

Thursday, 19. February 2026

Session XX: Mobility

19 – 20 FEBRUARY 2026

**VAN DER VALK
AIRPORTHOTEL
DÜSSELDORF –
GERMANY**



**SUCCESSFUL R&I
IN EUROPE 2026
13th EUROPEAN
NETWORKING EVENT**

**Sustainable Fuels Deployment for European
Aviation, Maritime and Heavy Load Transport**

**Asif Ansar, Ralph-Uwe Dietrich, Nathanael Heimann, Yoga Rahmat
(DLR e.V., www.DLR.de/tt)**

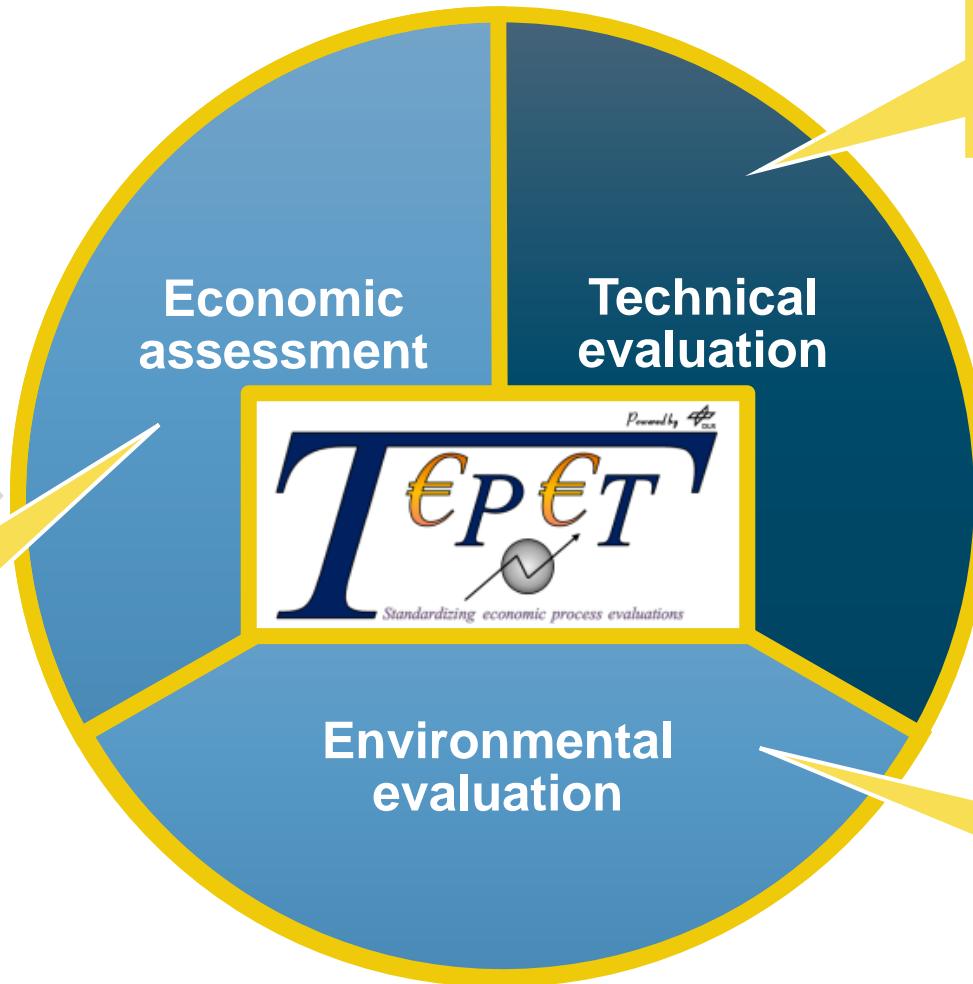
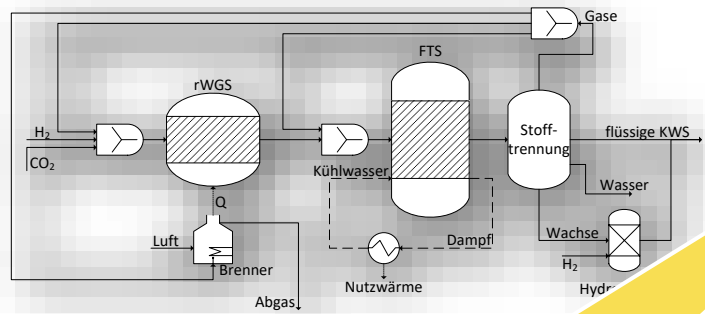


Techno-Economic and Life Cycle Assessment

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- Rigorous process simulation**
- Efficiencies (X-to-Liquid, Overall)
 - Carbon conversion
 - Specific feedstock demand
 - Exergy analysis



- Chemical engineering cost estimation**
- Year-specific CAPEX, OPEX, NPC
 - Sensitivity analysis
 - Identification of most economic feasible process design

- Adapted ISO 14040/14044 LCA**
- GWP
 - Other impact categories
 - Identification of impact drivers

Project ideas in CL5

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Topic1: New / advanced sustainable fuel and chemicals production

- New / advanced feedstocks | New production processes | New fuel types | Base chemicals like ammonia, synthetic methane, methanol, ...
- ☞ HORIZON-CL5-2026-02-D3-24: New CO₂ capture technologies
- ☞ HORIZON-CL5-2026-02-D3-02: Competitiveness, energy security and integration aspects of advanced biofuels and renewable fuels of non-biological origin value chains
- ☞ HORIZON-CL5-2026-02-D4-06: Phase out fossil fuel in energy intensive industries through the efficient integration of renewable energy sources
- ☞ HORIZON-CL5-2026-02-D3-01: Large-scale production of liquid advanced biofuels and renewable fuels of non-biological origin

Project ideas in CLEANH2

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Topic2: Hydrogen Value Chain

- New / advanced electrolysers | Upstream integration: fluctuation | Downstream integration: storage, transport, system integration
- ☞ HORIZON-JU-CLEANH2-2026-01-01: Development and validation of innovative approaches, catalysts, electrolytes and components for electrolysis technologies based on low-quality water
- ☞ HORIZON-JU-CLEANH2-2026-01-03: Improved components and tools to increase the safety of electrolysers
- ☞ HORIZON-JU-CLEANH2-2026-01-04: Innovative business models advancing renewable electrolysis integration in industry
- ☞ HORIZON-JU-CLEANH2-2026-03-0: Multi-fuel SOFC powertrain for maritime transport

Partner search

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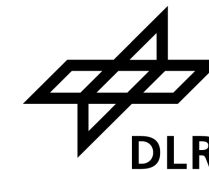


Type and role of partners

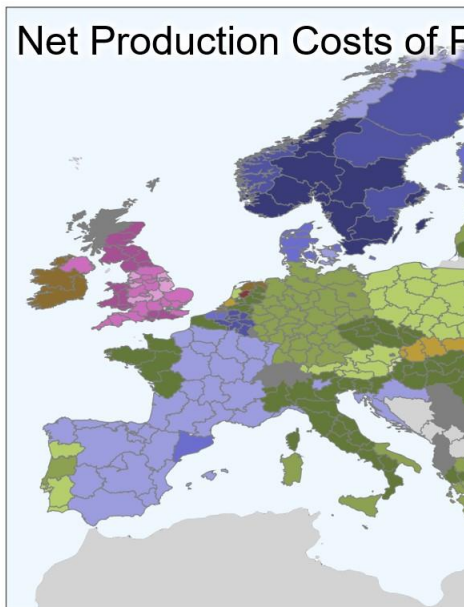
- Fuel consumer on the way to sustainable transport?
 - Explore new fuels and its impact on your environmental footprint and costs
- Fuel / chemicals supplier with pressure to become sustainable?
 - Explore the integration of renewables into your production scheme
 - Find electrolyzer applications that fit into your
- Technology supplier for fuel and chemicals?
 - Explore new process routes that include renewable feedstocks
- Technology developer for sustainable products?
 - Search for the economic and ecological optimal production
 - Quantify opportunities for improvement, localize bottlenecks
 - Predict new processes market rollout

DLR-ESI Expertise Examples

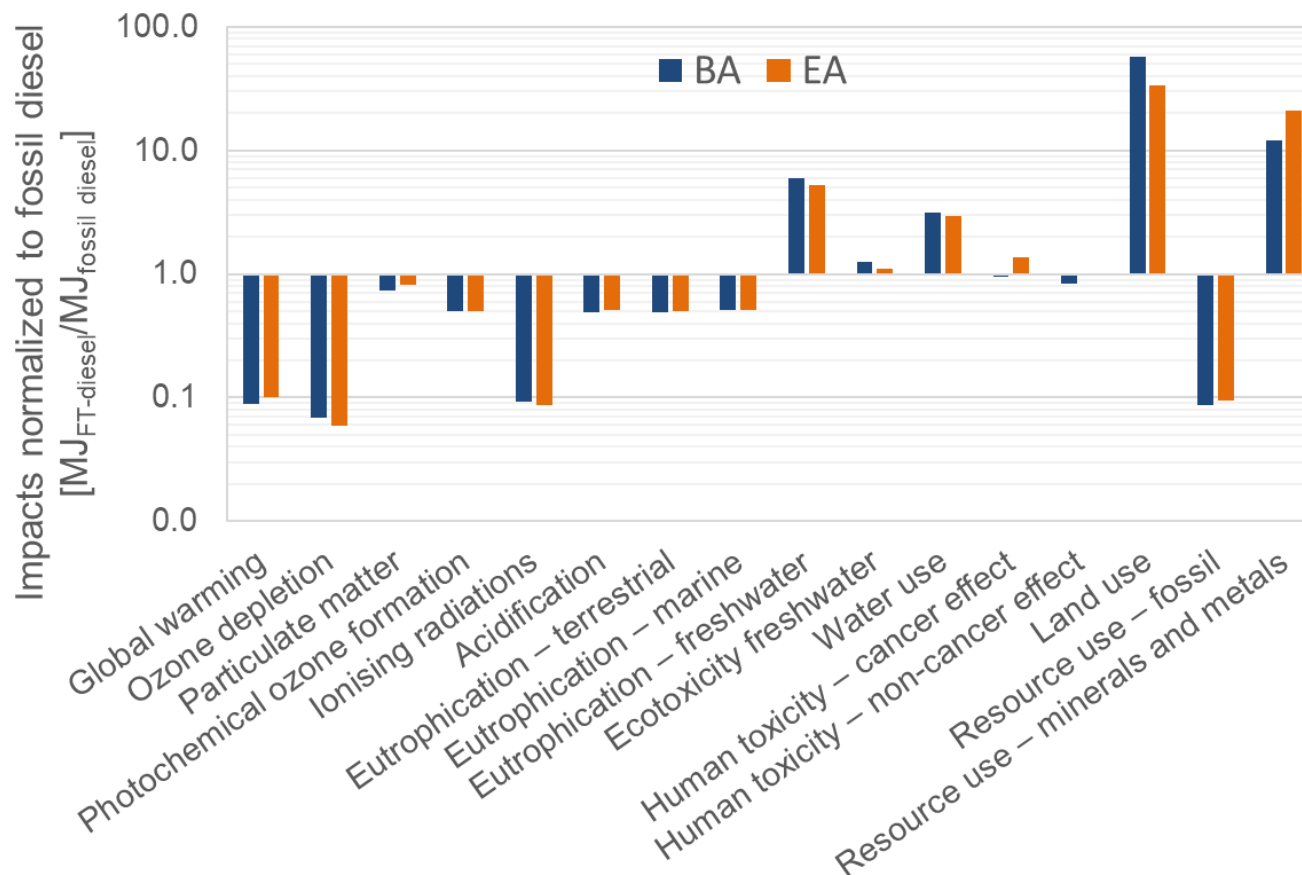
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Example 1: Where and how to produce SAF in Europe? At what cost?



Example 3: Environmental Impacts of renewable diesel



Example 2: Fuel cost and Global Warming Potential of Truck fleets

