

PROGRAMME | WORKSHOP | 20 APRIL 2021

Reducing greenhouse gas and pollutant emissions in the transport sector is one of the greatest challenges for the next decade. Studies show that around one quarter of greenhouse gas emissions in the EU are accounted for by the transport sector, with an upward trend. All transport modes, including inland navigation, will have to contribute to reducing emissions. Reducing transport-related emissions is right at the top of the European Commission's agenda, as demonstrated by the recent publication of its "European Green Deal" and its strategic long-term vision for a climate-neutral European economy by 2050. In the Mannheim Declaration, the ministers of the CCNR Member States reaffirmed the objective of a 35% reduction in inland navigation greenhouse gas and pollutant emissions by 2035 compared with 2015, largely eliminating them by 2050.

For inland navigation vessels, it is anticipated that electric propulsion systems, and other technical solutions besides, will play a pivotal role in achieving these objectives. Batteries and alternative energy sources, such as fuel cells, for supplying these propulsion systems with electrical energy are already being trialled. Both technologies require a sufficiently developed shore-based infrastructure for supplying the required energy carrier. An adequate supply requires not just good infrastructure at the berth itself, for example in the form of bunkering or charging stations, but also adequate generation of environmentally friendly electrical energy or environmentally friendly energy carriers, together with an efficient transport network.

The workshop is dedicated to electrical propulsion systems that are supplied with electrical energy from alternative energy sources, such as fuel cells or batteries, and explicitly not to conventional fuel combustion. The workshop is intended to demonstrate that electrical propulsion systems will assume a pivotal role in achieving the objective of reducing pollutants and greenhouse gases in inland navigation. This requires the sharing of information on which technologies are already available or which are in development, and the technical, economic and organisational challenges to implementation that exist. The workshop is intended to identify targeted measures for supporting the energy transition and promote awareness of the fact that the inland navigation sector will in future require more electrical energy and alternative environmentally friendly energy carriers.

The workshop is intended for the following representatives and experts:

- Shipping industry
- Equipment manufacturers
- Energy generators and distributors
- Waterway infrastructure operators incl. cargo transfer terminals
- Other relevant national and international public and private institutions.

20 APRIL 2021

Online

CCNR workshop: "ALTERNATIVE ENERGY SOURCES FOR ELECTRICAL PROPULSION SYSTEMS IN INLAND NAVIGATION"

Please register via the following [LINK](#) (password: CCNR2021workshop)



PROGRAMME

Online workshop: “Alternative energy sources for electrical propulsion systems in inland navigation”

Chair: Marleen Coenen, Belgian delegation
Working languages: Dutch, English, French, German

9:00 *Connectivity testing*

9:30 **Welcome address**

Marleen Coenen

Chair

9:40 **Opening speech**

Michel-Etienne Tilemans

CCNR President and Head of Belgian delegation

9:50 **Overview of technologies for electric propulsion**

Khalid Tachi

EICB

Benjamin Friedhoff

DST

Q&A

BATTERY ELECTRIC – CASE STUDIES, OPPORTUNITIES AND CHALLENGES

10:20 **Case study: 100% electric – passenger vessel**

Jean Robert Perroches

Ducasse sur Seine

Case study: battery/hybrid – container vessel

Sebastiaan van der Meer

Sendo Liner

Q&A

10:50 *Coffee break*

11:25 **Case study: Combination of energy sources on board**

Martin Einsiedler

Shiptec

Creating a business case for electrically powered vessels

Anouk Meevis & Olivia van Roijen

ZES project

Q&A

12:00 *Lunch break*

HYDROGEN – CASE STUDIES, OPPORTUNITIES AND CHALLENGES

13:40 **Case study: Fuel cell hydrogen compressed – pusher**

Prof. Dr.-Ing. Gerd Holbach

Elektra

Integrated approach of the application of hydrogen in transport along Rhine-Alpine Corridor

Klaas van Staalduine & Marjon Castelijns

RH2INE project

Q&A

14:15 *Coffee break*

ENERGY DEMAND, SUPPLY CHAIN AND FUTURE NEEDS OF INLAND NAVIGATION

14:45 **Panel discussion**

Ludovic Laffineur

Hydrogen Europe

Daisy Rycquart

EBU/ESO/IWT Platform

Christian-Frédéric Berthon

EDF R&D

Marjan Beelen

Port of Antwerp

Erik Schumacher

Now GmbH

15:45 **Conclusions**

Daniel Mes

European Commission

Raphaël Wisselmann

CCNR

16:05 **Closing speech**

Marleen Coenen

Chair

16:15 *End of the workshop*