MEDITERRANEAN ACTION PLAN (MAP)
REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN SEA (REMPEC)

Sixteenth Meeting of the Focal Points of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)

Sliema, Malta, 13-15 May 2025

REMPEC/WG.61/INF.22
27 March 2025
Original: English

Agenda Item 5: Implementation of the Mediterranean Strategy (2022-2031)

European Maritime Transport Environmental Report 2025 (EMTER 2025)

REMPEC
Malta, 2025

Note by EMSA

This document provides an overview of the content of the second edition of the European Maritime Transport Environmental Report (EMTER 2025).

Background

1 Following the publication of the first European Maritime Transport Environmental Report in 2021, the European Maritime Safety Agency (EMSA) together with the European Environment Agency (EEA) have published its second edition, EMTER 2025.

2 EMTER 2025 examines the progress made towards achieving Europe's decarbonisation targets and environmental goals, while indicating the most important trends, key challenges, and opportunities in the sustainability transition of the maritime transport sector.

Greenhouse gases

3 Maritime transport accounts for 3-4% of EU Carbon dioxide (CO_2) emissions, with nearly 13,000 ships emitting 137.5 million tonnes of CO_2 in 2022—an 8.5% increase from 2021. Five ship types contribute 80% of total emissions.

4 CO_2 emissions per tonne-kilometre declined by 7–21% (2015–2023) due to increased payload efficiency, though absolute emissions grew. Cruise ships emit 11 times more CO_2 per km than conventional passenger ships.

5 Maritime methane (CH_4) emissions now make up 26% of EU transport methane emissions, rising 2- to 5-fold since 2018, likely due to LNG-powered ships. Methane emissions reporting was introduced in 2024 under the EU Emission Trading System (ETS), with the first data release expected in 2025.

Air Pollution

6 Sulphur Oxide (SO_x) emissions in the EU have decreased by ~70% since 2014, according to 2023 model estimates. Shipping remains the largest source of transport SO_x emissions, but both its absolute emissions and share are declining.

7 The introduction of the International Maritime Organization (IMO) global sulphur cap contributed to this reduction, but the main driver was the introduction of Emission Control Areas (SECAs) in EU waters. On 1 May 2025, the Mediterranean will become the third SECA, joining the Baltic and North Seas.

8 Nitrogen Oxide (NOx) emissions rose approximately10% across the EU (2015–2023), with notable increases in the Atlantic, Mediterranean, and Arctic.

9 Data reported through the Convention on Long-Range Transboundary Air Pollution (LRTAP) shows that the maritime sector's NOx emissions accounted for 39% of total transport NOx emissions in 2022.

Water Pollution

10 Oil spill detection is highest in the North Sea and Mediterranean, driven by maritime traffic and illegal discharges. Possible pollution incidents detected by CleanSeaNet rose 58% in 2023, partly due to better satellite resolution.

11 Open-loop exhaust gas cleaning systems (EGCS) account for 98% of water discharges, with increasing scrubber water discharges since 2020 due to compliance with sulphur regulations.

12 Underwater radiated noise (URN) disrupts marine species, with high levels in the English Channel, Strait of Gibraltar, and Adriatic Sea. Tankers and cargo ships are primary contributors,

especially at low frequencies. Foresight analysis reveals that mitigation measures can reduce URN up to 70% by 2050 in certain EU regions.

13 Non-indigenous species (NIS) are mainly spread via hull fouling and ballast water, with shipping introducing 60% of NIS by 2017. By 2023, 31% of ships held an International Ballast Water Management Certificate.

14 Whale and turtle collision risks are rising in the Gibraltar region and Aegean Sea, while declining in the western Iberian Peninsula, Celtic Seas, and Black Sea.

15 Marine litter from shipping and fisheries makes up 13% of total marine litter. Port waste reception is increasing, with Rotterdam, Antwerp, and Copenhagen managing the highest volumes.

Supporting the sustainable transition

16 Under the European Green Deal, the Fit for 55 package extended the EU Emissions Trading System (EU ETS) to maritime transport. Shipping companies must surrender allowances for 40% of verified emissions in 2024, 70% in 2025, and 100% in 2026. In parallel, the FuelEU Maritime Regulation mandates a 2% GHG reduction by 2025, increasing to 80% by 2050, while also enforcing onshore power supply (OPS) by 2030 and supporting alternative fuel infrastructure

17 Alternative fuels and technologies are expanding, with methanol-powered ships, biofuels, synthetic fuels, ammonia, and wind propulsion under development. Battery-powered ships are increasing, with 1,083 in operation in 2023, and 44 ports offering OPS across 352 berths.

Future Challenges

18 Widespread adoption of alternative fuels and power sources requires major investment in infrastructure and training. Up to 800,000 seafarers may need training on new fuels and technologies by the mid-2030s. There is an urgent need for harmonised international guidelines for training on alternative energy sources.

19 Decarbonisation challenges include safety concerns and uncertainty over energy production meeting demand. Technological advances and regulatory frameworks (at both EU & IMO level) should address new pollution challenges

Next steps

20 While EMTER provides an EU-wide perspective, it also includes regional-level insights, with particular focus on the Mediterranean Sea. If there is interest in enhancing regional analyses, stakeholders are encouraged to provide input to support future in-depth assessments.

21 The report is available for download from: https://emsa.europa.eu/emter.

Actions requested by the Meeting

22 **The Meeting is invited to**:

.1 **take note** of the information provided in the present document; and

.2 **comment** as deemed appropriate.

****