

# Biennale della Sostenibilità Venezia, 19 settembre 2023

*Giovanni Caprino, Presidente  
Cluster Tecnologico Nazionale Blue Italian Growth*

# CTN BIG



## Supported and co-funded by the Italian Ministry of Research (MUR)

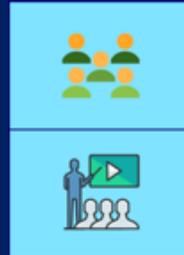
**Headquarters:** Museo Darwin-Dohrn, Naples, Italy/

**Associates:** 90+ entities from public and private sectors

- Universities
- Research Centres
- Regional Districts
- Large enterprises and SMEs
- Business Consortia
- Associations

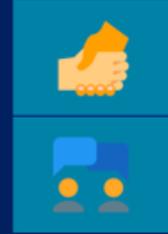
# OUR MISSION

## Step 1 COMMUNITY



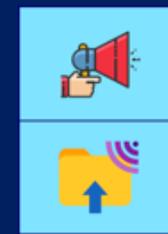
Creare una comunità nazionale nell'ambito dell'economia del mare

## Step 2 PARTERSHIP



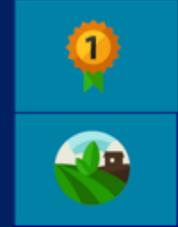
Promuovere una crescita blu guidata dall'innovazione attraverso partnership pubblico-private

## Step 3 INTEGRATION



Favorire l'integrazione delle infrastrutture e delle competenze a livello nazionale

## Step 4 RESULTS



Raggiungere l'obiettivo di una crescita blu basata sull'innovazione preservando il capitale naturale (Good Environmental Status)

PIANO DI AZIONE TRIENNALE



## MARINE HABITAT & COASTAL ZONE

Ocean observing systems adapted to the reality of the Mediterranean, with particular reference to coastal & intertidal zones/ sandy & rocky shores; integration of sensor webs, artificial intelligence technologies and digitization. Development of quantitative models for describing good environmental status (GES) through KPIs, environmental certification systems applied to marine environments.



## BIOTIC MARINE RESOURCES

Fisheries and aquaculture: ICT technologies for food safety and monitoring of fishing activities; digital technologies for the autoapplied to aquaculture plants; new sustainable feeds for aquaculture, multitrophic aquaculture; conversion of wastes form fisheries to high-value products; integration of aquaculture plants into multi-use platforms. Marine ecological restoration.



## ABIOTIC MARINE RESOURCES

New modular offshore platforms aimed at co-location of diverse technologies (renewables, aquaculture, hydrogen production, sea water desalination: multi-use platforms) Reuse of end-of-life offshore platforms (marine research labs, CO2 underground storage, renewables, aquaculture); New exploration technologies for deep-sea mining;



# OUR DEVELOPMENT TRAJECTOIRES



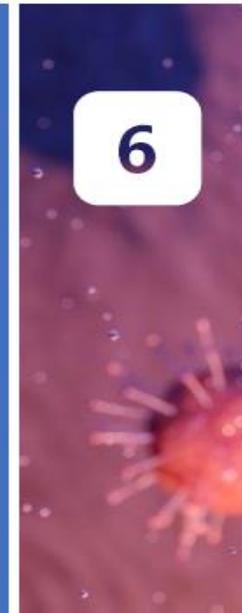
## SHIPBUILDING & MARINE ROBOTIS

Fuel –efficient, low environmental impact, safer and autonomus ships  
Submarine autonomous vehicles for monitoring and operations  
Technologies for the reducion of the environmental impact of ports and harbours



## BLUE RENEWABLES

Development of low-cost marine renewables in terms of life cycle (installation, operations, maintenance and decommissioning)  
Exploitation of tidal and wave energy: application to higher-energy cost geographical areas (such as islands)  
Integratoin of renewable power production and desalination technologies



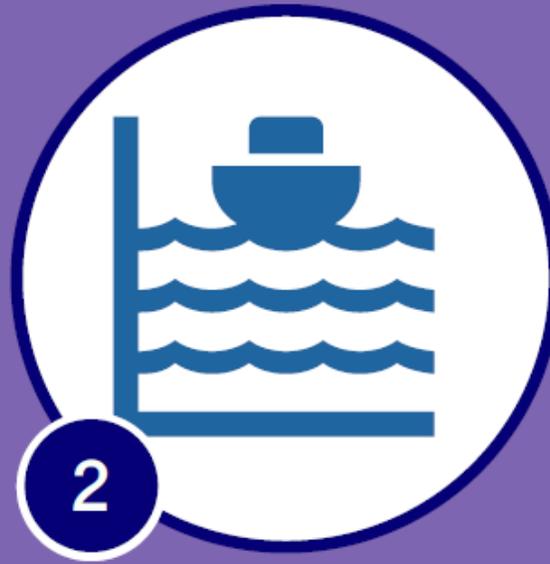
## BLUE BIOTECHNOLOGIES

Remediation of contaminated soils and seabeds through biotechnologies;  
Production of novel pharmaceutical compounds from marine bioactive molecules  
Nao-biotechnologies and biomaterials, energy from micro-algae, application of bioha conversion of fisheries waste to high value products



## Research infrastructures

Research infrastructures are a means of promoting pan-European cooperation and offering scientific communities efficient access to advanced methods and technologies. The roadmap addresses basic and applied research in all the scientific sectors identified in the previous trajectories.



## Sustainability and economic uses of the sea

This action aims to contribute to the definition of guidelines for the development of analysis models of the environmental and socio-economic aspects related to the use of the marine-coastal environment by identifying adequate tools for proper environmental management (e.g. maritime planning, governance bodies)



## Skills & Job

Italian system, shows a limited speed of adapting long-term training and learning paths to the needs imposed by the rapid development of technologies and economic and social models. The design, production and use of the technologies developed in BE will be subject of training courses suitable to guarantee the involvement of young people in the world of work, even with the complete application to the new tools.

# OUR ACTIVITIES

**1** STRATEGIC SUPPORT FOR POLICY MAKERS

**2** INTERNATIONAL DEVELOPMENT

**3** ANIMATION & NETWORKING



# OUR ACTIVITIES

**4** COMMUNICATION & PROMOTION

**5** SUPPORT FOR RESEARCH ENHANCEMENT PROCESSES

**6** SUPPORT FOR EDUCATION & TECHNICAL TRAINING

# PARTNERSHIP



# CLUSTER BIG'S EU PROJECTS 1/2



## IKAT

It aims to contribute to the achievement of the updated tourism strategy put forward by the EC and to tackle the challenges related to the different sectors and agents that make up the industrial ecosystem of Tourism in Europe: Maritime and Logistics Clusters, Tourism Clusters and Innovation and Water Quality Control Clusters. The way to do so is to support SMEs in the maritime and coastal tourism industrial ecosystem, through financial support for services (i.e. internationalisation; consulting; acceleration etc.)

**Partners:** Cluster BIG, Maritime Cluster of Balearic Islands, Catalan Water Partnership, Canary Maritime Cluster, University of Patras, Strategis, ADRAL



## Mediterranean Blue Acceleration Network (MedBAN)

It aims to mobilise the EU blue economy SMEs to adopt processes and technologies for a greener, more digital and more resilient economy. It will manage two open call schemes to fund a set of services for SMEs on innovation, training, twin transformation and internationalisation issues.

**Partner:** Cluster BIG, Federazione del Mare, Pole Mere Mediterranee, Strategis, Forum Oceano, Maritime Cluster of Balearic Islands, Magellan

# CLUSTER BIG'S EU PROJECTS 2/2



## MARitime cluster Management Education Development (MARMED)

Bridging the gap between the existing needs and the current skillset of Maritime Clusters Managers ensuring upskilling of human resources and the outline of a New Professional Profile for an increased competitiveness of Maritime Cluster in the Mediterranean. Establishment of a viable cooperation model between research entities /VET Providers and Maritime Clusters and industry.

**Partner:** ForMare, Cluster BIG, OGS, Mitropolitiko College, Strategis, Maritime MT)

**Associated partners:** Federazione del Mare, DLTM, Maritime Tunisian Cluster

## “CALLMEBLUE”

European Maritime, Fisheries and Aquaculture Fund (EMFAF)



## Cluster ALLiance Med BLUE (CALLMEBLUE)

Creating a strategic vision and transferable models of interregional cooperation. In particular, the project will aim to implement concrete actions at both local and regional level in order to raise awareness on the relevance of Maritime clusters as key actors for a sustainable blue economy policies.

Key actions will be the exchange of best practices and knowledge transfer between north and southern area, including piloting learning activities aimed at offering a transferable training “Toolkit” , addressed to future maritime clusters in the southern area in order to be prepared on the legal, structural, administrative and management aspects for a concrete creation of future maritime clusters.

**Partner:** ForMare, Cluster BIG, Federazione del Mare, Clúster Marítimo Marino de Andalucía, Maritime Tunisian Cluster, Toulon Var Technologies (PMM), Anima Investment Network, Strategis, Sarl Leanovator, Forum Oceano

**Associated partners:** Cluster de las Islas Baleares, UNIMED, BUSINESS MED



# THANK YOU

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