

World Maritime University

The Maritime Commons: Digital Repository of the World Maritime University

Conference papers

Maritime Energy Research Group (MARENER)

3-6-2017

Bridging the LNG knowledge gap in the Baltic Sea region: the Go LNG initiative and the establishment of a competence centre

Dimitrios Dalaklis
World Maritime University

Aykut Ölcer
World Maritime University

Josefin A. Madjidian
World Maritime University

Fabio Ballini
World Maritime University

Momoko Kitada
World Maritime University

Follow this and additional works at: https://commons.wmu.se/marener_papers



Part of the [Transportation Commons](#)

This Conference Paper Open Access is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.

World Maritime University

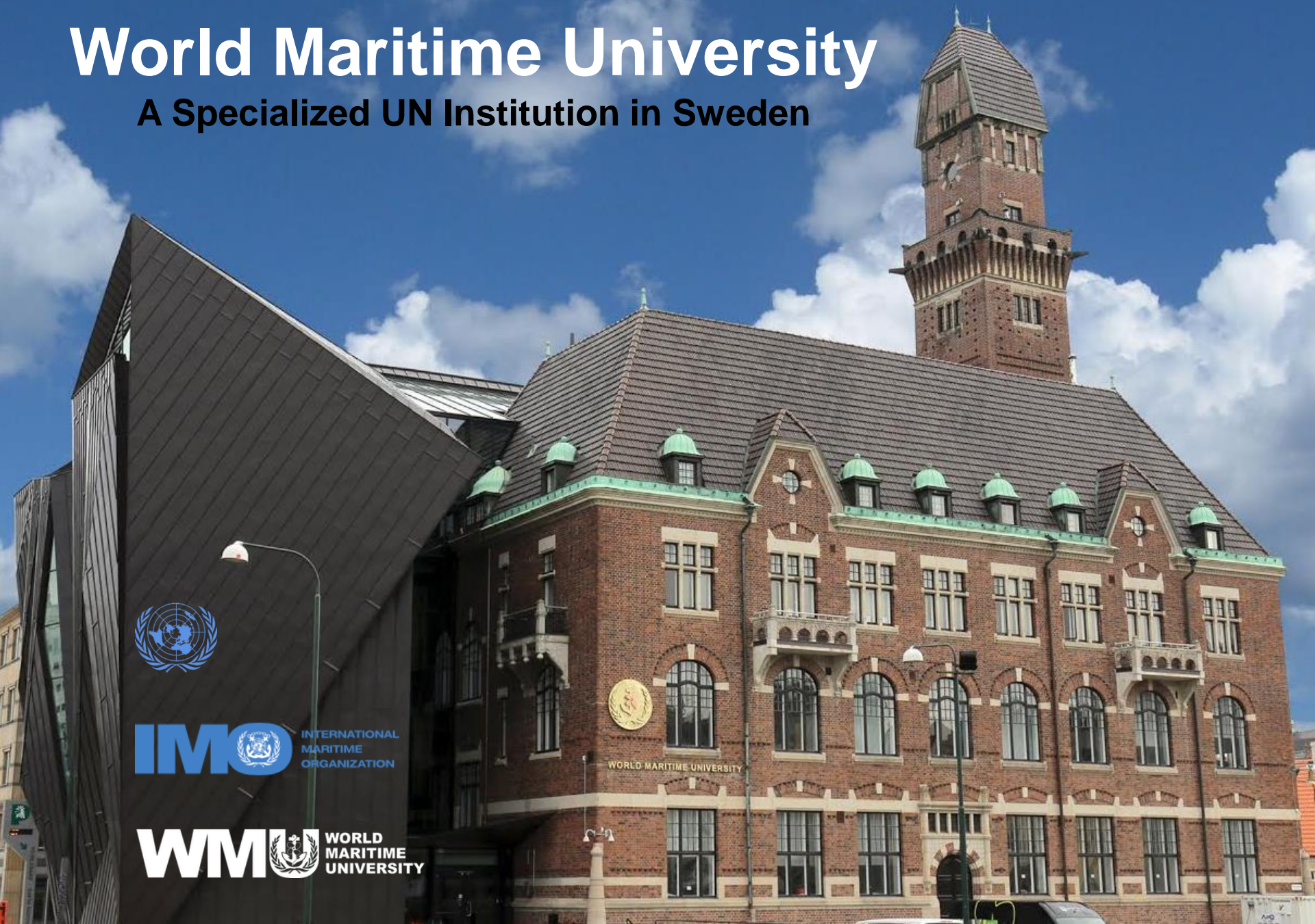
A Specialized UN Institution in Sweden



INTERNATIONAL
MARITIME
ORGANIZATION



WORLD
MARITIME
UNIVERSITY





BRIDGING THE LNG KNOWLEDGE GAP IN THE BALTIC SEA REGION: THE Go LNG INITIATIVE AND THE ESTABLISHMENT OF A COMPETENCE CENTRE

Dimitrios Dalaklis, Aykut Ölcer,
Josefin A. Madjidian, Fabio Ballini, Momoko Kitada



WMU's mission is to be the World Centre of excellence in postgraduate maritime and oceans education, professional training, and research, while building global capacity and promoting sustainable development.

Transport has its pros and cons...

clean clouds

Shipping is one of the most environmentally friendly modes of transport referring to emissions per tonnes of cargo

ship tracks—

BUT

increase in global shipping makes it a significant source of air pollution

Develops *global regulations* - maintain *safety* and *security* of *international* shipping and to *prevent marine pollution* from ships

Adopts instruments* (legislation) and *guidelines at the intergovernmental level

Member Governments are responsible for
implementing and enforcing the adopted regulatory framework

International Convention on Prevention of Pollution by Ships , **MARPOL 73/78**

Annex VI represents the regulatory framework tackling exhaust
gas emissions from ships

- prohibits deliberate emissions of ozone depleting substances
- sets progressive reductions (tiers) in emissions of sulphur oxides (SO_x), nitrogen oxides (NO_x) and particulate matter (PM)
- also introduces designated emission control areas with more stringent standards for above emissions
- ensures an energy efficiency standard for ships: (1) the Energy Efficiency Design Index (EEDI), for new ships, and (2) the Ship Energy Efficiency Management Plan (SEEMP) for all ships

The EMISSION CONTROL AREAS

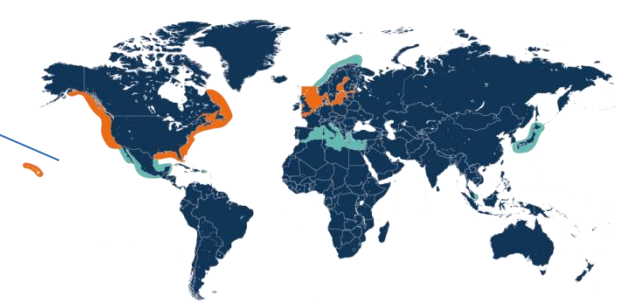
SECA / NECA

Baltic Sea (SO_x only)

North Sea (SO_x only)

North American area (SO_x, NO_x and PM)

United States Caribbean Sea area (SO_x, NO_x and PM)



In November 2016 IMO designated the North Sea and the Baltic Sea as NECAs, starting 1 January 2021



These regulations have and will continue to change the shipping industry's demand for alternative fuels!

....which in turn affects the fuel prices and the cost effective available technology and infrastructure

Liquefied Natural Gas

LNG is the most promising alternative shipping fuel technology in the short to medium term, specially for Short Sea Shipping and inland waterway transport



WHAT ABOUT THE BALTIC SEA REGION?



...for the maritime industry the question is no longer if LNG could be a solution to adhering to international regulations, but rather how much of the market will be replaced by LNG, and, importantly, how to best introduce LNG as the preferred fuel and make advancements...



www.golng.eu

20 main partners and 50 associated partners

2016-2019



EUROPEAN UNION
European Regional
Development Fund





BSR LNG
Business
Cluster



BSR Blue
Corridor
Strategy



BSR LNG
Competence
center



LBG in BSR



LNG bunkering
map



BSR LNG Competence Center...



... In order to facilitate a fast and safe deployment of LNG in the shipping sector, not only regulations and respective responses from the industry must be on track, but also sufficient education and capacity building of people that in various and different ways will be operating LNG.

This center will revolve around the partnership of the Go LNG project and the stakeholders connected to it, with the Maritime University of Szczecin, Poland, being the responsible partner. The partnership consists of 20 main partners and 50 associated partners spread across the Baltic Sea Region (BSR). The aim of the center is to offer LNG expertise through specialized and competitive training courses to the maritime industry on a global level. To enable a joint service the center will gather BSR-based LNG competence, knowledge, and specialized training facilities and research infrastructure in a well-functioning network that provides collaboration and management models.



WMU's Previous Experience...



www.golng.eu



You can follow the advancements of the project on www.golng.eu

Thank you very much for your attention!

