



CLIMATE-NEUTRAL MARITIME CONNECTIVITY BETWEEN EUROPE AND ASIA

PLAMEN TONCHEV

Share of Shipping in Asia-Europe Trade (2017)



- **Maritime routes** (incl. intermodal transport): approx. **96%** of the volume (in metric tonnes) and close to **70%** of the value (in USD) of cargo.
- **Air cargo**: less than **2%** of volume, but nearly **30%** of value.
- **Railways**: **1%** of volume, slightly more than **2%** of value.
- **Road**: **1%** of volume and nearly **1%** of value.

Source: United Nations Economic Commission for Europe (UNECE)

Share of Asia and Europe in Global Commercial Fleet



TOP 10 SHIP OWNING NATIONS 2019

*All values in USD Millions

	GRAND TOTAL	BULKER	TANKER	CONTAINER	REEFER	SMALL DRY	LNG	LPG	OSV	OCV	MODU
GREECE	\$105,227	\$37,430	\$38,396	\$7,693	\$180	\$233	\$18,404	\$2,751	\$50	\$90	-
JAPAN	\$94,721	\$40,780	\$19,434	\$10,113	\$513	\$3,534	\$15,264	\$4,072	\$34	\$175	\$802
CHINA	\$90,873	\$33,332	\$20,535	\$17,293	\$182	\$3,465	\$5,754	\$2,045	\$1,520	\$999	\$5,748
SINGAPORE	\$49,966	\$11,280	\$16,452	\$10,154	\$23	\$915	\$488	\$3,955	\$2,580	\$1,939	\$2,181
NORWAY	\$48,854	\$6,091	\$12,025	\$2,451	\$136	\$648	\$4,466	\$2,544	\$3,179	\$5,474	\$11,842
USA	\$44,519	\$6,916	\$14,110	\$4,089	\$123	\$237	\$1,648	\$460	\$5,084	\$2,321	\$9,530
GERMANY	\$31,460	\$6,455	\$3,218	\$16,417	\$176	\$3,337	\$549	\$1,163	\$92	\$53	-
SOUTH KOREA	\$30,007	\$10,769	\$8,789	\$5,659	\$183	\$715	\$2,573	\$1,218	\$6	\$95	-
UK	\$29,028	\$3,047	\$3,277	\$5,268	\$119	\$285	\$4,153	\$1,827	\$678	\$1,739	\$8,635
DENMARK	\$23,028	\$2,021	\$4,929	\$8,988	\$0.5	\$311	\$1,718	\$756	\$646	\$578	\$3,081

Key Negative Effects of Shipping on the Marine Environment



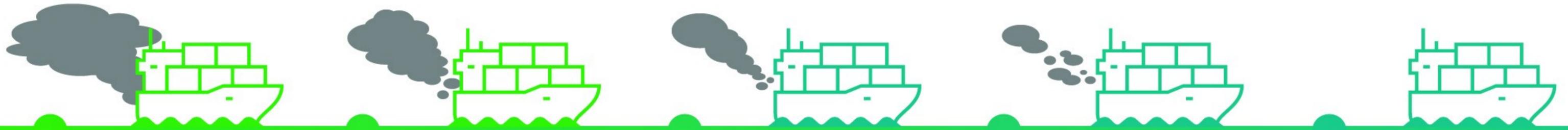
- (i) Ballast water pollution;
- (ii) Transfer of biological material, including invasive alien species;
- (iii) Release of oil and chemicals, including accidental oil spills;
- (iv) Dumping of waste, such as garbage and sewage;
- (v) Noise pollution;
- (vi) Air pollution, through the emission of greenhouse gases (GHG).

IMO Climate-Related Milestones



Sailing toward zero-emission container shipping

The International Maritime Organization (IMO) has introduced rules aimed at reducing harmful sulfur oxide (SO₂), carbon dioxide (CO₂), and other greenhouse gas (GHG) emissions from ships.



2018

IMO adopts initial strategy to reduce GHG emissions

Sets a series of GHG emissions reduction milestones through 2050.

2020

Low-sulfur fuel mandate

Reduces the limit for sulfur content of fuel oil used in ships to 0.5 percent from 3.5 percent, effective Jan. 1, 2020.

2023

Short-term decarbonization deadline

Requires finalized short-term measures to reduce CO₂ emissions by 2023.

2030

Mid-term decarbonization deadline

Mandates an average 40 percent reduction in CO₂ emissions per transport work by 2030 compared with 2008 levels.

2050

Long-term annual GHG reduction deadline

Requires a 50 percent reduction in total annual GHG emissions by 2050 and encourages efforts to phase out GHG emissions completely.

Impact of IMO GHG Reduction Policies on Fuels in Shipping



Starting from January 2020, shipping companies:

- Have to stop using fuels with a sulphur content above 0.5%, compared to the previous 3.5% ceiling.
- Can now burn very low-sulphur fuel oil (VLSFO) or marine gas oil (MGO)
- Can install emissions-cleaning devices (scrubbers) to continue using high-sulphur fuel oil (HSFO).

Impact of COVID-19 on Maritime Connectivity Between Europe and Asia



Key developments amid the pandemic:

- Record drops in cargo and fuel demand;
- Switch from scrubbers to VLSFO;
- Low fuel prices – disincentive for technological & operational improvements as well as reduced fuel consumption.

Asia-Europe Climate-Neutral Connectivity: Policy Areas to Be Considered (1)



Wide array of issues to be taken into account, e.g.:

- Necessary investment in ships (13%) and land-based infrastructure (87%), such as port facilities, refineries and the bunker industry, etc.;
- Role of banks in climate-compliant lending;
- Verification/enforcement mechanism of IMO GHG-reduction policy.

Asia-Europe Climate-Neutral Connectivity: Policy Areas to Be Considered (2)



Sine qua non conditions in decarbonising maritime connectivity:

- Strong political commitment in both Europe and Asia (e.g. debate on shipping in the EU emissions trading system);
- Difficult but necessary deal to be struck with the shipping industry;
- Technological developments alone are not enough - the right (smart) mix would have to include both technological innovation and appropriate policies.