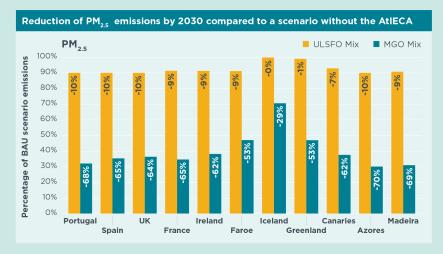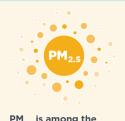# The North Atlantic Emission Control Area (AtlECA)

The proposed North Atlantic Emission Control Area (AtlECA) would establish stricter regulations on shipping aimed at reducing emissions of **sulfur oxides (SO$_x$), fine particulate matter (PM$_{2.5}$), and nitrogen oxides (NO$_x$). These pollutants are a major cause of premature death and disease.**

In a scenario where ships use distillate fuels such as **marine gas oil (MGO)** instead of **ultra-low sulfur fuel oil (ULSFO)** to comply with the Emission Control Area (ECA), **PM$_{2.5}$ emissions from shipping would be reduced by more than 60%** in the territorial seas of Portugal, Spain, the UK, France, and Ireland; and by **29%–53%** in Iceland, the Faroe Islands, and Greenland compared with a Business-As-Usual (BAU) scenario without ECA regulations. **Portugal is set to lead the charge with a remarkable 68% reduction.**

Reduction of PM$_{2.5}$ emissions by 2030 compared to a scenario without the AtlECA

PM$_{2.5}$

ULSFO Mix   MGO Mix

Percentage of BAU scenario emissions

Country	ULSFO Mix	MGO Mix
Portugal	-10%	-68%
Spain	-10%	-65%
UK	-10%	-64%
France	-9%	-65%
Ireland	-9%	-62%
Faroe	-9%	-53%
Iceland	-0%	-29%
Greenland	-1%	-53%
Canaries	-7%	-62%
Azores	-10%	-70%
Madeira	-9%	-69%

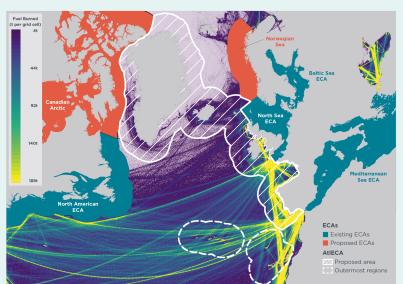**PM$_{2.5}$ is among the most dangerous pollutants as it can affect our lungs and blood system, causing cardiovascular and respiratory diseases and cancers.**

» The AtlECA could become the largest Emission Control Area in the world, covering about **5.05 million km^2** of the North Atlantic.

» MARPOL specifies the criteria for designating an ECA.

Fuel burned in 2021 by shipping in the proposed AtlECA

Fuel Burned (t per grid cell)
4t
44t
92t
140t
189t

Norwegian Sea

Canadian Arctic

Baltic Sea ECA

North Sea ECA

North American ECA

Mediterranean Sea ECA

ECAs
Existing ECAs
Proposed ECAs
AtlECA
Proposed area
Outermost regions

Key findings

» The biggest reductions in emissions can be achieved when ships use **distillate fuels** such as **marine gas oil (MGO)** to comply with the Emission Control Area.

» Using **ultra-low sulfur fuel oil (ULSFO) or heavy fuel oil (HFO)** with scrubbers is **not as effective** at reducing sulfur oxides, particulate matter, or black carbon.

» In 2030, Tier III standards will reduce expected NO$_x$ emissions by about 3% below the Business-As-Usual (BAU) scenario if they apply only to ships built in 2027 or later. A gradual reduction in emissions is expected with fleet turnover. When all ships are retrofitted with Tier III standards, this option would lead to a **potential reduction of up to 71% of NO$_x$ emissions**.

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