

# Driving Maritime Talent through the Marine Energy Transition

François Lambert  
Directeur Général



# What is ENSM ?



# HISTORY

- First **School of Hydrography**, created by Charles IX in Marseille in 1571
- **Creation of Ecole Nationale Supérieure Maritime (ENSM):** 2010
- **Public** scientific, cultural and professional **establishment** (EPSCP)
- Grand établissement, teaching and research missions
- Ministry of the Sea and Fisheries
- Head office in Le Havre

# 1 SCHOOL, 4 LOCATIONS

*More than 60 000 hours of classes/ year*

## I BASIC TRAINING (FI)

- High school + 5 Engineer
  - Sailing Engineer (dual purpose)
  - Marine Engineer
- High school + 3 (Bridge ou Engine)
- I VOCATIONAL TRAINING (FP)
- Navigating officers

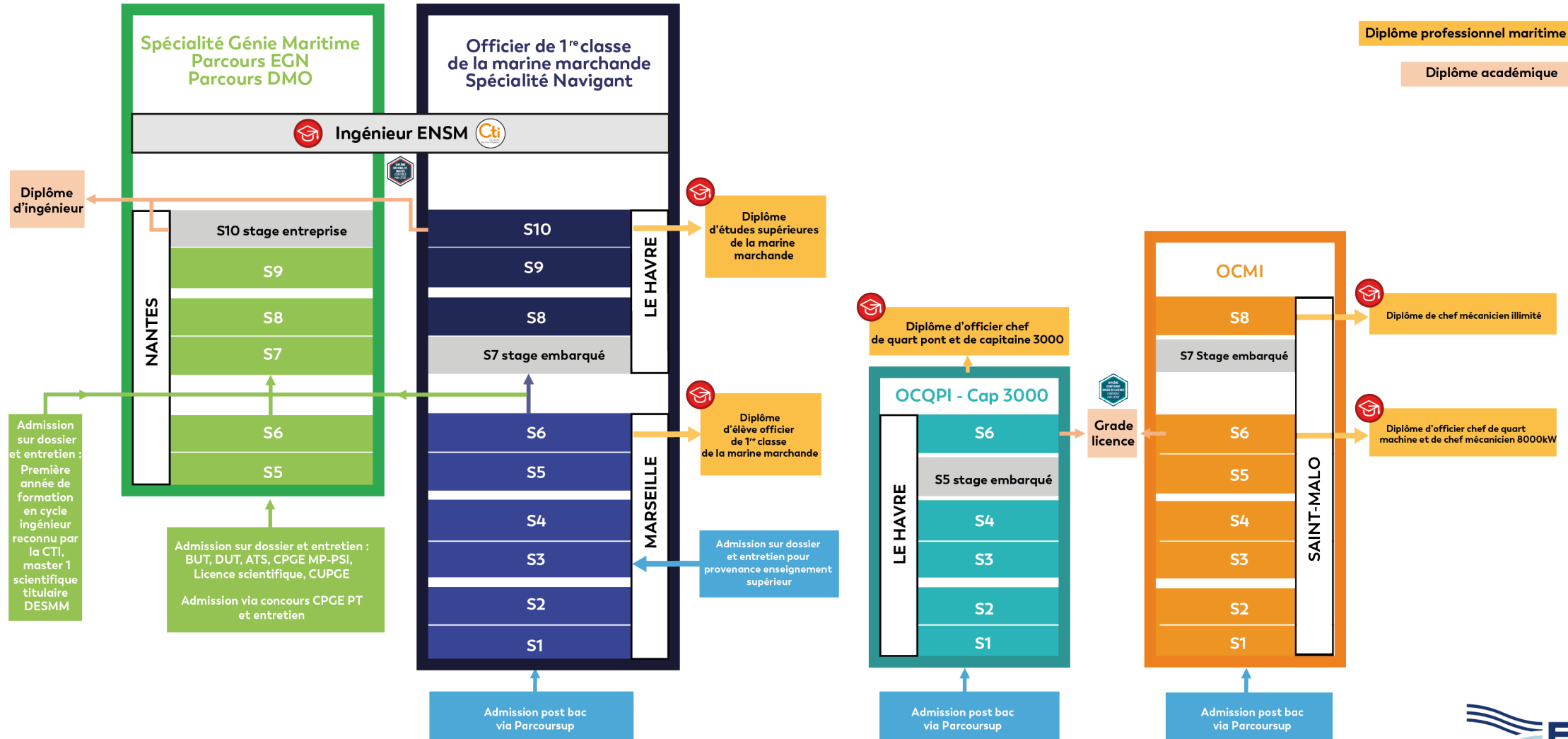
## I CONTINUING TRAINING (FC)



# TRAINING COURSES

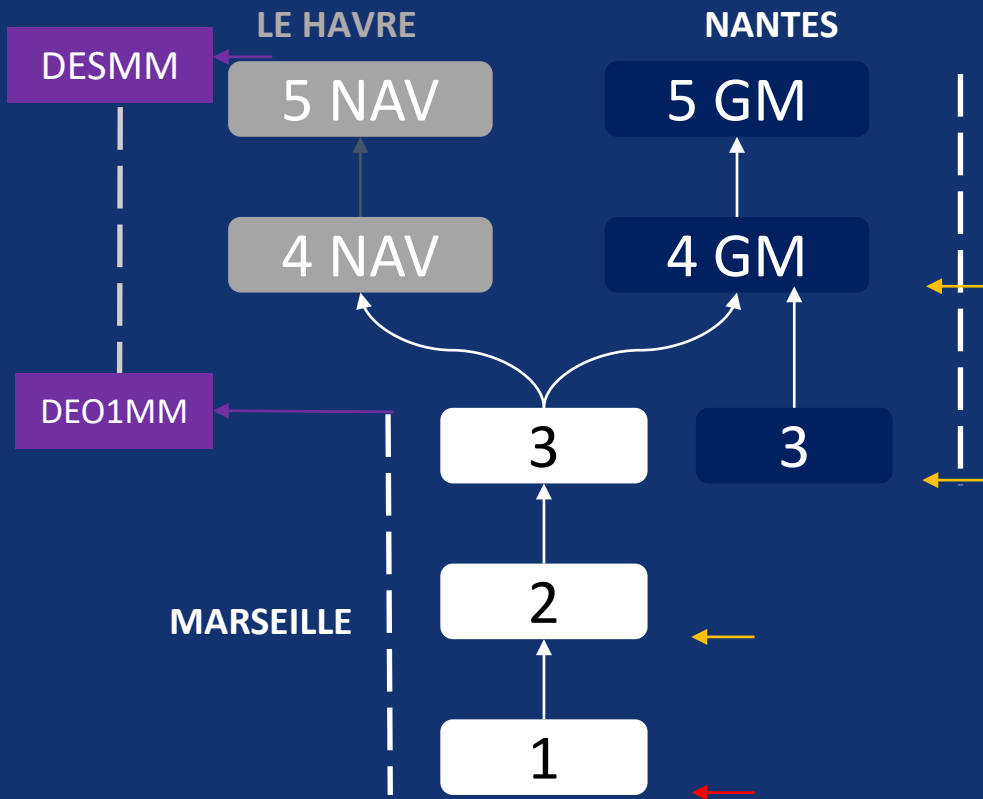
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# 4 FORMATIONS INITIALES





# INGÉNIEUR ENSM



# High school + 5 Engineer

## BASIC TRAINING

1 Engineer diploma, 2 courses :

### Sailing Engineer (dual purpose)

Diplôme Etudes Supérieures Marine Marchande

On-board ship internships, including a full semester 7 during 4<sup>th</sup> year

Location : Marseille 3 years + Le Havre 2 years

### Marine Engineer

- Eco Ship Management (EGN)
- Deployment and Maintenance of Offshore Systems (DMO)

Internships, including a full semester 10 at the end of 5<sup>th</sup> year

Location: Nantes

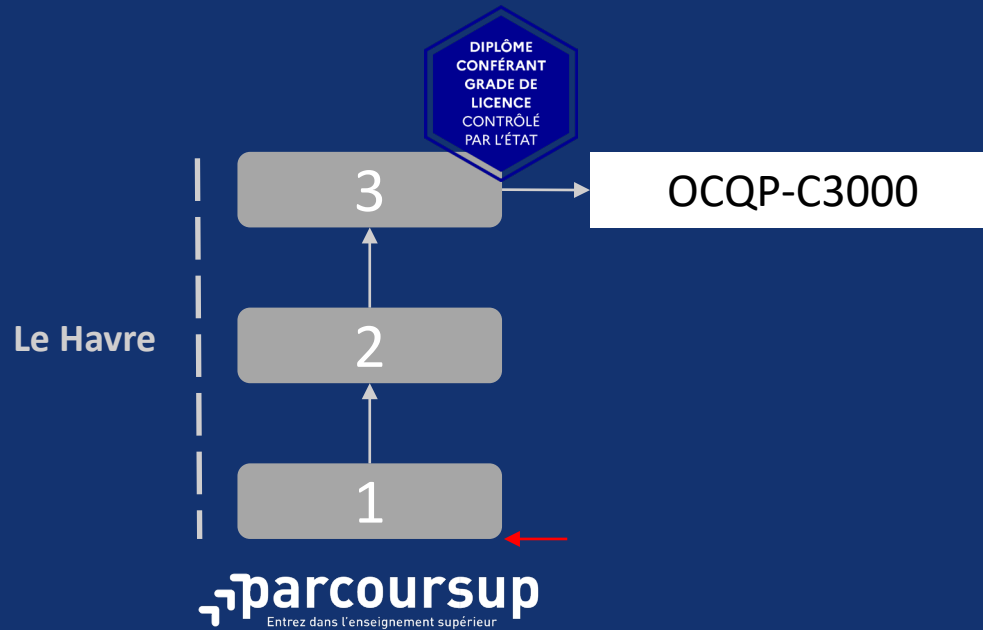
# Monovalent Bridge Officer

*BASIC TRAINING*

## Officier Chef de Quart Passerelle / Capitaine 3000

Location : Le Havre

On-board ship internships, including full semester 5 during 3<sup>rd</sup> year





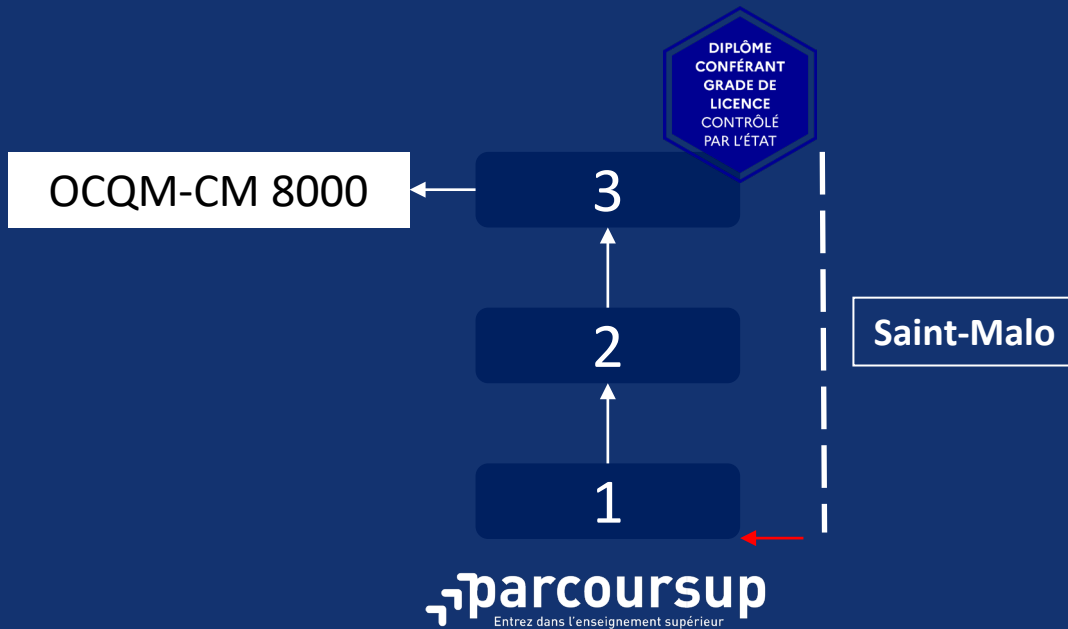
# Monovalent Engine Officer

*FORMATION INITIALE*

**Officier Chef de Quart Machine**  
**Chef Mécanicien 8000**

Location : Saint-Malo

**On-board ship internships available**



# EDUCATIONAL EQUIPMENTS





Equipment adapted to international maritime regulatory requirements (STCW) on the various ENSM sites.

## **I SIMULATORSS**

navigation, engine, loading, ...

## **I SHIP-IN-SCHOOL**

## **I WORKSHOPS**

Electric and diesel engines, Coupling benches, ...

## **I EDUCATIONAL INNOVATION**

Pédagolab, Navirothèque

## **I CESAME**

Sea Rescue and Survival Center

# STUDENT LIFE





## I STUDENT OFFICES (Burals)

- Livening up student life
- Keeping merchant navy traditions alive
- One bural per site

## I ACTIVITIES BY SITE

- Merchant Navy galas and student parties throughout the year
- Associative activities (orienteering, Laser Game, Olympiads, running races, regattas)
- Choir and sea chanteys



# 10 GOOD REASONS TO COME TO ENSM

**N°1 -Crew spirit**

**N°2 -Openness to the world / cultural richness**

**N°3 - Career prospects and development and rapid assumption of responsibility**

**N°4 - Strict wage equality between men and women**

**N°5 - Attractive salaries**


**N°6 - Managerial responsibilities based on the values of our time: energy transition, combating psycho-social risks, etc.**

**N°7 - Contributing to national sovereignty (French merchant fleet)**

**N°8 - The most beautiful office in the world and the opportunity to live anywhere in the world**

**N°9 - Up to 6 months' vacation per year**

**N°10 - Year-round travel**



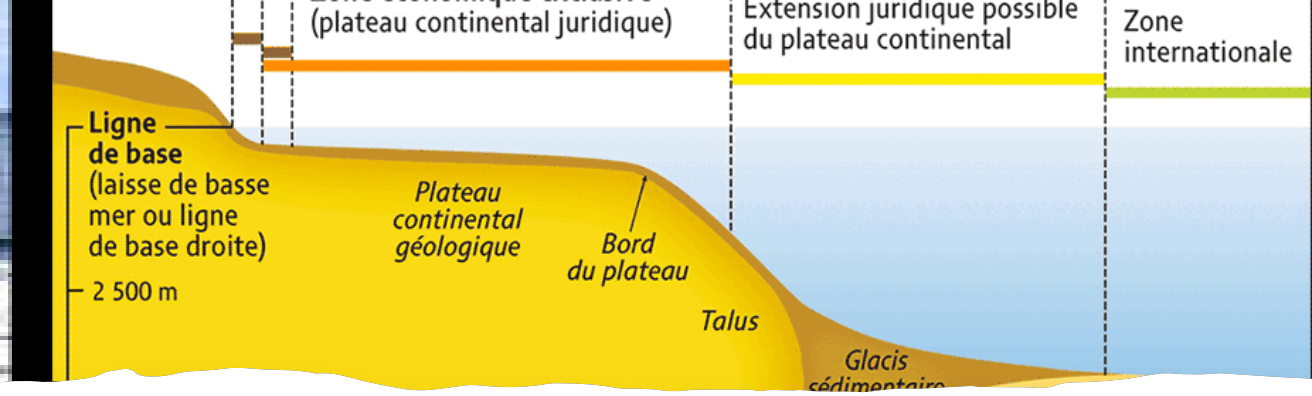
# **What drives to ENSM today ?**



What you can see







What you can't see



enim  
le régime social  
des marins



12 à 13 grammes de CO<sub>2</sub> par tonne transportée sur 1km, ce qui est très faible par rapport au routier (76g) ou à l'avion (+500g)



Consommation de combustible et gestion des déchets



3,5% des émissions de GES dans le monde et 16,5% en Europe.



Pollution par les hydrocarbures



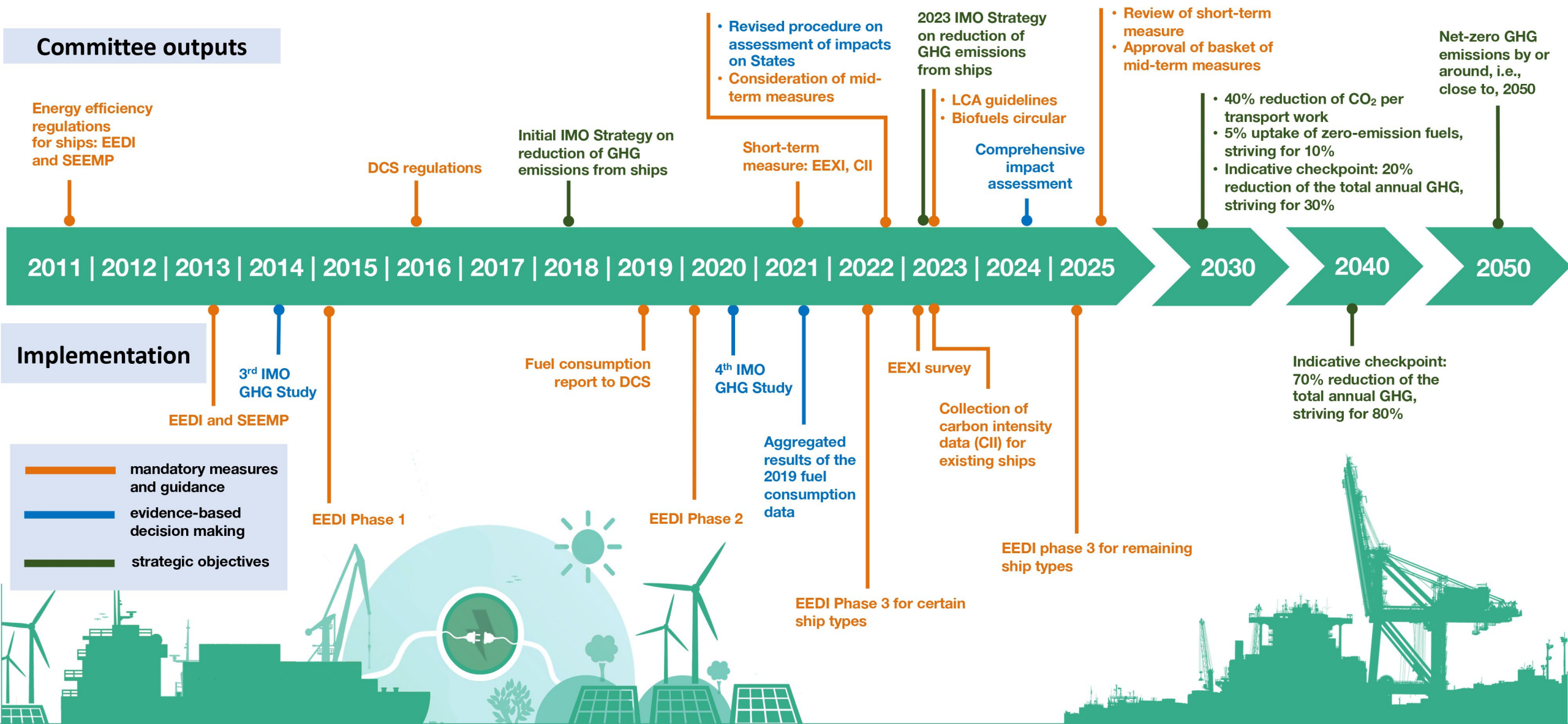
Invasion biologique



Bruit sous-marin

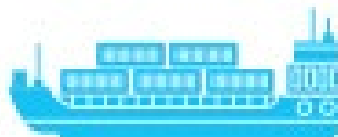
# Addressing climate change

Over a decade of regulatory action to cut GHG emissions from shipping

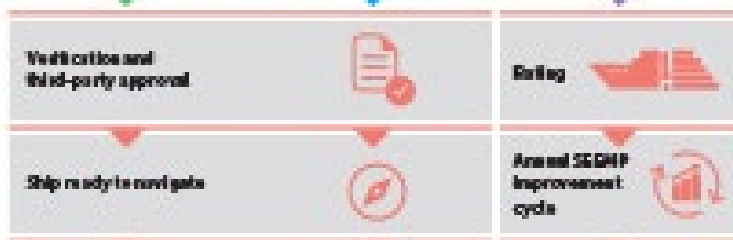




# IMO STRATEGY ON REDUCTION OF GHG EMISSIONS FROM SHIPS



NEW REQUIREMENTS UNDER MARPOL ANNEX VI ADOPTED BY GOVERNMENTS



IMO REGULATION DRIVES INNOVATION TO REDUCE THE CARBON INTENSITY OF INTERNATIONAL SHIPPING



## **Improving energy efficiency to reduce consumption and greenhouse gas emissions**

- Optimizing ship shape to minimize drag
- Improved equipment: advanced navigation system
- Optimizing all energy consumed on board

Eco-design of ships: manufacturing processes and end-of-life management



## Energy and infrastructure


Less carbon-intensive fossil fuels  
(LNG)

-Biofuels

-E-fuels (synthetic fuels made from  
decarbonized electricity)

-Hybridization and electrification  
of ships and ports

-Vehicle propulsion and other  
renewable energies



**What makes  
that ENSM  
will keep  
students?**

**ENSM**

ÉCOLE NATIONALE SUPÉRIEURE MARITIME

LES DOUZE  
TRAVAUX  
DE L'ÉCOLE  
NATIONALE  
SUPÉRIEURE  
MARITIME,  
LA SYNTHÈSE





**- AXE 1 -**

# **ENSEIGNER LA MER DE TOUTES NOS FORCES**

**CONTRAT D'OBJECTIFS & DE PERFORMANCE  
2023-2027**

**- AXE 2 -**

# **NATIONALISER LA FORMATION SUPÉRIEURE MARITIME**

**CONTRAT D'OBJECTIFS & DE PERFORMANCE**

**2013-2017**

**- AXE 3 -**  
**SOUTENIR L'ÉCONOMIE**  
**DE LA MER**

**CONTRAT D'OBJECTIFS & DE PERFORMANCE**  
**2023-2027**

- AXE 4 -

# MARITIMISER LES ESPRITS ET DÉVELOPPER LE SENS MARIN

CONTRAT D'OBJECTIFS & DE PERFORMANCE  
2018-2021

# Raising crew awareness in wind propulsion for commercial ships

a first online training to prepare for a safe and optimised operation

Wind propulsion is gaining credibility within maritime decarbonisation pathway. Therefore, dedicated crew training is increasingly important to enable pioneering projects and shipping companies that use wind propulsion. So their crew can meet appropriate technical knowledge to safely and sustainably operate wind-assisted and wind-powered vessels.

The French Association Wind Ship, the French Maritime Academy (ENSM) and the company D-ICE Engineering facilitated a fruitful collaboration among Maritime Academy, operators (shipowners, charterers) and equipment manufacturers. Therefore, creating a quickly available and widely accessible training course on wind propulsion for ships.



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Project 50% funded by French State within the framework of the workforce adaptation and qualification – IFPAI operation – Investment for the Future program by the Caisse des Dépôts



Three question  
to open  
discussion

Train

Grow

Convince

Thanks for your attention