



Cem MELİKOĞLU, Chairman of TÜRK LOYDU
24.01.2017 WMU

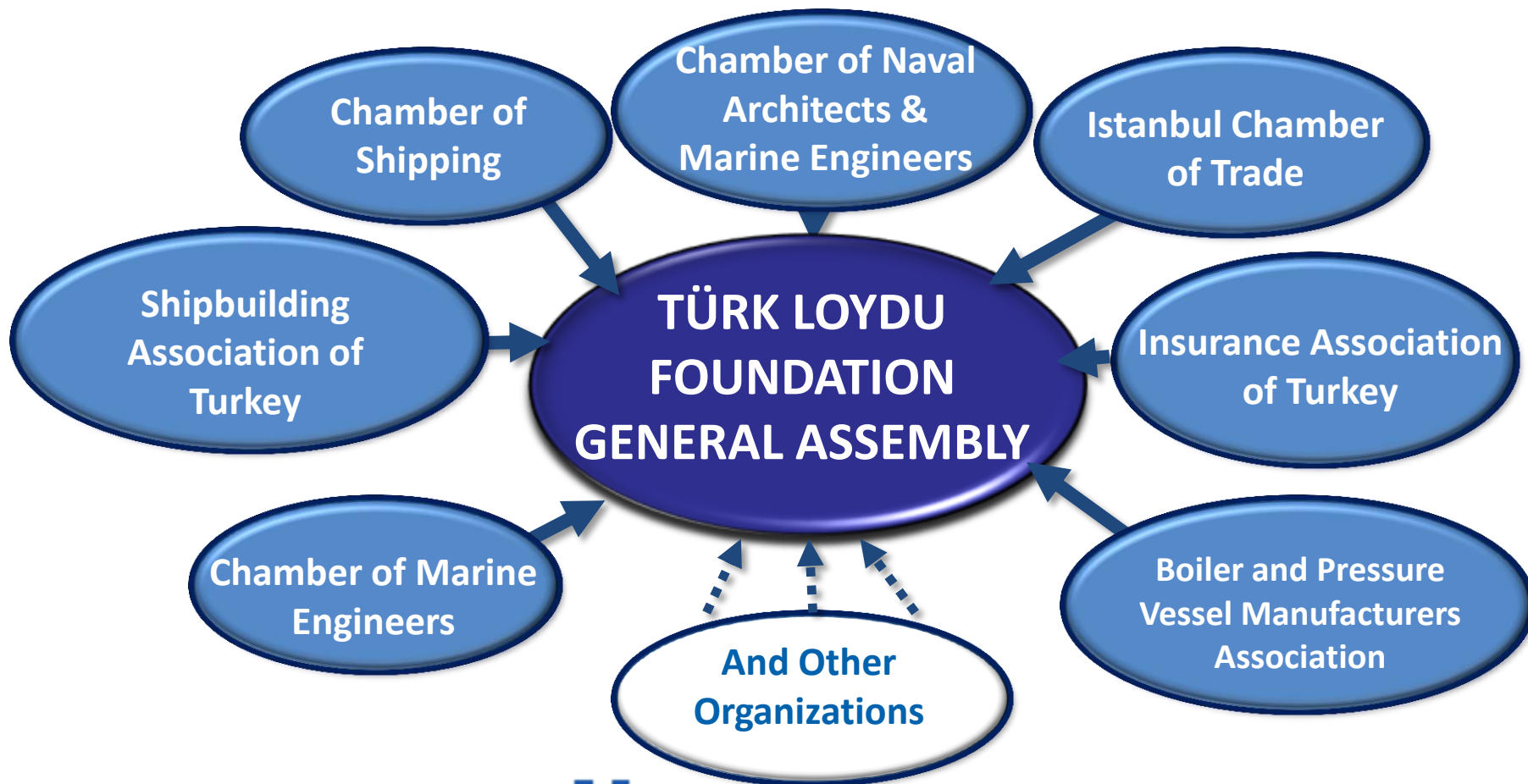


TÜRK LOYDU



TÜRK LOYDU FOUNDATION

TÜRK LOYDU was founded by Chamber of Naval Architects & Marine Engineers with the support of Association of Insurance & Reinsurance Companies in 1962. Turk Loydu General Assembly consists of delegates from;



TÜRK LOYDU

WE NEED OCEANS NOW MORE THAN EVER:

72% of our world is covered in water, and the ocean's health directly affects our own.

Over 70% of the world's oxygen is coming from the oceans.



Oceans control our climate by absorbing half of all man-made CO₂.

2000

RECORD FOR DEEPEST RECORDED DIVE

3000

MAX. DEPTH FOR A MILITARY SUBMARINE

3280

MAX. DEPTH LIGHT CAN PENETRATE

3770

MAX. DEPTH A SPERM WHALE WILL TRAVEL

5000

G+

in



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MAPPING OCEAN WEALTH

COASTAL BLUE CARBON

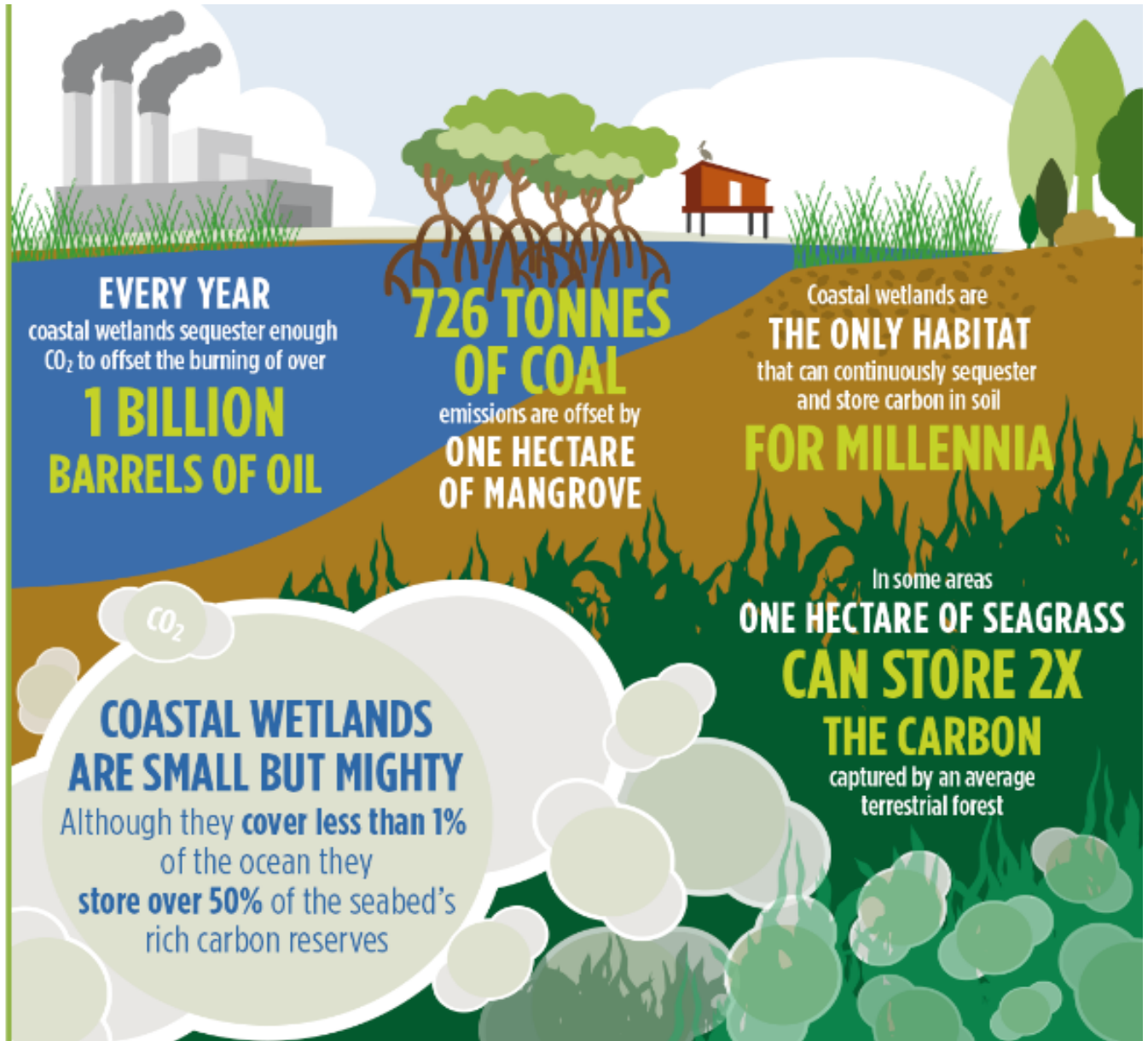
Coastal wetlands – seagrass meadows, salt marshes and mangroves – provide one of the most effective natural solutions for carbon capture and long term storage on the planet.

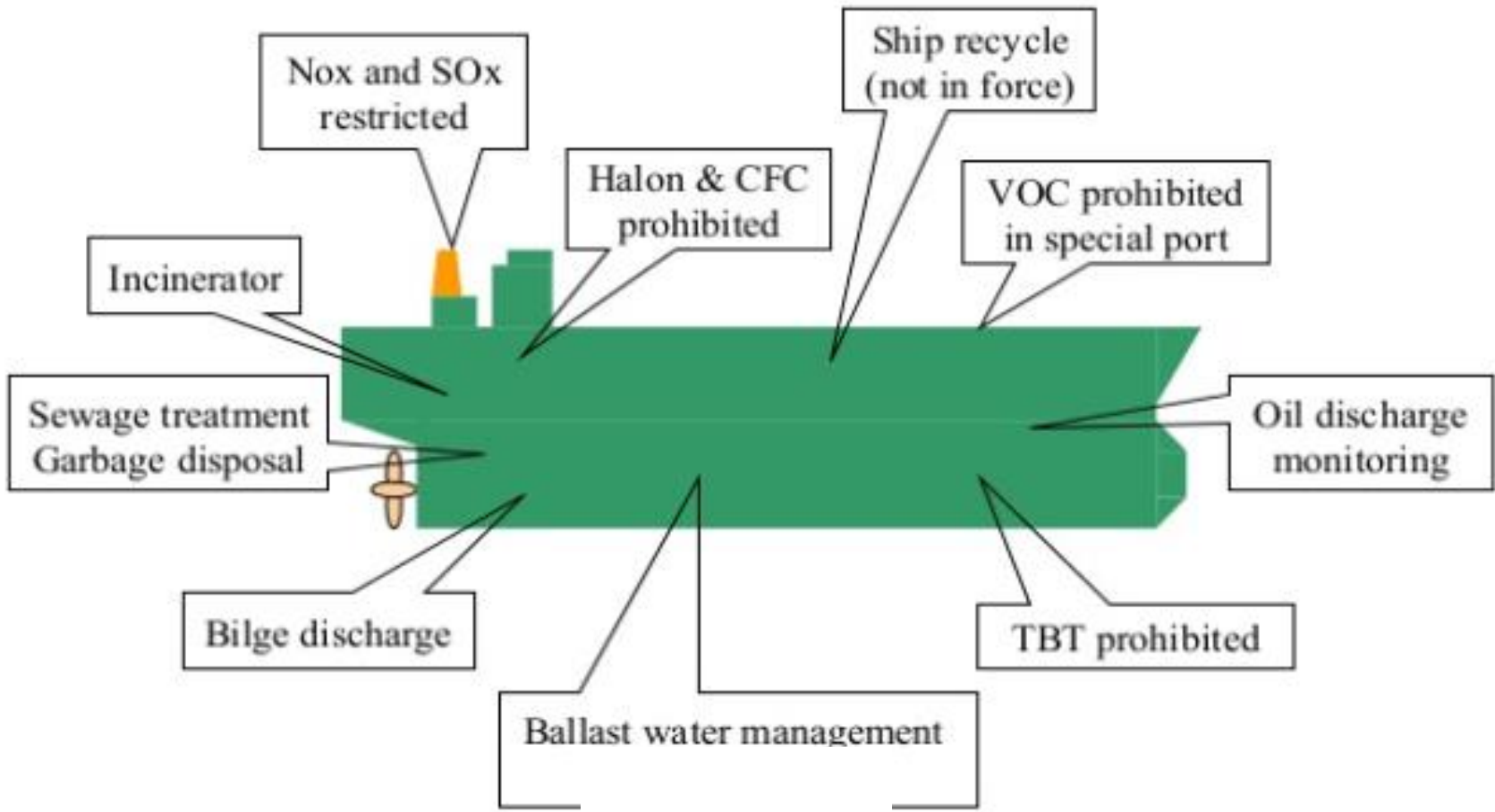
Polcymakers, Industry and coastal practitioners should begin now to preserve and restore coastal wetlands because of their climate mitigation and market potential for the benefit of local communities and economies.

Mapping Ocean Wealth demonstrates what the ocean does for us today so that we maximize what the ocean can do for us tomorrow.

oceanwealth.org @ocean_wealth

The Nature Conservancy







Some Side Effects of Ballast Water Operations



- Balloon Fish moved from Indian Ocean to Turkish Coasts.
- This fish has high poison effects and threatening other fish types and natural habitat.
- Even cats are not eating it.



Some Results of Oil Spill/ Environmental Pollution



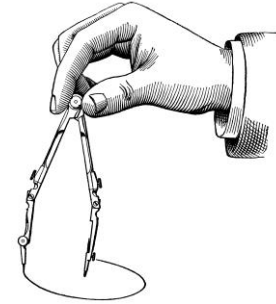
- On 12 January 2017 we faced in Marmara Sea with an oil pollution from a fuel storage leak from one of the facility
- More than 20 Million people are living around Marmara Sea.



**INTERNATIONAL
MARITIME
ORGANIZATION**



**Classification
Societies**



Universities

Marine Industry

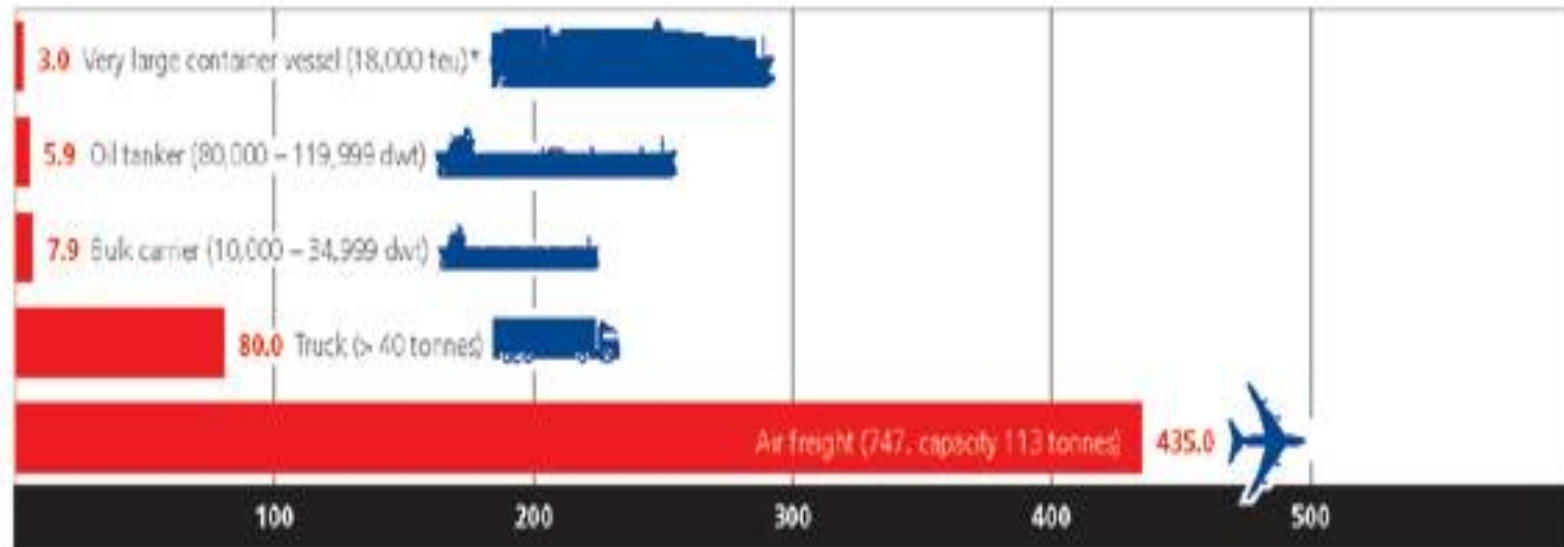
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Third IMO GHG Study 2014 CO₂

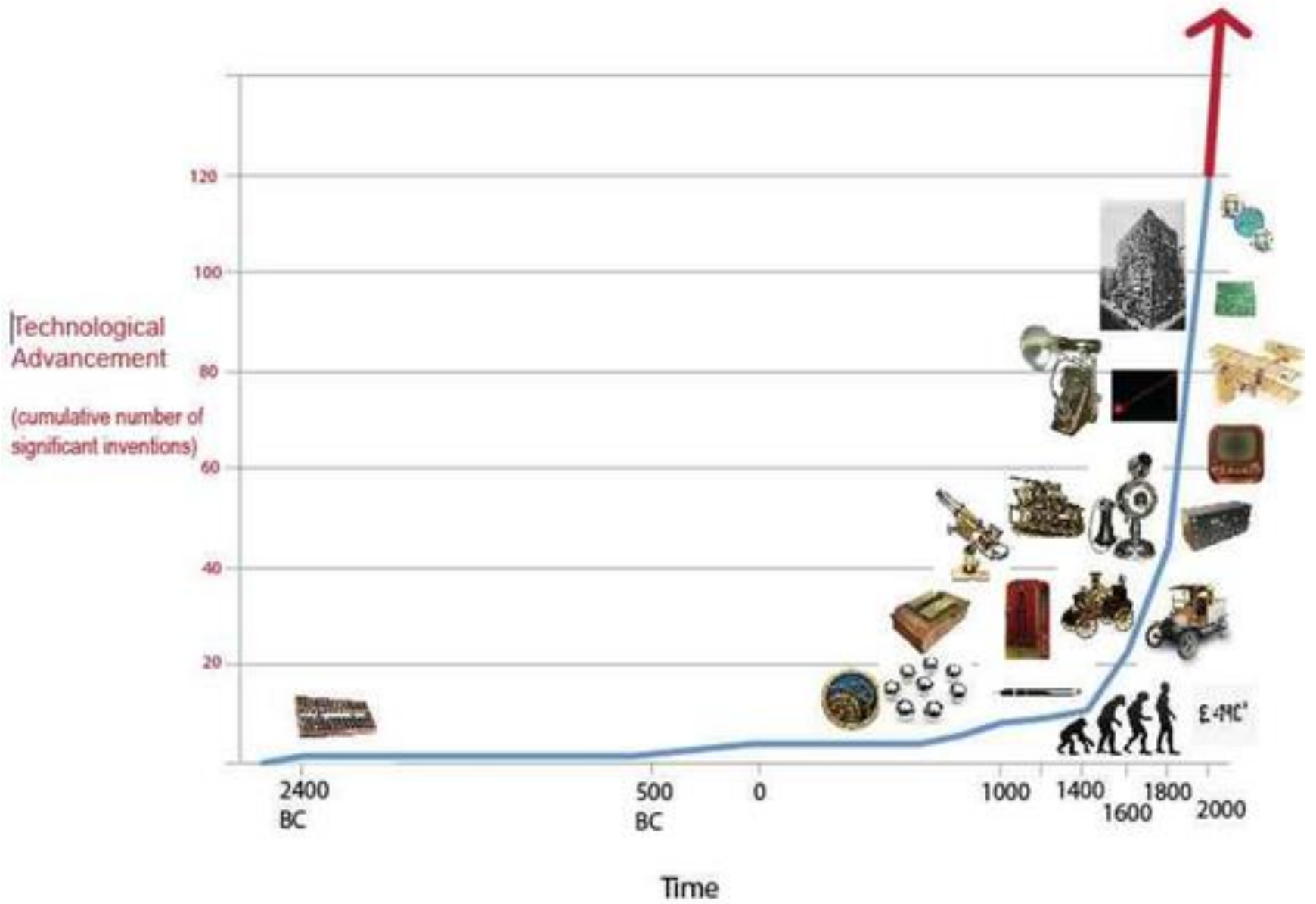
Year	Global CO ₂ ¹	Total shipping	% of global	International shipping	% of global
2007	31,409	1,100	3.5%	885	2.8%
2008	32,204	1,135	3.5%	921	2.9%
2009	32,047	978	3.1%	855	2.7%
2010	33,612	915	2.7%	771	2.3%
2011	34,723	1,022	2.9%	850	2.4%
2012	35,640	938	2.6%	796	2.2%
Average	33,273	1,015	3.1%	846	2.6%

COMPARISON OF TYPICAL CO₂ EMISSIONS BETWEEN MODES OF TRANSPORT

Grams per tonne-km



Source: IMO GHG Study, 2009 (*AP Moller-Maersk, 2014)



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Operational

Weather routing **1-4%**
Autopilot upgrade **1-3%**
Speed reduction **10-30%**

Auxiliary power

Efficient pumps, fans **0-1%**
High efficiency lighting **0-1%**
Solar panel **0-3%**

Aerodynamics

Air lubrication **5-15%**
Wind engine **3-12%**
Kite **2-10%**



Thrust efficiency

Propeller polishing **3-8%**
Propeller upgrade **1-3%**
Prop/rudder retrofit **2-6%**

Engine efficiency

Waste heat recovery **6-8%**
Engine controls **0-1%**
Engine common rail **0-1%**
Engine speed de-rating **10-30%**

Hydrodynamics

Hull cleaning **1-10%**
Hull coating **1-5%**
Water flow optimization **1-4%**

Figure 1: Potential fuel use and CO₂ reductions from various efficiency approaches for ships (International Council on Clean Transportation (ICCT), July 2013). Long-term potential for increased shipping efficiency through the adoption of industry-leading practices.



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Thank You