

European Parliament Intergroup

Seas, Rivers, Islands and Coastal Areas

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A green future for blue water

The challenge

The Waterborne response

Feasible strategy for RDI

NOW

FUTURE



The Green challenge

European Union

2018 A Clean Planet for all

Aiming at a carbon-neutral economy For maritime: 40% reduction of emissions in shipping by 2050 compared to 1990 levels (e.g. 2011 targets of the White paper on transport)

International Maritime Organization

2018 Initial Strategy on the reduction of **Green House Gas** emissions by 2050

 Aiming at 50% reduction of emissions by 2050 compared to 2008



Industry is moving based on existing technologies

Energy saving and reduction of carbon dioxide emissions (co₂)

Regulatory constraint

 Increasingly more energy efficient equipment and engines (e.g. EEDI index)



Technical solutions

hydrodynamic and propulsive efficiency; increasing efficiency of energy recovering systems

Reduction of harmful air emissions (e. g. **SOx**, **NOx**)

Regulatory constraint

MARPOL requires progressive reduction; ECA areas



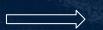
Technical solutions

- NOx reduction (catalytic muffler)
- SOx reduction ("Scrubber")
- Fuel switch (e.g. LNG), Batteries, Fuel Cells

Waste treatment

Regulatory constraint

MARPOL (Anneses I, IV, V)



Technical solutions

Onboard management of solid/liquid wastes



Relevance for Waterborne

Waterborne structure is based on 3 pillars:

- Ships and Shipping
- Blue Growth
- Ports and Logistics

Greening and **sustainability** are **transversal** issues impacting **society** and **environment**

This is one of the **main values** of the Waterborne community





Waterborne Green & Clean Vision

- To be the most **sustainable transport** mode
- No emission, noise and waste
- Exploiting renewables
- New logistic and mobility paradigms
- New business models



Waterborne Green & Clean Mission

- To strengthen the global **leading position** of the European sector
- To deliver and operate **competitive ships**
- To exceed:
 - o IMO **GHG** reduction goals
 - EU strategic long term vision
 - EU inland waterway action programme (NAIADES-II)
- To have **no emissions** in air and water
- To have **no impact** on people, flora and fauna
- To create **new** highly qualified **skills and jobs**



Waterborne Green & Clean target for new built ships

Zero emission inland shipping **Halving emission** in sea navigation

2030

Zero emission seaborne shipping

205C

It is therefore necessary to address:

- **Evolutionary** technologies (e.g. conventional fuels, filters) to have an impact on short terms
- Revolutionary technologies also based on new fuels (e.g. Fuel Cells) to make disruptive scenarios feasible on long terms



RDI-centred future

- EU maritime sector is world leader and a strategic asset for Europe
- **New challenges** ahead for the sector with greening as a **top priority**
- **Technological barriers** to be overcome
- Leveraging on RDI is the key factor of success
- Future competitiveness of the EU sector depends on
 - a focused RDI on green and clean technologies
 - a wider sectoral cooperation among EU stakeholders

