



# DAY 1: Long-term vision for the industry (2050)

9.30 - 10.30 Registration and Welcome Coffee 10.30 - 10.45 Welcome and Opening Remarks 10.45 - 12.00 1. Keynote Speech, Martin Stuchtey, SYSTEMIQ 2. Refinery Safety and Virtual Reality Harald Hess, Chair of the · Concawe Safety Management Group and European Concawe Safety Downstream Oil Industry Safety Performance Management Group 12.00 - 12.35 · Focus on human performance · Virtual Reality in safety training Sam Vine, University of · Development of Virtual Reality Refinery Safety Training Tool Exeter & Toby de Burgh, · Effective learning and implementation Cineon Training 12.35 - 13.30 Lunch Break\*

### 3. Low Carbon Pathways and Refining Technologies (I)

- a) Introductory comments, John Cooper, Concawe
- b) A Clean Planet for all: EU long-term strategy options
  - Setting the scene: A look into the European strategic long-term vision for a climate neutral economy and the role of the refining industry, Marta Yugo, Concawe
- c) Refining 2020-2030
  - Exploring the future policy framework and potential opportunities for refineries, Chris Malins, Cerulogy
- d) Transport
  - · Impact analysis of mass EV adoption and low carbon intensity fuels scenarios, Nikolas Hill, *Ricardo*
  - · Challenges for sustainable aviation & opportunities, Ralph-Uwe Dietrich, German Aerospace Center

13.30 - 15.30

15.30 - 16.00

#### Coffee Break\*

16.00 - 18.00

- 3. Low Carbon Pathways and Refining Technologies (II)
  - e) Refinery 2050: Implications and challenges
    - ECORYS-coordinated project on perspectives for advanced biofuels in Europe, Rainer Janssen, *WIP Renewable Energies*
    - · Potential role of Power-to-X technologies, Christoph Gatzen, Frontier Economics
    - Concawe modelling exercise conceptual assessment, Marta Yugo & Damien Valdenaire, Concawe
    - A look into different business models to process low carbon feedstocks, Thomas Schrøder, *Novozymes*

19.00 - 20.00

Cocktail

20.00 - 22.30

Dinner

# DAY 2: Managing the transition

Understanding how the industry's long-term vision for low carbon liquid fuels will impact key areas of interest for Concawe.

8.30 - 9.00

### Registration and Welcome Coffee

9.00 - 10.30

- 4. Air Quality
  - · Clean Air communication and AAQD Fitness Check update, Thomas Henrichs, *DG Environment, European Commission*
  - Finding the right solutions: Concawe's NO<sub>x</sub>/NO<sub>2</sub> Source Apportionment Tool, Bino Maiheu, VITO
  - Understanding the Air Quality Limit Value setting process and associated compliance challenge, Les White, AERIS



10.30 - 11.00

Coffee Break\*

## 5. Leadership in REACH for Petroleum Substances REACH: a sustainable strategy for efficient compliance · Progress made with the evaluation of Petroleum Substances under REACH 11.00 - 12.30 from a regulatory perspective, Mike Rasenberg, ECHA 12.10-12.30 · Why science matters? Robin Nelson, Concawe Panel Discussion · New technologies to minimize animal testing on Petroleum and Q&A Substances under REACH, Hans Ketelslegers, Concawe 12.30 - 13.30 Lunch Break\* 6. Water Sustainability of Renewable Fuels, May Wu, Argonne National Laboratory, US 14.15-13.30 - 14.30 14.30 · Water Analysis Tool for energy resources Discussion and Q&A · Projecting water use of renewable fuels 14.30 - 15.00 Coffee Break\* 7. Maritime Transport: Overcoming the Fuels' Challenges • Results of ISO marine fuel compatibility study – test methods for marine fuels 2020 and beyond, Monique Vermeire, Chevron 15.00 - 16.30 • Impacts of particulate emissions from international shipping on climate, Chien Wang, MIT · Development of engines' technology: Decarbonisation of maritime transport, Sebastiaan Bleuanus, Wärtsilä

16.30-17.00

Conclusions

<sup>\*</sup> During each coffee and lunch break participants will have the opportunity to experience the Virtual Reality Refinery Safety Training Tool