



BRETAGNE ATLANTIQUE

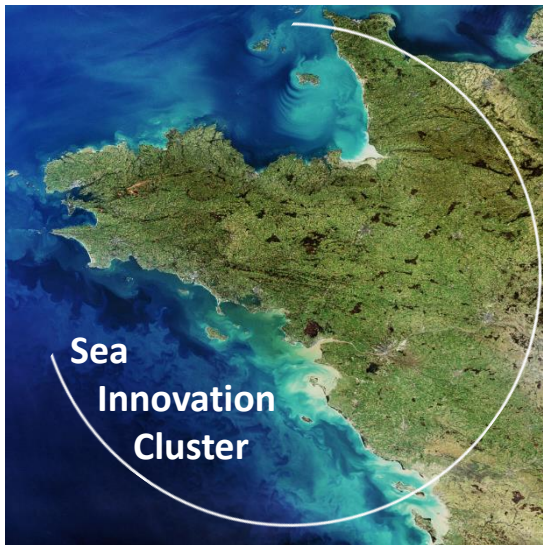
A Sea innovation cluster as a 'driver' for Blue Growth



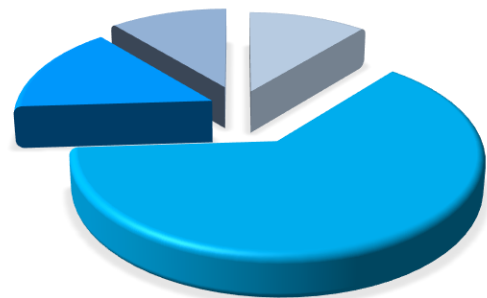
Phil Monbet

Deputy Director

Our cluster



Membership
410



>> very similar to



GCE | NODE | AN INDUSTRY-DRIVEN CLUSTER
FOR OCEAN TECHNOLOGIES

- French framework

Strategic industry committee – Maritime industry (since 2018)

- 4 main economic sectors dedicated to the blue economy



- 1 R&D committee that drives 4 roadmaps:

- Greenship
- Smartship
- Nextgen Offshore industries
- Smart Yard



CHANTIERS DE L'ATLANTIQUE

iXblue

>> Vision for the future of maritime industry

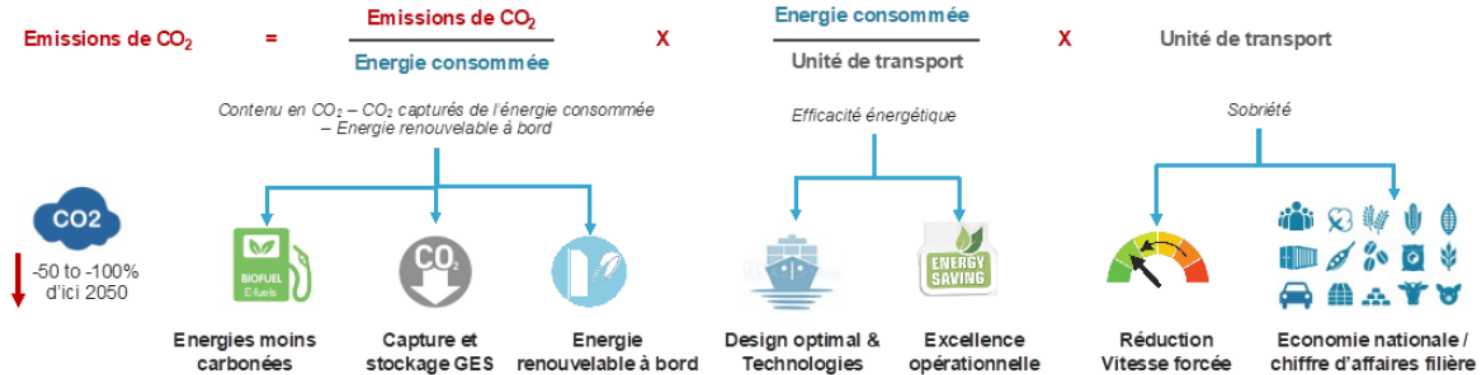
• French vision of 'Greenship'

Main objective

'Design and operate ships that have an environmental neutrality, but economically viable!'

3 main axis:

- Reduce greenhouse gas emissions
- Energy efficiency
- Energy saving



1. Reduce greenhouse gas emissions

- Neutral of free Carbon energy

Replace HFO (Heavy Fuel Oil)

LNG

Methanol

Biofuels

Hydrogen

Ammonia

Overall GHG reduction potential

12 to 28%

15 to 20%

Limited

100%

100%

- Free Carbon propulsion systems

Wind propulsion

Energy production onboard (PV, hydro or wind generation)

- Cold ironing

- Emissions treatment (CCS, ...)

2. Energy efficiency and 3. Energy saving

- Optimised design and technologies

Reduce the energy consumption onboard

Re use of existing energy

- Ship conception and design

Onboard systems/technologies

Physical features: Foil, hull, propeller, ...

External parameters (seastate, wind, wave, ...)

- Operating ship and Training

Project financing (not exhaustive)

- Regional

Western part of France (Brittany & Pays de la Loire) > dedicated H2 roadmap
+ generic annual call for proposals (include maritime topics) up to 1M€ (academic required)

- National

Various schemes – generally not specifically dedicated to maritime (except this year)
AMI CORIMER / Call for proposal related to the ‘Strategic industry committee – Maritime industry’



From 2 M€ to 4 M€ (mono or multi partners)

Project financing

- National

Various schemes – generally not specifically dedicated to maritime



bpi france



Innovative technologies
Up to 1 M€
SME led




Innovative Project
From 1 to 5 M€
SME led



Flagship Project
From 2 or 4 M€

Hydrogen demonstrators (systems, MVP, design, electrolysis, ...)
From 2 or 5 M€



maritime 

Match whole words only

GRANTS TENDERS

Submission status

Forthcoming (1) Open for submission (8) Closed

Programming period

Select a Programme period... x v

Filter by Programme / Programme group

Select a Programme... v

Filter by call

Select a Call... x v

Type of grants calls




All grants calls v

CPV code (Tenders Only)

Select a CPV code... v

Places of delivery or performance (Tenders Only)

Funding and tenders (9)

 Need help?   Sort by: Submission status v

Innovative energy storage systems on-board vessels (ZEWTP Partnership) Call for proposal Grant			
<small>HORIZON-CLS-2022-05-01-02</small>			
Programme	Horizon Europe (HORIZON)	Status	Open for submission
Type of action	HORIZON Research and Innovation Actions	Deadline model	single-stage
Opening date	02 December 2021	Deadline date	26 April 2022 17:00:00 Brussels time
Exploiting electrical energy storage systems and better optimising large battery electric power within fully battery electric and hybrid ships (ZEWTP Partnership) Call for proposal Grant			
<small>HORIZON-CLS-2022-05-01-01</small>			
Programme	Horizon Europe (HORIZON)	Status	Open for submission
Type of action	HORIZON Innovation Actions	Deadline model	single-stage
Opening date	02 December 2021	Deadline date	26 April 2022 17:00:00 Brussels time
Exploiting renewable energy for shipping, in particular focusing on the potential of wind energy (ZEWTP Partnership) Call for proposal Grant			
<small>HORIZON-CLS-2022-05-01-03</small>			
Programme	Horizon Europe (HORIZON)	Status	Open for submission
Type of action	HORIZON Research and Innovation Actions	Deadline model	single-stage
Opening date	02 December 2021	Deadline date	26 April 2022 17:00:00 Brussels time
Development and demonstration of mobile and stationary compressed hydrogen refuelling solutions for application in inland shipping and short-distance maritime operations Call for proposal Grant			
<small>HORIZON-JTI-CLEANH2-2022-02-11</small>			
Programme	Horizon Europe (HORIZON)	Status	Open for submission
Type of action	HORIZON JU Innovation Actions	Deadline model	single-stage
Opening date	31 March 2022	Deadline date	20 September 2022 17:00:00 Brussels time



Rigid sail for new-generation cruise liners

0.9 M€

Funded by



Partnership



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Maritime Decarbonisation – project examples



SOLID SAIL 2.0

Voile rigide pour le marché des paquebots nouvelle génération

Partenaires :

Entreprises

- o Multiplast, Vannes
- o STX France, Saint-Nazaire
- o G-Sea Design, Lorient
- o Awentech, Brech
- o Mer Vent, Port-La-Forêt
- o Incidence, Brest
- o Ocean Data System, Lorient

Centre de recherche

- o ENSTA Bretagne, Brest

Financeurs :

- o Conseil régional de Bretagne (FEDER)

Labellisation : 01/06/2018

Budget global : 994 k€



Maritime Decarbonisation – project examples



Turning waste heat into cooling for onboard energy efficiency

1.2 M€

Funded by



Partnership

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DE L'ATLANTIQUE

NAVAL
GROUP



ANTARTICA

Convertir la chaleur fatale des moteurs en froid pour améliorer l'efficacité énergétique des navires

Partenaires :

Entreprises

- o Equium, Saint-Herblain
- o Les Chantiers de l'Atlantique, Saint Nazaire
- o Naval Group, Brest

Centres de recherche

- o Ecole Nationale Supérieure Maritime (ENSM)

Financiers :

- o Conseil régional des Pays de La Loire

Labellisation : 28/06/2019

Budget global : 1 200 k€



Maritime Decarbonisation – Project examples



Feasibility study for H2 CTV

0,37 M€

Funded by



Partnership



**EUROPE
TECHNOLOGIES**



CTV H2

Projet d'étude de faisabilité pour l'intégration d'une propulsino hydrogène dans un CTV

Partenaires :

Entreprises

- Néopolia Mobility SAS, Bouguenais
- Barillec, Les Sables d'Olonne
- BE Mauric, Nantes
- Ingelligence, Nantes
- SDI, Nantes
- SERES, Nantes
- SHERPA, Nantes

Financiers :

- Conseil Régional des Pays de la Loire

Labellisation : 18/06/2021

Budget global : 371 k€



Maritime Decarbonisation – what next?

Coalition for maritime ecological and energy transition



French national institute dedicated to maritime decarbonation
MEET 2050

Maritime Eco-Energy Transition towards 2050

Coalition pour la Transition éco-énergétique du Maritime



MINISTÈRE DE LA MER
Liberté
Égalité
Fraternité

Cluster Maritime Français
Cap sur la croissance bleue

ADEME
AGENCE DE LA TRANSITION ÉCOLOGIQUE

RÉPUBLIQUE FRANÇAISE
Liberté
Égalité
Fraternité

EDF
L'ÉLECTRICITÉ EN RESEAU

ENGIE

NAVAL GROUP

CMA CGM

DASSAULT SYSTEMES

Port de Sète
Sud de France

Rte
Le réseau de transport d'électricité

Soper

TOTAL

AFHY PAC

Armateurs de France

FRANCAIS PÊCHE

GICAN

gnl
Gaz naturel liquéfié

Ports de France

LFE
Ligue Française de l'Énergie

UNIM

cea

CNES
CENTRE NATIONAL D'ÉTUDES SPATIALES

Ifremer

METEO FRANCE

SHOM
300 ans d'hydrographie

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CLEAN TECH OPEN FRANCE

GLOBAL MARITIME FORUM

Cluster Maritime Français



BRETAGNE ATLANTIQUE

Pôle Mer Bretagne Atlantique

525, avenue Alexis De Rochon
29280 Plouzané . France

T +33 (0)2 98 05 63 17
contact@polemer-ba.com

pole-mer-bretagne-atlantique.com
@PoleMerBA