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Contributors:	FEPORTS and UAEGEAN
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Executive Summary

The maritime industries throughout Europe contribute to the well-being of all Europeans. The majority of the external trade of the European Union is transported by sea. Overall the maritime sectors in Europe account for about 4.8 million persons employed and generate a production value of circa € 450 billion and an added value of € 186.8 billion.

At the same time, a shift from sector policy to cluster policy is slowly taking place. The main benefits of maritime clusters are the increase in efficiency, the increased level of business formations and, the higher level of research, development and innovation. These benefits can be optimised by cluster organisations through activities and initiatives, e.g. promotion campaigns, structural cooperation between cluster organisations and knowledge institutions, specific (government) support programs and platforms to exchange best practices.

The scope of the Studying phase of PROteuS project is the mapping of current state situation as far as Maritime Surveillance is concerned in the participating countries. This process will result in the preparation of Methodologies that will act as innovative tools for the setting up and the creation, at first stage, of the national nodes and, at second stage, the MED cluster of Maritime Surveillance. More specifically, the logical framework of the Studying phase is the following:

- Mapping of Maritime Surveillance sectors per country that will host the national nodes, focusing on priorities, actors, common challenges, best practices, existing clusters and regulatory framework.
- Collection of existing MS technologies and applications and identification of market and business opportunities and linkages with relative industries.
- Elaboration of a Methodology focusing on the design and development of the nodes that will constitute the national antennas of the MED level cluster.
- Implementation of a Methodology focusing on the operation of the MED level cluster and having as priority the increase of the share of transnational activities.

The ultimate goal of the aforementioned tasks is the preparation of a common strategy that could be applied to the national nodes aiming at boosting their operation on Maritime Surveillance industry and the development of an action plan for the enhancement of MS in MED area focusing on predefined targets and factors. To this end the current state-of-the-art report investigates and maps the current state situation as far as maritime clusters that operate on Maritime Surveillance are concerned and identifies the best practices/ case studies at international level that can act as paradigms for the design of the PROteuS Nodes and Cluster.

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1 Introduction

The current report is implemented within the framework of the project “PROteuS: Promoting security and safety by creating a MED cluster on Maritime Surveillance”, which is funded under the 1st call for Modular projects of the INTERREG MED 2014 – 2020 Programme.

The project partner responsible for the elaboration of the deliverable is the Maritime Institute of Eastern Mediterranean (Mar.In.E.M.), with the contribution of the scientific and policy partners.

The scope of the document is to investigate and map the current state situation as far as maritime clusters that operate on Maritime Surveillance are concerned and identify the best practices/ case studies at international level that could act as paradigms for the design of the PROteuS Nodes and Cluster. For the purpose of the study, the entries collected within the document are not only organizations formally established as clusters, but also maritime networks and associations that operate in the same way.

The mapping was implemented at international level and the results are presented as follows:

1. Clusters identified from EU countries of the MED area (MED - EU area) – per country
2. Clusters identified from EU outside MED area (EU non-MED area) – per country
3. Clusters identified at international level (Non EU area) – per country

Following the mapping of the clusters (sections 2, 3 and 4), in the section 5 the report concludes with a brief summary of the findings, setting the basis for the elaboration of the next deliverable, namely the Del. 3.2.5 “Benchmarking analysis of MED and international best practices/ case studies / clusters”.

2 MED - EU area

2.1 FRANCE

2.1.1 Pôle Mer Méditerranée (Best Practice)



Website: www.polemermediterranee.com

Year of Establishment: 2005

Members: 410

Description:

Pôle Mer Méditerranée is a business and innovation world class sea cluster located in South France. It aims to promote sustainable development of the maritime and coastal economy, in the Mediterranean, Europe and the rest of the world. In Provence-Alpes-Côte d’Azur, Occitania and Corsica, the Pôle brings scientific and economic operators together regarding marine and coastal issues with high societal and environmental impact. Acting as a true driver for innovation and competitiveness the Pôle Mer Méditerranée is structured around 6 Strategic Business Areas which are themselves laid out in Market Oriented Programs shared with the Pôle Mer Bretagne Atlantique, in markets with high potential.

- Maritime safety and security
- Naval and yachting
- Marine mining and energy resources
- Marine biological resources
- Marine environment and coastal planning
- Harbours, Infrastructure and shipping

The main aim of the cluster is to contribute to the consolidation, construction and vitality of associated activities: 1. Naval (construction, maintenance, decommissioning), 2. Underwater activities (robotics/offshore), 3. Offshore floating wind turbines, 4. Ecological marine engineering and sustainable coastal development (ports), 5. Blue biotechnology (health, biofuels and cosmetics)

With regards to maritime surveillance it has implemented a variety of projects, indicatively AIRMES, AMARYLLIS, BIMAC, DÉAIS, HORUS 2, I2C, NEPTUNE 2, PERSEUS, SECMAR, TOSCA etc.

The Strategic challenges Pôle Mer Méditerranée is facing include: 1. The integration and globalization of surveillance and intervention systems, 2. The implementation of concerted security and safety policies in the region, 3. The crisis management chain and 4. Emerging markets potentials.

The cluster was awarded in the past a bronze certificate for cluster management excellence.

2.2 ITALY

2.2.1 *Federazione del Mare*



Website: <http://www.federazionedelmare.it/>

Year of Establishment: 1994

Members: 17 associations

Description:

Established in May 1994, Federazione del Mare acts as the Italian maritime cluster, with the aim to jointly represent the country to the international maritime markets.

The cluster works extensively to allow the appreciation as a factor of development and affirm the commonality of values, culture and interests, which also stems by constant comparison with the international experience. The maritime activities of Federazione del Mare annually produce goods and services for a value of 33 billion euros (2% of GDP), out of which 6.2 billion exported, providing directly employment to 170.000 workers and indirectly to another 310.000 in the manufacturing and tertiary activities induced.

The cluster is a European leader in several of its activities:

- First place as cruise embarkation and landing country (6.2 million pax; 4,600 landings)
- First country for many years in goods import-export by sea, in 2015 third (210 million tons)

The cluster is also a World leader in several of its activities:

- 1st Ro-Ro fleet (250 ships, 5 million GT)
- 3rd G20 countries fleet (17 million GT)
- Cruise shipbuilding (Fincantieri)
- Motor-yachts building (Azimut-Benetti)
- Maritime Intensity Regional Ranking in Italy (All Regions, first six places):
 - 1st. Liguria: first in port activity and yachting, second in shipping and shipbuilding
 - 2nd. Campania: first in shipping
 - 3rd. Friuli – Venezia Giulia: first in shipbuilding
 - 4th. Veneto: second in port activity and fishing
 - 5th. Sicilia: first in fishing
 - 6th. Toscana: second in yachting

2.2.2 Maritime Technology Cluster FVG S.c.ar.l. (Best Practice)



Website: <http://www.marefvg.it>

Year of Establishment: 2012

Members: 42

Description:

The vision of the *mare*^{TC} FVG is to create a regional synergic system that enhances a sustainable and inclusive value creation chain in the blue economy by leveraging scientific knowledge and industrial skills of the territory. Its mission is to link industries and scientific institutions within a network of organized relationships finalized to develop Research, Innovation and Education projects with the aim to enhance the competitiveness of the industrial basis of the FVG region. It offers the following support services:

- Networking and R&D: to manage the relationships between the regional demand and supply of research in order to activate synergies through the development of specific projects.
- Innovation: to set up initiatives encouraging cross-fertilization processes, technology transfer and the growth of proactive business.
- Cooperation: to develop clusters at national and international level, through the territorial cooperation and the participation in international projects.
- Training: to realize activities to meet the market needs of qualification and upgrading for managerial and technical profiles.
- PR: to organize or participate at sectoral events, fairs, workshops to advertise the cluster activity, the cluster members results and attract new associates.
- Internationalisation: to support with contacts and new opportunities the SMEs aiming at going international and widely to support the territory to achieve a major role at macro-regional and international level.

Maritime Technology Cluster FVG S.c.a.r.l. is awarded a Silver Label Cluster Management Excellence Certificate.



2.3 MALTA

2.3.1 Malta Maritime Forum



Dedicated to promote the interests
of the Maltese maritime industry

Website: <http://enmc.eu/country/malta>

Year of Establishment: 2015

Members: 40

Description:

The Malta Maritime Forum was set up in October 2015 to serve as a common platform for those Malta based interests who are involved in the maritime, logistical and transport industry in Malta. The Malta Maritime Forum aims to facilitate the communication between the various sectors as well as with Government to assist and promote the development of the maritime industry in general. The Forum has been registered as a Non-Government Organisation under the laws of Malta.

The objects of the forum are:

- To promote the interests of the Maltese maritime industry;
- To assist in the development of new maritime activities;
- To promote research, education and training within the Maltese maritime industry;
- To act as a constituted body so as to consult and be consulted by the government in the development of public policies that can have a bearing on the Maltese maritime industry

Emphasis is being laid on bridging between the industry and the academic to ensure that the local maritime industry develops solid foundations for correct path development.

The Malta Maritime Forum has 40 members representing port terminals, ship repair yard, ship owners, unions (GRTU and Malta Dockers Union), shipping agents, port service providers and legal professionals. Through its general assembly the Forum lays down an annual action plan and elects a board of directors which in turn appoints a chairman.

The Malta Maritime Forum is also recognized by the Maltese government as the representative body of the Maltese maritime industry. The concept of the setting up of the maritime cluster in Malta, emerged from the Malta Shortsea Promotion Center which is very active in the European Shortsea Network. Malta is at present holding the chairmanship of the European Shortsea Network.

2.4 GREECE

2.4.1 ECOMASYN



Website: <http://www.ecomasyn.gr>

Year of Establishment: 2015

Members: 13

Description:

The Hellenic Eco Marine Synergy, CoopLtd, with distinctive title “ECOMARINESYNERGY” and trademark “ECOMASYN” was founded as an Urban Limited association aiming to actively contribute in the next 3-5 years to the creation of a world known Green Marine Center in Greece, which will provide the “green” added value to its clients.

The strategy to be followed is the «one stop shop» concept, where the customer will have the opportunity to find all services (research, development, advisory, education, certification, project execution, etc.) provided together in one place, selecting from a variety of service providers and products, which will match the required quality/cost/time criteria.

The aim of the cooperative is to provide integrated solutions including study, supply and installation of equipment, as well as the provision of supportive advisory and educational services in combination with the above in the whole range of the so-called Green Marine, indicatively mentioning Energy Efficiency, Scrubber Systems, Ballast Water Treatment Systems, Use of Liquefied Natural Gas (LNG) as a fuel.

For the realization of its aim, the cooperative looks not only at interconnecting the network of its members (professionals, enterprises and agencies), but also providing counseling or organizational assistance, education and training for their collective development, improvement of their business value and upgrading the quality of their services.

2.4.2 STRATEGIS



Website: <https://strategis-cluster.com/>

Year of Establishment:

Members: 9

Description:

STRATEGIS – Maritime Center of Excellence, is a non-for-profit organization with the vision to become a global Consulting and R&D center in advanced technologies, strategy and entrepreneurship for the Blue Economy & the Digital Shipping of the future. Drawing on the global leadership of Greek Shipping, STRATEGIS aims to facilitate further development of the maritime sector in Greece augmenting its role as a key growth engine of the Greek economy, and, to help establish Greece among the world's leading powers in Blue-Growth and the Blue Economy.

The main activity of Strategis focuses on the creation, development, and management of collaborative innovation networks and commercial clusters in the shipping industry, with emphasis on the application of advanced ICT technologies in digital shipping.

The Cluster's vision is to become a world-class Maritime Cluster & Technology Flagship of the Greek Shipping Industry in the Digital Age and its mission is summarized as follows: "To offer 21st century maritime services and synergies for growth enabling Smart Sea – sustainable business opportunities in the greater SEE region".

To achieve the strategic objective of consolidating shipping as a key factor of regional development, STRATEGIS focuses on:

- Research & Development of frontier Maritime & Smart-Sea ICT Technologies
- Strategy & innovative Business Models for the Blue Economy
- Raising the region's Creative Capital (Intellectual & Human Capital)
- Development of infrastructures supporting smart, sustainable regional growth (smart sea, smart ship, smart port and smart city technologies)
- International standardization activities, policies and regulations facilitating efficient collaboration of stakeholders in the innovation ecosystem.

2.5 PORTUGAL

2.5.1 Fórum Oceano – Associação da Economia do Mar (Best Practice)



Website: www.forumoceano.pt

Year of Establishment: 2009

Members: 135

Description:

Fórum Oceano – Associação da Economia do Mar (Association of Maritime Economy) is a private non-profit association created in 2009 and is formally recognized by the Portuguese Government as the entity responsible to implement collective efficiency strategies in the Sea Economy sector.

The Association gathers 135 members from the whole country, covering different key sectors of the maritime economy, among them companies and business associations, R&D centres, higher education institutions, local authorities and other associative organizations. The Association main priority is to promote the sea as a valuable source for the economy, promoting cooperation between stakeholders through the intersection of knowledge and support for innovation, internationalization and entrepreneurship contributing, in sustainability conditions, for the country's competitiveness.

Fórum Oceano works with supply chains and customers by organizing international business contacts. By identifying projects and cooperation between academy and industry through promoting focus groups' discussions, the organization promotes and develops innovation. Other activities include monitoring of anchor projects, dissemination of maritime affairs, promotion of studies and strategic reports, participation in national and international projects and networks, participation in B2B meetings, organizing and participation in entrepreneurial missions, organizing open and info days and organizing Sea Forum, yearly event in Portugal that comprises exhibition of products, business meetings and conferences about the maritime economy.

Fórum Oceano participates in cooperation projects, at regional, national and EU levels, namely REMCAP (FP7 Regions of Knowledge), AtlanticBlue Tech (INTERREG IVB) and CINMars (ESA). It has also participated as stakeholder in COFASP (FP7 ERANET) and has recently submitted several applications to international competitive calls.

Fórum Oceano was recognized with the BRONZE LABEL Excellence, assigned by European Cluster Excellence Initiative (ECEI), and is considered a Public Utility Institution (publication in Diário da República - the Portuguese Official Republic Gazette, October 2014).

2.5.2 Maralgarve – plataforma mar do Algarve



Website: N/A

Year of Establishment: 2011

Members: 24

Description:

Association for the Promotion of Knowledge and Economy of the Sea in the Algarve, private non-profit law. The Platform's objective is to promote, valorise and boost the knowledge and economy of the sea, stimulating innovation, concerted interests, efforts and actions of the different agents around a common strategy.

The mission of the Platform is to promote, enhance and enhance the knowledge and economy of the sea by stimulating innovation, the coordination of interests, efforts and actions of the different players around a common strategy. The structure now formed will adopt a cluster logic, synergistically leveraging the skills of the various partners to bring about sound and comprehensive projects in the sea area. According to the Installing Commission of the association, the development of partnerships, the transfer of knowledge and the insertion in national and international networks will be aspects to which the Mar do Algarve Platform will pay particular attention.

The birth of this new association is a further step in the course started in 2006, when the international conference "Maralgarve - An Ocean of Opportunities" was held in the region, which promoted reflection and broad discussion on the theme of the sea. Since then, a number of other initiatives have taken place, including the elaboration of the "Regional Sea Agenda - Contributions to the Action Plan for the Algarve Sea Cluster". The results of these discussions have demonstrated the strategic advantage of an association that integrates the various players in the sea sector in the Algarve.

2.6 SPAIN

2.6.1 The Basque Maritime Forum



Website: www.foromaritimovasco.com

Year of Establishment: 1993

Members: 24

Description:

The Basque Maritime Forum was established as a non-profit-making organisation, which includes companies, associations, banks, research centres and universities, in 1993 and was officially recognised as a Priority Cluster by the Basque Government in 1999. The BMF's mission is to represent, defend, consolidate, promote and improve the competitiveness of the companies in the Basque maritime sector by means of the services it offers in line with its Core Strategic Areas (Internationalisation, Technology, Management Excellence, Finance and Taxes, Training and People and Communication, Information and Representation). As a whole, the maritime sector plays a very important role in the economy of the Basque Country, roughly representing 1.74% of its GNP. The Basque Maritime Forum has consolidated itself as the sector's main reference point within the region and one of the most highly regarded clusters in the sector on a national and international level. The BMF has helped set up the Cluster Marítimo Español (the Spanish Maritime Cluster), as well as a significant number of regional clusters, and often works and cooperates with other European organisations on projects that have an international scope.

The members of the Basque Maritime Forum are businesses, associations and institutions. Its mission is to render services to the Basque maritime industry and in order to achieve this mission, the BMF offers the following services for associated companies:

- Promotion to assist Associates achieve excellence in their management, to improve their position in international markets, to encourage innovations in their strategies, to contribute to the development of the talents of their personnel and help them carry out their activities with the utmost respect for the best of social and environmental guidelines.
- Provide Representation of Associates' interests before the relevant decision-making bodies.
- Provide Information services to help understand fully the situation, evolution and prospects for their sector in both the Basque Country and on a worldwide scale.
- Communication services to assist a broadening of the presence and image of the Basque maritime sector throughout the world.

At the same time, the BMF provides support to the Associates to seek and develop projects for inter-company and inter-sector co-operation which, as the principal driving force of all activities for the BMF, ensure competitiveness within the global market.

2.6.2 Asociación Cluster del Naval Gallego - ACLUNAGA



Website: www.aclunaga.es

Year of Establishment: 1999

Members: 113

Description:

The mission of the Cluster of the Galician Naval Sector (ACLUNAGA), created by initiative of the Ministry of Innovation and Industry of the Galician Government, is to improve the competitiveness and to promote the development of the group of companies that integrate the Galician naval sector, establishing an agreement among the protagonists on:

- The challenges they face
- The objectives and strategies to overcome said challenges
- The high-priority actions to be accomplished by the companies and the Cluster itself, with the essential support and involvement of the rest of the agents that influence the sector (Administration, University, Unions, Sectorial Associations, etc)

At the present time 113 companies participate in the Cluster. Their products and services cover all the segments of the value chain of the naval construction (from shipyards and engineering companies to classification and certification societies, from capital goods and supplying companies, to equipment companies, installers or metal companies. This way the first goal of ACLUNAGA, consistent in becoming the institution that more faithfully reflects and represents the Galician naval sector, has been accomplished.

With the purpose of formulating collaboration strategies that allow to increase the productivity of the Galician naval sector and their capacity to innovate, the main working lines of Aclunaga are focused on:

- Promoting horizontal and traversal dialogue among companies through forums, committees and working meetings that approach all those high-priority topics that affect the sector
- Participating in all those initiatives and debate forums that approach issues concerning the Galician naval sector

- Identifying common and complementary needs of the companies of the Galician naval sector and to coordinate the search of the necessary resources to carry out the projects or necessary investments to cover them. These needs can embrace all the areas of the management:
 - Human resources and training
 - Information technologies
 - Quality, environmental issues and labour protection
 - International trade and promotion
 - Excellence and industrial operations
 - Logistics
 - R+D and Innovation
- Being the centre of strategic information of the sector and contributing to a better structuring of it through the elaboration of strategic plans and the continuous revision of its management model; facilitating the creation of new companies and the integration, transformation and collaboration among the existing ones.
- Exchanging information and collaborating with other sectors and institutions.

2.6.3 CTN - Marine Tecnology Centre (Best Practice)



Website: www.ctnaval.com

Year of Establishment: 2003

Members: 15

Description:

CTN is a nonprofit private association of companies that aims to improve the competitiveness of the overall marine and maritime sector through the development of new technological solutions and technology transfer. The main activities of our companies are shipbuilding and ship repair both defence and civil, maritime transport, aquaculture and marine and coastal tourism. Most of these companies are SMEs of the industrial sector. CTN is a cofounder member of the Spanish Maritime Cluster which is made up of more than 100 entities.

CTN encourages the integration of all the actors of the sector with the aim to improve the cooperation and collaboration among them, the search of new business opportunities, the preparation of new innovative solutions and the development of R&D projects. CTN has a wide experience in the development of R&D projects related to the improvement of product and processes at



local, national and European levels.

Since the creation of our European projects office, OPEUMAR, CTN has successfully participated in several European projects with partners all over Europe. These projects are co-funded by the European Social Fund and the programmes include Horizon 2020, Life, CBC MED and Interreg (Sudoe, MED and Europe). The results of these partnerships proved to be successful and contributed to the boost of this centre's recognition in both Spain and Europe.

It has been awarded a Bronze Certificate of Cluster Management Excellence.

2.6.4 NYM AEI Naval y del Mar



Website: www.navalydelmar.com

Year of Establishment: 2007

Members: 26

Description:

The Innovative Business Association of Naval and Marine (Naval y del Mar - NYM) is defined as a network that fosters the integration of all members of the naval industry and the sea, with the aim to foster cooperation and collaboration among them, search of new business opportunities, foster dialogue with the various social agents, institutions, agencies and different administrations, as well as promote the culture and maritime tradition of the Region of Murcia.

The initiative of NYM Agrupación Empresarial Innovadora Naval y del Mar emerged to create a differentiated value among its members, enhancing its ability to operate in the existing market and access new business opportunities, through value solutions and the realization of key projects In hand "that foster business cooperation and cooperation.

The cluster values the quality and good work, commitment to innovation, the creation of wealth and well-being in the naval and maritime sectors, professionalism, teamwork through collaboration, respect and transparent communication are the values that make NYM a solid initiative to foster the development of the business fabric of the naval and sea sector of the Region of Murcia.

There are five main strategic objectives on which NYM's development is based:

- The creation of a climate of cooperation among its members.
- Provide the sector with visibility and representation of common interests.
- The development of technical, technological and management capacities.
- Identification and capture of new business opportunities.
- Creation and promotion of good environmental practices in the naval and sea sector.

2.6.5 Clúster Marítimo Español



Website: www.clustermaritimo.es

Year of Establishment: 2002

Members: 106

Description:

The Spanish Maritime Cluster (CME) groups is a single organization all the industries, services and economic activities of the Spanish country related to the sea.

The initiative brings together companies that represent all the segments of the value chain in the ship industry. It involves activities such as: Maritime transport; Shipbuilding and repair; Marine auxiliary engineering and industry; Extractive fisheries and marine aquaculture; Nautical industry and marinas; Marine origin energies; The army; Ports and port services; Maritime services as well as regional clusters; Marine research; R&D&I system agents; Training bodies; Trade unions and professional associations; Culture, heritage and social welfare.

The mission of the Spanish Maritime Cluster (CME) is to boost the development and competitiveness of Spanish companies and maritime industries.

CME concentrates its efforts to:

- Create wealth and welfare for society.
- Seek business excellence in the Spanish maritime sector.
- Increase the competitiveness of Spanish companies in the global market.
- Improve the efficiency of industrial and commercial management of enterprises.
- Promote the professional development of workers.

In addition, the Spanish Maritime Cluster was born with the aim of attuning to the European Maritime Policy, approved in the so-called Blue Book, whose main objective is to maintain and strengthen the leadership, growth, competitiveness and sustainability of European maritime activities. In which the CME represents an important endorsement.

2.6.6 CMMA - Andalusian Maritime Cluster



Website: <http://cmma.eu>

Year of Establishment: N/A

Members: N/A

Description:

The Marine-Maritime Cluster of Andalusia (CMMA) is made up of innovative companies with a high technological quantification of different subsectors such as: fishing, aquaculture, shipbuilding, maritime transport, recreational nautical, marine research and training, ports and port activities, maritime auxiliary and extractive industries, maritime tourism, underwater archeology, etc.

The objective of CMMA is the promotion and development of the Andalusian maritime sector, in order to achieve greater competitiveness of the whole sector and in general defense of its interests, as well as the creation and development of an adequate legal framework for the development of this industry In Andalusia, Spain and the rest of the world.

It offers the following services:

- Cooperation R & D projects

Promote cooperation, innovation and entrepreneurship in order to promote, stimulate and boost the business fabric and knowledge transfer

- Internationalization

To promote the industry of the Andalusian maritime sector in Spain and abroad, especially in fairs, congresses and events of the international sector. We take advantage of the synergy of the H2020

- Specialized training

Increase the coordination and continuous improvement of the training of professionals of the sector as basic principles of society, as well as facilitate their labor integration in society

- Demand and promotion of the sector

Promote, facilitate and intensify the communication between the members of the association, as well as between different segments of activity that constitute the maritime-marine sector of Andalusia

- Search for public tenders

We help companies find tenders that suit their sector

- Promotion and communication

Many of the entities that belong to the Cluster carry out outreach and sensitization days, so it will function as promotion of activities

2.6.7 Cluster Marino Marítimo de Canarias (Best Practice)



Website: <http://www.clustermc.es>

Year of Establishment: 2006

Members: N/A

Description:

Cluster Marino Marítimo de Canarias is a regional non-profit association whose primary objective is to promote the development and international competitiveness of the Canarian Maritime Marine Sector, while at the same time raising the business, economic and social fabric of the Canaries through the integration, creation, strengthening and sustainability of the companies and institutions that are within the value chain of the maritime sector, promoting its international presence and raising the technological and innovative level of all the agents involved, aligned with development policies and social demands.

The strategy of the Canary Islands Marine Cluster (CMC) to achieve this goal is based on values such as cooperation, commitment, communication and competitiveness. In this way the CMC aims to be a meeting place and dialogue of all agents related to the sea, whose future depends to a large extent on the ability to maintain and create competitive advantages for companies in the Canarian maritime sector by developing activities that increase their level of innovation and their international presence

CMC offers the following services:

- Innovation
- Internationalization
- Communication
- Training
- Certifications



The cluster is active in Business Areas such as: Ship repair, Sea transport, Port infrastructures & services, Sports & recreational fishing, Fishing & aquaculture.

The cluster has also been awarded a bronze cluster management excellence certificate.

2.7 CROATIA

2.7.1 Croatian Maritime Industry Competitiveness Cluster -MarC



Website: <http://www.marc.hr/>

Year of Establishment: 2013

Members: 29

Description:

The Croatian Maritime Industry Competitiveness Cluster is a non-profit public-private organization operating in a strategic sector of the national economy. MarC was founded under the auspice of the Croatian Government in 2013 with the mission of develop a long-term sustainable model for strengthening the competitiveness of the maritime industry.

MarC has established cooperation with two European clusters, the Italian and the French DITENAVE PoleMER. In addition to direct business and science cooperation that can be made among the members of the cluster, it opens great opportunities for joint action under the various funds available.

3 EU non-MED area

3.1 BELGIUM

3.1.1 *Flanders' Maritime Cluster*



Website: www.flanders-maritime-cluster.be

Year of Establishment: 2011

Members: 118

Description:

Flanders' Maritime Cluster (FMC) is the largest maritime network in Belgium. The mission of FMC is to encourage companies to cooperate for the development, demonstration and commercialization of innovative solutions for sustainable coastal and ocean management. FMC brings together industry, academia and policy makers into a supportive ecosystem for regional blue growth.

Flanders' Maritime Cluster was founded in 2011, including the two renowned world players Jan De Nul and Dredging Environmental & Marine Engineering (DEME) as founders. The association is the central point of contact and the umbrella organization for the marine and maritime sector in Flanders.

3.2 BULGARIA

3.2.1 Marine Cluster Bulgaria (Best Practice)



Website: www.marinesluster.com

Year of Establishment: 2007

Members: 23

Description:

MARINE CLUSTER BULGARIA was founded in 2007 as an organization of companies and NGO's, it is a non-governmental organization consolidating the efforts of all sectors of the maritime economy in Bulgaria. The association acts towards the creation of favorable conditions for development and enhancement of the competitiveness of the blue economy by introducing new organizational, product, market and technological solutions, training, implementation of best practices, as well as for its promotion at national and international level.

Members of the cluster are SMEs, NGOs, educational institutions, research and development organizations. Their activities are directed in different areas of the maritime industry: agency services, brokerage, water transport, ship management, ship supply, logistics; stock control; classification and conventional certification of vessels and floating structures; ship design; ship repair and reconstruction; research and development; education and training in marine engineering trades; maritime law.

The Marine cluster Bulgaria is a full member of the European Network of Maritime Clusters and the Association of Business Clusters in Bulgaria.

The main objectives of the cluster are:

- To create conditions for the development of the marine industry in Bulgaria;
- To unite the efforts of all branches for improving the competitiveness of the sector;
- To popularize the marine sector on a national and international level;
- To facilitate international transport network integration;
- To support the members of the association in the activity they perform.

Marine cluster Bulgaria has been awarded a Bronze Cluster Management Excellence Certificate.



3.3 FRANCE (non MED areas)

3.3.1 *Pôle Mer Bretagne Atlantique (Best Practice)*



Website: www.pole-mer-bretagne-atlantique.com

Year of Establishment: 2005

Members: 325

Description:

By developing the maritime economy through innovation, Pole Mer Bretagne Atlantique (PMBA) is a Sea Innovation cluster that has a clear vision of the emerging maritime growth markets. Pole Mer Bretagne Atlantique is deeply involved in the cutting edge R&D activities of the maritime sectors and especially in topics related to Earth Observation. PMBA possesses a substantial knowledge of maritime RTD capabilities through its 300plus members and is willing to share its experience in order to consolidate RTD and business capabilities.

PMBA is a 'triple helix' based cluster that has been acting as a catalyst of innovation since 2005. To date, PMBA has certified more than 270 innovative maritime projects for a whole budget of more than 760 M€, providing the necessary skills to confirm the powerful role of regional clusters in promoting innovation capacity-building.

Furthermore, PMBA with the support and expertise of the Scientific Interest Group Remote Sensing Brittany (GIS Bretel), host the Regional Contact Office Brittany (RCO) that aims to promote and support the development of maritime COPERNICUS 'liked' applications and services. RCO Brittany also aims at raising the awareness of these applications and services at the regional level. Overall the RCO Brittany, along with the Brittany's region implication within NEREUS (Network of European Regions Using Space Technologies), helps to enhance the already existing regional COPERNICUS capabilities and skills and facilitate the development of maritime services for end users.

PMBA is Bronze graduated at Cluster Management Excellence Initiative.

The cluster focuses its activities in the following sectors:

- Maritime safety and security
- Shipbuilding and leisure boatbuilding
- Marine energy and mining resources
- Marine biological resources
- Environmental and coastal planning and development
- Maritime ports, infrastructure and transport

Indicative projects in the maritime surveillance sector include AIMS, ASEMAR, BASIS, CANOPUS, FOR SYSTEM, ISIS, METANE, MODENA, NEMO, OASSYS, SIMILA, STRADIVARIUS, VITEM etc.

3.3.2 Cluster Maritime Français



Website: <http://www.cluster-maritime.fr/>

Year of Establishment: 2006

Members: 414

Description:

The French Maritime Cluster (CMF) is an organisation created to gather, stimulate and promote the French maritime economic sector. Its current membership of more than 400 organisations from the sector includes large groups and companies, SME, VSE, professional federations and associations, local governments, research centers and the French Navy. Established in 2006 to provide a voice for those professionally engaged in maritime related activities, it is the focal point and representative of the French maritime industries.

The CMF acts on three fronts: Institutional Communication, Operational Synergies between its members and Lobbying.

Together with its members, the CMF is building a united front for maritime France, a real ecosystem for business development. The Maritime and Coastal Economic Conferences held annually are an example of this.

In today's extremely competitive economic environment, it is essential to create synergies among those engaged in the maritime economy, so that the economy as a whole can benefit from the innovative skills of the maritime sector and the business opportunities arising from marine activities.

Since 2006, more than 5.780 professionnels have taken part in the 42 (soon 43) cross-sector Synergy Work Groups: "Marine Renewable Energy", "Deep Sea Mining", "Creation of a marine investment fund", "Ship Breaking", "Franco-Russian Cooperation", "Overseas Territories", "Very Large Floating Structures", etc (and soon " Marine Bioressources"). They are created to make the business easier with operational goals: recommendations (maritime law, tax law, ports reform, maritime education, economic policy, etc.); creation of new consortia (deep sea mining, anti-piracy technological solutions, biotechnology, etc.) and industries structuring (marine renewable, LNG, etc.).

3.3.3 Neopolia MARINE



Website: <http://www.marine.neopolia.com/>

Year of Establishment: N/A

Members: 40

Description:

Based on the Loire estuary, an area with a strong shipbuilding tradition, Neopolia Marine represents more than 40 companies which pool their expertise and collaborate in order to respond innovatively to the needs of the shipbuilding industry.

Our added value is based on:

- Expert knowledge of technical and regulatory constraints for maritime and river projects.
- Expertise in project coordination exploiting the synergy of the companies.
- An ability to assess the environmental impact over the life cycle of a project (SSD tool).
- Appropriate infrastructures.

3.3.4 IPC Concarneau naval cluster



Website: <http://ipc-concarneau.com/>

Year of Establishment: 1993

Members: 50

Description:

Created in 1993, the IPC is the association that brings together the companies of the shipbuilding industry of the port of Concarneau. It ensures the representation and promotion of these companies and their know-how.

The fifty companies in the naval sector, grouped together within the IPC, combine skills and availability with the shipowners to provide shipbuilding and repair services, equipment and services. The complementary nature of their businesses combined on the Concarneau site allows the matching of all customer needs for all types of vessels: fishing, military, scientific, passenger transport and large yachting. Key actions: 1. Creation of the SEMCAR, (Fleet Means Operating Company), 2. Construction of the dry dock to accommodate vessels up to 120 meters, 3. Modernization of the fairing equipment and upgrading of the naval repair area, 4. Cover of the dry dock and 5. Promotion and communication at maritime events and trade shows.

3.4 DENMARK

3.4.1 Maritime Development Center



MARITIME
DEVELOPMENT
CENTER

Website: <http://mdc.center/>

Year of Establishment: 1999

Members: 200

Description:

The Maritime Development Center is the cluster organization for the Blue Denmark a network organization for the maritime business and stakeholders. The association was founded in 1999 and counts close to 200 members representing all aspects of the maritime cluster.

As the maritime hub MDC supports Denmark in being the most innovative nation among the elite of the world's maritime nations. As a cluster organization, MDC brings together authorities, knowledge institutions and all types of companies within the maritime business. Its strength is its ability to work and collaborate across the entire industry. MDC supports 3 core activities:

- Events & Network (Environment, Port Forum, Maritime Law, Maritime ICT & Digitalisation etc)
- Projects (Maritime IT, Environment and Energy, Maritime Competences and Skills, Transport and Logistics)
- Secretariats

3.4.2 MARCOD (Best Practice)



Website: <http://www.marcod.dk/>

Year of Establishment: 2010

Members: N/A

Description:

MARCOD is an independent maritime center which strengthens and facilitates the maritime companies, network and competences in an international maritime industry. Its goal is to create growth in the Blue Northern Jutland. MARCOD communicates knowledge about the maritime industry to the Blue Northern Jutland and is a cluster secretary and development resource for the maritime companies and network in Northern Jutland. It has obtained extensive knowledge of the maritime industry and a comprehensive network to the maritime participants in Denmark and Scandinavia such as: authorities, industry organizations, associations and businesses.

The center was established in 2010 and is organized as a foundation with sponsorships from Northern Jutland Growth Forum, Business Region North Denmark, municipalities and ports from Northern Jutland, as well as Lauritzen Fonden, ENV Fonden and The Danish Maritime Fund.

MARCOD's objective is to increase growth in maritime companies:

- Economic growth
- Growth in employment
- Growth in competency

MARCOD aims to be a recognised national knowledge center that creates a commercial driving force within the maritime service industry in Denmark.

The cluster has been awarded a Silver Cluster Management Excellence Certificate.



3.4.3 Maritime Cluster Copenhagen North



Website: www.maritimecluster.dk

Year of Establishment: 2016

Members: 76

Description:

Maritime Cluster Copenhagen North (MCCN) works to create value for its members, through activities, knowledge sharing and innovation projects in the cluster. Through a common platform for growth and development, the cluster attempts to strengthen the many maritime companies in Northern Zealand. Maritime Cluster Copenhagen North aims to create alliances and foster collaboration across companies, but also across the ports, knowledge institutions and authorities.

The cluster has so far three focus areas:

1. Visibility of the cluster's capabilities and members (internal and external)

Creation of an overview of the cluster competencies. In this way, companies have a better opportunity to choose a local partner. Good cooperation can lead to strategic alliances around such as large orders / tasks / offer or apprenticeships. Finally, it creates a good working relationship dynamics and development locally and makes it attractive to settle down as a newly established company.

2. Support green growth

The maritime industry is, like many others, challenged with new requirements and regulations from national government, EU and international bodies i.e. National and international climate requirements and objectives. Danish companies are traditionally skilled and innovative in developing

green technology and solutions, but it can always be better. The Cluster addresses the business opportunities, and seeks to build ties between companies, knowledge institutions and government. In addition, it assists with project development and application assistance to relevant resources.

3 .Special challenges for areas with lower growth, such as infrastructure and attracting labour

For some of the companies in the cluster, the challenge is to attract competent workforce. We address this topic at several levels, among others, by focusing on the parts-apprenticeship and skills development, and by engaging relevant projects.

3.4.4 The Danish Maritime Cluster



Website: <http://www.dkmk.dk/>

Year of Establishment:

Members:

Description:

The purpose of the project is to heighten the level of competence in the maritime business sector. The activities of the project will contribute to maintaining positive growth, as well as securing maritime jobs, regionally and nationally. These factors will improve the ability of the Danish maritime cluster to compete in the international markets

The ambition is to bring the competence of the maritime cluster to a level of excellence. As part of project The Danish Maritime Cluster will work with knowledge institutions, associations, businesses and authorities to create educational programs ranging from shorter bachelor degrees to graduate programs and ph.d funding.

To support the effort in the educational landscape the project will also work to support the growth and innovation of businesses in the maritime sector. More specifically, projects will be launched to promote the use of highly educated graduates in SMEs. The effort will be driven, in part, by bringing together the educational institutions with businesses to realize the full potential of the strengthened competences.

The driving force behind the project is the strong collaboration between major stakeholders in the maritime sector of Denmark. The involvement of actors as well as stakeholders will ensure that identification of competence needs will fulfill not only current needs, but also those of the future.

3.5 FINLAND

3.5.1 Meriliitto - Finnish Maritime Association



MERILIITTO - SJÖFARTSFÖRBUNDET RY
SUOMEN MERELLISTEN INTRESSIPIIRIEN YHTEISTYÖFOORUMI

Website: www.meriliitto.fi

Year of Establishment: 1926

Members: 300+

Description:

The Cluster was established in April 24, 1926 as a result of a serious naval disaster, with the aim to support the nation to rebuild a modern Navy. Meriliitto counts over 300 members of which 40 are corporate members.

The Finnish Maritime Association's purpose is to work to the benefit of the Finnish Maritime Cluster, maritime culture and to promote activities related to the sea. The members are Finnish citizens or corporations or other organizations, typically connected to shipping, port activities, maritime industries, shipbuilding and services, the naval defense forces and individuals with an interest in maritime issues.

The Association has long concentrated its activities in the Finnish maritime cluster - companies and organizations operating in the maritime sectors. As a maritime co-operation forum, the Association enhances the importance to the nation of shipping and other maritime activities, and its goal is to enhance the interest in and knowledge and appreciation on the maritime sectors. Although the Association operates on a non-profit basis and with volunteer resources, it is a good link and channel of influence to the whole maritime cluster, political decision makers, the media and the general public.

Since 1986, the Association has granted its "Maritime Achievement - Honorary Award" as a recognition of major achievements for increasing knowledge and appreciation of maritime culture or businesses. This respected award has so far been granted nine times. The Association seeks to develop its actions also to the benefit of less represented new sectors of the cluster in supporting the EU's Blue Growth goals. The Association's target is to be a joint forum for promoting and utilizing the interests of the Finnish Maritime Cluster.

3.6 NORWAY

3.6.1 NCE Maritime CleanTech (Best Practice)



Norwegian Centres of Expertise

NCE Maritime CleanTech

Website: <https://maritimecleantech.no/>

Year of Establishment: 2011

Members: 65

Description:

NCE Maritime CleanTech (NCE MCT) represents one of the world's most complete maritime commercial hubs. The cluster uses the Norwegian maritime expertise, built up over generations, as a springboard for the development of new energy-efficient and environmental friendly technologies.

It focuses on establishing sustainable innovation projects with commercial potential, and work together for new clean maritime solutions. NCE Maritime CleanTech shall strengthen the cluster partners' competitiveness by developing and launching innovative solutions for energy-efficient and clean maritime activities:

- Increased innovation
- Strengthen the knowledge base
- Increased cluster attractiveness for investors and new recruitments
- Strengthen the cluster's resource base
- Stimulation of market pull effects

The Cluster participants share the following core values:

- Collaboration shall create mutual benefits for the participants and is crucial for developing new technology
- Success through cooperation
- Confidence for competition in an orderly manner
- Taking part in our cluster collaboration requires commitment, trust, openness and cooperativeness.

NCE MCT has been awarded a Gold label certificate on Cluster Management Excellence.



3.6.2 Arctic Maritime Cluster - Arktisk Maritim Klynge (Best Practice)



Arktisk Maritim Klynge

Website: arena-amk.no/

Year of Establishment: 2013

Members: 38

Description:

AMK aims to become the leading maritime cluster in Norway focusing on arctic operations. Maritimt Forum Nord is the project owner. AMK is developing and implementing equipment, design and processes which safeguards efficiency, safety and environment issues in maritime operations in an arctic climate. The present members of AMK are: 9 shipping lines, 5 ship yards, 13 service - and equipment suppliers, 7 knowledge providers and 4 cooperating partners.

Its vision is that the participants in AMK should become preferred suppliers of arctic maritime technologies and operations on Norwegian and international arctic markets. The main goal is to establish AMK as the leading maritime environment within the fields of knowledge and industry in Norway related to a challenging arctic climate, by means of developing and implementing equipment, design and processes which ensure efficient, safe and environmentally positive maritime operations. An important goal is thus partly related to developing cluster qualities and partly to implementing knowledge-, innovation-, and competence synergies towards and between the participants. In order to realize the specific goals shown above, five main strategic issues have been considered, where the first two are related to developing internal and external networks, while the next three are related to specific development projects, being market development and internationalization, knowledge and innovation, as well as competence and recruitment. A set of activities will be carried out within these five strategic fields.

AMK has received an European Cluster Excellence Initiative Bronze Label Certificate.



3.6.3 Maritimt Forum



Website: <http://maritimt-forum.no>

Year of Establishment: N/A

Members: 700

Description:

Maritime Forum is a foundation that represents the entire maritime industry in Norway. The maritime industry provides employment to more than 110,000 in Norway and creates value for over 175 bn. Kroner annually. This makes the maritime industry to the second largest value creator, after oil and gas.

Maritime Forum brings together about 700 companies and organizations from both employees and employers in the maritime sector. Together they represent Maritime Forum members throughout the value chain - a diversity that is precisely the maritime industry in Norway's leading edge.

Maritimt Forum's vision is for Norway to be the most attractive place in the EEA to operate, own and develop maritime activities. To reach this goal it:

- Organizes public education and information campaigns to highlight the industry and its importance in the Norwegian society
- Carries out political influence of the industrial policy common interests
- Strengthens the cooperation and the dynamics of the cluster

3.6.4 Blue Maritime Cluster – Global Centre of Expertise Norway (Best Practice)



**BLUE
MARITIME
CLUSTER**
GLOBAL CENTRE OF EXPERTISE
NORWAY

Website: <http://www.bluemaritimecluster.no>

Year of Establishment: 2006

Members: 216

Description:

The maritime cluster in Møre is a world leader in the design, construction, equipment and operation of advanced specialized vessels for the global ocean industries.

In 2014, due its unique global market position and its important contribution to Norwegian value creation, the cluster was granted the status of a Global Centre of Expertise. Global Centre of Expertise are a new top level in the Norwegian cluster program and it has been referred to by Norway's Minister for Trade and Industry, Monica Mæland, as the industry's Champions League.

The Norwegian Blue Maritime Cluster is among the very few complete maritime clusters in the world. It consists of 20 shipping and 13 design companies, 14 shipyards and 169 equipment suppliers that employ over 80.000 people and had a turnover of about 4 billion € in 2001 (8% of total country

value creation and 3% share of GDP). The cluster accounts of 40% of the world's modern fleet. The Norwegian maritime industry consists of 4,053 companies in total in various maritime sectors. The Industry is dominated by the shipping sector. The Norwegian Cluster aims to enhance the global competitiveness of the businesses and encourage regional skills development. The analysis for 2013 shows that the maritime cluster is experiencing continual growth.

The maritime cluster of Norway is in fact quite fragmented into several smaller regional clusters. Specifically, the cluster consists of seven regional clusters along the whole coastline, the largest actors located around the capital city. The most important characteristic of the cluster is the efficient co-operation between the Shipping companies (majority of members) and the rest of the maritime sector, which helps to create innovations and commercial competitiveness. Significant synergies are also identified between shipyards and research institutions, which together have developed know-how and new solutions to the market. Furthermore, the cluster shows specialization in oil transportation (carries out 15% of the global oil exploration activities in the nearshore).

The main components of the Cluster are: Maritime Shipping, Marine Equipment Suppliers (mainly offshore oil and natural gas), Maritime Services (finance, insurance, brokering, maritime law, ship classification and certification, port services), shipbuilding and fisheries. Regarding R&D, the cluster seems to be attractive for investments, and although the amounts of spending are lower than in other countries the innovation level is very high, a fact which indicates that Norway gets high returns from the investments.

The cluster has been awarded a Gold Label Cluster Management Excellence by the European Cluster Excellence Initiative.



3.7 ICELAND

3.7.1 ICELAND OCEAN CLUSTER (Best Practice)



Website: <http://www.sjavarklasinn.is>

Year of Establishment: 2010

Members: 60

Description:

Iceland Ocean Cluster started as a project at the University of Iceland but is now a full running company which facilitates networking opportunities for ocean related industries in Iceland and worldwide. Its partners consist of leaders in well established, as well as cutting edge firms in ocean related industries. The Iceland Ocean Cluster is located by the old harbor in the Ocean Cluster House at Grandagardur 16, 101 Reykjavík along with 60 other companies working in the marine industry.

The Iceland Ocean Cluster's mission is to create value by connecting together entrepreneurs, businesses and knowledge in the marine industries. To serve this mission it provides a range of services and invest our resources in new marine spin-offs and projects.

- Networking
- Incubation
- Research
- Consulting
- Speaking
- Tours

It has been awarded a Cluster Management Excellence – Bronze Label Certificate.

3.8 IRELAND

3.8.1 *imerc – Irish Maritime and Energy Resource Cluster*



Website: www.imerc.ie

Year of Establishment: 2010

Members: 3 partners

Description:

IMERC promotes Ireland as a world-renowned research and development location that will unlock Ireland's maritime and energy potential. IMERC aims to harness and integrate diverse research and industry expertise. The IMERC initiative comes at the dawn of a new era for maritime Ireland, stimulated by the growing realization of the economic opportunities around maritime and energy, and in particular with regard to marine renewables.

Launched in March 2010, IMERC is working to provide researchers, technology developers, companies (especially SMEs) and investors with the critical tools to build value creating relationships, to make alliances and supporting infrastructure more accessible and effective in the maritime and energy sectors. Exploitation of the human capital within IMERC requires a focus on priority thematic areas, designed to leverage from the core strengths within the IMERC community. The strategic pillars around which people, enterprise and institutions are focused are:

- Marine Energy
- Shipping, Logistics and Transport
- Maritime Safety and Security
- Yachting Products and Services

3.8.2 *Marine Institute – Foras na Mara*



Website: www.marine.ie

Year of Establishment: 1991

Members:

Description:

The Marine Institute was set up under the Marine Institute Act 1991: “to undertake, to coordinate, to promote and to assist in marine research and development and to provide such services related to research and development, which in the opinion of the Institute, will promote economic development and create employment and protect the marine environment.”

It is the State agency responsible for marine research, technology development and innovation in Ireland and carries out environmental, fisheries, and aquaculture surveys and monitoring

programmes to meet Ireland's national and international legal requirements. The Cluster provides scientific and technical advice to Government to help inform policy and to support the sustainable development of Ireland's marine resource.

The main aim is to safeguard Ireland's unique marine heritage through research and environmental monitoring. Its research, strategic funding programmes, and national marine research platforms support the development of Ireland's maritime economy.

It is active in the following sectors:

- Aquaculture
- Fisheries & Ecosystems
- Fish Health
- Seafood Safety
- Marine Environment
- Oceanography
- Education & Outreach
- Shipping, Maritime & Ports
- Seabed Mapping

3.9 GERMANY

3.9.1 *Maritimes Cluster norddeutschland*



Website: <http://www.maritimes-cluster.de/>

Year of Establishment: 2011

Members: 240+

Description:

The Maritimes Cluster Norddeutschland (MCN) promotes and develops cooperations in the Northern German maritime industry. It gives the maritime industry a voice, creates platforms so that stakeholders are able to interact with one and other and it also promotes interfaces with other industries – innovative, technology-oriented and forward-looking.

The Maritimes Cluster Norddeutschland (MCN) is the interface between the various players from the worlds of business, academia and politics. The association creates platforms for dialogue, promotes contacts to other relevant industries and networks, and supports its members in their efforts to develop ideas, services and products and to establish them in the marketplace.

Since 2011 the Maritimes Cluster Norddeutschland has been promoting networking among the various players in the maritime industry. In September 2014 the federal states of Lower Saxony, Hamburg and Schleswig-Holstein have been joined by Bremen and Mecklenburg-West Pomerania to round off the alliance. Since January 2017 the MCN acts as an association.

Indicative projects: Nautilus, CASCADE, Service Point Kiel Canal, PITAS:

Combating piracy and terrorism on seagoing vessels.

The Cluster has been awarded a Bronze Label Cluster Management Excellence Certificate.



3.9.2 *CMT - Center of Maritime Technologies*



Website: <http://www.cmt-net.org>

Year of Establishment: 2003

Members: 10

Description:

Coordinator of the network for Research, development and Innovation of the German maritime Industry and science. The association's goal is to strengthen research, development and innovation in the maritime industry by promoting cooperation between the various players in industry and the academic world. CMT serves as the central hub for the maritime competence network with the following tasks, aims and services:

- Central contact point for innovative tasks and ideas in the maritime sector
- Information broker and contact point for research-related information, competencies and exploitation of research results
- Coordination of maritime R&D activities in Germany and Europe, foremost through establishment and coordination of R&D networks
- Initiation of innovation, research and development through information, consulting, administrative and technical support
- Commissioned research activities through own capacities in selected fields
- Strategy formation for companies, specific economic sectors and the whole maritime industry
- Fostering the European integration through collaboration in European committees and through contribution to the development of the European Research Area
- Creation of contact possibilities between CMT members and other players in the maritime sector

CMT is the successor organization of the *Forschungszentrum des Deutschen Schiffbaus e.V. (FDS)* (German Shipbuilding Research Center) which was founded in Hamburg in 1965. The main tasks of the FDS included the promotion and coordination of projects involving collective industrial research in the German shipbuilding industry. The establishment of CMT in 2003 marks an extension of its activities into both other maritime areas and European projects.

The members of CMT come from shipyards, the marine supply industry, shipping, providers of maritime services, the academic world, universities and government agencies.

3.9.3 Maritime Allianz - OSTSEEREGION



Maritime Allianz
OSTSEEREGION

Website: <http://www.mao-ev.de>

Year of Establishment: 2000

Members: 50

Description:

The Maritime Alliance Ostseeregion eV was founded in 2000 and is an open network of companies in the maritime industry. It represents a network of members from maritime business, engineering and consulting companies and scientific institutions.

The aim of the Maritim Allianz Ostseeregion eV is to promote the economic development of the maritime industry in Mecklenburg-Vorpommern with the outstanding competences and experiences of its members and to strengthen their competitiveness by using synergy effects through innovation, cooperation and further education projects.

The Maritime Alliance represents a network of about 50 members from the maritime industry.

The Maritime Alliance Ostseeregion eV has successfully organized around 90 research and development projects in the maritime industry in Mecklenburg-Vorpommern. These include, among others, growth core projects, collaborative projects and several network projects in the areas of:

- Maritime logistics, ship security, terrorism
- Shipbuilding / shipbuilding supplies
- Yacht- and boatbuilding / high-performance construction
- Marine and offshore technology
- Fishing technique
- environmental Protection
- Hydraulic engineering and coastal protection

3.10 LUXEMBOURG

3.10.1 CLUSTER MARITIME Luxembourgais



Website: www.cluster-maritime.lu

Year of Establishment: 2008

Members: 50

Description:

Created in 2008 as a non-profit organization, the Luxembourg Maritime Cluster (CML) brings the Blue Economy of the Grand-Duchy to the fore. Member companies and institutions represent proudly and convincingly the local maritime business community, domestic and abroad. Members of the Cluster offer together a wide variety of maritime business experience and expertise: shipping, dredging, classification, ship brokerage, banking, law, consultancy & audit, insurance, security and safety, railway and maritime logistics.

Since 2011 the CML holds the Vice-Presidency and the General Secretary of the European Network of Maritime Clusters.

The aim of the Cluster is to contribute to the development of the maritime sector as well as related services through the implementation of communication and promotion strategies in Luxembourg and abroad. Related services include transport, logistics and consulting services as well as financial services and other services that are linked to maritime activities or to the actors involved in this sector. The Cluster regroups around 50 companies involved in or supporting the maritime sector.

The specific actions of the Cluster are to:

- contribute to the development of the maritime sector and associated services;
- observe and analyse legal and economic issues as well as other related topics;
- inform and exchange through networking and thematic meetings;
- represent the sector and participate in relevant events and discussions.

3.11 POLAND

3.11.1 POLSKI KLASTER MORSKI – POLISH MARITIME CLUSTER



Website: www.klastermorski.com.pl

Year of Establishment: 2009

Members: 54

Description:

Polish Maritime Cluster was established on 27 July 2009. The objective of the Cluster is to promote innovation and development in the field of research, business, government and local government related to the Baltic Sea Region and the world ocean with the back of land and water along the Vistula and the Oder, economic and social ties Pomerania and Polish with other countries of the Baltic Sea Region and act as the coordinating institution. Goals of Polish Maritime Cluster:

- building cooperative network and the system of information flow;
- organizing common economic events;
- cooperating with academic researchers;
- identifying and organizing funds for innovative actions – common innovative projects;
- formulating demands to legislative initiative
- national and international cooperation among clusters;
- the international representation of Polish Maritime Cluster

3.11.2 Westpomeranian MARITIME CLUSTER



Website: <http://klastermorski.org>

Year of Establishment: 2008

Members: 107

Description:

Westpomeranian Maritime Cluster Association is the oldest, the longest operating maritime cluster in Poland. The high and continually increasing number of members is the unquestionable proof of many years of Cluster's history and experience – at present, there is over one hundred members associated. One of the most valuable of them are City of Szczecin, Maritime University of Szczecin, West Pomeranian University of Technology and many others great companies. Frequent presence of the representatives of Cluster in the media, not only the local ones, makes it a well-known brand. Westpomeranian Maritime Cluster's mission is to stimulate the development of the maritime economy in the region.

3.12 SWEDEN

3.12.1 Swedish Maritime Technology Forum



Website: <http://smtf.se/en/>

Year of Establishment: 1996

Members: 100

Description:

The Maritime Forum (in Swedish “Sjöfartsforum”) was established in 1996. The Maritime Forum is an association of around 100 fee paying members. These members are companies, organizations and authorities such as shipping lines, port companies, shipbrokers, universities, schools, unions, banks and finance institutes, technical suppliers and consultants, shippers, shipping organizations, authorities and other companies related to the shipping industry.

The object of Maritime Forum is to:

- increase knowledge about shipping as an industry and as a mode of transportation
- communicate the possibilities and advantages of seaborne trade and transportation
- highlight the important role that shipping brings to both the Swedish society and its industry
- highlight the benefits of shipping as an interesting sector for employment and education
- stimulate openness, co-operation and discussions within the shipping cluster

The Maritime Forum is promoting intermodal transportation, short sea shipping and inland waterway transportation. The Forum is also promoting the environmental benefits of sustainable ships design, along with the efforts to reduce emissions from ships and how sea transportation can contribute to a better environment. Other important topics that the Forum promotes include: the importance of ports as economic and social hubs within Sweden, the challenges that future shipping faces along with the EU programmes such as Marco Polo and Motorways of the Sea and recruiting etc.

3.12.2 Maritime Cluster of West Sweden



Website: <http://maritimaklustret.se>

Year of Establishment: 2013

Members: 12.000

Description:

The current cluster started in 2013. The participants from the innovation system have a long-term commitment but will evaluate the methods and activities used to reach the objectives after two years.

Maritime focus areas:

- Marine governance
- Maritime operations and marine technology
- Marine biotechnology
- Marine energy
- Seafood
- Marine tourism and recreation

The maritime cluster of Västra Götaland is a joint project involving Region Västra Götaland, University of Gothenburg, Chalmers University of Technology, SP Technical Research Institute of Sweden, SSPA Sweden AB and SIK Swedish Institute of Food and Biotechnology. The universities and institutes of the partnership are all active on a global scale which makes it possible to stimulate development without borders. Involvement of partners in Västra Götaland is an important aspect but we seek global collaboration. An important role of the core partnership is to involve their own networks of collaboration partners – companies and research groups – in Sweden and elsewhere in innovation projects.

3.13 NETHERLANDS

3.13.1 Maritime by Holland



Website: www.maritimebyholland.com

Year of Establishment: 1997

Members: 12.000



Description:

The maritime sector has been a significant part of the Dutch business community for centuries thriving on the core principles of cooperation, innovation and entrepreneurship. Over the years, the sector has become a global leader in delivering innovative solutions to the international markets.

Nederland Maritiem Land (NML) is an organisation that connects twelve maritime sectors: ports, offshore, maritime suppliers, shipbuilding, ship operating, dredging, maritime services and knowledge institutes, inland shipping, Royal Navy, watersports and fisheries. Together, this 17 billion euro industry comprises 12,000 companies employing more than 200,000 people.

NML facilitates the Dutch maritime network. It is a market-driven initiative that was created in 1997 following a re-energised national shipping policy. Its core aim is to join-up the various maritime sectors and link them with government and academia. Doing this allows the creation of joint initiatives which strengthen individual sectors and promote the Netherlands as a significant maritime nation. Knowledge sharing across the network is facilitated to mutual advantage.

A privately funded organisation, NML seeks to co-finance a range of projects to further the interests of the Dutch maritime community. It is governed by a board of directors selected from the network to provide a range of skills that reflect the entire spectrum of the membership.

3.14 UNITED KINGDOM

3.14.1 Maritime UK



**MARITIME
UK**

Website: <https://www.maritimeuk.org/>

Year of Establishment: 2009

Members: 17

Description:

Maritime UK brings together the UK's shipping, ports, marine and business services sectors, to drive forward an ambitious agenda for growth, to promote the UK as a world-class maritime centre and to unite the maritime community in meeting the challenges of tomorrow. As the engine of British trade, and with a world leading marine manufacturing sector, the UK maritime industry supports over 500,000 jobs, contributes £22.2bn to UK GDP, and drives exports and inward investment.

Maritime UK, in conjunction with industry and government stakeholders works to ensure that the importance of the UK maritime industry is recognized at all levels.

Strategic Objectives

- Act as “One Voice” for the common concerns of the sector – amplifying its profile, identifying common issues and promoting joint policy positions through industry campaigns and messaging.
- Promote the UK as the world-leading maritime nation by coordinating promotional campaigns to deliver growth for the sector, addressing the outside world and serving the interests of the wider economy by enabling trade.
- Work in partnership with government and other sectors to build a business and regulatory environment which reinforces the UK's world leadership.
- Deliver an industry-wide skills strategy which ensures that increased numbers of people enter and build their careers in the sector, at sea and on shore, thus meeting the future labour needs of the sector.
- Deliver a programme of regional cluster development to drive sector growth across the UK.
- Provide the highest level of member service through engagement, communication and measurable delivery.

3.14.2 MERSEY MARITIME



**MERSEY
MARITIME**

Website: <http://www.merseymaritime.co.uk/>

Year of Establishment: 2003

Members: 1700

Description:

Mersey Maritime is the representative body for the Maritime Sector in the Liverpool City Region. It works with businesses of all sizes and in all locations to develop strong, market-responsive supply chains and promote Liverpool's maritime industry as a world class Centre of Excellence.

Mersey Maritime was set up in 2003 to represent the interests of the Ports and Maritime Sector on Merseyside, helping create the right conditions for business growth

It operates as a not-for-profit organisation at the public-private sector interface, working with hundreds of businesses whose activities span the 33 sub-sectors that make up the industry in the Liverpool City Region. In 2015, the region's Marine and Maritime Sector comprised some 1250 businesses making a combined contribution of £3.47bn, or 13% of, the regional GDP.

Mersey Maritime works across four main areas of activity:

- Sector Growth
- Communications
- Infrastructure
- Knowledge and Skills

Mersey Maritime is one of Europe's most successful maritime cluster organisations, representing the interests of over 1700 Maritime, Logistics and Energy businesses on Merseyside and beyond.

3.14.3 MARITIME LONDON



Website: <http://www.maritimelondon.com/>

Year of Establishment: 2001

Members: 96

Description:

Maritime London is a not for profit promotional body for UK-based companies that provide professional services to the international shipping industry. Maritime London's mission is to promote the UK as the world's premier maritime business centre.

Maritime London objectives in support of the mission are:

- To represent collectively and raise the profile of maritime professional business services
- To facilitate new business for members through trade promotion
- To attract shipowners, operators and cargo interests to the UK

- To build upon historic and present-day advantages of the UK as the pre-eminent base for international maritime professional business services
- To assure a professional maritime skills base through the encouragement, recruitment and retention of British seafarers
- To promote British maritime training and education
- To encourage networking between its members in order to build closer contacts
- To organise industry events aimed at bringing members up-to-date on recent developments in the maritime industry

Funded by over 100 companies and organisations from a wide range of disciplines, Maritime London ensures that the UK remains a world beating location to base a maritime related business. Maritime London's mission is to promote the UK as the world's premier maritime business centre.

3.14.4 *marine southeast*



Website: www.marinesoutheast.co.uk

Year of Establishment: 2005

Members: 1800

Description:

Marine South East is a cluster organization that exploits strong historical strengths in naval equipment manufacture, building and operation; ports and maritime logistics; marine science and leisure craft. The cluster is focused upon developing capability to exploit the emerging 'Blue Growth' markets.

Over the past 10 years, diversification has been stimulated by major investment in ocean science, marine instrumentation, advanced marine manufacturing and marine/offshore renewable energy. MSE has coordinated or partnered in a wide range of projects including H2020, FP7, Interreg and many nationally funded programmes.

MSE routinely collaborates with partners from its extensive industrial, academic and public sector network.

The principal activities of MSE fall into three categories:

1. Facilitating companies' investment in innovation by improved access to technology, skills and market intelligence

2. Forging new relationships to help companies gain market access particularly in emerging maritime market areas

3. Promoting the capabilities and growth potential of the marine industries and their supply chains to Governments and policy makers

Marine South East supports a wide range of activities to support the strategic growth of the marine sector through consultancy projects, collaborations, European partnerships and strategic projects.

It operates in the following fields:

- Offshore and marine energy
- Maritime resource efficiency
- Ports and marine operations
- Skills and workforce development
- Maritime cluster collaborations
- Marine Business Collaborations

Background:

Marine South East has been trading since 2005 as a not-for-profit marine sector organization interacting with more than 2000 businesses across the marine and maritime sectors. In the past Marine South East has been particularly focused on the South East of England but it is now working actively with other strong UK maritime regions as well as in extensively as Europe and further afield.

4 Non EU area

4.1 AUSTRALIA

4.1.1 AMC – Australian Marine Complex, Western Australia



Website: www.australianmarinecomplex.com.au

Year of Establishment: N/A

Members: 150

Description:

The Australian Marine Complex (AMC) is a world-class centre for excellence for manufacturing, fabrication, assembly, maintenance and technology development, servicing the marine, defence, and resource industries.

More than 150 businesses are located within the AMC which is made up of four main precincts:

- Maritime
- Technology
- Support Industry
- Fabrication

Home to the nation's largest shipbuilding industry, the AMC offers access to high skilled workers and world class infrastructure. Located within the AMC's Shipbuilding Precinct, the Marine Support Facility provides substantial marine repair, refit and modernisation capability. The facility is equipped with extensive dry-berth support infrastructure including one of Australia's largest ship-lifts which has a nominal lifting capacity of 8,065 tonnes. The AMC has the capacity to meet a wide range of shipbuilding and vessel maintenance needs.

4.2 UNITED STATES of AMERICA (CALIFORNIA)

4.2.1 TMA – The Maritime Alliance



Website: <http://themaritimealliance.org>

Year of Establishment: N/A

Members: 73

Description:

The Maritime Alliance (TMA) is the non-profit industry association and cluster organizer for the San Diego maritime technology community. Its tag line is Promoting BlueTech and Blue Jobs®. It creates BlueTech and Blue Jobs by promoting sustainable, science-based ocean and water industries. It aims to bring education, policy and technology resources together to promote innovation and economic development in the Blue Economy.

BlueTech Cluster Alliance

The Maritime Alliance (TMA) and seven other BlueTech clusters have launched a global BlueTech Cluster Alliance (BTCA) to foster innovation and economic development in the maritime domain. The seven Charter Members represent leading BlueTech clusters in 7 countries - Canada, France, Ireland, Portugal, Spain, UK and U.S. - and will constitute the Steering Committee. In addition, Pôle Mer Bretagne Atlantique has signed as the first Regular Member of BTCA.

The clusters will leverage differences in their structures, funding sources and areas of focus to promote sustainable, science-based ocean and water industries. BTCA will advance cluster-to-cluster and B2B collaboration "...through events and initiatives that promote the Blue Economy and share common goals of fostering economic development, innovation and scientific discovery in the maritime domain." BTCA will be expanding membership to other BlueTech clusters that promote international cross-cluster collaboration.

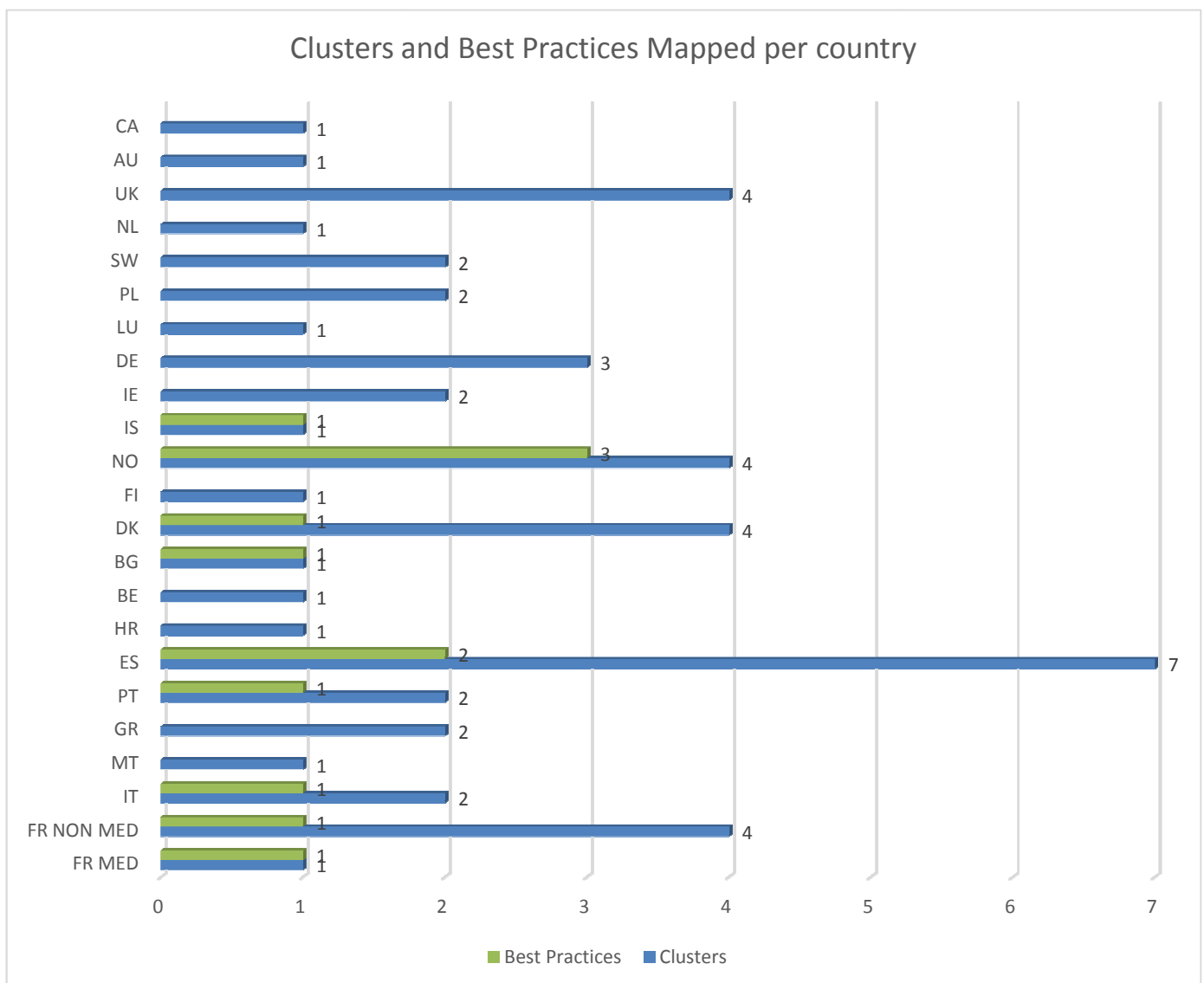
BTCA members will use regular conference calls and meetings at major trade shows to promote collaboration. The first group meeting will be at Oceanology International North America Feb. 14-16, 2017 in San Diego, CA and the second meeting will be at Ocean Business Apr. 4-6, 2017 in Southampton, UK. Charter Members of the BlueTech Cluster Alliance (BTCA) are:

- | | |
|------------------------------|----------------------------------|
| - Forum Oceano (Portugal) | - Pole Mer Mediterranee (France) |
| - Marine Institute (Ireland) | - The Maritime Alliance (U.S.) |
| - Oceans Advance (Canada) | - UK Blue Growth Network (UK) |
| - PLOCAN (Spain) | |

5 Conclusions

According to the study executed within the framework of this deliverable, in total 49 maritime clusters have been identified at international level. The clusters mapped derive from France, Italy, Malta, Greece, Portugal, Spain, Croatia, Belgium, Bulgaria, Denmark, Finland, Norway, Iceland, Ireland, Germany, Luxemburg, Poland, Sweden, Netherlands, UK, Australia and California.

Out of the 49 clusters mapped, the 12 have been labelled either with gold, silver or bronze certificates by the European Cluster Excellence Initiative (ECEI), which promotes cluster management excellence through benchmarking and quality labelling of clusters and cluster management organizations. The mapping is summarized in the following chart.



6 References

1. European Network of Maritime Clusters - www.enmc.eu
2. European Cluster Observatory - <http://www.clusterobservatory.eu>
3. TCI Network - www.tci-network.org
4. Cambridge Cluster Map - <http://www.camclustermapping.com/>
5. European Cluster Collaboration Platform - <http://www.clustercollaboration.eu/>
6. KlasterLT - <http://www.klaster.lt>
7. MED Project CoRINThos - <http://www.medmaritimeprojects.eu/section/corinthos>
8. The European Secretariat for Cluster Analysis - <http://www.cluster-analysis.org>