



ONLINE CONFERENCE

ZERO CO₂ MOBILITY

NOVEMBER 10 – 11, 2020

Streamed
presentations
and live
discussions



Dear colleagues,

The European emission reduction goals, ratified in the COP21 Paris agreement, require major CO₂ emission reductions from the transportation sector through the year 2050. However, there are different ways to achieve these defossilization targets.

Increasingly, experts agree on the conclusion that, while propulsion system electrification is an important element of the solution, it is not the only approach to achieve CO₂-neutral mobility. When “well-to-wheel” rather than “tank-to-wheel” efficiency is considered, renewable alternative fuels become increasingly interesting as solutions.

Achieving a balanced fleet strategy requires focus on needs-based propulsion system solutions that assure sustainable and clean mobility. In this sense, a mixture of battery electric vehicles, some with range extender (BEV, REEV), e-vehicles with fuel cells (FCEV) and hybrids (PHEV, HEV) with synthetic fuels appears to be a promising combination.

Battery electric vehicles, charging times, battery production costs and real driving range have already been significantly improved. These elements

are becoming progressively more competitive, are already available in the market and will significantly continue to increased market share over the next several years. Fuel cell vehicles are under development and are expected to ramp up in market share in the late 2020s. For e-fuels, the path to market has to be fixed as soon as possible to contribute in minimizing CO₂ emissions with internal combustion engines.

Therefore, a clear and sustainable road map for the next years is becoming increasingly important. Market acceptance and thus economic success depend heavily on the development and funding of a functioning infrastructure for the different types of energy sources. As an important part of future mobility, the mandate also applies to legislators to support the production and utilization of e-fuels.

The conference “Zero CO₂ Mobility” brings together industrial as well as political strategists and experts on November 10th–11th, 2020 to present and discuss current trends and solutions.

With best regards

Prof. Dr.-Ing.
Stefan Pischinger
President and CEO of
FEV Group GmbH



TUESDAY, NOVEMBER 10

CONFERENCE HOST:

Christof Schernus, Vice President Business Development Research and Innovation at FEV Europe GmbH and Chairman of EARPA

08:10 Login phase (All times are Central European Time (CET))

08:30 Welcome speech: Four years Zero CO₂ Mobility conference Norbert Alt COO FEV Group

KEYNOTES

Session lead: Norbert Alt, FEV Group

08:45 View on Zero CO₂ Mobility from the German Ministry of Economic Affairs and Energy Thorsten Herdan Director-General, Energy BMWi

09:10 Global hydrogen initiative and fuel cell technology of Hyundai Kim Sae-Hoon Senior Vice President Hyundai

09:35 The way to carbon-neutral road transport – a long-term race over three decades! Stephan Neugebauer Director Global Research Cooperation at BMW ERTRAC

10:00 Q&A session

10:15 Break

WHAT IS THE FUTURE EUROPEAN CAPACITY ON RENEWABLE ELECTRICITY?

Session lead: Niklas von der Assen, RWTH Aachen University

10:30 Modeled costs of green hydrogen from solar photovoltaics Ian Sutherland Research Staff Member General Motors Research and Development

10:55 Methanol as a renewable import energy carrier: Results from the C3 Mobility project Felix Schorn Development Engineer FZ Jülich

11:20 Future role and challenges for multi-modal energy system operation Detlef Schulz Professor Helmut Schmidt University

11:45 Q&A session

12:00 Break

ENERGY SYSTEM: HOW WILL THE ENERGY BE CONVERTED, TRANSPORTED AND STORED IN THE FUTURE?

Session lead: Michael Bargende, University of Stuttgart

12:15 The role of renewable liquid fuels in 2030 and beyond – Possible scenarios for Europe Christian Küchen General Manager MWV

12:40 Hydrogen and efuels: development and implementation Alexander Tremel Project Manager Siemens

13:05 Synthetic Fuels – A complementary and immediate solution to meet EU carbon neutrality ambition Amer A. Amer Chief Technologist Saudi Aramco

13:30 Q&A session

13:45 Break

PANEL DISCUSSION: HOW TO GET EFUELS TO THE FUELING STATION? – BRINGING CLEAN FUELS TO THE ROAD

Panel host: Christof Schernus, Vice President Business Development Research and Innovation at FEV Europe GmbH and Chairman of EARPA

14:00 Development of the political framework for e-fuels Tobias Block Coordinator of Renewable Fuels VDA

Panelists:

David Bothe Associate Director Frontier Economics

Jürgen Hasler Head of Mobility and Logistics BDI

Günter Hörmandinger Director Agora Verkerswende

Christian Küchen General Manager MWV

Maurizio Maggiore Senior Expert General Research and Innovation EU Commission

15:30 End of the first conference day

WEDNESDAY, NOVEMBER 11

08:15 Welcome and summary of day one Norbert Alt COO FEV Group

KEYNOTE

08:30 Political framework as driver for alternative fuels and powertrains. How do we get investment and planning perspectives? Stefan Siegemund Director Deutsche Energie-Agentur

PASSENGER CARS: HOW CAN PASSENGER CARS GET TO ZERO CO₂ MOBILITY?

Session lead: Gaetano de Paola, IFP Energies Nouvelles

08:55 Quality and sustainability aspects of climate fuels Thomas Garbe Senior Manager Petrol and Diesel Fuel Volkswagen
09:20 The future of mobility requires technological openness Martin Krüger Senior Vice President Engineering, Market Segment Passenger Cars Bosch

09:45 Q&A session

10:00 Break

ADVANCED BATTERY SOLUTIONS

Session lead: Noshin Omar, ABEE

10:15 Decarbonizing batteries as key step for sustainable electric mobility Maximilian Schüler LCA Expert Volkswagen
10:40 Module & battery integration of all solid state lithium into cells – An outlook to what changes are expected Paul Schiffbänker Product Manager Electrification AVL
11:05 Battery development from the cell chemistry to pack testing Michael Stapelbroek Director Electronics and Electrification FEV Europe

11:30 Q&A session

11:45 Break

CONCEPTS FOR URBAN MOBILITY – PUBLIC TRANSPORT

Session lead: Ralf Weber, Volkswagen

12:00 Accelerating the energy transition in urban environments Bert van Mil COO Urban Mobility Systems
12:25 MOIA – Fully electric and shared mobility Christoph Ziegenmeyer Head of Communications for PR and Public Affairs Moia

12:50 Q&A session

13:05 Break

WHAT DRIVES TRUCKS AND OFF-ROAD APPLICATIONS TOWARDS A REDUCTION OF CO₂ EMISSIONS?

Session lead: Bruno Barciela, MAN Truck & Bus

13:20 Sustainable powertrains for off highway mobile machinery Markus Schwaderlapp Vice President Research and Development Deutz
13:45 Modular hydrogen fuel cell system for HD applications Ruud Bouwman/
Ewald Wahlmüller New Technology Specialist/
General Manager VDL/
ElringKlinger
14:10 Update on the road towards heavy duty fuel cell mobility Oben Uluc Director of Sales for Europe, Middle East, Africa and India regions Ballard
14:35 Hydrogen, e-fuels and biofuels – Many possibilities to make heavy duty applications CO₂-neutral Lukas Virnich Product Manager HD/MD FEV Europe

15:00 Q&A session

15:10 Concluding remarks and adjournment Norbert Alt COO FEV Group

15:20 End of conference

CONTACT INFORMATION AND REGISTRATION



Please contact us for further
information about Zero CO₂ Mobility:

Boris Benesch · [benesch\(at\)fev.com](mailto:benesch(at)fev.com)
Tel. +49 (0)241 5689 9836
www.fev.com/zero-co2-mobility



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