

Marine Cluster

A CLUSTER WITH A WORLD-WIDE MISSION

Since it was accredited in July 2005, the Provence-Alpes-Côte d'Azur Marine Cluster, which is also a PRIDES (regional cluster for innovation and mutually supportive economic development) has become a major player in the policies of sustainable development and maritime safety in the Mediterranean.

As a competitiveness cluster with a world-wide mission, the Marine Cluster's ambition is to make the Provence-Alpes-Côte d'Azur region a breeding-ground for excellence in business and research centres. Its sphere of influence now extends to Corsica and Languedoc Roussillon.

The recognised effectiveness of the PACA Marine Cluster is based on a management structure in which all the players, project organisers and partners are involved and on a concerted deployment with its twin organisation, the Brittany Marine Cluster.

KEY STATISTICS OF THE SECTOR

- **60,000** employed directly in the profession, of whom **21,000** are with the members of the Cluster
- More than **270** members including **190** businesses (small and medium-sized companies, groups and large companies)
- **2,100** scientists and more than **75** research and training bodies
- More than **2,000** graduates a year

EXCEPTIONAL ADVANTAGES

- **A cluster at the convergence of several areas of regional excellence:** information technologies, robotics and remote control, optics and photonics, simulation and modelling, submarine acoustics and signal processing, biotechnology, naval maintenance, naval engineering and construction, and submarine technology.
- **A critical mass of businesses specialist research and training centres,** offering a high concentration of resources and equipment for intervention and experimentation.
- **Real regional skill:** the merchant and state navies (Toulon is France's largest naval port) and pleasure cruising (the highest concentration of yachts in the world).
- **A special geo-strategic location at the heart of the Mediterranean,** with a decisive concentration of players in the marine environment..
- **An attractive regional seaboard:** 835 km of coasts, some 15% of the French coastline and 132 yachting harbours with 55,000 moorings.



AXES OF EXCELLENCE

The main axes of the PACA Marine Cluster - maritime security and safety, and sustainable development - have led to the emergence of joint programmes on which most of the R&D projects of the cluster are based.

8 JOINT PROGRAMMES FOCUS THE INNOVATIVE EFFORTS OF THE MEMBERS OF THE CLUSTER.

2 AXES	5 THEMES	8 PROGRAMMES
SECURITY AND SAFETY	Maritime Security and Safety	Maritime Protection (Off-shore and Inshore) Prevention of environmental Risks
	Ship and Nautical Industry	Naval Innovation
	Energy Resources	Deep Offshore
SUSTAINABLE DEVELOPMENT	Biological Resources	Sustainable Aquaculture
	Environment and Planning	Water management in coastal areas Ports of the future Services for marine environment strategy

- **Maritime Protection:** land-based or sea-based surveillance and intervention in maritime areas (multiple risks and threats).
Projects: SECMAR, SEA EXPLORER...

- **Prevention of environmental risks:** four distinct groups of risks, according to their origins: Risks related to human activity, Risks related to climate change, Natural risks, and Biological risks.
Projects: GIRAC, RATCOM...

- **Ships of the future:** Ships that are more economical, cleaner, more intelligent and safer.
Projects: BMCI, DEESSE, ECOPAINT...

- **Deep offshore:** R&D of systems to give access to offshore fossil energy (oil and gas), from engineering to exploitation to dismantling.
Project: Pipewatch...

- **Sustainable aquaculture:** animal and vegetable production in aquatic mediums (from the improvement of new species to breeding and selling them): fish farming, oyster farming, mussel farming,

shellfish farming and seaweed growing.
Projects: Shamash, Biomarine....

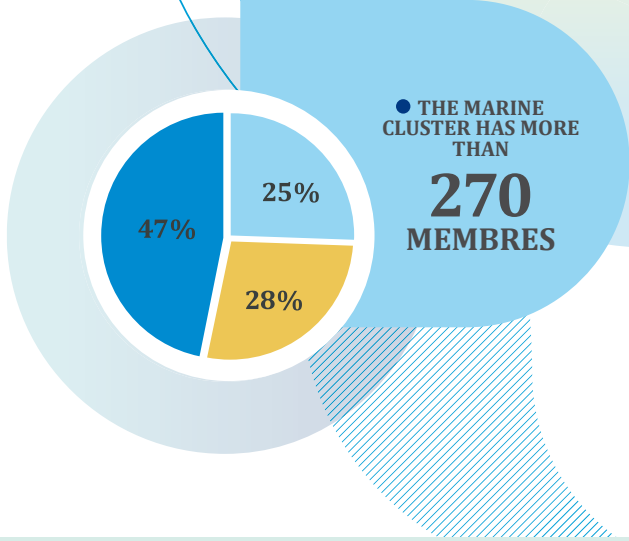
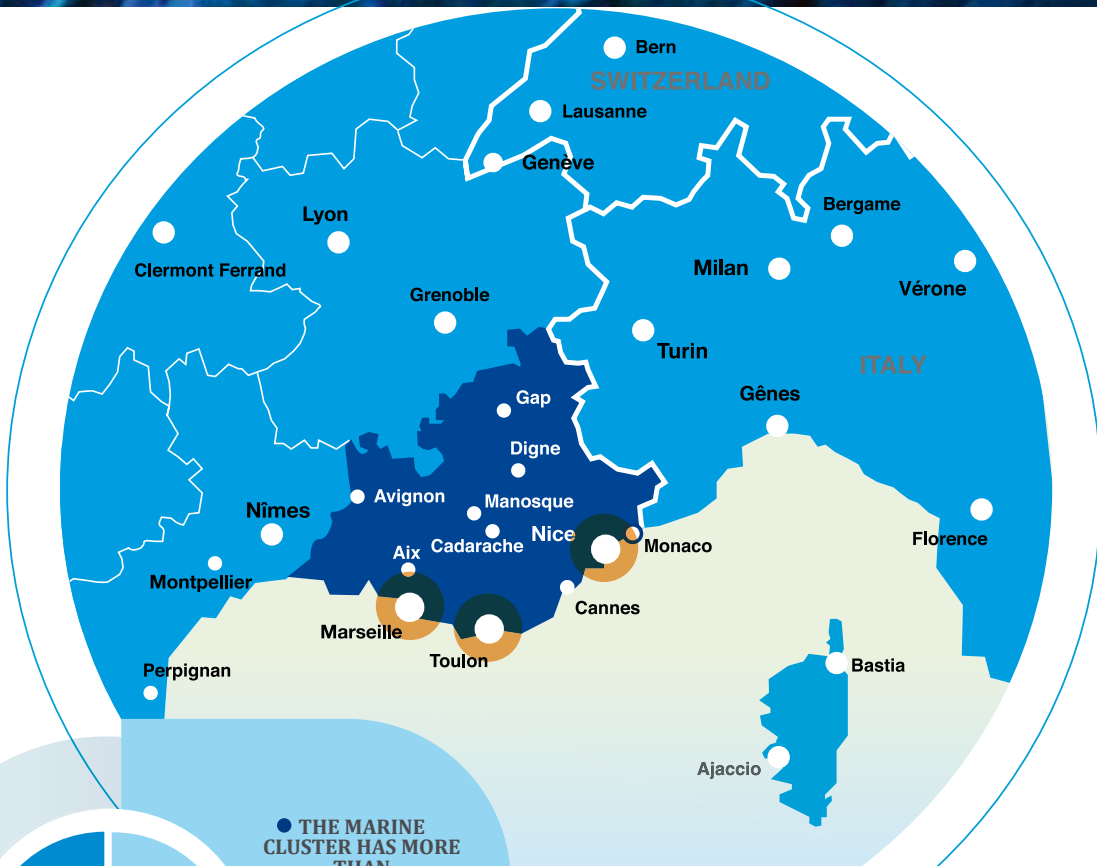
- **Water management in coastal areas:** in response to the problems of water resource management and of controlling the quality of inshore waters, due essentially to the growing urbanisation of coastal areas and the development of tourist activities.
Projects: GIRAC, Previcot...

- **Ports of the future:** Taking a sustainable development approach to the creation of new ports or enlarging of existing ports (both leisure and commercial).
Projects: Navyclean, Marina Pass

- **Service for marine environment strategy:** protection and conservation of ecosystems, prevention and gradual elimination of pollution, control of the use of marine services and resources.
Projects: Ecimar, UV PACA.

In addition, two new programmes recently set up: **blue biotechnology and renewable marine energies.**

AT THE END OF 2009: 124 R&D PROJECTS APPROVED FOR A TOTAL BUDGET OF MORE THAN 261 M€, 86 PROJECTS FINANCED.



- Small and medium-sized businesses
- Research & Training
- Groups and Large businesses

THE DYNAMICS OF THE CLUSTER

- **130** Small and medium-sized businesses
- **67** Groups and large businesses
- **77** Research and training bodies

Composition of the Steering Committee:

- Small and medium-sized businesses: Acri, Cannes Aquaculture, Chrisar Software Technologies, Chromalu, G2C Environment et Mettle
- Groups and large businesses: DCNS Services Toulon, DCNS SIS, Veolia Eau, CNIM, Principia, Thales Underwater Systems
- Research and training bodies: Ifremer, Université du Sud Toulon Var, Université de la Méditerranée, Université de Nice Sophia Antipolis, Observatoire Océanologique de Villefranche, CNRS

The association Toulon Var Technologies is an ex officio member.

INTERNATIONAL STRATEGY

Main targets: Europe, the Mediterranean Basin

The main targets, on the basis of sustainable relations with the countries concerned:

- cooperation agreements with clusters abroad,
- innovative cooperative projects, mainly as part of European programmes,
- better understanding of mechanisms of access to markets, in particular Mediterranean markets, by organising missions, hosting delegations, trade shows and conferences.

INTERNATIONAL PARTNERSHIPS

- SEEDA (South East England Development Agency): establishing partnerships, responding to calls for European projects
- Agreement with the Franco-Norwegian Foundation: exchange of information and mutual promotion.
- Agreement with the Libyan development council for R&D projects relevant to all the themes of the Cluster.
- Partnership agreement with the «Créneaux d'excellence Québécois» (Canada): help with the financial setup of European projects, partnership projects, collaboration-between companies in the two countries.
- Liguria Technological District (Italy), specialising in marine technologies: exchanges of information, development of cooperation projects.

EVENTS



The Marine Cluster is supported by: The European Union (Feder), the French government, the Provence-Alpes-Côte d'Azur regional council, the Councils of the Var, the Bouches-du-Rhône and the Alpes-Maritimes, the Hérault and Martinique, the metropolitan districts of Toulon Provence Méditerranée, Marseille Provence Métropole, Sophia Antipolis, Communauté du Pays d'Aix and Communauté Urbaine Nice Côte d'Azur.

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DOCUMENT PRODUCED BY THE MDER
Edition: December 2009

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