

marine pollution

European Maritime Transport Environment Report

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EMSA



Sustainability, Competitiveness & Shipping





Maritime transport is a global enabler. Its transformation is essential to achieving climate, environmental, social, and economic goals.

EMTER



What?

- EMTER is a stock-taking exercise providing a baseline
- It is a factual report
- Focused on the EU dimension with a global perspective.

Who?

- Member State administrations
- Industry representatives
- Decision-makers
- Citizens

Why?

- Assess the maritime sector's environmental footprint.
- Support the Green Deal, Fit for 55, and transition process
- Highlight data gaps and R&D priorities
- Update the regulatory monitoring framework



Maritime transport sector

- **Trade**: 74% of EU imports and exports.
- Economy: Maritime Gross Value Added (GVA) 2021 = €44.3 billion. Ports GVA €29.5 billion.
- Employment Trends: In 2022 292,000 persons in maritime & 410,000 in ports sector.
- **EU-owned fleets** make up 30% of global GT, while EU-flagged ships account for 15% of GT.



Greenhouse Gas Emissions



 Carbon dioxide (CO₂) emissions in 2022 reaching pre-pandemic levels – 137.5M tonnes.
2023 emissions down to 126.7M tonnes.





CO2 emissions from the maritime sector and their share in total transport emissions between 1990 and 2022 in the EU-27. Source: UNFCCC (EEA, 20224).

 Sharp increase in methane (CH₄) emissions: 2 to 5 times from 2015 to 2023.

Air Pollution





SOx emissions for EU, 2014-2023. Source: STEAM (FMI, 2024).

• Nitrogen Oxide (NOx) emissions increasing – share reaching 39% in 2022.

 Sulphur Oxides (SOx) emissions decreasing – total reduction ~70% since 2014.



NOx emissions from the maritime sector (Gg) and their share in total transport emissions (%) 6 between 1990 and 2022 in the EU-27. Source: LRTAP, (2024).

Underwater Radiated Noise





- 2016-2024 sees increasing trend (+16%). Highest URN values in English Channel, Gibraltar, Adriatic, Dardanelles. Lowest in N-E Atlantic Ocean and southern Mediterranean Sea.
- Foresight analysis shows how some regions may expect up to a 70% reduction in Underwater Radiated Noise if all GHG and URN mitigation measures implemented.

2023 Sound pressure level maps for all ship types at 63 Hz. Source: EMSA, NAVISON (2024).

Oil Spills



- North Sea and Mediterranean Sea have the highest incidences of potential oil spills.
- While detections declined until 2022, they increased by 58% in 2023—yet only 5% were confirmed.
- Detection of smaller possible oil spills on the sea's surface higher than ever before:
 - 62% < 2 km²
 - 87% < 7 km²



Histogram of CSN Oil spill detections according to areas classes (km2) 2020-2023. Source: EMSA, CleanSeaNet (2024).

Marine Litter & Water Discharges





Temporal distribution of litter items likely originating from maritime activities, 'shipping' and 'fisheries and mariculture', by year. Source: EEA (2024).

> 98% of water discharges originate from openloop exhaust gas cleaning systems.

- 25% of litter originates from maritime: fisheries (11.2%) & shipping (1.8%).
- 50% decline in marine litter originating from maritime activities in the last decade.



charge waters from ships between 2014 and 202: Source: FMI, STEAM (2024).

EMTER 2025 and ahead





European Maritime Transport Environmental Report 2025

EEA-EMSA Joint Report 15/2024

Download: https://emsa.europa.eu/emter.html

Key facts and figures available in 24 languages!





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