

## AGENDA

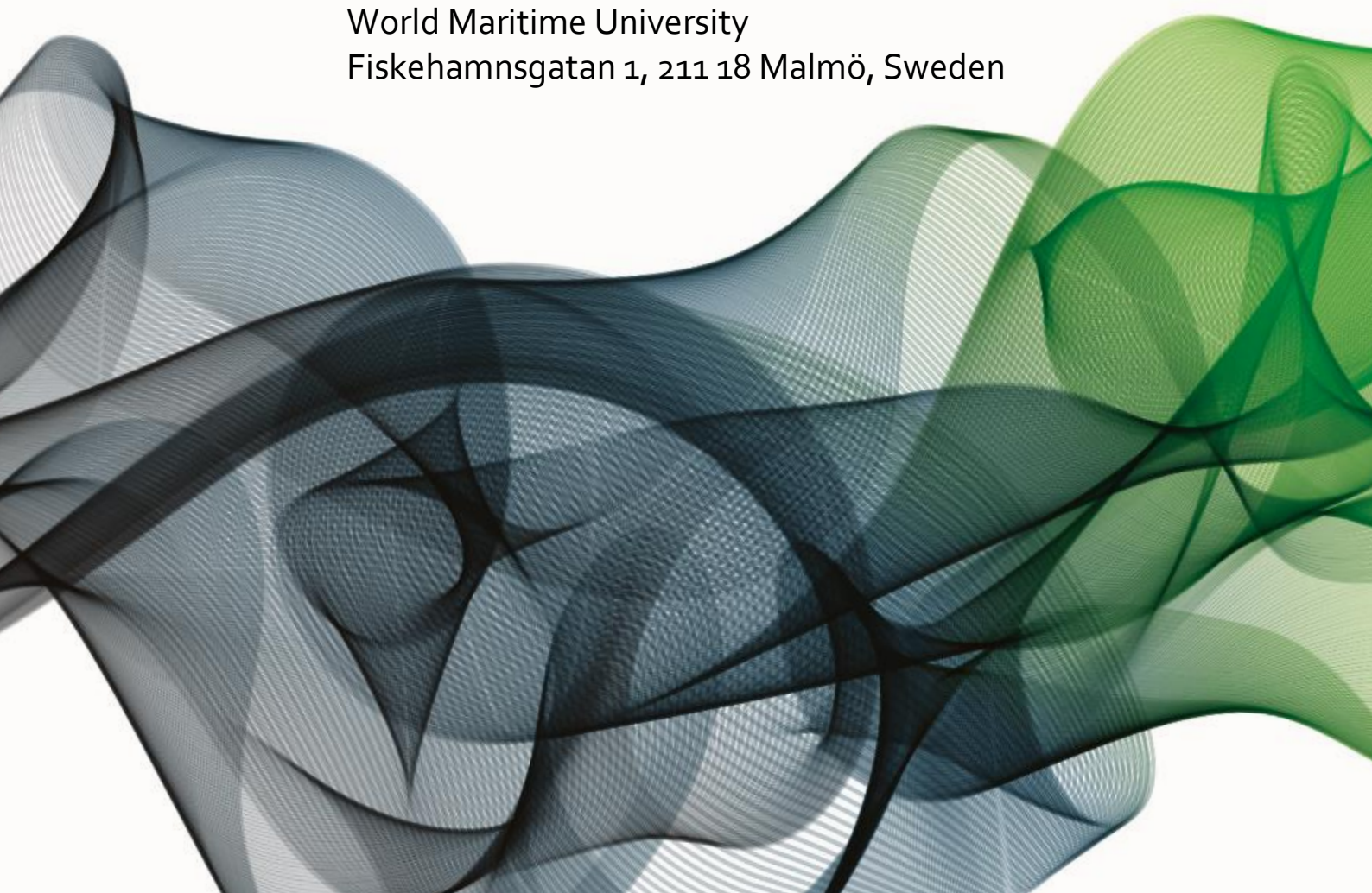
# Prospects for energy and maritime transport in the Nordic region

Achieving the goals of the initial IMO strategy on  
reduction of GHG emissions from ships

## EXPERT WORKSHOP

**26-27 February 2020**

World Maritime University  
Fiskehamngatan 1, 211 18 Malmö, Sweden



## ■ THE WORKSHOP

ITF, WMU and NER will organise jointly a workshop on “Prospects for energy and maritime transport in the Nordic region”.

The workshop will gather representatives from the government sector, the industry, civil society and academia to discuss the status and prospects of future developments with regards to energy use in the shipping sector, considering different options available to policy-makers and the industry to decarbonise the shipping sector and capitalising on the leadership of the Nordic region to analyse which technology options available and technically feasible or under consideration and, in particular:

- Evaluate the status of their adoption, looking at existing pilot/demonstration projects on low- and zero-emission enabling technologies used on ships, also considering the characteristics of the energy vectors that they require.
- Learn more about the performance of these technologies: whether and under which circumstances they could be zero-emission enabling, what is their cost profile, how different it is based on vessel type/mission profile, how it could evolve under different technology uptake scenarios and why.

The workshop will also be an opportunity to review stated government plans for future developments/policies aiming to influence the development of technologies for the maritime sector (with a specific attention on zero-emission enabling ones) and assess the implications of different policy choices for the different technologies considered to succeed.

The workshop will be closed (by invitation only) and discussions will be organised under the [Chatham House Rule](#) to encourage free debate.

The ITF and NER will publish a summary the conclusions from the workshop and, at a later stage, a Nordic Energy and Maritime Transport Outlook, taking into account of the inputs developed during the event. The time frame of the Outlook will target primarily technology and policy developments that can take place by 2030. The assessment and recommendations developed in the report will also need to consider the policy goals set out for mid-century, and therefore include indications that have relevance for the 2030 to 2050 time period. This report will feed into ITF’s Decarbonising Transport (DT) project.

The workshop will also provide inputs informing the development and direction of the Research Programme on Sustainable Maritime Fuels and Efficiency of the NER.

## ■ Getting there

World Maritime University is located in Malmö, Sweden. You can take a train from the railway station at Copenhagen Airport (CPH) to Malmö Central. Travel time is 25 minutes (<https://www.oresundstag.se/en/>).

## ■ Accommodation

See attached document for special rates at nearby hotels.

## ■ Registration

<https://www.eventbrite.com/e/prospects-for-energy-and-maritime-transport-in-the-nordic-region-tickets-89213839997>

## DAY 1 | 26 February 2020, 9:00 – 18:00

---

8:30 – 9:00      **Registration**

---

9:00 – 10:00      **Welcome and overview of workshop objectives and structure**

Welcome by WMU Vice-President Jens-Uwe Schröder-Hinrichs

- Introduction by Prof. Aykut Ölcer, Director of Research, WMU
  - Introduction to ITF and its Decarbonising Transport Initiative, Workshop background, objectives and structure: Olaf Merk, ITF/OECD
  - Introduction to NER and the Nordic Research Programme on Sustainable Maritime Fuels and Efficiency: Svend Søyland, NER
  - IMO policy context: Roel Hoenders, IMO
- 

10:00 – 11:15      **Session A – Technology focus**

**Part 1 – Vessel efficiency**

- The perspective of an academic: Tristan Smith, UCL
- The perspective of an analyst: Christopher Pålsson, Lloyd's List Intelligence

**Part 2 – Combining efficiency and fuel switching to move towards net-zero GHG emissions**

- *Going to Zero, Maersk's Plans for Net Zero Emissions Operations by 2050*: Anne Sophie Vinther Hansen, Møller-Maersk
  - The perspective of an engine manufacturer: Michael Jeppesen, MAN
- 

11:15 – 12:30      **Part 3 – Low- and zero-carbon energy vectors**

Overview of available options, Carlos Ruiz, IRENA

**Part 3.1 – Low-carbon energy vectors**

- Pros and cons of LNG: Kaj Portin, Wärtsilä
  - Biofuels for shipping: Rianne de Vries, GoodFuels
  - The view of shipowners: Fredrik Larsson, Sweship
- 

12:30 – 13:30      **Lunch break**

---

13:30 – 15:00      **Part 3.2 – Zero-carbon energy vectors**

- The role of hydrogen and synthetic fuels: Cedric Philibert, Independent (former IEA)
  - *Power-to-X and energy carriers for future carbon-neutral shipping*: Tue Johannessen, Møller-Maersk
  - Electrification of maritime transport: Cecilie Larsen, E-Ferry
  - Electric ferries: Anna Prytz, Forsea
- 

15:00 – 15:30      **Coffee break**

---

15:30 – 17:30

## Session B – Policy focus

### Part 1 – National policy frameworks

- Shipping in the Danish National Climate Plan: Maria Skipper Schwenn, Danish Shipping)
- The Finnish perspective: Ulla Lainio, Business Finland
- Shipping in the Swedish National Climate Plan: Rein Juriado, Swedish Transport Administration
- Maritime Research in Norway: Sveinung Oftedal, Specialist Director KLD, Norway
- Icelandic priorities: Sigurdur Ingi Fridleifson, National Energy Authority, Iceland

---

17:30 – 18:00

### Closing remarks

---

19:00 – 21:00

### Dinner at Restaurant Sture, Adelgatan 13

---

## DAY 2 | 27 February 2020, 09:00 – 12:30

---

8:30 – 09:00

### Welcome Coffee

---

9:00 – 10:15

## Session B – Policy focus

### Part 2 – Port operations, infrastructure and incentives

- Port call optimisation: Rene Taudal Poulsen, Copenhagen Business School
- Shore power/charging: Thor André Berg, Plug/ BKK
- Shore power systems: Allan Holm Jørgensen, PowerCon, Denmark
- The perspective of a port: Viktor Allgurén, Port of Gothenburg

---

10:15 – 11:30

### Part 3 – Facilitating clusters and R&D

Panel moderated by: Åsa Burman, Lighthouse project (Sweden)

Magnus Gary (ShippingLab Denmark), Fredrik Larsson (Swedish), Esa Lindquist (Business Finland), Cecilie Lykkegaard (Danish Maritime), Trond Moengen (Pilot-E Norway), Jon Skulason (NýOrka Iceland), Rune Volla (Norwegian Research Council )

---

11:30 – 12:30

### Conclusions and next steps

---

12:30 – 13:30

### Lunch

---

13:30 – 15:00

### Closed meeting Nordic research councils/financiers

---

## About the organisers:

### ■ INTERNATIONAL TRANSPORT FORUM

The [International Transport Forum](#) (ITF) at the OECD is an intergovernmental organisation with 60 member countries. It acts as a think tank for transport policy that covers all modes of transport. The ITF's mission is to foster a deeper understanding of the role of transport in economic growth, environmental sustainability and social inclusion and to raise the public profile of transport policy. The ITF acts as a platform for discussion of transport policy issues. It analyses trends, shares knowledge and promotes exchange among transport decision-makers and civil society.

### ■ WORLD MARITIME UNIVERSITY

The World Maritime University (WMU) was founded in 1983 by the International Maritime Organization (IMO), a specialised agency of the United Nations, as its premier center of excellence for maritime postgraduate education, research, and capacity building. The University offers unique postgraduate educational programs, undertakes wide-ranging research in maritime and ocean-related studies, and continues maritime capacity building in line with the UN Sustainable Development Goals.

### ■ NORDIC ENERGY RESEARCH

Nordic Energy Research (NER) is the platform for cooperative energy research and policy development under the auspices of the Nordic Council of Ministers. Nordic Energy Research funds research of joint Nordic interest that supports these ambitions by expanding knowledge on sustainable energy and contributing to the development of new, competitive energy solutions. Nordic Energy Research manages a number of projects and facilitates Ministerial working groups that provide input to energy technology policy-making in the Nordic region.

### ■ BACKGROUND

The Third IMO GHG Study 2014 estimated that international shipping emitted about 2.2% of the total global anthropogenic CO<sub>2</sub> emissions for that year, and that emissions from international shipping could grow between 50% and 250% by 2050 mainly due to the growth of the world maritime trade.

In April 2018, IMO's Marine Environment Protection Committee (MEPC) adopted an initial strategy that envisages a reduction in total GHG emissions from international shipping peaking as soon as possible and reducing the total annual GHG emissions by at least 50% by 2050 compared to 2008. At the same time, members should work towards phasing out CO<sub>2</sub> emissions entirely by 2100. The strategy includes a specific reference to "a pathway of CO<sub>2</sub> emissions reduction consistent with the Paris Agreement temperature goals".

Meeting the ambition of the initial IMO strategy on reduction of GHG emissions from ships is a formidable challenge. Succeeding against this goal will require that governments, industry and the research community act together to identify appropriate technologies and develop the policy tools allowing to reduce their costs and scale them up.

## ■ ITF DECARBONISING TRANSPORT INITIATIVE

The [ITF Decarbonising Transport \(DT\)](#) initiative seeks to help governments and aviation stakeholders translate climate ambitions into actions. The initiative gathers partners from ITF member countries, academia and the industry to track progress and evaluate the contribution of current mitigation measures to reaching CO<sub>2</sub> emissions reductions objectives. The DT initiative's main objectives are to:

- Develop in-depth sectoral and focus studies to identify effective policies for specific modes (e.g. road transport) and thematic areas (e.g. cities).
- Bring policies together in a catalogue of effective measures to support countries in developing their CO<sub>2</sub> emissions mitigation and reduction strategies in the transport sector.
- Support the policy dialogue, leveraging on extensive engagement with the United Nations Framework Convention on Climate Change (UNFCCC), including the ITF's designation as focal point for transport of the Marrakesh Partnership for Global Climate Action (MP-GCA).

Building on these discussions, the second phase the DT initiative will aim to establish common interest groups on low- and zero-emissions-enabling solutions, focusing on four mode-specific areas, including one on maritime transport.

This interest group will aim to respond to the challenge of moving towards the decarbonisation policy goal by:

- Bring together governments interested in learning from best practice.
- Facilitate dialogue among governments, the private sector, and other stakeholders.
- Enable access to expertise in each area from the ITF and its partners.

The interest groups will also provide input and updates to the ITF's catalogue of measures and analysis of the effectiveness of different policies.

## ■ NORDIC RESEARCH PROGRAMME ON SUSTAINABLE MARITIME FUELS AND EFFICIENCY

The Nordic countries share strong climate and energy commitments and are well placed to assume a leadership position in reducing the carbon footprint of maritime transport. On 25 January 2019, the Prime Ministers of Finland, Iceland, Sweden, Norway and Denmark signed the "Declaration on Nordic Carbon Neutrality" in which they commit themselves to work towards a carbon- neutral Nordic region.

The Nordic countries have strong presence in the maritime field both as owner/operators, ship designers/builders and providers of both associated hardware and software as well as fuels.

The declination of these ambitions for key sectors of the economy, including the maritime sector, have been translated in specific roadmaps, both Norway ([Handlingsplan for Grønn Skipsfart](#)) and Sweden ([Färdplan Sjöfartsnäringen](#)). The Danish Government has recently announced its intention to move in this direction.

Taking all these elements into account, the NER launched a Research Programme on Sustainable Maritime Fuels and Efficiency, inviting Nordic research consortia to submit pre-proposals by 20th September 2020. The research programme, is intended to complement rather than duplicate national R&D programmes, will be organized in two tracks considered to provide common interest for all Nordic countries;

- Alternative fuels and propulsion systems with low-carbon impact.
- Efficient and improved ship design.