nova-Institut GmbH
Leyboldstraße 16
50354 Hürth, Germany

Tel: +49 2233 460 14 00
Fax +49 2233 460 14 01
contact@nova-institut.de

nova-Institut GmbH (www.nova-institute.eu)

PRESS RELEASE

CO_2-based Fuels and Chemicals Conference 2026: Preliminary Program Now Available

Leading global event on Carbon Capture and Utilisation to discuss green hydrogen strategies, cost-competitive e-fuels, CO_2-to-polymers and materials in Cologne and online on 28–29 April 2026

Hürth, 09 December 2025: The preliminary program for the **CO_2-based Fuels and Chemicals Conference** 2026 taking place on 28-29 April 2026 is now available, featuring strategic outlooks, technology breakthroughs and project updates across the CCU value chain ranging from CO_2 capture to fuels, polymers, chemicals and materials. This leading event regularly gathers over 230 leaders from industry, science and policy in Cologne, Germany, and online, providing essential insights into scaling CCU and Power-to-X to replace fossil carbon amid growing policy support like ReFuelEU Aviation and the US Inflation Reduction Act. Key topics of the upcoming edition include green hydrogen ramp-up, cost-competitive e-fuels via integrated capture-methanol synthesis, CO_2-to-chemicals/polymers, pilot-scale electrolysis, gas fermentation biomanufacturing, AI-driven biogenic CO_2 detection and presentations by the nominees of the Best CO_2 Utilisation innovation award.

The full program is available at https://co2-chemistry.eu/program/.

Day 1, 28 April 2026 (09:30 - 18:15 CET)

Strategy, Certification and Sustainability

- **Michael Carus**, nova-Institute (DE): *When Will CCU Go Mainstream?*
- **Naser Odeh**, KAPSARC (SA): *Strategic Prioritization of Carbon Capture and Utilisation Pathways for Saudi Arabia's Circular Carbon Economy*
- **Esther Hegel**, RSB (CH): *Certifying Sustainability: Current Frameworks and Developments for CO_2-Based Fuels and Materials*
- **Àngel Puente**, nova-Institute (DE): *Sustainability in CCU*
- **Nils Rettenmaier**, ifeu (DE): *Integrating Prospective Life Cycle Assessment into Early Development of Carbon Capture Technologies*

Green Hydrogen Production, Biogenic CO_2 Sources and Carbon Capture

- **Stefan Herrig**, NRW.Energy4Climate (DE): *The Hydrogen Economy in North Rhine-Westphalia – Where Does the Ramp-up Stand? What's Next?*

- **Maryanne Maina**, TNO (NL): *The Indispensable Role of Low-Emissions Hydrogen in the Chemicals Industry*
- **Eric Rambech**, Endrava (NO): Unlocking Hidden CO_2: *AI Approaches to Identifying Industrial Biogenic Emissions Outside Europe and North America*
- **Dominik Baust**, SGS Beta (US): *Leveraging Carbon-14 Biogenic Content Measurement to Quantify CO_2 Capture, Utilisation and Removals (CCU)*
- **Kevin Hofer**, Kanadevia Inova (CH): t.b.a
- **Anita Demuth**, PtX Lausitz (DE): *Onboard Carbon Capture and Usage (OCCU) for PtX Fuels*

Poster Pitch Session

- **Heleen de Wever**, VITO (BE): *UNICO$_2$RN – Flexible and Efficient Capture and Bioconversion of CO_2 to Materials and Ingredients*
- **Gia Trung Hoang**, KIT (DE): *Catalytic Approaches for Sustainable Production of Synthetic Hydrocarbon Fuels from Methanol/DME*

Presentations of the Nominees for the "Best CO_2 Utilisation 2026"

Day 2, 29 April 2026 (09:00 - 17:00 CET)

CO_2 to Chemicals and Fuels

- **Maike Lambarth**, Cyclize (DE): Cyclize: *Enabling a Carbon Circular Economy Through CO_2 and Waste Conversion*
- **Christian Wünsch**, ICODOS (DE): *Achieving Cost-Competitive Green Fuel Production Through Interlinked CO_2 Capture and Methanol Synthesis*
- **Rudolf Dörpinghaus**, IASA (DE): *Fuels in Focus – How to Mitigate the Impact of Aviation on Climate Change*

CO_2 to Chemicals, Fuels, Polymers and Materials

- **Reinier Grimbergen**, Blue Circle Olefins (NL): *Carbon Dioxide to Chemicals – Quo Vadis?*
- **Nick Smith**, Viridi (UK): *Solving Critical Challenges to the Surfactant Industry with a new CO_2-to-Polymers Catalyst*
- **Enzo Duriez**, Lesaffre International (FR): *CCU for Food – The Development of More Sustainable and Resilient Solutions for Food Production Through an Open Innovation Approach*

Advanced Research in CCU

- **Annelie Jongerius**, Avantium Chemicals (NL): *Powering the Future: Advancing Electrochemical CO_2 Conversion with the WaterProof Project*
- **Achim Schaadt**, Fraunhofer ISE (DE): DME – *Sustainable All-Rounder for Defossilisation*
- **Markus Janasch**, SINTEF (NO): *Unlocking CO_2-Based Biomanufacturing: Multi-Omics-Driven Optimization of Gas Fermentation Coupled to Acetate-Based Production of Proteins and Omega-3 Fatty Acids*

CO_2 Utilisation Technologies

- **Mohammad Rezaei**, GIG Karasek (AT): *The Green Frontrunner Project – Advancing Electrochemical CO_2 Conversion from Concept to Pilot Scale*

- **Ray Mattioli**, Oxylus Energy (US): Direct, Low-Temperature CO_2 Electrolysis to Methanol with Demonstrated Selectivity, Scalable Cell Architecture, and Superior Energy Efficiency
- **Tamas Fodi**, eChemicals (HU): Low-Temperature CO2 Electrolysis in a Real Industrial Setting

Innovation Award, partnerships and sponsors

Organised by nova-Institute and CO_2 Value Europe under the sponsorship of Yncoris the "Best CO_2 Utilisation" innovation award recognises cutting edge innovation in CCU from fuels to materials. Submission is open until 6 February 2026 at www.co2-chemistry.eu/award-application.

Gold sponsor Holcim is an enterprise dedicated to the defossilisation of the chemicals and materials industry through renewable carbon solutions supporting the event.

The CO_2-based Fuels and Chemicals Conference 2026 is supported by numerous industry and trade associations, non-profit organisations, research institutions and interest groups, that are thematically linked to the conference: BCNP Consultants (DE), BBE – Bundesverband Bioenergie (DE), BioBase (AT), C.A.R.M.E.N. e.V. (DE), ChemCologne (DE), Chemie-Cluster Bayern (DE), CLIB – Cluster Industrial Biotechnology (DE), CO_2 Value Europe (EU), Global CO_2 Initative (International), IN4climate.NRW (DE), IBB – Industrielle Biotechnologie Bayern Netzwerk (DE), kunststoffland NRW (DE), Plastics Europe (DE), Renewable Carbon Initiative (International).

Information on exhibition, sponsoring and partnerships are available at https://co2-chemistry.eu/sponsoring/.

Find all nova press releases, images and more free-for-press material at https://nova-institute.eu/news/pr/

Responsible for the content under German press law (V. i. S. d. P.):

Dipl.-Phys. Michael Carus (Geschäftsführer)
nova-Institut für politische und ökologische Innovation GmbH

Leyboldstraße 16 Tel: +49 2233 460 14 00
50354 Hürth Fax +49 2233 460 14 01
Germany contact@nova-institut.de

nova-Institut GmbH has been working in the field of sustainability since the mid-1990s and focuses today primarily on the topic of renewable carbon cycles (recycling, bioeconomy and CO_2 utilisation/ CCU).

As an independent research institute, **nova** supports in particular customers in chemical, plastics and materials industries with the transformation from fossil to renewable carbon from biomass, direct CO_2 utilisation and recycling.

Both in the accompanying research of international innovation projects and in individual, scientifically based management consulting, a multidisciplinary team of scientists at **nova** deals with the entire range of topics from renewable raw materials, technologies and markets, economics, political framework conditions, life cycle assessments and sustainability to communication, target groups and strategy development.

50 experts from various disciplines are working together on the defossilisation of the industry and for a climate neutral future. More information at: nova-institute.eu – renewable-carbon.eu

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