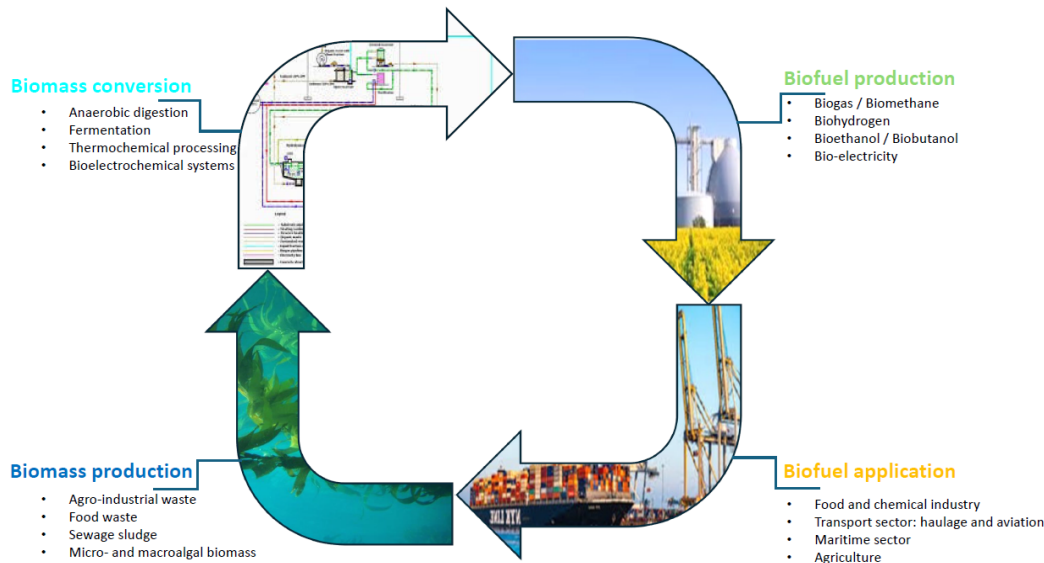


Online Seminar

Trends in Environmental Biotechnology



Advanced Fuels in the Circular Economy

November 7th, 2025
On line via Zoom



MaREI, the Research Ireland Centre for Energy, Climate and Marine research and innovation, focuses on the global challenges *Energy Transition*, *Climate Action* and the *Blue Economy*.



OLLSCOIL NA GAILLIMHE
UNIVERSITY OF GALWAY



University College Dublin



University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Programme

!!Times are in London/Dublin time zone!!

13:30-13:35 Opening of the event and introduction to the theme
Jerry Murphy (University College Cork) and Piet Lens (University of Galway)

Keynote session

13.35-14.05

Anaerobic digestion biorefinery to produce biogas, hydrogen, VFAs, animal feed and biopolymers

Mohammad Taherzadeh (University of Borås, Sweden)

14.05-14.35

The strategic importance of innovation for a biomethane industry in Ireland
Ian Kilgallon (Gas Network Ireland)

Session 1:

Emerging biorefinery pathways: microbial electrosynthesis and E-fermentation

Chair: James Carton (Dublin City University)

14.35-14.45 Microbial electrosynthesis from biogenic CO₂

Xue Ning (University College Dublin)

14.45-14.55 Enhancement of butyrate production via electrochemical fermentation

Xiaoxiao Shi (University of Galway)

14.55-15.15 Discussion

15.15-15.30 Tea-break

Session 2:

Decarbonising Ireland's energy and transport: alternative fuel solutions

Chair: Rory Monaghan (University of Galway)

15.30-15.40

The role of the Irish gas grid to transport hydrogen to decarbonise the energy system

Rafiee Ahmad (University of Galway)

15.40-15.50

Kinetic models for surrogate fuels: C3MechLite and C3MechV4.0 development

Mohsin Raza (University of Galway)

15.50-16.00

To what degree can e-SAF play a role in Ireland's aviation decarbonisation

Mohammed Riadh Habour (Dublin City University)

16.00-16.20 Discussion

16.20-16.30 Closure of the event

Jerry Murphy (University College Cork) and Piet Lens (University of Galway)

Information

Registration fee: There is no fee for this event.

Time zone: Dublin/London Time

Location: Zoom Event

ucd-ie.zoom.us/j/65125424544?pwd=nRwrXmz0PY4uqvff0O5Skyq34yFV4.1

Zoom Meeting ID: 651 2542 4544 Passcode: 203607

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