollutant to Product - MHI’s Carbon Capture Technology
- History of Technology Development.
- Worldwide Commercial Experience.
- Future Outlooks - Needs in the EU Market.

**12:10**
Panel Q&A

**12:25**
CONFERENCE PRESENTATION
Carbon Capture - Process Integration to Existing Plants
- The total Carbon Capture chain (global).
- Conditions and influence net (local).
- Availability of energy/media and sinks.
- Decision scenarios.

**12:45**
Presentation Q&A

**12:55**
LUNCH AND NETWORKING

**13:55**
CONFERENCE PRESENTATION
Efficient Conversion of CO₂ to Fuels Using SOEC Electrolysis
- Introduction to Topsoe.
- Introduction to SOEC in general.
- The eCO₂ Process.
- PiX process concepts utilising CO₂ electrolysis.
- Case study: Methanol.

Christian Wix
Head of Product Development
Topsoe

**14:15**
Presentation Q&A

**14:25**
SESSION THREE
Case Studies of Current and Future CCU Projects

**14:25**
Overview of future CCU projects
- What’s next for CCUS? New pathways and emerging technologies.
- Potential impact of the most promising emerging CCUS technologies.
- How to select the right emerging CCUS technology?
- Challenges and gaps for an industrial and commercial reality.

Robert Gresser
Innovation Consultant
I2V - Innovation to Value

**14:50**
Zoltan Eek
CEO
Landwärme

**15:15**
Carbon Capture for Waste-to-Energy in the Netherlands
- Current climate legislation for waste-to-energy in the Netherlands.
- Possibilities for achieving reduction targets.
- Current EEW projects: current status, chances and risks.

Sarah Endres
Business Development Manager
EEW - Energy from Waste

**15:40**
Panel Q&A

**16:00**
AFTERNOON REFRESHMENTS
16:30 CONFERENCE PRESENTATION
Scaling Electrochemical Technologies: Development of Avantium’s CO₂ to Formate Reaction

16:50 Presentation Q&A

17:00 SESSION THREE
Recent Technological Advances for CO₂ Utilisation

- Discussing available technologies and their applications for CO₂, and addressing the need for new, low energy utilisation technologies.
- Scaling up new technologies, and the requirements for industrial use. What to expect in the coming years.
- New synthetic techniques for CO₂ conversion.

Technological Advances in Bio/Electrochemical Carbon Dioxide Capture & Utilization

17:00 Deepak Pant
Senior Researcher
VITO - Flemish Institute for Technological Research

Towards the Continuous Conversion of CO₂ to Ethylene Using Flow Electrocatalysis

17:25 Damen Vairy
Academic Researcher
University of Montpellier

17:50 Panel Q&A

18:05 CLOSE OF DAY ONE
11:10 SESSION FOUR - PART TWO
Fuels, E-Fuels and Power-to-Liquid Projects

11:10 Construction of one of the World’s First Commercial Fuel Plants
- Overcoming technical challenges.
- Market outlook for e-fuels and sustainable aviation fuels.
- Expansion plans.

Gunnar Holen
CEO
Nordic Electrofuel

11:35 The Opportunity of the SAF Industry
- The need for SAF - electrification and hydrogen challenges in the industry.
- Showcasing the synergies with bio-based pathways.
- Discussing the market outlook for the EU/USA SAF Industry.

Oska Meijerink
Business Development Manager
SkyNRG

12:00 CO2 to Fuel: Projects to Advance the Production of Fossil-Free Fuels for Earth and Beyond
- Nuclear powered co-electrolysis with Fischer Tropsch.
- Food waste to biofuel.
- Sea water to sustainable aviation fuel.
- Co-electrolysis to methane for rocket propellant on mars.

Jessica Elwell
COO
Oxzon Energy

12:25 Panel Q&A

12:45 LUNCH AND NETWORKING

13:45 CONFERENCE PRESENTATION
Title to be Announced

14:05 Presentation Q&A

14:15 CONFERENCE PRESENTATION
The PYROCO2 Project: Demonstrating Sustainable Value Creation from Industrial CO2 by its Thermophilic Microbial Conversion into Acetone
- New solutions for CCUS have great potential to decarbonise production in the chemical industry, while allowing value creation from parts of its own carbon emissions.
- The PYROCO2 project will demonstrate the scalability and economic viability of CCU to make climate-positive acetone out of industrial CO2 and renewable electricity derived hydrogen.
- The core of the technology is an energy-efficient thermophilic microbial bioprocess that is projected towards a reduction of 17 Mt CO2 eq by 2050.
- The acetone produced will be demonstrated as an ideal platform for the catalytic synthesis of a range of chemicals, synthetic fuels, and recyclable polymer materials from CO2 generating a portfolio of viable business cases and pre-developed processes for replication and commercialisation.

Francesca di Bartolomeo
Research Manager
SINTEF Industry

14:35 Presentation Q&A

14:45 CONFERENCE PRESENTATION
CO2: Mineralisation
- Mineralisation within the concrete industry, recent developments.
- Recycling mineral waste to reduce environmental impact and increase sustainability.
- Applications of mineralisation within the building industry, recent developments.

Vincent Meyer
R&D Project Manager
Holcim

15:15 Presentation Q&A

15:25 CHAIRMAN’S CLOSING REMARKS

Robert Gresser
Innovation Consultant
12V – Innovation to Value

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