

Preserving our ocean: time to accelerate support towards a sustainable blue economy

The atmosphere and the oceans, two internationally shared common goods, are faced with the triple planetary crisis of climate change, biodiversity loss, and pollution. As the interplay between the ocean's declining health and the climate crisis are becoming more apparent, we need international cooperation and holistic approaches to tackle the impacts of climate change and ocean acidification on marine ecosystems, **now more than ever before**.

Implementing SDG 14 “*Conserve and sustainably use the oceans, seas and marine resources for sustainable development*”, UNOC 2025's overarching theme, requires acknowledging the critical roles of maritime transport in the global economy and the challenges it needs to overcome to achieve its sustainable transition. Representing over 80 per cent of the volume of world merchandise trade carried by sea, **shipping is a major engine of the ocean-based economy and the global economy and its decarbonisation of shipping must remain an urgent priority**.

With the approval of its Net-Zero Framework in April 2025, the International Maritime Organisation (IMO) achieved an important step towards reducing greenhouse gas (GHG) emissions from ships globally. It acts as a solid basis for a more sustainable maritime transport, **which now needs to be operationally implemented**.

We must strengthen the development and implementation of the international legal framework for the decarbonisation of maritime transport and ports, enabling innovation and leverage of all decarbonisation solutions, including electrification, transition fuels, alternatives fuels, hydrogen and sails.

Reducing GHG emissions in ports: speeding-up electrification of industrial port zones

At EdEn, we are convinced that we need to accelerate the electrification of port areas and that ports play a central role in the supporting the adoption of low-carbon fuels, the retrofit of older vessels with energy-efficient technologies, and expanding resilient infrastructures for clean fuels.

We need to promote **shore-side electrification to avoid port-related emissions, noise and vibrations**. Shore-side engines is estimated to account for 60% of port-related emissions: a major source of emissions that could be avoided by connecting ships to shore-side electricity grid to use cleaner sources of energy, also known as Onshore Power Supply (OPS). It is a powerful lever for decarbonising port infrastructures, provided that the energy mix used is low-carbon.



The use of **alternative engines for operating equipment** are also key to reducing emissions in ports, as a wide range of off-road mobile equipment (forklift trucks, cranes, tractors, loaders), and operating vessels (patrol boats, tugs or pilot boats), which still heavily rely on the use of fossil fuels, are used.

Ports can accelerate the decarbonisation process by **producing, storing, consuming and delivering alternative low carbon fuels** through alternative fuel bunkering facilities and services.

Reducing emissions from the shipping sector: supporting the use of low-carbon energy and alternative fuels

Maritime transport is one of the most energy-efficient modes of transport, but also a growing source of greenhouse gas emissions, which could increase by up to 130% of 2008 emissions by 2050, IMO projection shows.

At EdEn, we are convinced that decarbonising maritime transport requires the deployment of all the levers at our disposal. It is the complementarity of these solutions that will enable to cater for different needs and challenges. Decarbonisation will come from a diversity of solutions, including :

- **Electrification of ships** is a viable option for small vessels that can opt for battery-powered electric propulsion (aquaculture vessels, cruise ships) and small vessels in rivers or sheltered waters with recharging capacity and do not have high autonomy requirements (passenger or service vessels) and small distances like passenger travels across the channel.
- **Liquefied natural gas** will be key to decarbonising shipping on the short to medium term as it produces 15 to 25% less GHG emissions, 90% less NOx and SOx emissions and almost no particulate matter as compared to conventional marine fuels, all while being cost competitive.
- **Alternative fuels, including biofuels and synthetic fuels** (e-hydrogen, e-methane, e-methanol, e-ammonia) will be key to decarbonise marine propulsion on the longer term.
- The use of **wind power (conventional sails, rotor sails)**, combined with other marine propulsion, are an effective way to reduce fuel consumption and emissions without requiring a full-scale fleet overhaul, thus offering efficiency gains with minimal modifications.

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