

# Executive Summary



# Campus Mare Nostrum

## Introduction

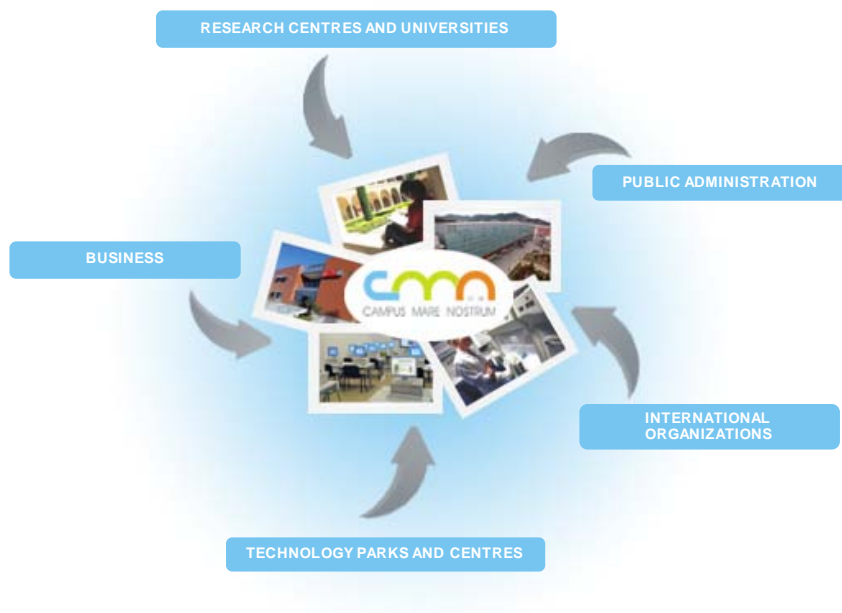
The University of Murcia (UM) and the Technical University of Cartagena (UPCT) both earned a Commendation for Quality for the strategic character of their proposals in the 2009 Campus of International Excellence programme. In an effort to build on the evaluation committee's recommendation, the two universities have prepared a new joint proposal for the 2010 Campus of International Excellence programme in cooperation with key regional scientific and business organizations. The Campus Mare Nostrum was selected in the first stage of the 2010 Campus of International Excellence to go forward to the international stage. The name of the project is Campus Mare Nostrum 37/38 (CMN).



# Campus Mare Nostrum 37/38: An aggregation model

Campus Mare Nostrum 37/38 (CMN) is capable of changing the territorial production model, so transforming the region into a centre of excellence in educational, scientific, innovative, and cultural dimensions. It is not restricted to the Region of Murcia, but will affect all the Euro-Mediterranean area.

Various elements are aggregated to CMN, making up five dimensions:



The first step is to consolidate and the Public Universities of Murcia will be the core here, in coordination with the different agents taking part in R&D in the Region. These include the Scientific Research Council (Consejo Superior de Investigaciones Científicas), Spanish Oceanographic Institute (Instituto Español de Oceanografía), several regional research organisations, such as the Murcia Agro Alimentation Research and Development Institute (Instituto Murciano de Investigación y Desarrollo Agroalimentario), all the state hospitals of the Region of Murcia (Hospitales de la Región de Murcia) and the Science and Technological Park of Murcia (Parque Científico y Parque Tecnológico de la Región de Murcia), Water Euro Mediterranean Foundation (Fundación Euro Mediterránea del Agua), CEEIM, CEEIC, and the Technological Centres Network. The proposal has also aroused interest from some leading corporations in the Region: Hero, Grupo Fuertes, Siemens, Fundación Hefame, and Navantia y Agrupación de Empresas Innovadoras Naval y del Mar.

The support of all the economic and social agents in the Region, COTEC, the Spanish Innovation Foundation (Fundación Innovación España) — which includes Alston, Arcelor Mittal, Ericsson, Hero, Hewlett-Packard, Sony, and Thyssenkrupp as

participants — the Spanish Alimentary Safety and Nutrition Agency (Agencia Española de Seguridad Alimentaria y Nutrición), Proexport, and FECOAM, among others, is guaranteed. Finally, the Regional Federation of Towns (Federación de Municipios de la Región de Murcia) as well as Banco Santander, Caja de Ahorros de Murcia, and Caja de Ahorros del Mediterráneo play important roles in the creation of Campus Mare Nostrum 37/38.

The project extends internationally to the Mediterranean via networks and educational, scientific, technological, innovation and business alliances with both northern- and southern-shore Mediterranean countries with which the CMN has strong institutional relationships and via the Spanish corporations working in the three CMN specialization areas.

CMN's role in the University Centre for Euro Mediterranean Studies (EMUNI), and the interest of this organization in CMN, ensures the future deployment of initiatives—some already in development. These initiatives are both in education and in research and knowledge transfer via programmes funded by European Union, Erasmus Mundus, and Tempus. There are also imminent mobility programmes and joint double degrees in the Mediterranean Youth Office (Oficina Mediterránea de la Juventud), comprising seventeen northern and southern-shore Mediterranean countries, and future higher education and research programmes in the Mediterranean Union (Unión por el Mediterráneo) as well as bilateral agreements between Mediterranean Basin countries.

The forthcoming participation of CMN in the Global University Network of Innovation (GUNI) will boost the technological innovation activities in collaboration with Mediterranean Basin corporations.

Some figures describing CMN are as follow:

Description	Situation CMN
Total built area (m <sup>2</sup> )	1,810,000
Education centres	31
Degree courses	68
University/inter-university masters	81
Doctorate programmes	64
Total PDI	2,862
Total PAS	1,557
Number of students	36,350
Total researchers	725

# Proposal strategy concept

**CMN** aims to strengthen socio-economic development in the Region of Murcia, as well as to contribute to solving some of the main Mediterranean basin challenges, such as food, water use, desertification, health, water pollution, poverty, the alliance of civilizations, and so on.

As an outcome of the strengths, risks, challenges, and possibilities analysis, some focuses of excellence have been identified:

- **Bio-economics based on agro-alimentation:** **CMN** will act as an integrator between the different agents of the science and technology field, with the final aim of promoting the transformation and modernization of the agro-alimentation sector in the entire Mediterranean basin, especially Northern Africa.
- **Technologies for Healthcare and Quality of life:** **CMN** will foster a translational value chain in the biomedical area of Excellence.
- **The Mediterranean Sea and Naval & Marine Technology:** **CMN** will promote knowledge-sharing activities and their active use in the naval and sea production sectors in order to foster regional development and knowledge export.



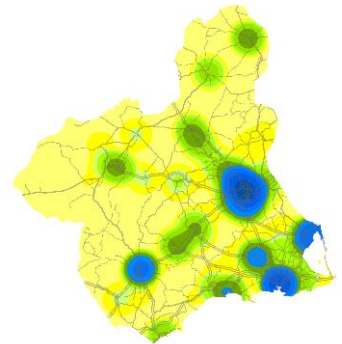
# Regional context proposal

The Euro Mediterranean area is a region of great interest made up of 17 countries in the three continents bordering the Sea, territorial identity, an undisputed cultural heritage and the challenges of maintaining a delicate balance of often antagonistic environmental, productive, social, and economic interests. The Mediterranean area is a common interest of European Union states and Mediterranean countries, as expressed by the UpM, composed of 43 countries. This Euro Mediterranean regional context is the frame for the CMN proposal for the International Excellence Campus programme.

In its privileged position at the centre of the Spanish Mediterranean Arc, in the southeast of the Iberian Peninsula, the Region of Murcia has almost 1.5 million inhabitants and constitutes 2.2% of the Spanish territory.

The physical, cultural, and sociological features of the Region qualify it as a geographic area that can act as a test zone, as experience shows, in the problem identification and solution search, affecting numerous locations in the Mediterranean area. This has been one of the reasons to place here two large, singular Spanish scientific technological infrastructures, the Murcia Oceanographic Coastal Observatory and the Hydrological Resources Research Platform, both related to the Mediterranean. Moreover, economic activity in the Murcia Region is tightly linked to the interests of the Mediterranean in the agro-alimentary area, specifically with southern-shore countries.

Placed in different locations in Murcia Region as a regional cohesion strategy, **CMN**, is oriented to the singularity and specialization of the three identified focuses and the soundness of the aggregated participants' network. This transforms **CMN** into a regional development network that, with human capital and reference infrastructures, creates an excellence focus as well as attracting talent and investments to generate knowledge, technology, and business development. With its focus, on international knowledge, **CMN** can open up new ways of commercialization, products, and services while contributing to the economic and social well-being that the Mediterranean Basin needs, thus improving the ends outlined by the Unión para el Mediterraneo (Union for the Mediterranean) and the programmes developed by the European Union for the Mediterranean.

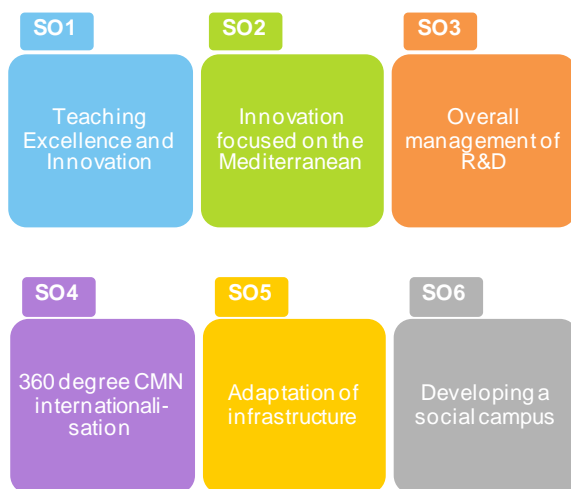


Location of the **CMN** in the Region of Murcia

# Vision and Strategic Objectives

Campus Mare Nostrum 37/38 has been born with a vision: to be an international reference in the Mediterranean basin as a catalyst for higher education excellence and to promote sustainable productive development. Using its territory as a model for regional cohesion, **CMN** aims to boost both modernization and innovation in key productive sectors of the region.

Six strategic objectives are proposed:

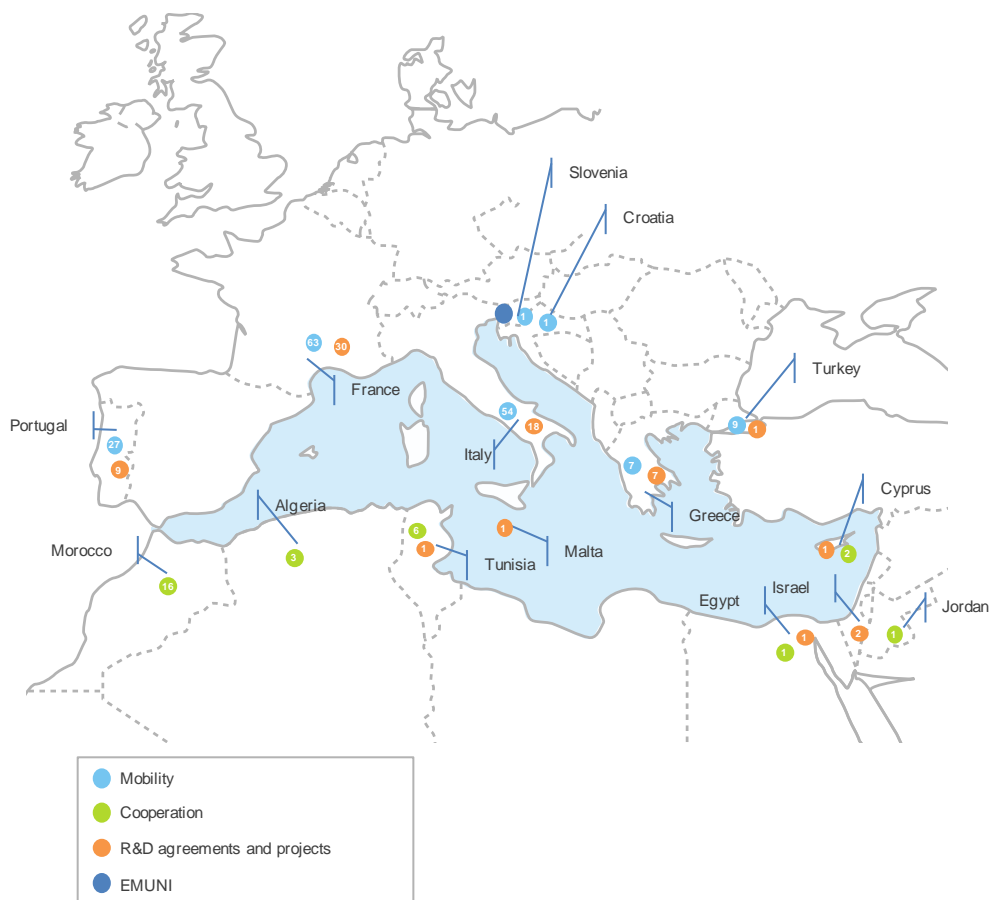


# Action plan

Within the five dimensions, twenty-four actions have been designed to produce results.

## Campus internationalisation

CMN perceives the Mediterranean Basin countries as an international market objective. It aims to strengthen its current presence and activities in the Euro Mediterranean University in the context of the Union for the Mediterranean and the Youth Mediterranean Office. This, together with the intensification of the Erasmus Mundus and Tempus programmes, will complement the relevant current international activity of CMN. Additionally, CMN will take part in the to-be-created Civilizations Alliance University Institute created by the United Nations University. CMN will improve the dynamism of regional economic activity via collaboration programmes with corporations that have a defined and relevant interest in Mediterranean Basin countries, especially in the Maghreb zone, and their participation in international innovation networks.



Priority objectives for the internationalization of **CMN** include the formulation of a promotion plan focused on the Mediterranean countries, the creation of agencies for overseas visitors' orientation, language training programmes, including Arabic and French as important Mediterranean languages, the creation of a Mediterranean studies centre, and the establishment of the **CMN** development and cooperation office.

Furthermore, **CMN**'s international activity in Latin America will serve as a bridge between these two great under-construction spaces: the Latin American Knowledge Space and the Euro Mediterranean Higher Education and Research Space..

### **Teaching improvement and adaptation to the European Higher Education Area (EHEA)**

The main challenges for **CMN** in the teaching field within the EHEA are to increase the attractiveness of the training offer, to ensure the quality of the training process in the context of adaptation to the new EHEA, and to take in a leading role in the development of the Higher Education and Research Euro Mediterranean Space, as well as in the development of new training products or services.

Within the internationalization of the Mediterranean Basin teaching offer, **CMN** will renew its postgraduate training offer to include the Excellence areas of the **CMN** project by inaugurating the Postgraduate Euro Mediterranean School. An e-learning area will be developed to facilitate part-time and on-line education, develop a promotion plan for the innovation in teaching quality, enhance student-attracting policies with special focus on the Mediterranean area and on promoting the integration of Professional Development degrees in Higher Education.



### **Improving science and knowledge transfer**

The main challenges in improving science and knowledge transfer are to increase collaboration and the impact of scientific production in the international area, strengthen effective response to the technological needs of the companies located near Campus Mare Nostrum, and, as the final objective, the export and adaptation of the new solutions to potential clients throughout the Mediterranean basin.

**CMN**'s role in research and innovation programmes for both UE as the R&D Programmes, as well as the Competitiveness and Innovation Programme (Programa de Competitividad e Innovación, CIP) and GUNI activities, will be bolstered, thus promoting the integration of Mediterranean countries' universities, research centres, and corporations to create innovation networks, which are usually created because of such programmes.



Therefore, **CMN** sees the creation of the three areas of focus contained in the **CMN** initiative with the support of the appropriate agents as priority objectives for scientific improvement and knowledge transfer. The implementation of the Doctorate Euro Mediterranean Schools is one initiative that may promote joint doctorate programmes with investigation activities. Other aims include developing programmes for the incorporation of talented international researchers and for international mobility, creating promotional plans for interdisciplinary research; promoting the **CMN** network of research institutes; constituting the network of scientific-technological **CMN** facilities and strengthening those facilities oriented towards the **CMN** focus areas; creating the evaluation and technology commercialization unit (RRTO **CMN**) including its whole portfolio and its technology observatory; promoting an entrepreneurial culture, and encouraging the development of EBTs and ESICs.

## **Campus transformation to a comprehensive social model and its interaction with the local environment**

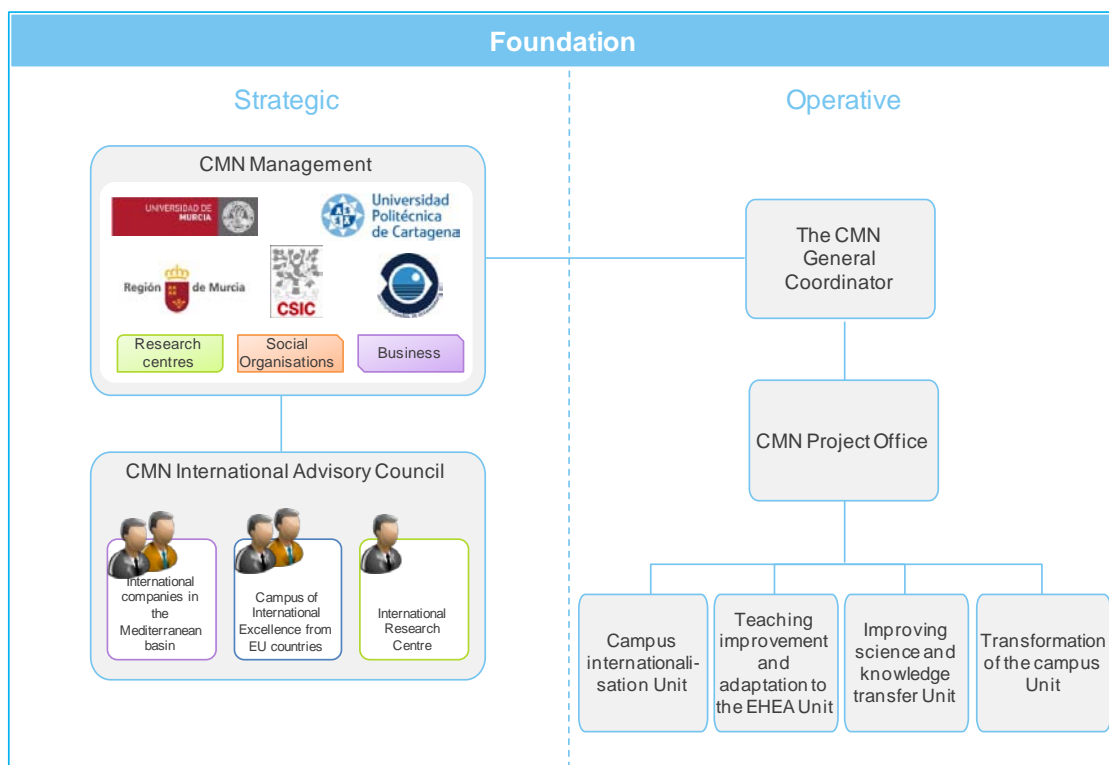
The main objective for the interaction between the territorial environment and the development of an integral social model relates to the effective response to the housing demand. This includes the use of physical and virtual amenities, campus accessibility, transport availability, employing technology adapted to the needs of the territorial market, and the eco-efficient and sustainable use of infrastructure resources. Ensuring the adaptation of all services and facilities for all users, promoting cooperation and social volunteerism, and creating optimal and transparent management for society are further objectives.



# Coordination structure and CMN management

CMN is a joint and collaborative project. Therefore, a coordinated governance plan has been formalized to regulate the participation of all members of this project.

A Trust will be set up for the project management. It will be a specific institution with its own legal personality, allowing for increased flexibility in the decision making process and the achievement of strategic objectives. International experts of acknowledged prestige will assess the objectives, planning, and monitoring. At the operations level, the role of Executive Director will be created to coordinate the activities of the four operational units. These units will implement the Action Plan.



# Indicators and main expected results

A set of key indicators have been identified for each dimension, shown below:

INTERNATIONALISATION			TEACHING IMPROVEMENT		
Indicator	2010	2015	Indicator	2010	2015
Agreements in the Mediterranean area	44	100	International teaching staff	-	15%
Foreign students from the Mediterranean area	350	1,100	Virtual courses/subjects available	55	250
English qualifications	0.5%	15%	Foreign students	2,051	3,000
New international master sfrom the Postgraduate and doctorate school (MNPS)	0	4	CMN-EPD degrees	0	6
Developed cooperation projects in the Mediterranean area	0	2	International networks participated in	21	40

Main CMN indicators and expected results in 2015

IMPROVING SCIENCE			TRANSFORMATION OF THE CAMPUS		
Indicator	2010	2015	Indicator	2010	2015
Researchers	3,385	3,600	Infrastructure adapted to EHEA	40%	95%
International publications on Web of Science	1,284	1,700	Residences offered	704	1,427
Theses read (2009)	221	260	Places of residence specially modified	1%	3%
Existing European projects	41	65	Unibonos acquired	2,300	5,000
Participating companies	17	27	Volunteer programmes	70	90
Patents	142	190	Ecological footprint	0.4 Ha	0.25 Ha
			Students in work experience	12,510	17,000

A forecast on the economic impact of the Murcia Region Public Universities in the CMN context is shown in the following table:

ECONOMIC IMPACT	2010	2011	2013	2015	Increment 2010-2015
Final demand (M €)	135,3	137,4	141,9	146,4	11,1
Production impact (M €)	218,8	222,3	229,4	236,8	18,0
Employment impact (M €)	3.634	3.692	3.811	3.934	300
Gross Value Added impact (M €)	121,2	123,1	127,1	131,2	10,0

(\*) The employment impact counts the CMN qualified researchers

Additionally and until 2015, CMN as a Region Project must increase R&D/GDP expenses by 70%, which will result in a 2.5% increase in the industrial productivity index, a 0.3% increase in the Region GDP, a 5% increase in the R&D staff, and a 3% increase in employment, as forecast.

# CMN Budget

CMN has estimated the following funding requirements in the different dimensions:

							Budget	
BUDGET CMN	2010	2011	2012	2013	2014	2015	Total	
Campus internationalisation	480,000	571,170	614,608	655,485	698,988	745,316	3,765,567	
Teaching improvement and adaptation to the European Higher Education Area (EHEA)	990,000	1,876,300	2,805,651	3,159,497	3,776,470	4,633,459	17,241,378	
Improving science and knowledge transfer	1,308,500	5,992,200	10,404,520	10,763,899	11,067,554	11,724,402	51,261,074	
Transformation of the campus to develop a comprehensive social model and its interaction with the local environment	53,463,800	62,689,029	78,134,185	81,970,300	55,050,950	26,925,043	358,233,307	
<b>TOTAL</b>	<b>56,242,300</b>	<b>71,128,699</b>	<b>91,958,964</b>	<b>96,549,181</b>	<b>70,593,962</b>	<b>44,028,220</b>	<b>430,501,325</b>	