

## SHIPPING AS THE MOST EFFICIENT FREIGHT INDUSTRY, YET POLLUTING

- 90% of world trade is carried by the international shipping industry
- Shipping is responsible for 11% of the world transportation CO2 emission today
- World trade is expected to double by 2050
- Shipping is to account for 17% of world total CO2 emission in 2050 without action

## REGULATIONS WILL BE ENFORCED BY IMO



- 2020 – Sulphur Cap down from 3.5% to 0.5%  
➔ Maritime fuel price to double
- 2030 – 40% CO2 reduction requirement\*
- 2050 – 70% CO2 reduction requirement\*

### European parliament agrees CO2 emissions target for shipping

7 July 2020

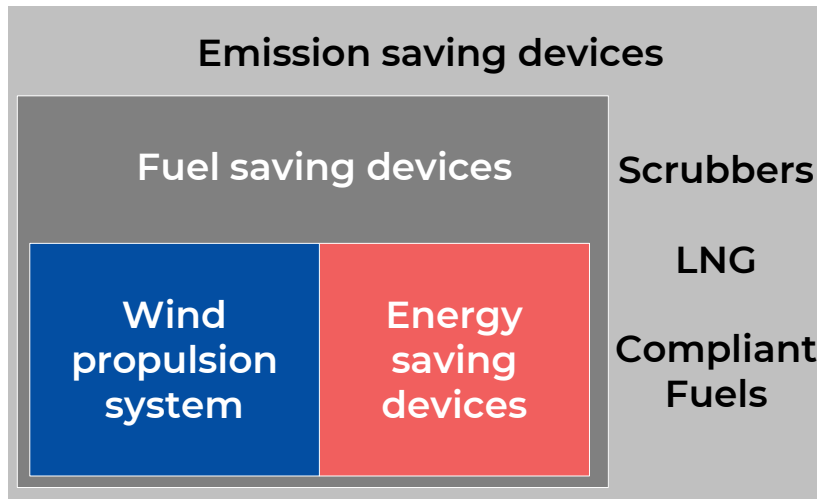
**“Our goal is to start reducing CO2 emissions by 2030, and achieve carbon neutrality by 2060,” said Chinese President Xi Jinping. 22 Septembre 2020**

\* Per unit and compared to 2008 level

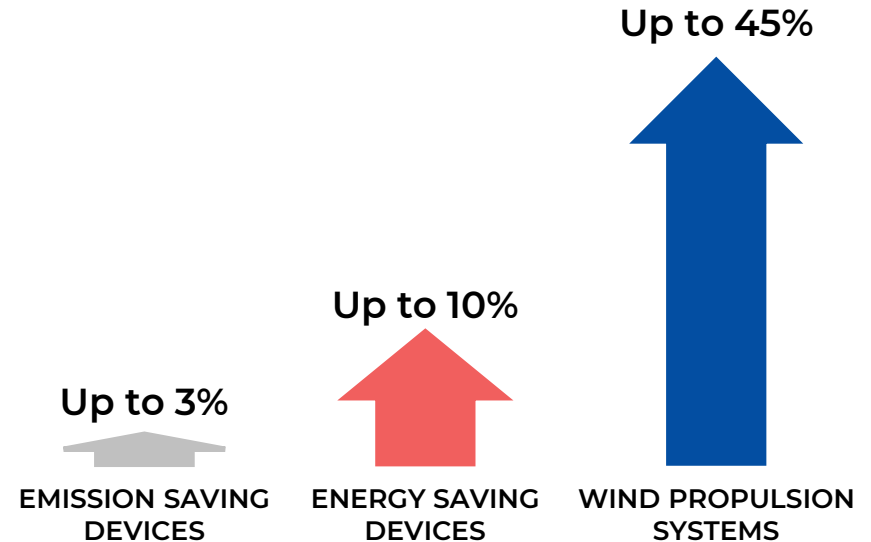
# WIND PROPULSION NECESSARY PART OF THE ANSWER



## LEVERS TO REDUCE EMISSION



## PERCENTAGE OF EMISSION SAVINGS



*The use of wind propulsion technology onboard a product tanker vessel could take us to a new playing field, CTO, Maersk Tankers.*



*Wind Propulsion is part of our Roadmap, CMA CGM*



*Wind-assist propulsion is one of the few technologies potentially offering double digit fuel savings today, Lloyd's Register*

# WHY IS WIND PROPULSION BACK IN SHIPPING ?

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**Simulation Technologies allow for holistic approach and precise evaluation at design stages**



**Control Technologies allow for optimized and safe system behavior**



**Manufacturing Technologies allow for realistic design-to-cost approach**

# THE MOST ADVANCED WIND PROPULSION SYSTEM FOR MARITIME SHIPPING

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FROM CUTTING-EDGE SAILING TECHNOLOGY  
TO A COMPETITIVE INDUSTRIAL ANSWER  
FOR THE INTERNATIONAL SHIPPING INDUSTRY

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