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L'Europe en Méditerranée
Europe in the Mediterranean

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Diagnostic territorial analysis of the MED territorial cooperation programme

Regional Council of Provence-Alpes-Côte d'Azur (PACA)

Final Report

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Introduction

The Managing Authority of the MED transnational cooperation programme for 2014-2020 commissioned Technopolis-ITD to carry out the territorial needs assessment including SWOT analysis (strengths, weaknesses, opportunities, and threats) for the MED programme area.

This document is the final version of the needs assessment report.

The structure of the report is based on the three growth objectives laid down by the European Union in its Europe 2020 strategy, namely; smart, sustainable and inclusive growth. The report presents the strengths and weaknesses of the MED space for each objective.

The analysis contained within this report is based on:

- **A statistical analysis**, primarily using Eurostat data. Eurostat provides reliable and consistent data in a form that allows for comparison between European countries. It is also up-to-date and in some cases takes into account the objectives of the Europe 2020 strategy. Other Eurostat tools such as GISCO, for maps, or ESPON (TERREVI or KIT projects), for analyses in specific fields of policy, have also been used;

  For the majority of indicators, NUTS level 2 data is available and provides a fine-grained picture of the MED space. Other indicators (particularly for sustainable growth) are however national in nature, which introduces a source of bias into the analysis for some countries such as France, Spain, and Portugal, since only a part of their national territory (4 regions out of 22 in the case of France) is involved in the programme;

  For Croatia, which joined the European Union on 1st July 2013, data for only a limited number of the indicators used in the report were available. This data was taken into account in the analysis when available.

- **Complementary desk research** was conducted in order to illustrate the statistical analysis with relevant examples and, where possible, to provide qualitative or up-to-date information. JTS data related to the projects (including lessons learnt, identified needs, and ideas for policy action) were also taken into account in the analysis;

- **A series of telephone interviews with the Task Force** partners responsible for drafting the next Operational Programme. The purpose of these interviews was to refine as far as possible the needs assessment and SWOT analysis and to highlight the challenges facing, and in some cases opportunities available to the MED space in order to 'match' them to the Thematic Objectives that are the most relevant to the programme[1].

- Discussions with the Task Force, which met on 12th July, 2013 in Marseille, following the presentation of the initial version of the report.

It should be stressed in this introduction that the MED space is vast and its different regions have very diverse characteristics.

[1] However, only a few interviews were in actual fact carried out and they only partially satisfied the goals that had been set for them. Out of 16 requests for interview, only 6 were actually conducted.

Bearing the above in mind, this report includes the following sections:

- An overview of the MED space (natural, geographic, and economic data);
- A territorial analysis with regard to smart growth;
- A territorial analysis with regard to sustainable growth;
- A territorial analysis with regard to inclusive growth;

  For each of these objectives, we present data for the MED space's key indicators, SWOT analyses, and conclusions to inform the work of defining the programme strategy. Drawing on fundamental territorial data, lessons from the 2007-2013 programme, and consideration of the specific nature of the transnational dimension, we highlight the important challenges and opportunities facing the MED space and translate them into Investment Priorities (IP).

- A more detailed discussion on two important themes for the MED Programme, the Mediterranean Economic Model, and Blue Growth, which have the potential to meet the European Union's objectives for growth;
- A separate discussion on the importance and role of macro-regions for territorial governance, particularly in conjunction with Thematic Objective n°11, which deals with strengthening institutional capacity.

1. The General Characteristics of the MED space

1.1 Natural, physical and geographic characteristics

The MED programme covers a vast territory stretching from the Portuguese regions of the Algarve and Alentejo on the Atlantic coast, to Cyprus at the eastern edge of the Mediterranean. With Croatia joining the programme after becoming a member of the European Union on 1st July 2013, it now includes 10 countries. The eligible geographic area extends over some 860 000 km2, or around 20% of the area of the European Union.

The territory has **extremely diverse natural, physical and geographic characteristics**. It enjoys a maritime coastline of more than 15 000 kilometres and fertile arable plains, which were the cradle of Mediterranean agriculture, with its vine growing and olive and citrus fruit plantations. It also has high mountain ranges such as the Alps, the Pyrenees, and the Pindos. Another characteristic of the MED space is that it is composed of large parts of several Member States (the whole of Italy is eligible) along with small islands, including the small Member States of Malta and Cyprus, and also island regions such as the Balearic Islands, Corsica, or Crete.

In spite of the Mediterranean having historically been a place of transit between Europe, Asia and Africa, its geographic diversity provides a partial explanation for the accessibility and communication difficulties experienced travelling within, to, or between its different regions (see 3.1.7).

The juxtaposition of such diverse regions creates both opportunities and challenges for developing the programme area. Its climate, coast, and mountains are true assets (both as a place to live and for tourism) and the programme area is rich in biodiversity and agricultural potential. Yet, the region is also more vulnerable to climate change, and environmental protection needs to be given a high priority.

Bearing the above in mind, the MED space can be characterised on the basis of **three broad indicators specific to the Mediterranean**:

- its unique climate and flora;
- the value of its biodiversity and landscapes;
- the fragility of its different territories which are subject to inherent environmental risks (drought, water erosion, flooding, soil salinity, steep terrains).

1.2 Demographic data

Today, the MED territory is home to more than 122 million people, or in other terms, **almost a quarter of the European population (24.3% of the EU27 population)** [2].

This means that its population density is significantly higher than the European average (142 people per km2 in the MED space compared with 116.3 in Europe as a whole[3]). This average however masks **significant disparities** across the MED space, where population densities vary considerably; from 1 318 people/km² in Malta[4], to 23.9 people/km² in Portugal's Alentejo region[5].

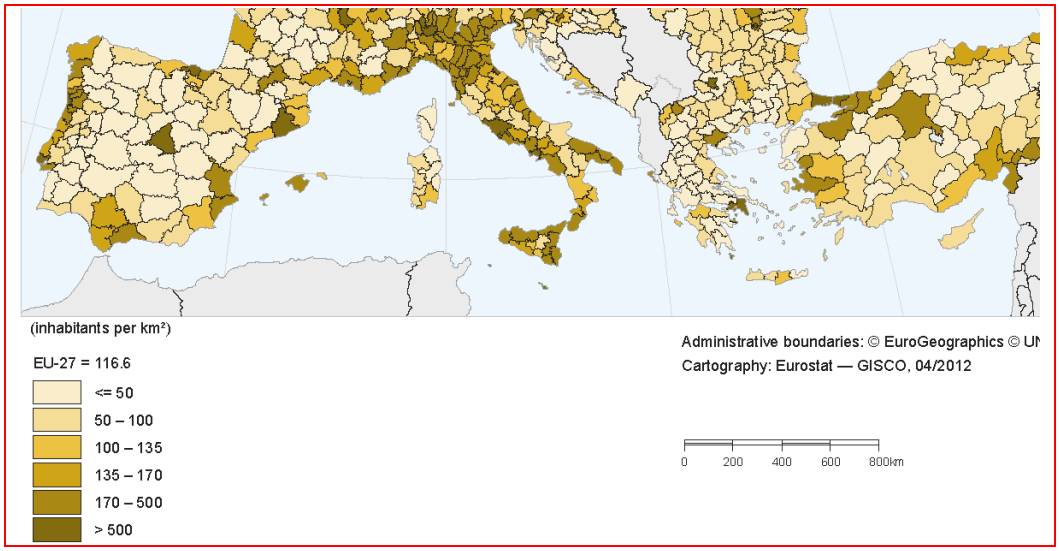
[2] Eurostat, population au 1er janvier 2012

[3] Eurostat, population on 1st January 2012

[4] Eurostat, population density on 1st January 2011

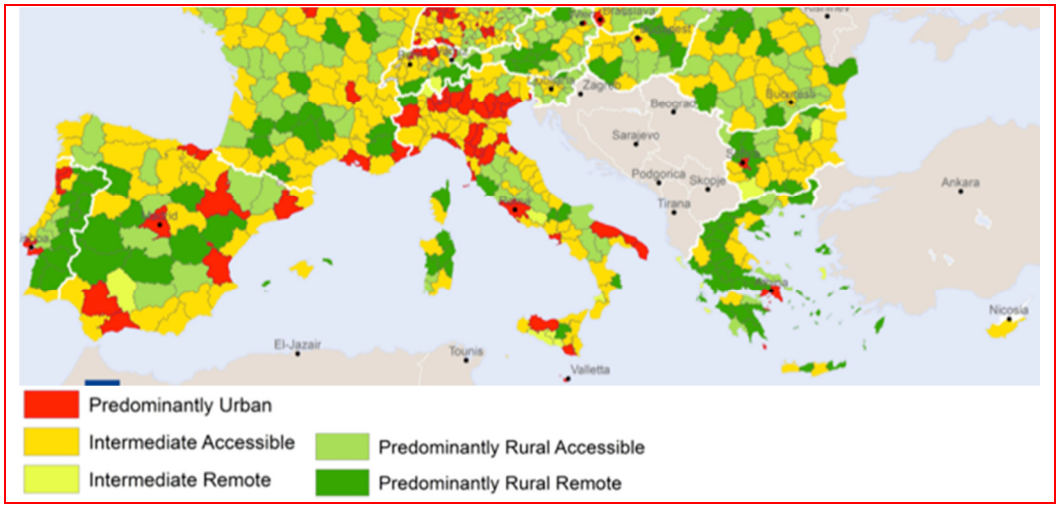
[5] Eurostat, population density on 1st January 2011

Map 1 Population density in the MED space (Eurostat/GISCO, 2010)



A number of major cities (notably Barcelona, Marseille, Milan, Rome, Naples and Athens, etc.) are located in the MED space. Another important feature is the number of smaller urban centres located along the Mediterranean coast (town such as Valence, Montpellier, or Genoa, for example). The territory also possesses a number of **rural and/or isolated territories**, particularly in Greece.

Map 2 Typology of urban and rural areas in the MED region (Espon TerrEvi 2012)



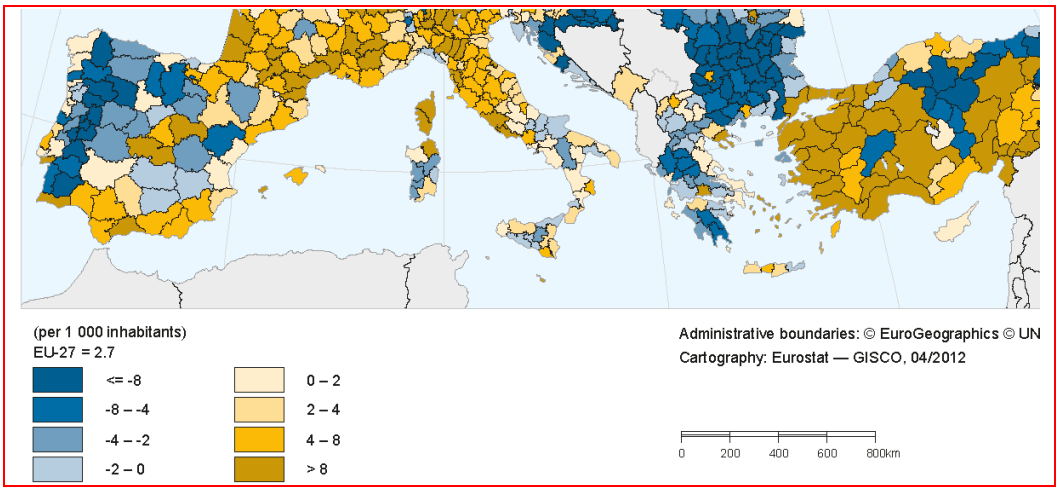
Demographic figures reveal that the MED space has strong appeal. At the start of the MED programme for 2007-2013, its population stood at 110 million. Today, it stands at 122 million. This 6.3% increase (which does not include Croatia) is significant when compared with the European average increase of a 1.6% over the same period. This growth results in part from the appeal of its living conditions (in terms of climate, geography, and culture, etc.) and regions such as the east coast of Spain, the north-west coast of Italy and the south coast of France all attract a substantial number of young professionals or retired people. Corsica and Languedoc-Roussillon are among the French and European regions with the strongest population growth rates (+1.3% in Languedoc-Roussillon, and +1.5% in Corsica)[6]. It should be pointed out however that in some MED regions, notably in Greece, or in the south of

[6] INSEE, population au 1er janvier 2010

Portugal, the population is falling and may well fall further as a result of the economic crisis and its consequences for employment.

The appeal of the MED space also has a consequence for immigration, both within and from outside the European Union. In the MED space, and in their broad trends, migration flows tend to correlate with overall population growth (see Map 3).

Map 3 Population growth in the MED space (Eurostat/GISCO, 2010)



Another characteristic of the MED space is that it has (a) a **lower proportion of young people in its population** (15% of the MED population is under 15 years of age, compared with 15.6% in Europe as a whole) and (b) **a higher proportion of elderly people than the European average** (19.2% of the MED population MED is aged over 65, compared with 17.8% in Europe as a whole). The ageing trend in the MED space is the same as for Europe as a whole, with the proportion of people in the over 65 age group having risen by around 1% between 2007 and 2012.

Table 1 Age distribution of the population (source: Eurostat 2012, table Technopolis-ITD)

	MED space			EU 27		
	2007	**2012**	variation	2007	2012	variation
% of the population under 15 years	15.0	**15.0**	-0.0	15.8	15.6	-0.2
% of the population aged between 15 and 64 years	66.8	**65.8**	-1.0	67.3	66.6	-0.7
% of the population aged over 65 years	18.2	**19.2**	1.0	16.9	17.8	0.9

1.3 The main economic characteristics of the MED space

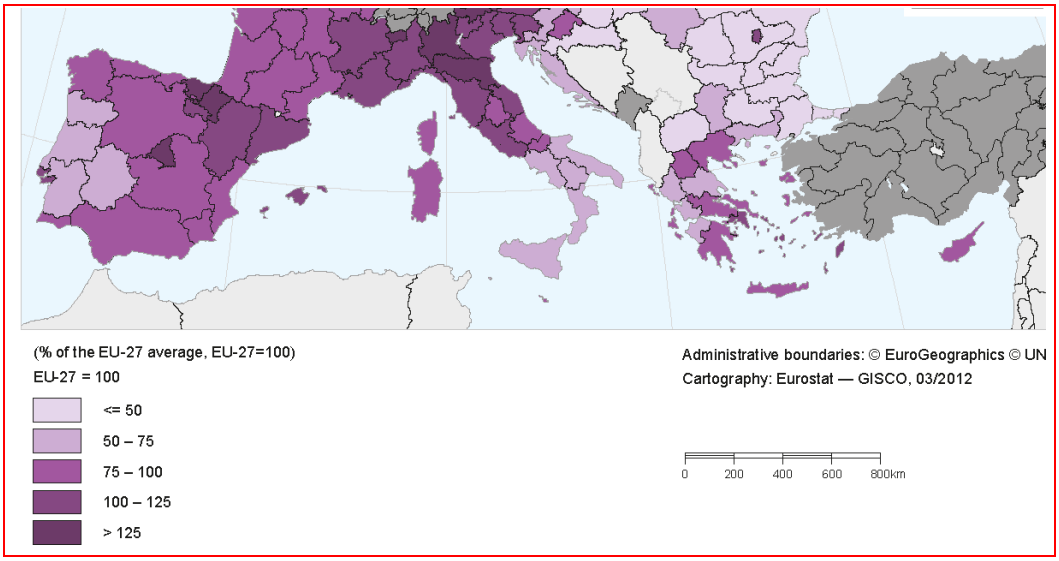
In 2010, **the average GDP per capita of the MED space was 12% lower than the average GDP per capita of the EU as a whole** (standing at 21 776€ compared with 24 500€ in Europe as a whole)[7].

However, this figure masks **wide regional disparities**. Some 34 NUTS2 regions in the MED space have a lower average GDP per capita than the European average (the

7 Source: Eurostat data, 2010, processing Technopolis, 2013

poorest regions are in Croatia) and 18 NUTS2 regions have a GDP per capita above the European average[8].

Map 4 GDP per capita (in Purchasing Power Standard) in 2009 (source: Eurostat/ GISCO)



This map does not however show the **consequences of the 2007 economic crisis and of the subsequent debt crises that have been affecting EU Member States since 2010** (particularly for Greece, Portugal, Cyprus, and to a lesser degree Spain, Italy and France). While for many years the growth rate of Mediterranean countries was above the European average[9], recent years have been marked by severe recession:

- In Italy, the final quarter of 2012 was marked by a contraction in GDP of 0.9%, representing the 6th successive quarter of falling GDP for the Italian economy;
- In Portugal, GDP fell by a 3.2% in 2012, representing the most severe recession since 1975;
- In Greece, GDP dropped sharply by 5.7% in 2012, marking the country's fifth successive year of economic recession[10].

In the Eighth progress report on economic, social and territorial cohesion, the European Commission examined **the regional and urban dimension of the crisis**[11] and notes in the introduction that "*in 2014, the Cohesion Policy programming period will start in the aftermath of the worst recession of the last fifty years. The crisis has reversed the process of convergence of regional GDP per head and unemployment within the EU*". At European scale, the recession began in the second quarter of 2008 and lasted for five consecutive quarters. Between 2007 and 2011, the most serious impact on GDP and employment was felt in three Baltic countries, as well as in Ireland, Greece and Spain. While in 2010 and 2011, the Baltic countries' and Irish economies showed a return to growth, "*Spain and Greece, however, have not returned to a consistent growth path. Spain started growing in 2011, but its GDP contracted in 2012. Provisional GDP growth rates for Greece show*

8 The most successful wealth creating regions are, from northern Italy (Trentin, Emilia-Romagna, Lombardy, Vallée d'Aoste and Haut-Adige), Rhône-Alpes, Catalonia and Attica).
9 See MED OP 2007-2013, p.10
10 Sources: OECD, 2013
11 Report from the Commission to the European Parliament and the Council, Eighth progress report on economic, social and territorial cohesion – The regional and urban dimension of the crisis, 26/06/2013 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0463:FIN:EN:PDF

a continuation and strengthening of the recession. Its GDP declined by around 7 % in 2011 and 2012 and may only start to grow in 2014. In addition, Cyprus was confronted with a financial crisis in 2012, which led to a harsh reduction of GDP and employment which is expected to continue until 2014".
The impact of the crisis on unemployment has been significant: "*At EU level, unemployment rates increased from 7 % to 10 % between 2008 and 2012. Unemployment rates in the most affected Member States, however, doubled or even tripled with increases above 8 pp in five Member States and up to 17 pp in Spain (see Factsheet 6). Unemployment rates, in the five most affected Member States for this indicator, ranged from 12 % in Cyprus to 25 % in Spain*".
The risks of poverty and exclusion have also risen strongly: they "*were the highest in the six most affected Member States, but the impact in Italy and Bulgaria was also significant. In Spain, the effects of the crisis only started to be felt in 2009. Since then, both countries have lost around 8 % of their disposable income, returning them to 2005 levels. In Greece, the decline in disposable income started slowly in 2007. In 2009 and 2010 it took a very sharp downturn. As a result, Greek disposable income in 2011 was well below its 2005 level*"

European Union forecasts for 2013 and 2014 predict a falling GDP across the EU and the Eurozone[12].
Finally, the economic 'model' of the regions in the MED space can be characterized by three specific traits that distinguish it from other cooperation areas. These are;

- **The importance of agriculture for the economy and the specific features of Mediterranean agriculture** (relying on a limited range of produce, essentially olives, wine, citrus fruits, cork, etc., which are produced by small farms); (See **Erreur ! Source du renvoi introuvable.**;
- **The predominant role of small (and medium) enterprises** in all sectors of the economy and the dependence of the wider economy on them. (See Business competitiveness, especially of SMEs).
- **The importance of tourism,** a potential for growth that is still strong and a need to promote a more sustainable tourism industry (taking account of issues related to "Blue Growth");

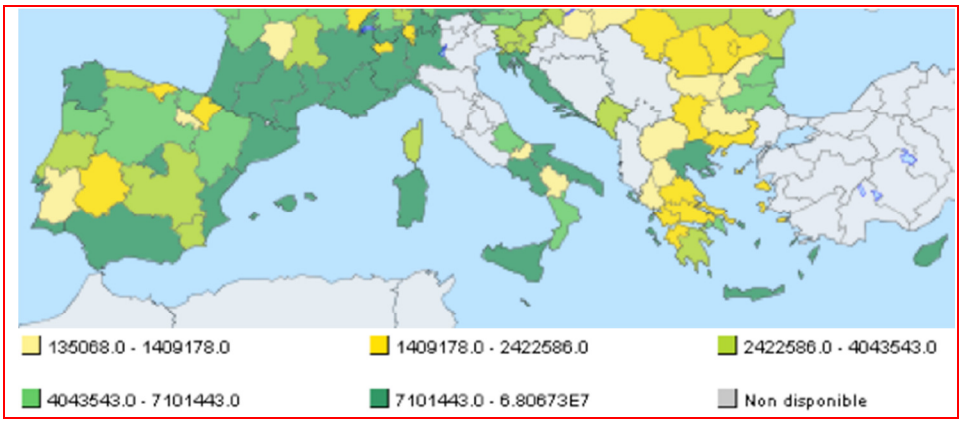
The MED space combines many appealing features (climate, coastlines, landscapes, cultural heritage, etc.) making it the most popular tourist region in Europe and one of the largest tourist areas in the world. According to the World Tourism Organization[13], countries in the southern hemisphere and the Mediterranean attract 18.5% of the world's tourists. Between 2005 and 2012, this figure rose constantly (+2.9%), and was higher than the rate of growth in Europe (+2.5%). This represents 15.9% of world tourism revenues. In addition, France, Spain and Italy are among the world's top 6 tourist destinations (in numbers of tourists and in terms of the tourism revenues generated).

In 2012, the countries of the MED space (+2%) consolidated their performance of previous years (+8% in 2011). Croatia, Portugal and Spain recorded a growth of 4% (above the average for the sub-region).

Map 5 Number of overnight stays in hotels in 2009 (residents and non-residents)

12 European Commission website, News, Economy, finance and tax, page consulted on 16/05/2013: http://ec.europa.eu/news/economy/130503_fr.htm

13 UNWTO Tourism highlights 2013 : http://www.e-unwto.org/content/hq4538/fulltext.pdf



Source: Eurostat

The World Tourism Organization's long-term forecast (to 2030) is for a constant increase of 3.3% a year in world tourist arrivals. While growth is set to be strongest in Asian and emerging economy destinations, **Europe, and especially mediterranean Europe, will continue to be a major destination, with numbers growing from 169 million in 2010 to 264 million in 2030).**

The tourism sector, therefore, offers substantial opportunities in terms of economic growth and employment (jobs in this sector are rarely threatened by globalisation). Exploiting this potential will require development strategies for infrastructures, sites and attractions, accommodation, marketing and for innovations in services. It will also be necessary to embed sustainability in the sector (with respect to planning, the sustainable management of coasts, biodiversity and water resources, to name but a few examples).

Culture, in its broad sense, is also important for the MED space. While culture clearly matters for tourism – especially its popular historical sites and heritage, its wealth of cultural and creative activities, such as festivals and its rich offer of exhibitions – Culture is first and foremost aimed at the inhabitants of the MED space. Culture also matters for employment. As an example, Marseille was named 2013 European Capital of Culture and as a result is currently seeing the renovation or creation of 60 major cultural spaces and the organisation of 400 cultural events. It has been forecast that "Marseille Provence 2013" will generate a billion Euros in revenue (announcement by the President of MP2013, October 2012)[14]. It is difficult to estimate the number of jobs and the number of sustainable jobs that such an event might create (26 000 according to some professionals)[15]; the Marseille Job Centre and the Chamber of Commerce and Industry organised employment forums related to MP2013 with a view to matching job seekers with employers in six industries (security, city cleaning services, transport, welcome host services, hotels-catering-tourism, arts and culture).

[14] Source : journal *Les Echos*, 25 février 2012

[15] Source : ibid.

2. Territorial needs assessment and SWOT analysis of the MED space with regard to the European Union's "Smart Growth" objective

In its Europe 2020 strategy, the European Commission presents the objectives and challenges of Smart Growth in the following terms[16]:

"*Smart growth means strengthening knowledge and innovation as drivers of our future growth. This requires improving the quality of our education, strengthening our research performance, promoting innovation and knowledge transfer throughout the Union, making full use of information and communication technologies and ensuring that innovative ideas can be turned into new products and services that create growth, quality jobs and help address European and global societal challenges. But, to succeed, this must be combined with entrepreneurship, finance, and a focus on user needs and market opportunities*".

The Europe 2020 strategy has 5 key objectives including the Smart Growth objective of devoting 3% of GDP to R&D.

The MED space's overall performance in this respect is currently short of European targets. Figure 1 (below) is taken from the November 2012 ESPON TERREVI[17] report on the MED programme. The report ranks the MED space in relation to Smart Growth objectives. For each of the three Smart Growth indicators, the report gives the territory a "red" light, signifying that R&D expenditure (expressed as a percentage of GDP), the proportion of employment in knowledge-intensive services, and the percentage of individuals regularly using the Internet are each below the median value for the EU27+4 zone. Moreover, there are major disparities in R&D expenditure across the MED space and moderate disparities for the other two indicators.

Figure 1 Position of the MED space in relation to European Smart Growth indicators (source: ESPON TERREVI 2012)

The following review (S3.1 to S3.3) of the baseline data in this area lends support to the conclusions of the ESPON TERREVI report and, where possible, we use them to provide a more nuanced picture of the highly variable situation across the MED space[18].

2.1 Key indicators for Smart Growth in the MED space

2.1.1 Research, development and innovation

[16] Communication from the Commission, Europe 2020, A strategy for smart, sustainable and inclusive growth (03/03/2010)

[17] The purpose of the ESPON TERREVI project (Territorial Evidence Packs for Structural Funds Programmes) is to supply the competent structural funds authorities with the information they need to better steer and deliver the programmes. One of the aims of the project is to produce factual briefs on the different programmes.

[18] This analysis uses Eurostat databases that can be consulted online and which contain NUTS2 level data for certain indicators; NUTS2 being the appropriate level of analysis for a robust understanding of the situation across the MED space.

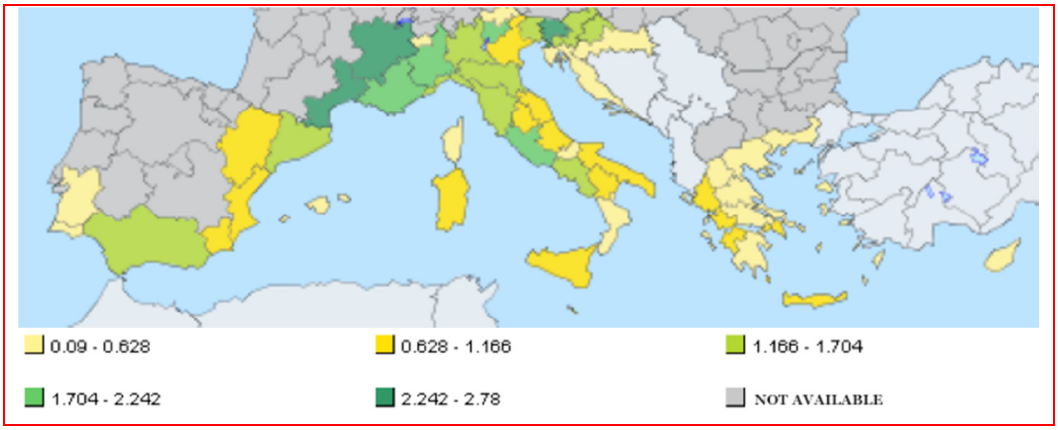
The MED space is characterised by considerable spatial variation in its research and innovation potential. However, it also possesses a number of fields of specialisation that are common to several regions and which may provide a foundation for a transnational innovation strategy (these include agriculture, agrifood production and processing, tourism, construction and the maritime sector).

In line with the Lisbon strategy, the Europe 2020 strategy is pursuing the target figure of **3% of the EU's GDP to be invested in R&D**[19] **in 2020**. While the current[20] European average is 2.03%, the figures for the Member States participating in the MED programme are significantly lower than this. They are 0.48% in Cyprus, 0.6% in Greece, 0.73% in Malta, 0.75% in Croatia, 1.25% in Italy, 1.33% in Spain, 1.5% in Portugal, 2.25% in France and 2.47% in Slovenia[21].

For the eligible NUTS2 regions, the average is 0.93%[22]. Some 22 of the eligible 54 NUTS regions invest an amount equal to or higher than this average, while 31 invest less.

There are wide disparities between certain regions, some of which are world-class economic performers, while others are more rural or isolated territories. Regions such as Rhône-Alpes, Trentino, western Slovenia and Languedoc-Roussillon spend on average a higher percentage of their GDP on R&D than the European average.

Map 6 R&D expenditure expressed as a proportion of GDP (Source: Eurostat, 2011)



It is also important to stress that even if these figures are low in European terms, there has nonetheless been a **significant positive trend since 2003,** when the average percentage of GDP devoted to R&D spending in the MED space stood at 0.78%.

The ratio of R&D and research workers in the active population offers a valuable indicator of regional research and innovation performance. In Europe as a whole, the average for this indicator is 1.53 per 100. In the MED area, the average stands at 1.16, with 12 NUTS2 regions situated above this level. These include Catalonia, Trentino, Lazio, and the western regions of Slovenia and Croatia. **Considering research workers separately**, the European average percentage is 0.97%, whereas the MED average stands at 0.61 (Source: Eurostat data, 2009).

Another valuable indicator of regional innovation capacity is **the number of patent applications filed**. In 2009, the number of patent applications filed from the MED space with the European Patent Office was 6,418 (or 12% of the 54,720 patent applications filed across the EU as a whole). When the number of patent applications

[19] To date, only Denmark, Sweden and Finland have reached or surpassed this objective. Certain countries have surpassed this objective and Germany for example has set itself the target of devoting 10% of GDP on R&D.

[20] Using 2006 data pour la Greece ; 2011 data for the EU and other countries mentioned

[21] Source: Eurostat

[22] Source: Eurostat

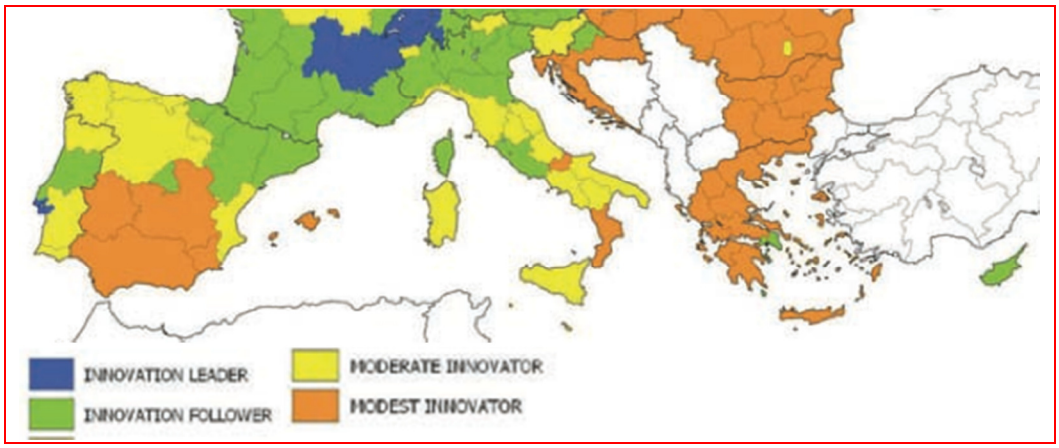
filed is considered relative to the total population, then the gap between the MED space and other regions is apparent; in the MED space, there are 39 patent applications filed per million people, whereas the figure is 109 for the EU as a whole. Considering the active population, the figures are 86 for the MED space compared with 228 for the EU as a whole.

As with previous indicators, the averages for patenting mask regional disparities across the MED space. While Friuli-Venezia Giulia, Alto Adige, Lombardy, Emilia-Romagna and Rhône-Alpes are performing above the European average (with Rhône-Alpes even attaining 215 patent applications filed per 1M people), the performance of the other regions falls well short.

In addition, whereas the patenting trend has historically been a rising one, 2008 and 2009 were marked by a slight fall.

As part of the *Regional Innovation Scoreboard* 2012, the European Commission consolidated a range of indicators for innovation[23], enabling them to construct the map below. It reveals the typology of regions in the MED space, distinguishing between innovation 'leader' or 'follower', 'moderate' or 'modest' innovator regions. It shows that the MED space has only one innovation leader region (Rhône-Alpes), the other MED regions being distributed among the other three categories.

Map 7 Ranking of MED regions by level of innovation (Regional Innovation Scoreboard, 2012)

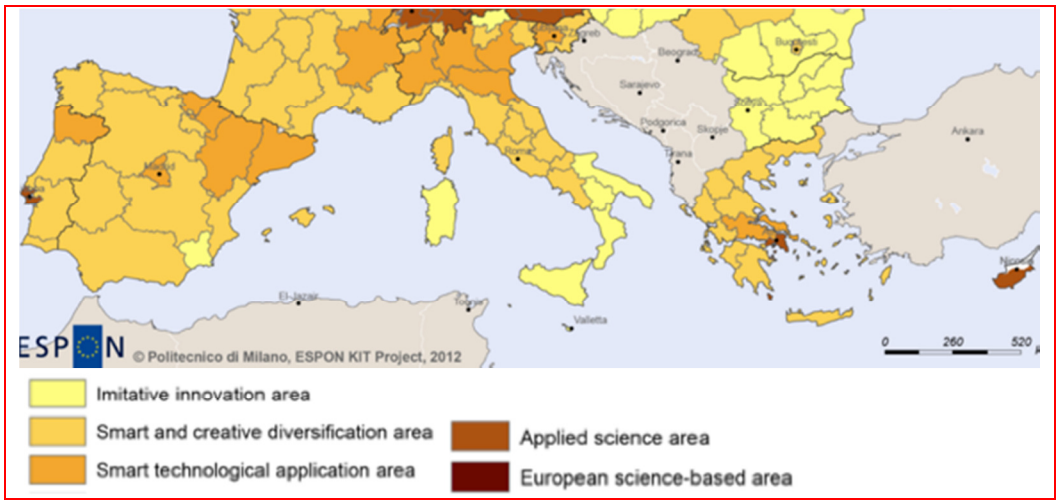


With a view to refining the above typology, the ESPON KIT project (*Knowledge, Innovation and Territory*) conducted a characterization study of innovation in European regions: this study classified MED regions as "*smart and creative diversification areas"* and "*smart technological application areas"*.[24]).

Map 8 Territorial Innovation Models in the MED space (Source: Espon KIT project, 2012)

[23] The 2012 Regional Innovation Scoreboard study uses 12 indicators for which regional statistics are available (percentage of population aged 25-64 having completed tertiary education, R&D expenditure in the public sector as a % of regional GDP, Non-R&D innovation expenditures as a % of turnover, SMEs innovating in-house as a % of SMEs, etc.)
http://ec.europa.eu/enterprise/policies/innovation/files/ris-2012_en.pdf

[24] The other types of region in the taxonomy being: imitative innovation area, applied science area, and European science-based area.



An in-depth and cross-cutting reading of the different regional innovation strategies allowed us to determine **the sectoral priorities in innovation policies and the challenges and problems faced by the policymakers working to support innovation at territorial scale**. In order to identify the main goals and challenges well as the industries that are most representative of the MED space, we conducted a comparison of two of the European Commission's innovation policy monitoring tools; the *European Cluster Observatory* and the *Regional Innovation Monitor* (which monitors regional innovation strategies in Europe). As it was necessary to reflect the diversity of the regions in the programme area, we built a sample that took into account both the weighting of Member States in the MED space (all the Member States were considered) and the level of innovation, as indicated by the European Commission's *Regional Innovation Scoreboard* (regions with high/low innovation performance)[25].

A reading of the different regional innovation strategies and other policy documents[26], reveals that **the innovation goals and challenges** targeted by regions in the MED space are essentially:

- Strengthening the links between research and business;
- Promoting clusters and collaboration;
- Strengthening research organisations (public and/or private) by supporting both infrastructures and projects;
- Raising awareness and strengthening the capacities of business and other relevant organisations so that they develop their innovation potential internally, (especially SMEs);
- Funding innovation, at each stage of the innovation process, funding innovative start-ups, or funding for the innovation projects of existing businesses
- Concentrating the resources of the different stakeholders on a limited number of priorities as part of a smart specialisation strategy;

[25] The selected territories (for which main NUTS2 data is available at NUTS2 level) are: Cyprus, Malta, West Greece, Peloponnese, Crete, Central Macedonia, the Algarve, Corsica, Languedoc-Roussillon, Rhône-Alpes, Gibraltar, Slovenia, Valencian Community, Catalonia, Aragon, Andalusia, Abruzzo, Lazio, Piedmont, Sicily, Tuscany.

[26] Source : Regional Innovation Monitor : http://ec.europa.eu/enterprise/policies/innovation/policy/regional-innovation/monitor/

- Developing schemes to support the exportation of innovative products and services
- Incorporating social and eco-innovation within the scope of innovation support
- Enhancing innovation governance and strengthening dialogue between stakeholder partners

The main goal should surely be to strengthen **links between research centres and business** in order to focus research more closely on business priorities and needs, as well as to enable business to make better use of research output. The lacunae that we observe today originate in part from: (1) the gulf between the specific research capabilities available in the territory and the specific types of business; (2) from the difficulties experienced by the smaller firms in undertaking a process of innovation; or (3) from the difficulty faced by business in accessing technological information and equipment.

While in some specialized sectors the link between research centres and business does function well, it could be further developed at the MED space scale in terms of offering greater support to businesses and enabling them to engage more systematically in innovation.

By analysing and comparing the different regional innovation strategies and other policy documents[27] enables us to identify the principal **industrial fields of innovation in the MED space**:

- Agriculture and agri-food (Algarve, PACA, Languedoc-Roussillon, Catalonia, Andalusia, Lazio, etc.);
- Construction and eco-construction (Andalusia, Valencian Community, Calabria, Cyprus, etc.);
- Chemicals and plastics (PACA, Rhône-Alpes, Malta, West Greece, Catalonia, Lazio, Western Slovenia, etc.);
- Transport (Rhône-Alpes, Lazio, Cyprus, Peloponnese, Attica, etc.);
- The Maritime Sector (Abruzzo, Cyprus, Malta, etc.);
- Materials (Piedmont, Lombardy, Rhône-Alpes, western Slovenia, etc.);
- Tourism and Accommodation (Catalonia, Cyprus, Crete, etc.);
- Pharmaceuticals (PACA, Lazio, western Slovenia, etc.);
- ICT (Piedmont, western Slovenia, Catalonia, Lazio, Gibraltar, etc.);
- Biotechnologies (Languedoc-Roussillon, Algarve, Valencian Community, Aragon, etc.).

Generally, these industrial fields of innovation are supported or led by networks of innovation centres/agencies, by public and/or private sector research bodies, by innovation clusters (such as competitiveness clusters in France or technology districts in Italy), by innovative businesses, local clusters, business incubators or organisations in the field of research exploitation and technology transfer, etc.

Moreover, it should be stressed that these clusters are already committed to and engaged in regional and international cooperation. In France, for example, the 2012 national evaluation of competitiveness clusters highlighted the growing

[27] Source : Regional Innovation Monitor (which cross-references regional strategy documents relating to innovation), corroborated by the European Cluster Observatory (scale and importance of European clusters in terms of employment, classified by sector)
http://www.clusterobservatory.eu/index.html

internationalisation of French clusters between 2008 and 2011. And in Italy industrial districts have been similarly entering into cooperation agreements with their European counterparts since the mid-2000s[28].

In the wake of the economic crisis, supporting innovation has become a new priority for a number of countries and regions of the MED space. In Spain, for example, the Strategy for Science, technology and Innovation (February 2013) is in keeping with the Horizon 2020 programme and focuses on promoting scientific excellence, the importance of industry and tackling societal challenges. It also stresses the importance of human capital. In this regard, the scientific community[29] regularly draws attention to the 'brain drain' problem, which has worsened since the advent of the crisis.

Moreover, it is also important that innovation policy should not be limited to the fields of technology and science; **innovation may also be social or environmental (eco-innovation).**

The objectives of **social innovation** are set out in the Foreword of the European Commission's Guide to Social Innovation[30]: : "*we need to have a fresh look at social, health and employment policies, but also at education, training and skills development, business support, industrial policy, urban development, etc., to ensure socially and environmentally sustainable growth, jobs and quality of life in Europe*". Social innovation is an important component of the EU's Europe 2020 strategy and of Cohesion Policy. In the Common Strategic Framework for the next programming period, social innovation is mentioned under Thematic Objectives 1, 8, 9 and 10. It is even directly targeted by the second Investment Priority of the TO1 "*promoting business R&I investment, product and service development technology transfer, social innovation and public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation".*

In Italy, for example, social cooperatives have historically played a major role in the organisation of economic and social life. In September 2011, more than 11,000 social cooperatives and consortiums were operating in Italy. They had 350,000 members, (to which might be added the 30,000 disadvantaged people employed by them). They have also grown by 57.7% over the past 6 years[31]. In France, the social economy sector is seen as a vector of long-term growth, especially with regard to the ageing population. There are a large number of regional initiatives to support innovative businesses in this area. Some examples include the regional incubator 'Alter'Incub' in Languedoc Roussillon, which was the first incubator devoted to firms in this sector, or the Investor Clubs for the Social Economy (CIGALES).

In Greece, on the other hand, the cooperative movement remains weak. To compensate for these weaknesses, in 2011 the Parliament, led by the European Union, passed a framework law promoting the development of the social economy and social innovation. In the context of the economic crisis this law aims to give cooperatives a greater role in the local economy[32].

Eco-innovation is today defined by the Eco-innovation Observatory as any innovation that reduces the use of natural resources and decreases the release of

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[28] Policy brief by the French Embassy on Italian clusters : http://www.ambafrance-it.org/IMG/pdf/LES_CLUSTERS_ITALIENS.pdf

[29] *Estrategia espanola de ciencia y tecnologia y de innovacion 203-2020*
http://www.mineco.gob.es/stfls/mineco/prensa/ficheros/noticias/2012/130201_ESTRATEGIA.pdf?bcsi_scan_1fe59ba8c561fa18=1

[30] http://ec.europa.eu/regional_policy/sources/docgener/presenta/social_innovation/social_innovation_2013.pdf

[31] The capacity for innovation and exploration in new cooperative sectors : the Italian case: Enzo Pezzini, '*Confederazione Cooperative Italiane*'

[32] http://www.essenregion.org/site/L-ESS-grecque-n-est-plus-tout-a?id_mot=6

harmful substances. In this definition, eco-innovation is no longer limited to environmental industries but is conceived as a cross-cutting dimension of all economic activities.

Fruitful initiatives have already been taken as part of the MED programme on this theme. They focus as much on the territory's environmental needs (see the discussion about environmental vulnerability in the section on sustainable growth) as on the territory's research and innovation potential (see the list of principal clusters in the MED space**Erreur ! Source du renvoi introuvable.**. These will be promoted as part of the ECO-SCP-MED project approved in March 2013. This project, which is led by the Andalusia Institute of Technology, aims to ensure the sustainability of supply chain logistics of the MED space's main products and services, by strengthening eco-innovation and competitiveness through transnational cooperation.

2.1.2 Information and Communication Technologies

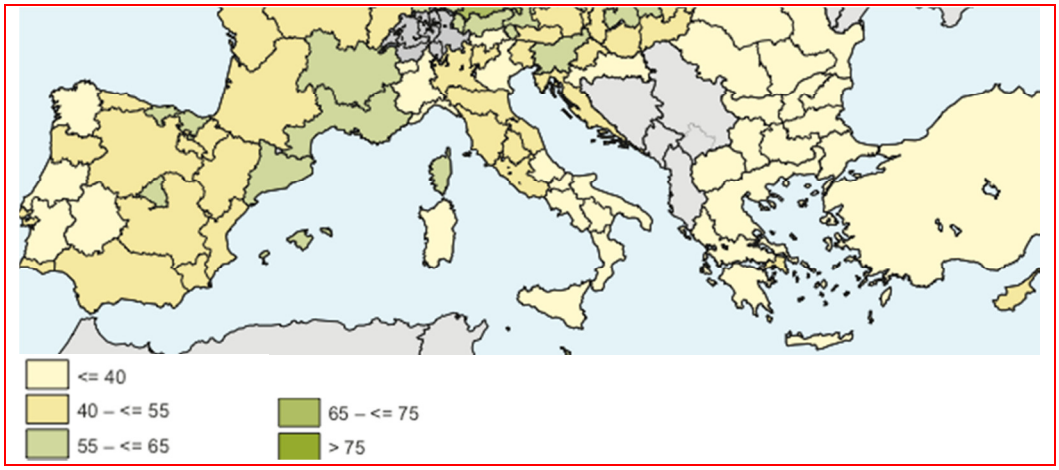
During the 2007-2013 period, substantial work was done to improve infrastructures and to connect territories to broadband or high-speed broadband internet. There is still a lot more that can be done to, firstly, upgrade infrastructures (especially with the latest technologies) and secondly, to boost ICT use by private individuals, public authorities, and business.

The territorial dimension of the information and communication society has a wide thematic scope, covering issues such as enabling ICT access and use for households, citizens and business (implying issues such as ICT infrastructure and equipment, Internet connections, access to broadband and high-speed broadband, etc.). But this is only half of the equation. It is also important not to neglect ICT skills (skills vary depending on age, educational profile, income, etc.) as an enabler and that needs vary depending on the types of ICT use that is involved.

It is firstly important to bear in mind that, internationally, Europe lags behind a number of the richest countries of the world. This is due, in particular, to its fragmented internal market (the EU remains a patchwork of national markets); a lack of interoperability; a continuing lack of confidence in network and online security; low user skill levels, etc. None of the countries in the MED space appear on the list of the top 20 most connected countries.

The primary indicator of the information society is households' access to broadband internet. With the exception of Catalonia and the French regions, **less than 50% of the population in the MED regions had access to broadband internet in 2009** (See map 9 below). In terms of use, the maps for regular Internet use by households, especially for online shopping and so on, and the map for e-government (the use of public online services by citizens), are essentially the same.

Map 9 Household access to broadband internet (Source: Eurostat GISCO 2010)

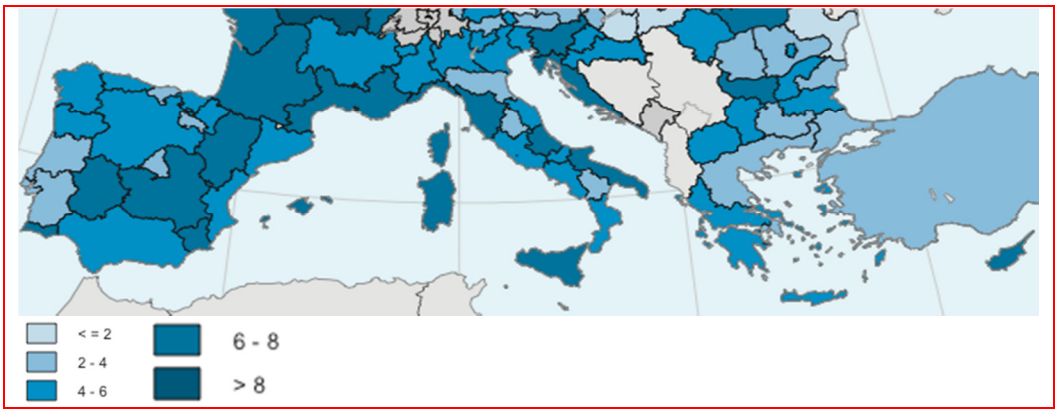


It is worth noting that, **in 2009, in certain regions (the south of Italy, Greece, Portugal, Cyprus), more than 45% of the population had never used the Internet.**

It follows that in the MED space, households lack ICT skills, particularly in Greece, Italy, and the south of Spain, where skill levels are below the European average[33].

At the same time, it should be pointed out that, over recent years, there has been change in terms of ICT availability use in the MED space. Specifically, **broad band networks have been extended, and as a result, household practices have progressed**. From 2008 to 2010, the number of people having used Internet grew significantly in the MED regions (but not enough to close the gap with the average for European households). This means that as the least connected regions close the connectivity gap, there are medium-term opportunities at the geographic scale of a transnational cooperation programme to reduce the digital divide between the territories.

Map 10 The progression in the regular use of Internet from 2008 to 2010 (annual percentage change in persons having used the Internet; Source: Eurostat GISCO 2010)



In the area of online public services, which concerns the national or local services accessible online and also the citizens' use of them[34], the MED space also lags behind other European areas. Slovenia leads the MED countries with some 40% of citizens in the 16 to 74 age group using the Internet to conduct their administrative affairs, followed by France (36%), Spain (32%), Malta (28%), Portugal (23%), Cyprus (22%), Italy (17%), Croatia (16%) and Greece (13%).

2.1.3 Business competitiveness, especially of SMEs

The MED economy is made up mainly of SMEs whose economic weight is proportionally greater than in other European economies. As a consequence, the issue of competitiveness is first and foremost one of SME competitiveness. There is substantial spatial variability in business competitiveness, although there are a number of common traits. Business competitiveness is founded, notably, on wide-scale inter-firm clustering (particularly in Italy) and strong business creation dynamics. There are also common constraints such as difficulties with access to finance.

The economic and financial crisis underlined the need for the European economy to become more competitive and, at the same time, more sustainable by completing the transition to a low carbon economy that manages the exploitation of its natural resources effectively. The Europe 2020 strategy promotes a new growth model with a new approach to industrial policy based on the flagship initiative "*An Integrated Industrial Policy for the Globalisation Era*", which aims at improving the business environment, notably for SMEs, and at supporting the development of a strong and

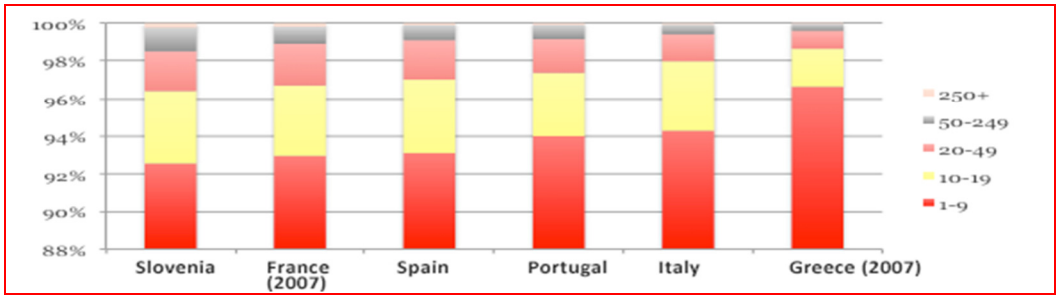
[33] Eurostat Gisco 2010

[34] Eurostat data 2010

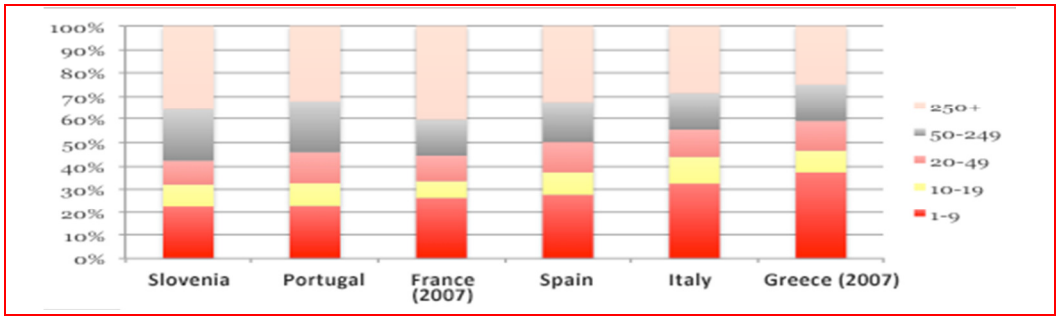
sustainable industrial base able to compete globally. It is therefore essential to increase manufacturing productivity, including the productivity of supporting services, and in particular to boost the potential of SMEs, which represent 67% of private sector employment and 58% of GDP[35], to create wealth and jobs.

For MED space, this issue is particularly important since SMEs are preponderant in the economy. In Spain, the number of SMEs in 2009 stood at 2.7 million, employing 11.1 million people. In Italy, the figures were 3.9 million SMEs, employing 12.6 million people[36]. The following 2 bar charts present the proportion of SMEs in the national economies concerned. They clearly show: (1) the high proportion of microenterprises (fewer than 9 people) in the MED countries (and particularly in Greece where more than 96% of firms are microbusinesses); and (2) the contribution they make to wealth creation (in Greece and in Italy, approximately 70% of added value is generated by SMEs employing fewer than 250 people).

Graph 1 Breakdown of firms by size (by size of workforce) in the national economies of the MED space (2008, 2007 for Greece and France; Source: OECD, 'Entrepreneurship at a Glance', 2012)



Graph 2 Added value produced by business by size – using size of workforce (2008 or most recent year for which figures are available; Source: OECD, "Entrepreneurship at a Glance", 2012)



A majority of these SMEs are family-owned and funded and follow a pattern of inter-generational succession. They are present in low and medium technology sectors (agrifood, machine tools, office supplies, optics, metallurgy, etc.) and employ a large number of relatively low-skilled personnel. **Their R&D is based more on a model of incremental rather than breakthrough innovation**[37].

The strong "clustering" of these SMEs in certain countries and regions in the MED programme area, especially in Italy, is also worth highlighting. Italian SMEs have historically operated within 'industrial districts', in other words clusters of firms in a given sector and located in a specific geographical area. These emerged at the beginning of the 20th century and offer benefits to the firms belonging to them,

35 European Commission (2010): An Integrated Industrial Policy for the Globalisation Era Putting Competitiveness and Sustainability at Centre Stage. Communication SEC (2010) 1272, SEC(2010) 1276.

36 Source: Eurostat 2009

37 SMEs : definition, economic role and public policy, Nadine Levratto (2009)

such as, for example, the pooling of resources and cost reductions. Since 2002 these districts have expanded their clustering activities through the creation of technological districts.

Smart Growth aims to increase the competitiveness of business. Yet competitiveness is a complex phenomenon that results not only from productivity but from a combination of different factors (long-run or societal factors may also contribute). The European Commission has created a 'Regional Competitiveness Index', which is a composite indicator designed to capture the complexity of 'competitiveness'. It is based on three factor categories: basic, efficiency and innovation[38]. Dijkstra et *al* use these categories to analyse European regions. Their analysis casts doubt on a dominant core 'blue banana' and a lagging periphery and instead shows a more polycentric development pattern characterised by highly competitive peripheral regions.

The regions in the MED programme area possess similar characteristics in respect of the paper's three competitiveness factor categories, and the paper also illustrates **a typology of business competitiveness models for the regions in the MED area.** There is a "leading group" performing above the European average including Catalonia, PACA, Rhône-Alpes, Lombardy, Lazio, and western Slovenia. Among the least competitive regions is a group including Corsica, Sardinia, Cyprus and the majority of the Greek regions. The other regions in the programme can be ranked in an intermediate group, often performing below the European averages). The three maps are not identical however and reveal a number of regional differences:

- In relation to the 'basics' of competitiveness (institutions, macroeconomic stability, infrastructures, health and primary and secondary education), Catalonia, Languedoc-Roussillon, Rhône-Alpes and PACA perform above the European average. The other regions perform below the European average and Sardinia along with the Greek regions achieve the lowest 'scores';
- In relation to the 'efficiency' of competitiveness (higher education and training, labour market efficiency and market size), Catalonia, PACA, Rhône-Alpes, Emilia-Romagna, Lombardy, Veneto, Lazio, western and eastern Slovenia all perform above the European average. The other regions, especially Corsica, Sardinia, Basilicata, Molise, and a majority of Greek regions perform below the European average;
- In relation to the factors underpinning innovation (technological readiness, business sophistication, and innovation), Catalonia, Languedoc-Roussillon, PACA, Lombardy, Lazio, western Slovenia and in particular Rhône-Alpes perform above the European average. The other regions perform below, notably Calabria and the Greek regions (except Macedonia).

Against the backdrop of economic crisis affecting the regions of the MED space, **business financing needs and access to financing** is also a key issue for business competitiveness**.**

A Eurostat study in 2011 considered the question of the success rate of business requests for bank credit before and after the economic crisis[39]. For all European countries (with however a few exceptions: Germany, Finland and Sweden), the refusal rate rose markedly between 2007 and 2010. For countries in the MED space, and especially Greece, Spain, Italy and Cyprus, the approval rate is less than 80%.

Table 2 Business success rate with requests for bank credit (Eurostat 2011)

[38] Study: 'A New European Regional Competitiveness Index: Theory, Methods and Findings'. Dijkstra et al, undated. http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/seminars/files/bbs_annoni_dijkstra_paper_en.pdf

[39] http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Access_to_finance_statistics

	2007			2010		
	Favourable Opinion	Moderately Favourable Opinion	Unfavourable Opinion	Favourable opinion	Moderately Favourable Opinion	Unfavourable Opinion
Greece	87.6	11.7	0.7	59.6	29.6	10.8
Spain	87.3	9.7	3.0	59.1	27.8	13.2
France	94.4	3.6	2.0	83.3	0.7	7.0
Italy	86.6	12.2	1.2	78.4	16.7	4.9
Cyprus	93.2	6.8	0.0	76.7	19.1	4.2
Malta	94.3	5.7	0.0	91.3	6.5	2.2

A further significant factor in competitiveness is the level of entrepreneurial activity and of firm creation**.** At 9.2%, the rate of new business creation is slightly lower in the MED space compared with Europe as a whole, which stands at 10.3%, with Bulgaria recording the highest rate (17.4%[40]). Across the MED space, the rate also varies considerably between countries[41]. For example, in Cyprus in 2009, the rate of new business creation[42] was 3%, in Spain and in Italy it was 7.2%, in Portugal and Slovenia it was 11.3%, and in France, it was 15.4.

The *Global Entrepreneurship Monitor* (GEM)[43] is a London Business School initiative that conducts studies into entrepreneurship across the world. Its indicators measure people's attitudes towards setting up and managing a business. One of these (the *Total Early Stage Entrepreneurial Activity* or TEA) measures the percentage of the population aged between 18 and 64 that is currently in the process of setting up a business or that is currently running a recently established one. In 2010, the highest TEA performances were recorded in France (whole country) and in Greece (5.8% for France and 5.5% for Greece, compared with 4.4% for Portugal, 4.3% for Spain and 2.4% for Italy).

It should however be borne in mind that there are many drivers to entrepreneurship; it may be driven by need – when it may constitute the only route to employment – or by opportunity – when an individual identifies a genuine business opportunity (offering a route to self-employment, to earn more, etc.). In terms of interpreting figures, the former category may reflect social precariousness, while the latter may be considered to be an indicator of a form of entrepreneurship that boosts growth.

TEA data for the MED space shows that Greece, Spain, Italy and Portugal fall into the first category, whereas, in France, the desire to seize an opportunity is a much stronger driver. It should also be noted that entrepreneurial behaviour is strongly influenced by the regulatory environment.

[40] Eurostat data, 2012

[41] Data forNUTS2 is not available (Eurostat data, 2012)

[42] The number of businesses created during the year relative to the number of existing businesses

[43] http://www.gemconsortium.org

2.2 SWOT analysis for the "Smart Growth" objective of the MED space

Thematic Objectives	Strengths	Weaknesses	Opportunities	Threats
1 Strengthening research, technological development and innovation	• The appeal of the MED territory • The area includes countries and regions that are leaders in R&D at EU and even world scale (Rhône-Alpes, Trentino, Catalonia, Lombardy, Lazio, PACA, Slovenia, etc.) • It possesses a number of high-skill industrial sectors that flourish thanks to the natural environment and the capabilities of research centres (agriculture and agrifood, chemicals, materials, etc.). • It has a strong tradition of social innovation, especially in Italy through its cooperative organisations	• GDP per capita is 12% lower than the EU average and substantial wealth disparities exist across the MED space • There is low investment in R&D • There is a low proportion of research personnel in the active population • There are a low number of patent applications • The MED has an innovation model based on diversification and/or new applications of existing technologies rather than on breakthrough innovation	• Investment in R&D has been rising for several years • There has been a slight increase (except in 2008 and 2009) in the number of patent applications • There are R&D specialisations in agrifood, construction and eco-construction, chemicals plastics, maritime, and tourism, etc. • A large, diverse and networked innovation community (a range of clusters, technology transfer centres, etc.) • Innovation stakeholders already engaged in regional & international cooperation strategies • There is significant potential for social and eco-innovation	• The economy has been seriously affected by the economic and debts crises since 2010, leading to a deep recession • There is increasing competition from southern and eastern Mediterranean countries (driven by innovation in the agrifood sector for example)
2) Enhancing access to and, use and quality of information and	• Wide coverage of high-speed broadband • There is an increasing use of ICT by individuals and	• There continues to be limited access to broadband across the whole MED region • Private individuals possess lower ICT skills than in other	• The development of high-speed broadband • The presence of R&D sectors specialised in ICT (examples include the Torno Wireless	• There are significant inequalities between regions, and the territory lags behind in terms of ICT use.

communication technologies (ICT)	businesses	European regions • There is limited use of online public services	cluster in the Piedmont, the Lombardy ICT cluster, or Telecom Valley in Sophia-Antipolis)	
3) enhancing the competitiveness of SMEs	• The appeal of the MED space, which is essential for the tourism sector • The MED space possesses highly competitive regions including Catalonia, PACA, Rhône-Alpes, Piedmont, Lombardy, Lazio, and Western Slovenia, etc. • Policy support for business has been showing results (essentially for business innovation and competitiveness, especially when it is targeted).	• Traditional business continues to influence the area's economic profile and SMEs that are active in low and medium technology sectors • MED space innovation is essentially incremental producing limited added value in SMEs, which make up the greater part of the economic fabric • Business suffers from low productivity • Despite an SME clustering trend, the majority of SMEs remain isolated and poorly integrated within networks. • There are wide regional disparities and regions with low competitiveness (Corsica, Sardinia, Cyprus, etc.) • There is sometimes more limited access to bank credit than elsewhere • Business has limited understanding of the importance of intellectual property.	• There are high business creation rates in certain MED regions (Portugal, Slovenia, and France) • There is strong clustering of SMEs in the MED space (on the model of the Italian 'industrial districts' and other cluster concept) • A need has been identified for inter-firm networking: between firms (especially large companies with smaller ones), and research and innovation centres (within the EU, but also across the entire MED space) • A need has been identified to internationalise business activities, especially among SMEs • A need has been identified to supply business with skills (rather than knowledge)	• There is a serious recession in the majority of MED regions which is affecting business development: structural weaknesses in the economic fabric are accentuated by the economic crisis • Business is experiencing difficulties with access to finance, the difficulty is more acute since the crisis

		• The idea of social responsibility of business is still too recent for businesses in the MED space.		

2.3 Conclusions for the "Smart Growth" objective in the MED space

2.3.1 Lessons from the OP for 2007-2013

The Smart Growth objective of the Europe 2020 strategy is currently incorporated in the MED OP strategy for 2007-2013 under the following sections:

- Priority 1: strengthening innovation capacity:
  - Objective 1.1 : disseminating innovative technologies and know-how
  - Objective 1.2: strengthening cooperation between economic development stakeholders and public authorities;
- Priority 3, Objective 3.2: Support to the use of information technologies for a better accessibility and territorial cooperation.

Overall there have, to date, been 60 projects programmed under Priority 1 on the basis of standard project calls (amounting to a total ERDF commitment of €65M). These projects included the setting up of partnerships and networks, creating links between firms and research centres specialised in technology transfer and the dissemination of innovative practices and know-how. A large number of these projects involved studies or the development of policy tools, mapping, exchange platforms and policy approaches. The results of these are, at this point, difficult to assess. However, it is estimated that more than 500 partners and over 200 firms have participated in transnational activities under the programme.

Objective 3.2 of Priority 3 has generated three approved projects. The programme has, for example, enabled the provision of support to joint initiatives which have made it possible for the general population, for public authorities, and for economic operators to make better use of ICT. However, and despite the use of targeted project calls, the number of projects submitted under this objective fell short of expectations. The limited number of target organisations in the sector, each of which can be found in the different approved projects, is one explanation.

2.3.2 Specific nature and added value of transnational cooperation and conditions for project implementation

For the smart growth objective, as is the case for the EU's other growth objectives, the design of the overall strategy and the selection of Thematic Objectives must take into account a range of factors:

- On the specific nature of the transnational dimension : the European Commission states that territorial cooperation offers a "*mechanism… for sharing good practice and learning to spread know-how (e.g. enhancing competitiveness); cooperation can ensure that a solution to a specific problem becomes more effective due to economies of scale and the achievement of a critical mass (establishment of clusters to foster research and innovation); governance can improve as a result of coordination of sectoral policies, actions and investments on a cross-border and transnational scale*". The Commission also specifies the nature of territorial cooperation (and especially transnational cooperation) as essentially being intangible actions such as projects to exchange experience, good practices or transfer public policies. At the same time, however, the Commission states that cooperation programmes, including transnational ones, must bring together a critical mass of partners to provide tangible solutions to demonstrable policy problems. For the 2014-2020 period the MED programme could also develop a new typology of projects in order to enable them to be "upgraded" to go beyond exchange based goals. Three different types of project could be envisaged, each organised into clear sequential phases, as follows:
  - Strategic projects in three phases (possible, but not essential) : 1) studies and analyses, 2) experimentation, 3) capitalisation;

- Public policy stakeholder networking/lobbying/dissemination, in two phases (the experimentation phase is considered non-essential);
- Microprojects, in two phases: 1) design of action plans plus identification and selection of SMEs and 2) pilot activities, testing.

- The programme does not have the financial capacity to fund large-scale investments. While it is clear that in fields such as transportation, for example, the development of sustainable port infrastructures is a high priority for the MED space, the MED programme is only able to support, in the main, projects to improve policy coordination, feasibility studies for large-scale infrastructure projects, or to enable the exchange of good practice;
- The added value of support from the MED programme compared with other funding programmes (especially the ERDF, ESF, and EMFF) is a question of which geographic scale is most adapted to tackle a given problem, and the principle of subsidiarity should therefore be applied.

The challenge of R&D and innovation will be a key policy focus for regional OPs that are subject to the same smart growth objective. The challenge for the MED programme is therefore less to finance new services but to network innovation stakeholders in order to test or pilot new ideas for which the transnational scale is critical and also to exchange good practice (with the aim of incorporating them into mainstream regional policies). It would particularly be worthwhile to ensure that the successful outcomes in the most advanced regions of the programme area either directly – through policy action – or indirectly benefit the other regions.

2.3.3 Principal smart growth challenges for the MED programme 2014-2020 and the choice of Thematic Objectives and Investment Priorities

The economic data for the MED space, presented above, generally show that the region often lags far behind the objectives set by the European Union with regard to its Europe 2020 strategy. The MED space's economy suffers from the weakness of its R&D investment, an innovation model based on diversification and adaptation more than on creation, a lack of business competitiveness, and, compared with other European countries, poorer access to ICT. The economic crisis that has affected the MED space in particular, and also the sovereign debt crises, has only exacerbated existing structural weaknesses in the economy and, by the same token, highlighted the need to support business competitiveness. This can be achieved by strengthening the research-development-innovation support system for business and also increasing SME competitiveness.

Strengthening the links in the research-development-innovation support system for business is a priority for the MED space. There is considerable variability in the R&I potential across the MED space, but a number of issues that have emerged from the regional innovation strategy process[44] militate in favour of a transnational approach. The MED space is home to several major research and innovation clusters, but business and industry are not able to easily make use of research output and transform them into new products, techniques or services.

By connecting regional clusters, it is possible to attain a critical mass of RDI capabilities and financing, as well as foster cross-fertilization in terms of business ideas and initiatives. In addition, for a number of years, policymakers have been strongly encouraging business co-location and collaboration between business/research/education and training via policies in favour of competitiveness clusters in France, as well as in favour of clusters generally. The latter can offer a 'backbone' for transnational cooperation projects.

[44] See the Regional Innovation Monitor platform – www.rim-europa.eu (DG Enterprise, European Commission).

A transnational programme could provide a realistic scale of action for establishing connections between the different research and industry clusters in the MED space.

To pursue a logic of territorially 'smart specialisation', which the European Commission is encouraging for regional operational programmes, it is necessary to **better focus support on innovating sectors and industries (and respective supply chains) that are common across the MED space**, and which constitute key elements of the identity of the territory, and of its economic development. This means, for example, focusing on agriculture and the Mediterranean agrifood model, or on Blue Growth (see section 7).

The Thematic Objective n°1 'strengthen research, technological development and innovation' deals with these challenges through Priority 1b "*promoting business R&I investment, product and service development, technology transfer, social innovation and public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production in Key Enabling technologies and diffusion of general purpose technologies'*, and in particular by:

- Supporting entrepreneurship and the creation of new innovative businesses;
- Supporting networking and the development of financial services for innovative businesses (for example, in the field of pre-seed and seed equity funding for start-up innovative businesses in the territory; training for entrepreneurs by raising funding, etc.);
- Enhancing and extending access to ICT in order to promote new business products and services and public service applications;
- Support for demonstrator projects enabling the marketing of innovations by SMEs across the territory;
- Supporting inter-cluster collaboration projects and joint cluster projects marketing new services to the member businesses (internationalisation, access to finance, access to training, enhancing the use of ICT, etc.);
- Transnational collaborative R&D programmes involving research centres, technology transfer centres, training bodies and business (agriculture and agrifood, chemicals, materials, etc.);
- Supporting the development of common or joint tools for a more effective exploitation of research;
- Strengthening systems and resources for technology maturation and transfer in higher education and research institutions;
- Setting up shared or networked technology platforms providing access to scientific equipment for SMEs in the MED space;
- Supporting collaborative demonstrator projects between research, local government, and businesses in order to conduct large-scale tests of new products or services (for example, in the areas of urban mobility, water management, energy efficient buildings, or the use of ICT, etc.).

Investment Priority 1a, which aims to '*enhance research and innovation infrastructure (R&I)*' is less relevant at the MED programme scale as this policy area is (a) usually tackled by regional operational programmes (or even by the EU's research framework programme in the case of large-scale equipment) and (b) requires financial resources that are not available in a transnational cooperation programme.

It is worth noting also that given the characteristics of the MED space's economy, **support for innovation must not be limited to support for technological**

innovation, but must also cater for non-technological innovation (organisational or social innovation, marketing innovation, eco-innovation, etc.).

Transnational cooperation can also offer a vector for developing social and eco-innovation in the MED space. The transnational dimension is clearly a relevant scale of policy intervention for this type of activity and the incorporation of eco-innovative practices for example in traditional economic activities (industrial ecology (symbiosis), the development of product lifecycles, etc.).

Moreover, the **promotion of smart growth as an objective for the MED space must also take account of the challenges facing SMEs and their competitiveness**, in particular for key Mediterranean sectors and industries (and their supply chains) such as **agrifood, tourism, sustainable construction, etc**. The provision of innovation support for both technological and non-technological innovation is essential, due both to the economic importance of SMEs in the countries of the MED space and their vulnerability.

These challenges can be tackled through the selection of Thematic Objective n°3 "*enhancing the competitiveness of SMEs*" and its two investment priorities: Investment Priority 3a "*Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms*" and Investment Priority 3b "*developing new business models for SMEs, in particular for internationalisation*", for example, by:

- Enhancing business finance (outside of innovation) including, for example, the networking of business angels or developing training schemes for SMEs on how to access business finance, development of training schemes on the subject of financial engineering for managing authorities dealing with EU funding and for other public sector stakeholders, etc.;
- Networking business incubators and developing common approaches/processes to support the creation of new businesses and the development of recently created ones;
- Organising exchange on the theme of business support and business performance improvement;
- Organising exchange and pilot projects in the field of business takeover/succession;
- Promoting cooperation projects for the organisation of business conventions & trade fairs between the SMEs in the MED space.

It is worth pointing out that a number of factors of business competitiveness can also be tackled under Objective N°1, provided that the firms concerned undertake an innovation activity.

In addition, for the 2014-2020 period, the Commission has once more made it possible, through ERDF OPs, including ERDF OPs for ETC, for regions to **establish financial engineering tools (instruments such as JEREMIE, JESSICA, etc.)** and has stressed their importance. In the midst of a crisis that has reduced the ability of banks to fund business enterprise, these instruments could support SMEs by helping them to secure funding (access to loans, guarantees and risk-capital).

However, while they do indeed offer multiple opportunities, the creation of financial engineering tools is unsuitable for the transnational scale of the MED programme due to their administrative and financial complexity, a complexity which is ill-adapted to the transnational scale. At programme scale, the issue could be addressed by comparing the instruments and their performances in the regions of the MED space where they have been deployed (a number of regions have for example made use of the

JEREMIE instrument (Greece, Languedoc-Roussillon, Campania, Cyprus, Sicily, and Malta)[45]. A study could also be conducted by the programme to determine the relevance, added value and possibility of implementing a transnational financial engineering instrument.

Moreover, while **the support for ICT set out under Thematic Objective n°2** clearly offers a response to the needs of the MED space, the limited success of projects undertaken within the 2007-2013 programme begs the question of the relevance of support given on a transnational scale. The promotion of ICT use, which continues to be an important goal for MED regions, can be integrated as a cross-cutting theme within the different Thematic Objectives that are selected. For the next programme ICT needs therefore to be seen as a means for projects under all Thematic Objectives rather than as a project objective in itself.

Table 3 Smart Growth challenges and their translation into Thematic Objectives and Investment Priorities

Challenges identified for the MED space	Their translation into Thematic Objectives	… and Investment Priorities
Strengthening connectivity between research, technological development, and innovation to enhance business innovation support	TO1/ "strengthening research, technological development and innovation"	IP1b / "promoting investment in research and innovation and the development of links and synergies between business, R&I centres and higher education, in particular for the development of products and services, technology transfer, social innovation and public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production in Key Enabling Technologies and diffusion of general purpose technologies";
Strengthen the economy by supporting SMEs	TO3/ "enhancing the competitiveness of SMEs"	IP3a / "promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms" IP3b / "developing new business models for SMEs, in particular for Internationalisation"

[45] http://www.eif.org/img/jeremie-funding-agreements.gif

3. Territorial needs assessment and SWOT analysis of the MED space in relation to "Sustainable Growth"

Sustainable development is traditionally defined as "*a development which meets the needs for the present without compromising the capacity of future generations to meet theirs*". It is therefore a question of ensuring that today's growth does not endanger the potential for growth of future generations.

The EU objectives with regard to sustainable growth are:

- To cut greenhouse gas emissions by 20% on 1990 levels by 2020. The EU is prepared to raise this figure to 30% by 2020 if other major economies in the developed and developing world commit to undertake their fair share of a global emissions reduction effort, as part of a wide-ranging global agreement;
- To increase to 20% the share of renewable energy sources in final energy consumption;
- To increase energy efficiency by 20%.

In its Europe 2020 strategy, the European Commission notes the following challenges associated with sustainable growth: "*Sustainable growth means building a resource-efficient, sustainable and competitive economy, exploiting Europe's leadership in the race to develop new processes and technologies, including green technologies, accelerating the roll-out of smart grids using ICTs, exploiting EU-scale networks, and reinforcing the competitive advantages of our businesses, particularly in manufacturing and within our SMEs, as well as through assisting consumers to value resource efficiency. Such an approach will help the EU to prosper in a low-carbon, resource constrained world while preventing environmental degradation, biodiversity loss and unsustainable use of resources. It will also underpin economic, social and territorial cohesion*"[46].

Generally speaking, MED space countries often perform below the EU-27 average in relation to the main indicators for sustainable development (use of renewable energy, ozone concentration levels, and the degree of susceptibility to climate change). Yet, at the same time, the MED space territories are extremely diverse. In light of this diversity, when analysing the situation of the MED space, it is important to take into account the territorial dimension for sustainable growth and to define priorities on this basis. Figure 2 below is taken from the November 2012 ESPON TerrEvi report on the MED programme.

For sustainable growth (as well as for smart growth), the three indicators are coloured red, indicating weak performances by the territory in relation to Community objectives. For the MED space, the potential of wind power is below the EU-27+4 average, whereas ozone concentration levels and climate change susceptibility are above UE27+4 average. There are also wide disparities across the MED space for these three indicators.

Figure 2 Position of the MED space in relation to the EU's indicators for its Sustainable Growth objective, (source: ESPON TerrEvi 2012)

[46] Communication SEC(2010) 1272, SEC(2010) 1276.

3.1 Key Sustainable Growth indicators for the MED space

The following review (S4.1 to S4.3) of the baseline data in this area lends support to conclusions of the ESPON TerrEvi report and, where possible, we use them to provide a more nuanced picture of the highly variable situation across the MED space.

3.1.1 Renewable energies production, energy distribution and energy efficiency

The potential for renewable energy production, while varying across regions, is significant, although it is yet to be fully exploited. Moreover, the level of energy dependence remains relatively high; transport, households and industry are the largest consumers of energy.

The potential for renewable energy production, while varying across regions, is significant. Countries such as Italy, Portugal, Spain, and Slovenia are well above the European average. The average share of electricity from renewable energy sources (biomass, hydroelectric, wind and solar power) stands at 20.4% of the EU-27's total electricity production, ranging from 43.6% in Portugal, 30.1% in Spain, 26.2% in Slovenia, 23.6% in Italy[47].

The primary sources of renewable energies in MED space countries in 2011 were biomass and hydraulic power (See Table 5). Since 2007, solar and wind energies have continued to be developed but still only represent a small part of total energy production. However, MED space countries do represent more than 50% of European solar energy production (in tonnes of oil equivalent) and 40% of European wind energy production.

Table 4 Electricity derived from renewable energy sources, 2011 (in tonnes of oil equivalent (toe))

Country	Solar energy	Biomass / renewable waste	Geothermal	Hydraulic power	Wind energy
EU-27	6062	108248	6204	26374	15393
Greece	235	1085	26	345	285
Spain	1348	6118	17	2631	3649
France	240	12624	83	3854	1052
Italy	1069	6997	5015	3940	847
Cyprus	64	21	1	0	10
Portugal	92	3088	202	992	788
Slovenia	14	554	36	306	0
Malta	/	/	/	/	/
Total for MED	3062	30487	5380	12068	6631

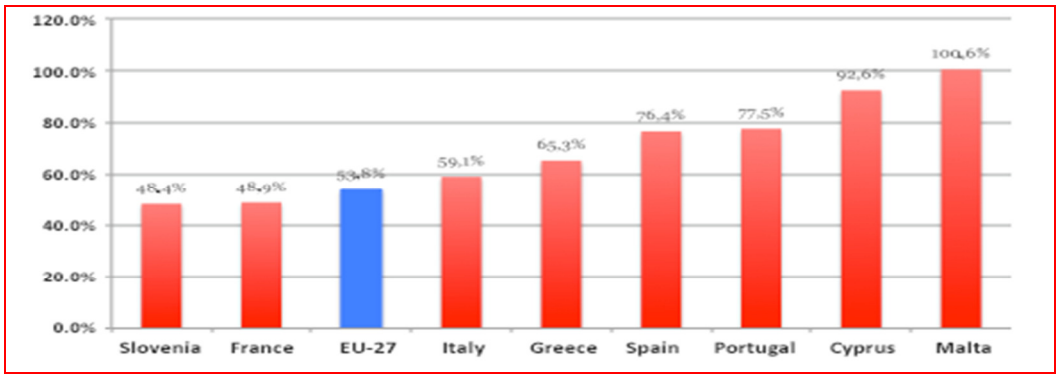
Source: Eurostat Data 2011

Energy dependence[48] shows the extent to which a country's economy depends on imports to meet its energy needs. The EU-27 depends on over 50% imports to meet its energy needs. **With the exception of Slovenia and France for which the level of energy dependence is below the European average,** the level of energy dependence of MED space countries varies from 59% (Italy) to 100% (Malta).

Graph 3 Energy dependence of MED space countries in 2011

47 This falls to 12.9% for Greece, 12.8% for France, and 2.5% for Cyprus. Eurostat Data 2011

48 The energy dependence indicator is the ratio between net imports and the total amount of gross domestic energy consumption and the reserves.



Source: Eurostat Data 2011

As for energy intensity[49], in 2010, France, Greece, Spain and Italy were the top performers of the MED space, whereas Portugal, Malta, Cyprus, and Slovenia exceeded the EU-27 average[50].

Europe is committed to reducing the carbon footprint of the energy sector as a whole. This shift will increase the role of electricity compared to other energies. It is important to both develop renewable energy sources and ensure the continuous security of energy supplies, notably from gas, in the context of an increasing dependency on imported fossil fuels[51].

It is for this reason that the European Commission wishes to develop an integrated European energy network, capable of meeting current and future challenges. This strategy is based on 8 priority corridors to be developed between now and 2020. It will be necessary to invest nearly a thousand billion Euro in the energy system between now and 2020 in order to meet the energy and climate policy objectives. About half of this sum will be required for networks, in particular for the distribution and transmission of gas and electricity, for storage, as well as for smart grids. Energy Transmission grids, alone, will require some 200 billion Euros of investment.

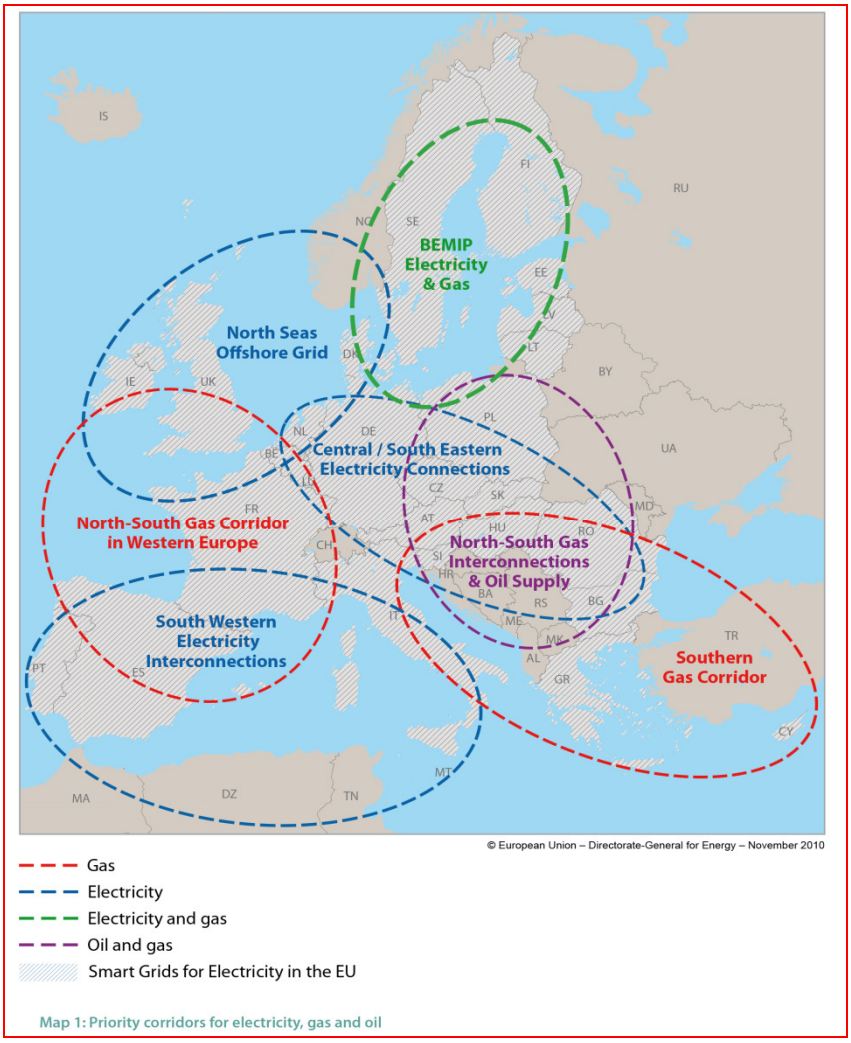
The MED space includes several priority corridors in the electricity production sector, notably: I) interconnections in south western Europe used to carry wind, hydro or solar power to the rest of the continent; and II) connections in central and eastern Europe, as well as in south-eastern Europe used to strengthen the regional network.

[49] Energy intensity represents the ration between gross domestic energy consumption and GDP. It measures an economy's energy consumption and its general energy efficiency.

[50] Eurostat data, 2010.

[51] http://ec.europa.eu/energy/publications/doc/2011_energy_infrastructure_fr.pdf

Map 11 Priority corridors for electricity, gas and oil in the EU



Source: Energy Infrastructures, priorities for 2020 and beyond — A Blueprint for an integrated European energy network, Directorate General for Energy 2011.

Energy efficiency is at the core of the EU's "Europe 2020" strategy, and is central to the shift towards a low-carbon economy. Energy efficiency is one of the most cost-effective ways of reinforcing energy supply safety and reducing greenhouse gas emissions and other pollutants. The EU has laid down an objective for 2020, which consists in reducing its consumption of primary energy by 20% compared to forecasts.[52] The Commission has proposed several measures to increase efficiency at all stages of the energy chain: generation, transformation, distribution and final consumption. The measures focus on the public transport and building sectors, where the potential for savings is the greatest[53].

At the EU scale, the transport sector has seen the fastest growth since 1990, and is now the largest consumer of final energy (33%). The second and third largest consumers of energy are households and industry.

Resource efficiency implies a limited use of natural resources (metals, minerals, fuel, water, soil, wood, fertile land, clean air and biodiversity). Increasing resource

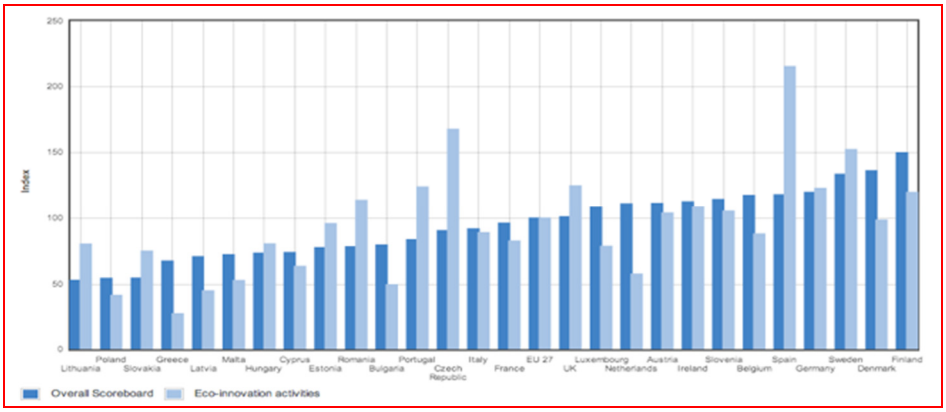
[52] European Commission (2011) 2011 Plan for energy efficiency, Communication COM (2011) 109 final, Brussels, 8.3.2011

[53] http://ec.europa.eu/energy/efficiency/index_en.htm

efficiency is also important for territorial development as it can offer major economic opportunities, improve productivity, reduce costs and encourage competitiveness, and thus ensure growth and employment (for example, by developing the "green technologies" sector or by opening up new export markets). The themes and sectors that need to be considered are varied, ranging from the development of new products and services to the implementing of new ways of reducing input resources or minimizing wastage to improve inventory control. They can also include changing a consumption model or optimising production processes, management, business methods, and improving logistics.

According to data from the "Eco-Innovation Scoreboard", with the exception of Spain, MED space countries are below the EU average with regard to Eco-innovation performance[54].

Graph 4 Eco innovation Scoreboard 2012



Source: Eco-innovation observatory

3.1.2 Waste management

While domestic waste production continues to grow and the MED space's waste recycling rate is still below the EU27 average, we are seeing a growing awareness about these issues as well as the introduction of a cleaner and greener waste treatment sector.

Waste represents one of the major pressures on the environment, and the amount of waste produced continues to increase. Waste presents several types of hazards for health and the environment: ground and surface water pollution, soil contamination and degradation of the natural ecosystems, gas emissions (dioxins for example) and particles, unpleasant odours and landscape degradation. It also contributes to climate change through emissions of greenhouse gases (methane) from landfills and incineration facilities[55].

In MED space countries, the waste generated by households continued to rise between 2004 and 2010, while the level remained stable for the EU-27 as a whole. Only two countries were exceptions: Spain saw a slight drop in household-generated waste production and Maltese waste production remained constant during this period. In 2010, countries such as Italy, France and Spain were above the EU-27 average. With a view to preventing and reducing the negative effects of waste disposal on the environment as much as possible, the European directive on the disposal of waste lays down strict technical requirements for waste and landfills. The implementation of the waste disposal directive remains very unsatisfactory, and considerable efforts must be undertaken to improve the situation. Ten years after the adoption of the directive, not

54 Eco-innovation is defined as all innovation (techniques, conceptual methodologies) that directly or indirectly helps to improve the state of the natural environment

55 Plan Bleu Plan Bleu, Mediterranean Strategy for sustainable development follow-up: main indicators - 2013 update

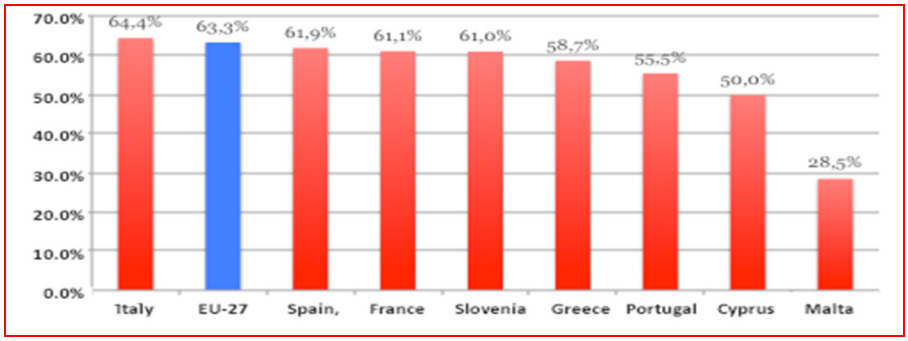
all Member States have declared that they have transposed and implemented the whole of the directive's provisions. Only nine Member States stated that they had achieved the goals laid down for 2006, designed to ensure that waste is treated correctly and that biodegradable municipal waste does not end up in landfills. In 2009, thirteen procedures for non-conformity and eleven procedures for incorrect application had been instigated against Member States.

MED space countries are generally working to shift their waste treatment systems towards not only cleaner but also more resource-effective methods. Of course, shifting towards recycling and waste re-use methods does entail extra costs. For example, in France, the expenditure for the collection and the treatment of waste over the period 1995-2006 increased from 0.55% to 0.73% of GDP, which in terms of cost per tonne of waste, represents an increase from €249 to €340 /tonne. In Italy the cost in 2005 was €217 per tonne[56].

As for the recycling of packaging waste, most MED space countries have that are lower than the EU-27 average recycling rates,[57] and notably Malta whose rate was only 28.5%. With the exception of Italy, whose packaging waste recycling rate was above the EU-27 average of 63.3%, all the other MED countries have rates ranging between 50% (Cyprus) and 61.9% (Spain). Although waste packaging recycling rates were lower than the European average overall, they have, however, steadily been increasing in all MED countries since 2005.

Another dimension to the problem of waste and its cross-border effects is the macro-waste found in the sea and on the coastline. Human activities and growing economic development in Mediterranean countries have had a strong environmental impact, which is particularly visible in the high level of degradation to coastal and marine areas. All around the Mediterranean basin, there is a broad spectrum of industrial activities, ranging from mining to the production of manufactured goods, giving rise to a certain number of "pollution hotspots", where the dumping and release of contaminants by industrial areas and large commercial ports are important environmental threats[58].

Graph 5 Recycling rate of packaging waste (shown as a %)



Source: Eurostat 2010 data

3.1.3 Greenhouse gas emissions

Even if the greenhouse gas index for the MED space still remains high relative to the European average, we are seeing a general decrease in greenhouse gas emissions.

EU-27 Greenhouse gas emissions dropped by 15.4% between 1990 and 2010. However, they increased by 2.4% between 2009 and 2010, mainly due to the economic

56 Plan Bleu, ibidem

57 The recycling rate corresponds to the total amount of packaging waste recycled divided by the total amount of packaging waste produced.

58 Plan Bleu, ibidem

revival following the 2009 recession[59]. Within the EU15, one of the major reasons for the decline in CO2 emissions was the decline of manufacturing and construction as well as electrical power generation industries. The CO2 emissions generated by the transport sector, however, continue to rise.

In 2010, all the MED space countries had a greenhouse gas emissions index that was much higher than the EU-27 average[60]. The countries with the highest levels of greenhouse gas emissions are Cyprus, Malta, Spain and Portugal.

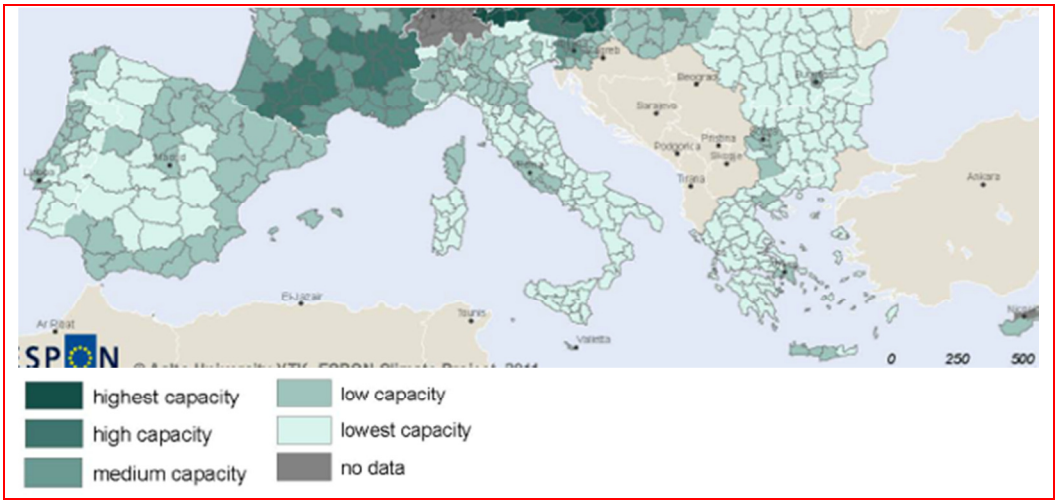
Within the EU-27, the volume of emissions fell by 7 points between 2005 and 2010. With the exception of Malta, whose level of emissions remained constant (and even saw an increase in 2007-2008), all the other MED space countries experienced a fall in their level of greenhouse gas emissions between 2005 and 2010, with the most significant reductions attributed to Spain and Portugal.

3.1.4 Climate change adaptation, risk management and prevention

The MED space is highly susceptible to climate change and its adaption capacity varies greatly from one region to another. The area is also relatively susceptible to natural catastrophes and the challenges involved in risk prevention are high.

Generally speaking, the MED space countries are more susceptible to climate change than other European countries on average. There are however major disparities with regard to adaptation capacity. Italian and Greek regions possess a relatively much lower adaptation capacity whereas the French regions involved in the MED space are among the areas possessing a strong or medium capacity for climate change adaptation.

Map 12 Capacity for climate change adaptation (ESPON CLIMATE project) for the MED space



Source: Espon Climate project

The Mediterranean is one of the most susceptible areas to climate change.

Generally speaking, the Mediterranean countries are confronted with major problems including **water stress, desertification, loss of biodiversity and extreme climatic conditions, such as floods and drought**. Climate change will most probably aggravate these problems.

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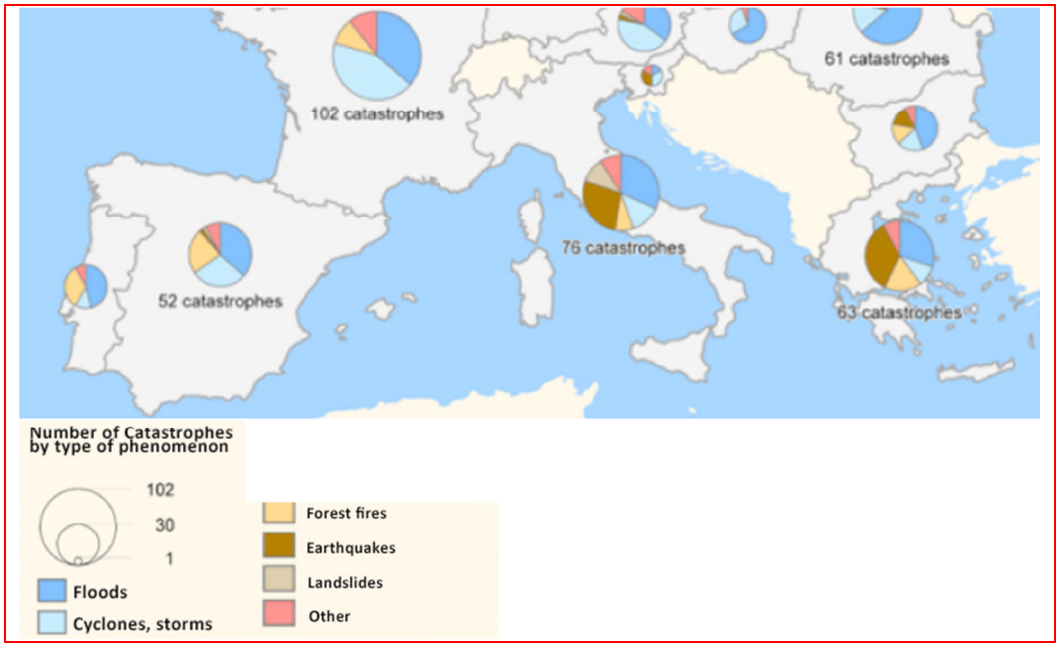
59 http://www.eea.europa.eu/

60 This indicator shows the trends related to total anthropogenic greenhouse gas emissions contained within the "Kyoto basket" of greenhouse gases. It presents annual total emissions compared with the Kyoto protocol reference point (year 1990) Agglomerated greenhouse gas emissions are expressed in units of CO2 equivalent (CDE).

One of the main impacts of climate change is on water, particularly in the way climate change is rapidly modifying the water cycle, bringing about a rise in evaporation and a reduction in rainfall levels[61]. Since the resources in the MED space are particularly limited, water management represents an important challenge. All the while different types of human activity are increasing water consumption and influencing its quality (domestic sewage, industrial production, agriculture and animal farming). The pollution of lakes, rivers and groundwater and, of course, the pollution of seawater is worrying. The susceptibility of the MED space to natural disasters is closely related to (1) agricultural and industrial activities, (2) urbanization in coastal areas, (3) traffic and(4) intensive tourism. Among the most important natural hazards for the MED space are drought and fires. Earthquakes, notably in Italy and Greece, as well as floods in Italy, France and Slovenia are also among the substantial risks that the MED space must contend with.

Map 13 Natural disasters in the MED space



Source: EM-DAT, the OFDA/CRED International Disaster Database, 2009.

3.1.5 Protection of the environment and biodiversity

While the MED space is rich in diverse natural resources, both on land and in the sea. While it boasts numerous protected sites, its heritage is under constant pressure from human activities, including tourism, agriculture, industry, and sprawling urbanisation.

Mediterranean countries possess a wide diversity of natural resources including woodlands, arable lands, mountainous areas, rivers, lagoons, deltas, and wetlands.

These are important assets (especially for agriculture and tourism) but also represent sources of fragility.

Even if there are indeed significant differences between MED space countries with regard to the state of the environment and the gravity of the environmental problems encountered, there are still challenges that are common to all the countries, namely

[61] Plan Bleu

the **management of coastal areas, water resources, the soil**, and protected areas.

As many environmental problems are concentrated in cities, the environmental dimension takes on major importance within urban areas.

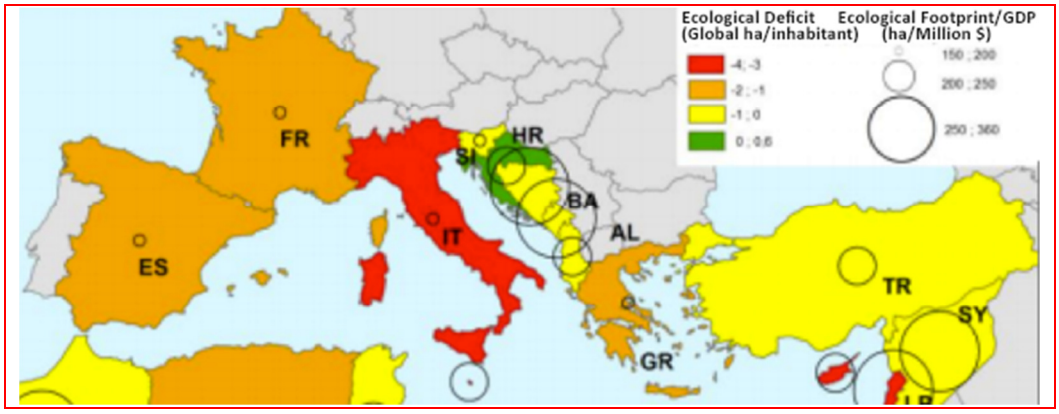
The majority of **MED space cities** are confronted with environmental problems related to:

- Pollution (air quality, noise pollution, greenhouse gas emissions, etc.) due to traffic, road congestion and district heating,
- Low quality built-up environment in certain areas,
- Urban sprawl,
- The presence of industrial wasteland,
- Production of waste and waste water/sewage.

Within MED space countries, the impact of human activity on the environment is relatively high.

The concept of an ecological footprint is used to estimate the human activity driven consumption level of the available resources[62]. All the MED space countries recorded an ecological deficit in 2009[63], i.e. the environmental capital of the area was used more quickly than it was renewed. For example, between 1995 and 2009, the Ecological footprint per capita decreased in Malta, in Italy, Greece and Slovenia.

Map 14 Ecological footprint/GDP and ecological deficit (2009)



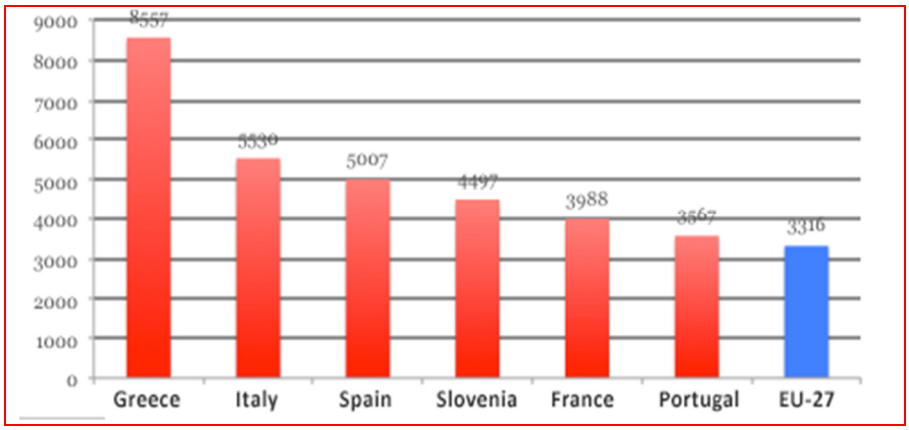
Source: Global Foot print Network, World Bank

Air Pollution constitutes not only a public health problem in densely populated areas but also a major environmental problem contributing to major problems such as climate change, acid rain, and ozone layer depletion.

[62] This indicator allows us to calculate a region's ecological deficit or reserve. The indicator measures the amount of biologically productive space needed by a population or an activity so as to produce all the resources consumed and to absorb the waste produced, taking into consideration the technologies available and management practices employed.

[63] Plan Bleu, Mediterranean Strategy for sustainable development follow-up: main indicators - 2013 update (May 2013)

Graph 6 Exposure of the urban population to ground level ozone (micrograms per cubic meter per day)



Source: Eurostat 2010 Data (no data available for Malta and Cyprus)

The most polluting gas emissions are nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOC,), ammonia (NK3) and sulphuric oxides (SOx). The MED space countries, notably France, Spain and Italy, are among the European countries with the highest volumes of nitrogen oxide emissions, non-methane volatile organic compounds and ammonia. (Eurostat data 2010)

Biodiversity, i.e. the natural diversity of living organisms, is understood as the diversity of ecosystems, species, populations and genes within a given space as well as the organisation and the distribution of these ecosystems on a bio-geographic scale.

According to the European Environment Agency (EEA) more than 21% of the territory of the European Union benefits from protected status. However, only 4% of the sea areas that are governed by European Union countries is included in the network of Natura 2000 protected areas[64].

Natura 2000 is a **European network** of different sites that are representative of this diversity and where the conservation of habitats and natural species of the European Union is ensured.

Map 15 Distribution of EU-27 Natura 2000 sites (2011)

Source: Natura 2000 database, December 2011

[64] EEA, European Environment Agency

At the end of 2009, the European network Natura 2000 boasted 22,419 Sites of Community Importance (SICs) - (including 1391 marine areas) distributed across the 27 Member States, covering approximately 585,000 km2 of its land surface area (in other words 13.6% of the Member States' total land surface area) and nearly 132,000 km2 in marine environments.

Moreover, the Mediterranean Sea is facing **problems of over-occupation, pollution, over-exploitation, erosion, destruction, and other various threats**. Policies introduced at a regional scale have included the setting up of marine protected areas, (in 1982), and the introduction of a protocol concerning specially protected areas and biological diversity in the Mediterranean (in 1995)[65].

Through the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol), the Barcelona Convention established the List of Specially Protected Areas of Mediterranean Importance (SPAMIs List) in order to promote cooperation in the management and conservation of natural areas, as well as in the protection of threatened species and their habitats. The purpose of the SPAMIs is the conservation of natural heritage.

Box 1 Specially Protected Areas of Mediterranean Importance

The SPAMI's List may include sites which:

- **Are of importance for conserving the components of biological diversity in the Mediterranean;**
- **Contain ecosystems specific to the Mediterranean area or the habitats of endangered species;**
- **Are of special interest on scientific, aesthetic, cultural or educational grounds.**

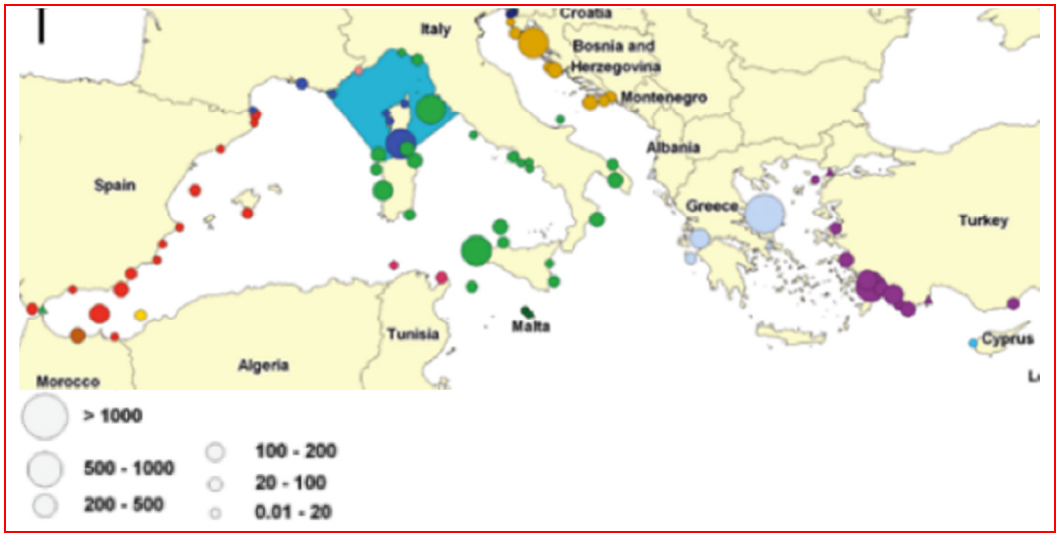
Box 2 Examples of sites protected across the MED space

- **Port-Cros National Park (Provence-Alpes-Côte d'Azur)**
- Natural Reserve of Bouches de Bonifacio (Corsica)
- **The Embiez Archipelago - Six Fours (Provence-Alpes-Côte d'Azur)**
- Marine Protected Area of Portofino (Liguria)
- Miramare Marine Protected Area (Liguria)
- **Plemmirio Marine Protected Area (Sicily**
- **Tavolara-Punta Coda Cavallo Marine Protected Area (Sardinia)**
- **Marine Protected Area Capo Caccia-Isola Piana (Sardinia)**
- **Capo Carbonara Marine Protected Area (Sardinia)**
- **Marine Protected Area of Penisola del Sinis - Isola di Mal di Ventre (Sardinia)**
- Alboran Island (Andalusia)
- **Natural Park of Cabo de Gata-Nijar (Andalusia)**
- **Sea Bottom of the Levante of Almeria (Andalusia**
- **Maro-Cerro Gordo Cliffs (Andalusia)**
- Natural Park of Cap de Creus (Catalonia)

[65] Plan Bleu

- Medes Islands (Catalonia)
- **Mar Menor and Oriental Mediterranean zone of the Region of Murcia coast**
- **Pelagos Sanctuary for the Conservation of Marine Mammals (Provence-Alpes-Côte d'Azur)**
- **Lara Toxeftra (Cyprus)**
- **Rdum Majjjiesa and Ra sir-Raheb Marine areas (Malta)**
- **Dwejra Marine area, Gozo (Malta)**

Map 16 Protected marine areas in the Mediterranean



Source: Status of the protected marine areas in the Mediterranean - IUCN, WWF, MEDPAN-2009

3.1.6 Sustainable transport and bottleneck removal in essential network infrastructures

Roads play an essential role for MED space transport (see above EU27 average vehicle ownership rates and proportion of freight transport). Maritime transport is also a pillar for the cooperation area's economic activity, with notably the world's three largest shipping & container companies (MSC and CMA-CGM) and the Greek shipbuilding industry.

An effective transport system is an element that is fundamental to the proper functioning of the internal market, the mobility of goods and people as well as to economic, social, and territorial cohesion within the European Union. The transport sector presents a number of different challenges: whether they are i) economic and industrial (automotive, naval construction, oil industry, commerce), ii) regarding town and country planning (infrastructures), iii) social (mobility of people) or iv) environmental. Even if transport is indeed an important requisite for the competitiveness of the MED space, the development of efficient transport infrastructures is also necessary in order to minimize the impact of traffic on the environment.

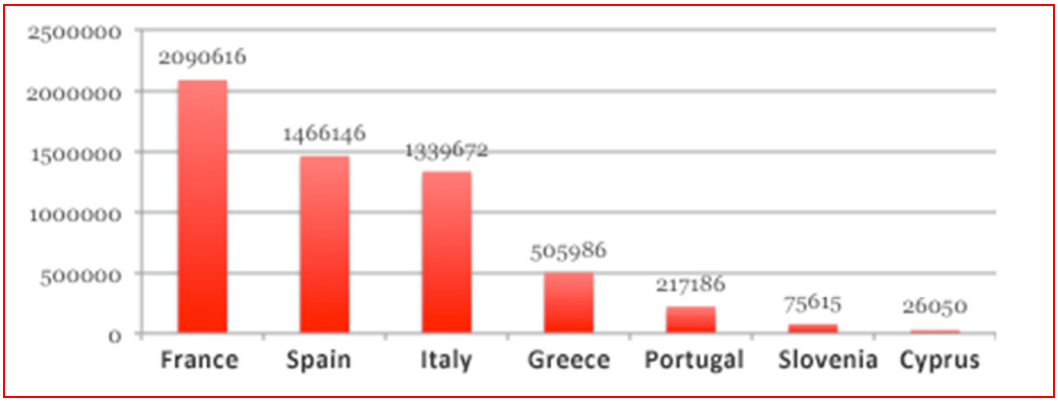
In 2011, the transport sector was, by far, the foremost final consumer of energy within MED space countries and also one of the major sources of pollution and CO2 emissions. Road transport remains the prevalent means of transport in the European Union. In Mediterranean countries, road networks are generally of a good quality, and the regional network is relatively well developed. Nevertheless, the density of

highways (km of highway for 100 km2) is lower than the European average, which translates as difficulties for east-west road links.

Broadly speaking the MED space is characterized by poor road links between its coastal and inland areas, as well as by its high concentrations of traffic in its main corridors and in the most urbanized areas. Its individual vehicle ownership rate is above the European average[66].

In the EU-27, (and likewise in the MED space) the volume of freight[67] and goods transport continued to increase between 2000 and 2007, but then saw a reduction from 2008, notably owing to the economic crisis. Although Spain, Portugal and Slovenia did have a higher volume of freight transport (in relation to GDP) than the European average in 2011, the rest of the MED space countries were below average. As is the case for all the countries of the EU-27, modal distribution for freight transport is still dominated by road transport[68] , (notably in France, Spain and Italy).

Graph 7 Goods transport by road 2011 (in thousands of tonnes)



Source: Eurostat 2011 (no data for Malta)

Maritime transport is extremely important for the Mediterranean and represents one of the major pillars of international trade and a pillar for the cooperation area's economic activity, with notably the world three largest shipping & container companies (MSC and CMA-CGM) and the Greek shipbuilding industry. In 2011, the maritime transport of goods across the MED space reached 39% (in thousands of tonnes of goods) of the total amount of goods traded.

3.1.7 Accessibility

The level of accessibility can vary greatly between the regions in the MED space. While urban regions are easily accessible, the connections between coastal areas and inland areas, notably rural ones are more difficult.

Moreover, multimodal accessibility still needs to be developed further.

The development of transport infrastructures has enhanced the general accessibility of the regions and European cities. The economic development of the regions is closely related to their accessibility. In general, the regions showing a high degree of accessibility succeed better in terms of their economy and competitiveness.

The degree of accessibility is highly variable across the MED space, depending on the regions considered. The large metropolitan areas can generally be accessed very easily. However, zones outside of metropolitan areas are less accessible, and some

[67] Volume of freight transport compared with GDP

[68] Eurostat data, 2011, modal distribution for freight transport.

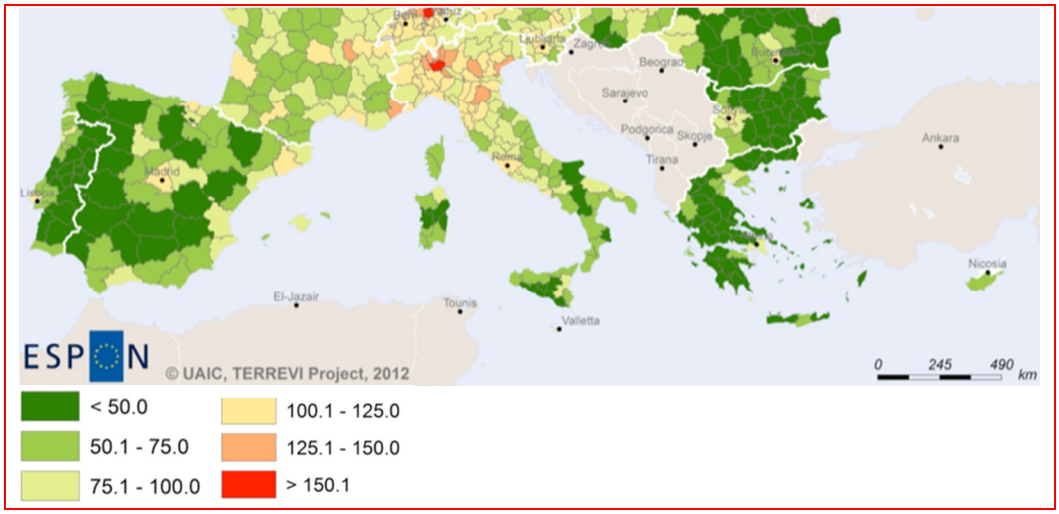
islands and coastal areas in Greece and in Cyprus have accessibility rates that are among the lowest in Europe.

The MED space includes some of the largest urban areas of Europe, among which are Barcelona, Marseille, Milan, Rome, Naples and Athens. Moreover, across the MED space, there is a large range of growing urban centres along the Mediterranean coast[69]. All of these areas enjoy a good level of accessibility. The high level of urbanization along the coastlines represents however a challenge for the countries involved in the programme, notably in terms of environmental issues.

There are only a small number of remote rural areas, which are very often located inland; this is certainly the case for Greece, which has a high proportion of rural areas.

Accessibility can be measured by the number of destinations that can be reached in 30 minutes. Multimodal transport is a combination of different means of transport (for example by road and by railway).The following map shows accessibility scores of multimodal, road and railway transport at a NUTS-3 level (Nomenclature of Territorial Units for Statistics).

Map 17 Multimodal Accessibility (ESPON, TerrEvi 2006; ranking of regions on the accessibility index in relation to the European average)



Multimodal accessibility is on the whole low, with the exception of connections between Barcelona and Rome. **The inter-connections between maritime, road and railway systems are not yet optimal.**

[69] ESPON Factsheet, Mediterranean (MED),ESPON Project TERREVI, November 2012

4.2 SWOT Analysis for the "Sustainable Growth" objective

Priorities for European Investment	Strengths	Weaknesses	Opportunities	Threats
(4) to support the shift towards a low carbon economy in all sectors	• The climatic conditions and natural resources are favourable to the production of renewable energy (notably solar and wind) • There is a heightened awareness about the need for a shift towards a low carbon economy	• The MED space's ozone concentrations are higher than the EU-27 average • The MED space's greenhouse gas index is much higher than the European average • Insufficiently developed renewable energies: although they have seen a steady development these last few years, solar and wind energy still only represent a small part of total energy production • A relatively high degree of energy dependence • Low energy efficiency compared to the European average	• Development potential for renewable energy not yet fully exploited: notably for solar energies • MED space countries are working to cut emissions and saw a fall in their emissions between 2005 and 2010, even though an effort still needs to be made to meet European objectives.	• Significant increase in the costs of low carbon energy
(5) to support climate change adaptation, risk management and prevention	• Existence of a European framework as well as national policies with objectives laid down to reduce CO2 emissions	• MED space countries are more susceptible to climate change than the EU-27 average • MED space countries are among the principal	• Stronger commitment to sustainable development	• High risks of natural disasters (floods, drought, etc.) • Increase in the risk of natural disasters due to climate change • High costs involved in

		producers of greenhouse gases in Europe, thereby contributing to climate change • The MED space is susceptible to natural risks: notably droughts, fires and floods		repairing the damage caused by natural disasters
(6) to protect the environment and to encourage the sustainable use of resources	• An extremely rich environmental heritage: the MED space supports very diverse natural habitats: mountainous regions, arable lands, forests, rivers, wetlands, the Mediterranean sea • It has many protected areas: Natura 2000 sites, especially protected areas of Mediterranean Importance	• Degradation of susceptible areas, notably coastal areas, natural areas and pollution of maritime areas (coasts, natural areas, etc…) due to intensive land use and inappropriate use of natural resources • Air and water pollution due to high population concentration in urban spaces • Household waste production continues to grow, and the waste recycling rate still remains lower than the European average	• Development of environmental protection measures (protected areas, etc.) • A high potential for the use of renewable energies • The MED space possesses several of the European priority corridors in the electricity production sector. • Implementation of policies promoting a shift from traditional waste processing systems towards cleaner methods	• Environmental pollution owing to an increase in tourism, the use of fertilizers and urban waste • The Mediterranean has a potential for significant development but also harbours important sources of pollution and risks. • Increasingly poorer air quality • Increasing scarcity of water resources • Increasing urban sprawl • Have to accept the extra costs associated with recycling and waste re-use methods
(7) to promote sustainable transport and to remove the bottlenecks to essential infrastructure networks	• General good quality transport networks in the MED space • Overall satisfactory accessibility, notably for large metropolitan areas	• Geographical fragmentation and isolation of numerous territories, notably islands • Badly managed urban development notably in coastal areas	• The location of the Mediterranean regions and islands allow them to be hubs for tourism and trade with Asia • Promotion of multimodal	• Transport is a major source of pollution • Lack of European coordination of the communication systems • Competition with north and

	• A good level of road infrastructures • An large network of port cities, well equipped to deal with the flow of passengers and goods • A strategic geographical location between the East and West, Europe and Africa (Gibraltar, Suez, Black Sea) • A satisfactory level of airport facilities	• The MED space remains dependant on road transport: prevalence of road transport over rail or maritime transport. • Importance of individual vehicles as a means of transport, especially in urban and surrounding areas • The density of the railway network is lower than in Northern Europe • Multimodal accessibility is rather low • Connections between coastal and inland areas remain insufficient • Congestion of the major roads in cross-border areas • Insufficient development of maritime coastal traffic and short distance maritime transport	transport systems • Reinforcement of the existing railway networks (high speed) • Development potential for sea highways	central European urban centres

3.3 Conclusions for the "sustainable Growth" objective for the MED space

3.3.1 Lessons from the 2007-2013 OP with regard to sustainable growth

The second priority of the Med Programme for 2007-2013 focused on questions related to "*environmental protection and the promotion of sustainable territorial development*". This priority included four objectives, namely: i) protection and enhancement of natural resources and natural heritage; ii) Promotion of renewable energies and energy efficiency improvement; ii) Prevention of maritime risks and strengthening of maritime safety; iv) prevention of and fight against natural risks.

Over the period 2007-2013, 48 projects were approved under this priority (31 standard projects, 4 strategic projects, 10 targeted projects, 3 capitalisation projects), bringing together 509 partners, for a total amount of €72,9M in FEDER funding[70].

Objective 2.1 "*Protection and enhancement of natural resources and cultural heritage*" was by far the most popular objective of the programme for 2007-2013, although the quality of the proposals did not always meet expectations.

Objective 2.2 "*Promotion of renewable energies and energy efficiency improvement*" and objective 2.3 "*Prevention of maritime risks and strengthening of maritime safety*" received good quality proposals during the calls for Strategic projects, and in spite of their limited number, these projects have the potential to make an important contribution to the results of the programme. Objective 2.4 "*Prevention of and fight against natural risks*" received only low quality responses from participants.

In the programme for 2007-2013, strong emphasis was placed on the objective aimed at supporting the shift towards a low carbon economy in all sectors as well as on the programme theme of energy efficiency. Although the "bottom up" calls for projects did not generate offers of the quality expected for this programme theme, the calls for strategic projects did provide a greater visibility for the principal projects. The targeted calls for projects also attracted relevant proposals from a large number of organisations that had never before taken part in the Med programme.

Although the currently running programme (2007-2013) does include an objective to tackle natural risks (along with the objective related to promoting access to ICT) it received the least proposals and only a few projects were funded. To have received quality, relevant proposals, and make progress on the priorities, the involvement of key state-level stakeholders would have been necessary. They are currently involved neither in the running programme, nor in its strategic projects.

3.3.2 The specific nature and added-value of transnational cooperation

The questions relating to the specific nature of the transnational dimension, to the funding capacity of the programme, and its added-value, are valid both for sustainable and for smart growth (see 2.3.2).

More precisely, in regards to the environmental challenges facing the MED space, the programme's support can only add value through mainly intangible actions, such as the exchange of experience, good practices, and public policies. Indeed, the amount of funds allocated to territorial cooperation programmes rules out the funding of large investments in infrastructure. Taking energy, for example, the added-value of the MED programme can come from actions involving not only public but also private sector stakeholders and focusing on the exchange of experience regarding the introduction of public policies in favour of energy management, test projects and pilot actions for the transfer of good practices, the development of training courses, etc.

Environmental issues in general and programme themes, such as climate change adaptation, risk prevention and management, are also extremely relevant insofar as

[70] http://www.programmemed.eu/en/the-programme/programme-themes/environment.html

the MED space's climate change adaptation capacity is relatively low, and it is much lower than the EU average in certain southernmost parts of the area. Therefore, this priority has a high degree of relevance for the area covered by the programme. However, it does require funds which are probably out of reach or unattainable for a European Transnational Cooperation Programme. Similarly, the programme themes relating to sustainable transport and network infrastructures do not seem to be very well adapted to the medium-sized projects supported under the MED programme, and the range of possible actions would seem limited to feasibility studies and the setting up of a key stakeholder network.

3.3.3 Main issues for the MED programme for 2014-2020 with regard to sustainable growth

The European Unions' strategic orientations stress the need for a sustainable growth that respects the environment. These challenge is of particularly importance for MED space regions insofar as they are subjected to environmental constraints that are generally more acute than for other European regions, such as fragile but highly essential natural resources and natural heritage, pressure on ecologically sensitive areas, insufficient use of alternative energies, effects of climate change, chronic threats to the water supply, land and sea pollution, and high level of natural risks, etc.

Risk management is one of the top issues facing almost all the MED space regions. The MED space is extremely susceptible to natural disasters. It is clearly essential to ensure a high level of risk prevention in the Mediterranean regions insofar as such disasters are appreciably more frequent than in the other European areas. This prevention can notably come from cooperation (observation, support, etc.), technological developments and norms agreed upon by the regions and Member States concerned. Under the transnational cooperation programme, it is possible to envisage sharing the management of common risks by combining the instruments used to measure environmental impacts, for example.

The integrated management of Mediterranean cities is also an important issue for MED space territories, notably when it comes to efficiency management and sustainable development (urban transport and interconnections, waste management). It is estimated that 75% of the Mediterranean population will be living in cities by 2030. With respect to these challenges, a transnational cooperation programme can above all support policy coordination, or the exchange of good practices. The projects carried out within MED 2007-2013 can in this respect provide useful insights as they highlight various needs and possible projects to further the creation of a sustainable Mediterranean urban development model (as part of the Malaga charter sustainable urban models), the development of urban/rural transport links and projects for integrated territorial development, etc.

Moreover, the importance of integrated city management was stressed in parts of the public consultation process carried out in preparation of the programming for 2014-2020 (by Italian and French regions of the programme).

In addition, a distinction can be made between the **challenges of climate change mitigation and adaptation to climate change**. Mitigation is a long-term approach and concerns taking action to reduce the causes of climate change (reducing greenhouse gases, sustainable water management). Adaptation is a shorter-term approach focusing on the direct effects and/or consequences of climate change (constructing dikes for example). The Thematic Objectives 4 and 6 focus as a priority on mitigation, while Objective 5 focuses on adaptation although these two approaches are in fact complementary. The MED space diagnostic highlights the needs of the territory for a comprehensive range of environmental themes.

In light of:

- the characteristics of the MED programme: its maritime dimension, the limits of its resources in view of the challenges it faces;
- the desirability and relevance of positioning the programme to address niche themes where its comparative added value is greater.

...four thematic challenges stand out as of particular importance and could constitute relevant areas of specialisation for the "sustainable growth" dimension of the MED space:

- **Integrated coastal management**: owing to land pressure, urban density, and to the presence of the Mediterranean Sea, require particular effort for a coordinated management, on par with the one specifically stipulated by European authorities. Moreover, the Mediterranean Sea is in itself a major transnational feature and is a source of myriad environmental issues. The prevention of maritime risks and the strengthening of maritime safety remain a major challenge for the MED programme (ex.: development of integrated transnational strategies, setting up of preventive and support measures agreed upon by the regions and the States).
- **Protection of the environment and resources management:** the MED space benefits from substantial environmental assets. Most regions share common challenges regarding water, biodiversity and the management of natural assets and heritage as a whole; especially regarding the Mediterranean Sea. The introduction of concerted environmental protection strategies, to reduce pollution at source, to harmonise environmental practices, and to more effectively exploit natural assets is one of the MED space's more important challenges. However, this thematic priority is a relatively wide one and covers very diverse challenges (waste, water, biodiversity, energy, urban environment, etc.). This implies a need to identify clear and focused policy priorities at an early stage. Considering the specific issues facing the MED space and also the review of projects in this field conducted by the JTS, two themes stand out:

  - **The sustainable management of water resources**: the MED space has specific infrastructure needs, on top of upgrading networks action is needed to reduce losses from leakage, islands need to develop solutions to their specific water management challenges and sea water desalination needs to be developed, etc. The JTS has, moreover, identified opportunities for projects in water treatment using ozone, in the use of reclaimed water for irrigation and concerning the creation of a body to represent the islands of the Mediterranean on the issue of water management before international institutions, etc.
  - **Waste management, with a focus on maritime waste** (coastal waste, marine debris, including floating, partially submerged or sea-floor macro-waste and micro-plastic waste). The previous OP had already carried out substantial work in the area of agricultural waste. This work demonstrated the need to strengthen awareness in the agricultural sector about the importance of waste management as well as the need to put in place waste management plans in the countries that have not already done so (possibly based on work planning work already undertaken in the MED region). It also revealed opportunities for projects in relation to, for example, designing a strategic agricultural waste management plan (using geographical information and decision support systems) or a common traceability plan for agricultural waste.

- **Renewable energies production** also figure among the issues and challenges common to MED space regions. The issue of energy consumption control is not specific to the MED space, but its environmental implications make it a particularly major issue. The MED space has the potential to increase its production of renewable energies (solar and wind) and to develop new technologies in **the field of marine energies** (tidal, current, waves, offshore wind, marine biomass) and solar energy captured above the sea

Table 5 Challenges related to sustainable growth vis-à-vis Thematic Objectives and investment priorities

Challenges identified for the MED space	What they mean in relation to Thematic Objectives	… and investment priorities
Protection of environmental heritage	TO6 "protecting the environment and promoting resource efficiency"	IP6a/ ''addressing the significant needs for investment in the waste sector to meet the requirements of the environmental acquis"; IP6b"addressing the significant needs for investment in the water sector to meet the requirements of the environmental acquis"; IP6c/ ''protecting, promoting and developing cultural heritage"; IP6d/ ''protecting biodiversity, soil protection and promoting ecosystem services including NATURA 2000 and green infrastructures";
Coastal spaces	TO6 "protecting the environment and promoting resource efficiency"	IP6a/''addressing the significant needs for investment in the waste sector to meet the requirements of the environmental acquis"; IP6b/" addressing the significant needs for investment in the water sector to meet the requirements of the environmental acquis"; IP6c/''protecting, promoting and developing cultural heritage"; PI6d/''protecting biodiversity, soil protection and promoting ecosystem services including NATURA 2000 and green infrastructures";
Control of energy production & consumption by using renewable energy and by promoting energy efficiency;	TO5 "promoting climate change adaptation, risk prevention and management"	IP4a/"promoting the production and distribution of renewable energy sources"; IP4b/"promoting energy efficiency and renewable energy use in SMEs"; IP4c/"supporting energy efficiency and

		renewable energy use in public infrastructures and in the housing sector"; IP4d/"developing smart distribution systems at low voltage levels";
Risk management	TO5 "promoting climate change adaptation, risk prevention and management"	IP5a/"supporting dedicated investment for adaptation to climate change"; IP5b/"promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems";
Integrated management of Mediterranean cities	TO6 "protecting the environment and promoting resource efficiency" TO4/ TO4 "supporting the shift towards a low-carbon economy in all sectors":	IP6a/"addressing the significant needs for investment in the waste sector to meet the requirements of the environmental acquis"; IP6b/"addressing the significant needs for investment in the water sector to meet the requirements of the environmental acquis"; IP6e/"action to improve the urban environment, including regeneration of brownfield sites and reduction of air pollution"; IP4e/"promoting low-carbon strategies for urban areas";

For the vast majority of the goals set by the Europe 2020 Strategy, but perhaps even more so for those pertaining to sustainable growth, it is important to view the different themes from a territorial perspective, and in particular to take account of certain of its unique features: coastal, rural and mountainous areas. **Of all these unique features, the islands are surely the most important,** and insularity is a concern for numerous programme partners and may be the basis for transnational cooperation projects, as the case of renewable energies illustrates: the islands, for instance, often have small-scale energy systems, in other words they are not or are only partially connected to the continental electricity grid[71]. Energy must therefore be produced locally, which implies very high production costs. It is worth noting that the European Directive on the internal market for electricity takes the unique characteristics of "small isolated systems" into account by including derogations from provisions relating to transmission system operation, distribution system operation, unbundling and transparency of accounts as well as the organisation of access to the system. Promising initiatives are already being conducted in areas such as reducing energy consumption, in developing technological solutions for intermittent energy or for experimenting "smart grids", and these can be built on in a transnational context.

[71] As an example, Corsica is connected to two electricity grids (SACOI: Sardinia-Corsica-Italy and SRACO: Sardinia-Corsica), and these grids make up30% of Corsica's energy mix (Source EDF 2012). There are currently ongoing projects to establish Cyprus-Israel and Italy-Sicily-Malta grid interconnections.

4. Territorial needs assessment and SWOT analysis with regard to "Inclusive Growth"

In its Europe 2020 Strategy, the European Commission presents the challenges and objectives in regard to inclusive growth. *"Inclusive growth means empowering people through high levels of employment, investing in skills, fighting poverty and modernising labour markets, training and social protection systems so as to help people anticipate and manage change, and build a cohesive society. It is also essential that the benefits of economic growth spread to all parts of the Union, including its outermost regions, thus strengthening territorial cohesion. It is about ensuring access and opportunities for all throughout the lifecycle. Europe needs to make full use of its labour potential to face the challenges of an ageing population and rising global competition. Policies to promote gender equality will be needed to increase labour force participation thus adding to growth and social cohesion."*[72] By "inclusive growth", the Europe 2020 strategy is referring to an economy with a high level of employment and that promotes economic, social and territorial cohesion, which aims:

- To increase the level of employment in Europe - more and better jobs , especially for women, young people and older workers;
- To help people of any age to plan for and manage change, by investing in skills and training;
- To modernise job markets and social protection systems;
- To ensure that the whole of the EU benefits from growth.

The figure below is taken from the November 2012 ESPON TerrEvi report on the MED programme. It positions the MED space in relation to indicators related to EU objectives for smart, sustainable and inclusive growth.

Figure 3 Positioning of the MED space in relation to European indicators for the sustainable Growth objective (source: ESPON TerrEvi 2012)

For the inclusive growth objective, two of the three indicators are coloured red and one is amber, indicating overall weak performances for the territory in relation to Community objectives. For the MED space, long-term unemployment and the percentage of the population at risk of poverty or social exclusion are above the European average; the percentage of the active population with upper secondary or tertiary education attainment is lower than the European average. For the second indicator, however, the value in closer to the average (hence the amber light). In addition, the disparities across the MED space for unemployment and the risk of exclusion are wide; they are less so with regards to the level of studies.

4.1 Key Indicators-for inclusive growth in the MED space

4.1.1 Employment and labour mobility

The objective that Europe has set itself with regard to employment rate of the population aged 20-64 is that "*this should increase from the current 69% to at least*

[72] Commission Communication, Europe 2020, A European strategy for smart, sustainable and inclusive growth (03/03/2010)

75%, through the greater involvement of women, older workers and the better integration of migrants in the work force;"

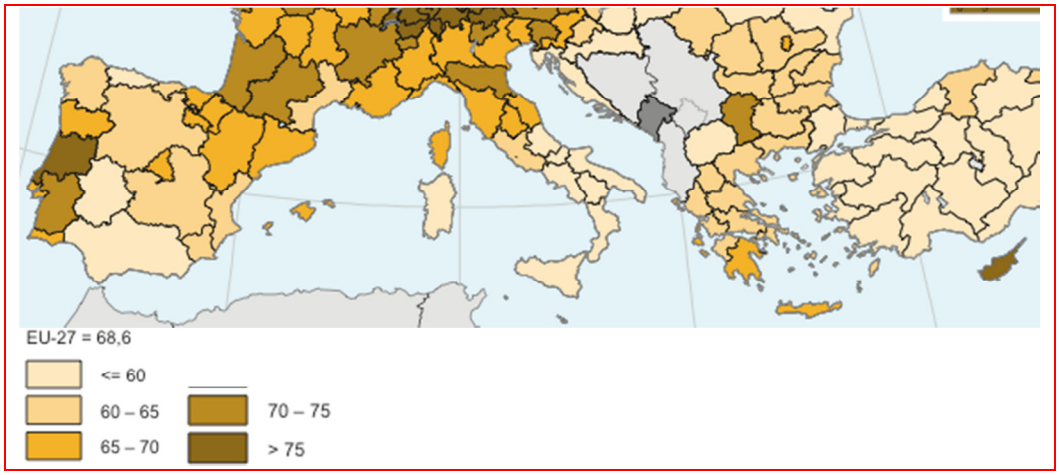
To date, for the MED space, no region has yet reached this objective. In addition, the current economic crisis is making it difficult to make any optimistic forecasts with regard to this objective.

Moreover, the economic situations across the MED space are extremely diverse: in 2012, employment rates varied from 71.8% in the Rhone-Alps area and Emilia-Romagna to 44.9% in Sicily and 43.7% in Campania.

At a MED programme scale[73], the statistics are as follows:

- 35% of the regions have an employment rate close to the European objective (above 65%)
- 50% of the regions have an employment rate lying between 50% and 64.9%
- 15% of the regions fall below the 50% mark: the rates of these areas are among the lowest in Europe.

Map 18 Employment rates across the MED space in 2010



Source: *ESPON Factsheet, Mediterranean* (MED, ESPON Project TerrEvi, November 2012

Similarly, across the MED space, the **employment rate of women** generally lies below the EU-27 average of 58.5%. A third of the regions have an employment rate for women that is higher than the European average, notably (the Rhone-Alps, Western Slovenia, Algarve, PACA, Lombardy, etc.) On the other hand, certain areas of the MED space have extremely low employment rates for women: 31.1% in Sicily and 30% in Campania.[74]

4.1.2 Unemployment

As a whole, **the unemployment rate of the MED space regions is above the European average** which today stands at 10.7%.

Certain MED regions even exceeded the threshold of 25%[75] unemployment in 2012: this is notably the case for the Greek regions of the Attic (25.3%), West Greece (25.5%), Central Macedonia (26%), Valencia (27.7%), Murcia (27.9%), Andalusia (34.6%) and Ceuta (38.5%).

[73] For the 48 regions for which regional data is available (Eurostat 2012)

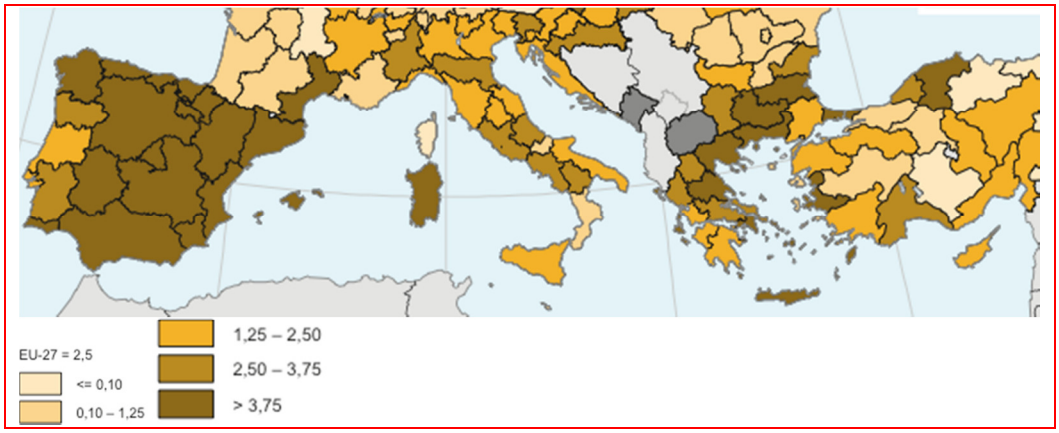
[74] Eurostat Data 2012.

[75] Eurostat Data 2012.

The MED regions showing lower than EU average unemployment rates are Umbria (9.8%), Piedmont (9.2%), Les Marches (9.1%), Rhone-Alps (8.4%), Corsica (8.3%), Liguria (8.1%), Tuscany (7.8%), Western Slovenia (7,6%), Lombardy (7.5%), Emilia Romagna (7.1%), Friuli-Venezia Giulia (6,8%), Venetia (6,8%) and lastly Malta (6,4%).

It is also important to stress that **this already high unemployment rate for the MED space has seen a strong increase since 2007.** The map below shows the high rise in unemployment affecting all the Spanish regions, as well as Portugal, Italy and Greece (but does not allow for the effects of the crisis).

Map 19 Variation in unemployment levels for people aged 15 to 74 between 2007 and 2010



Source: Eurostat GISCO 2012

The **youth unemployment rate** is also an essential statistic for the MED space. In 2012, the unemployment rate of young persons aged between 15 and 24 in the UE27 stood at 22.9 % on average, and in nearly three quarters of the EU-27 regions, the youth unemployment rate was at least double the total unemployment rate. For the MED space, only Corsica has a youth unemployment rate below 10%. For all the other areas, the rate is above 15% (in PACA, the Rhone-Alps, and areas of Northern Italy), and it is sometimes even higher than 30% (all the Spanish regions and Southern areas of Italy, etc.), even climbing to 72.5% in Western Macedonia and 70.6% in Ceuta. The issue of youth unemployment has recently become such an important one that in 2013 the European Commission decided to allocate a budget of 8 billion Euros to tackle the problem (funding is available over 2 years and to regions where the level of youth unemployment exceeds 25%)[76].

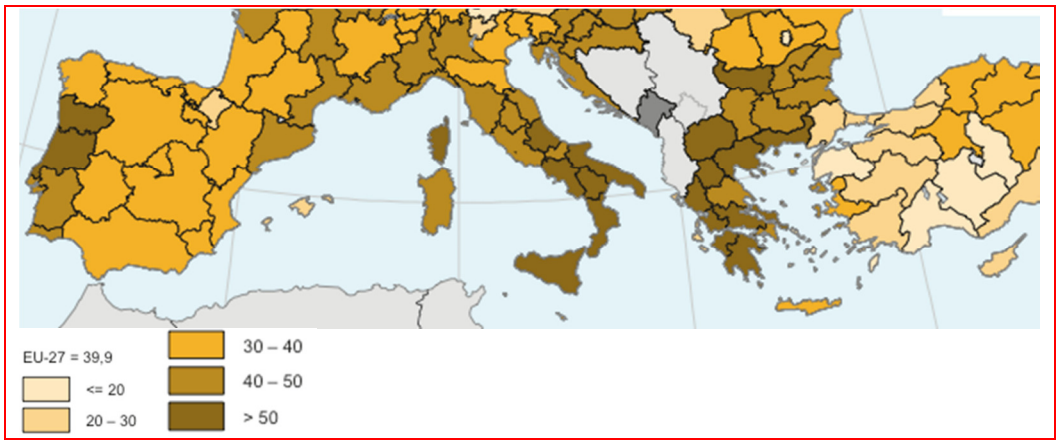
The percentage of long-term unemployment[77] stood at 44.6 % on average in the EU-27 in 2012 and varied strongly from one region to the next.

For MED space regions, this long-term unemployment is particularly high in the South of Italy (65% in Campania) and in Greece (68% in the Peloponnese; it is lower in Cyprus (30%) and in the North of Italy (Province of Bolzano: 25% and Trentino: 27%), in Spain (Balearic Islands: 39%, Murcia and Aragon: 41%) and in Rhône-Alpes (33%).

Map 20 Long-term unemployment (as a % of total unemployment)

[76] Communication de la Commission COM(2013) 447 final, 19/06/2013 « Œuvrer ensemble pour les jeunes européennes – un appel à l'action contre le chômage des jeunes »
http://ec.europa.eu/social/main.jsp?langId=fr&catId=1036

[77] Long-term unemployment corresponds to the percentage of unemployed who have been out of work for 12 months or more.



Source: Eurostat GISCO 2012

4.1.3 Geographical mobility

Freedom of movement (notably Freedom of movement for workers or labour mobility) is one of the founding principles in the construction of the European Union. It is therefore supported by a relatively long-term Community policy of integration (France and Italy are among the founding members, Slovenia joined the EU in 2004 and Croatia joins on July 1st, 2013).

The geographic lifetime mobility rate is a complex statistic and can give insight into various issues. In a study published in 2008[78], it would appear, speaking as a whole, that southern European countries have a less mobile labour force than in the north.

- Regional mobility: only France has an above average regional mobility level;
- National mobility: MED space countries, France and Cyprus have an above average national mobility level;
- Mobility within the EU: Cyprus, Greece, Spain and Portugal have above average EU mobility level;
- Mobility outside of the EU: Cyprus, Spain and France have above average mobility level.

Table 6 Lifetime geographical mobility rates: Share of population by type of geographical mobility (expressed as the % of the population that has moved at least once).

	Regional mobility Local Move	**National mobility** Move within country	**Mobility within EU**	**Mobility outside the EU**
CY	47.8	17.2	8.1	2.9
EL	34.7	16.4	4.4	1.5
ES	46.6	9.9	4.5	3.0
FR	58.2	28.8	2.6	3.3
IT	43.8	7.9	1.6	0.1
MT	27.6	6.2	2.7	2.4
PT	41.7	8.6	4.2	2.0
SI	38.2	9.6	1.6	1.4
EU25	**51.0**	**16.8**	**3.8**	**2.7**

[78] European Commission, DG Employment, Social Affairs and Equal Opportunities (2008): Geographic mobility in the European Union: Optimising its economic and social benefits. Final Report.

Source: DG Employment, Social Affairs and Equal Opportunities (2008)

These statistics ought to be examined alongside the data relating to unemployment rates across the MED area. In all probability they are a more a reflection of the mobility of workers looking for work than of the economic integration of these countries *per se*.

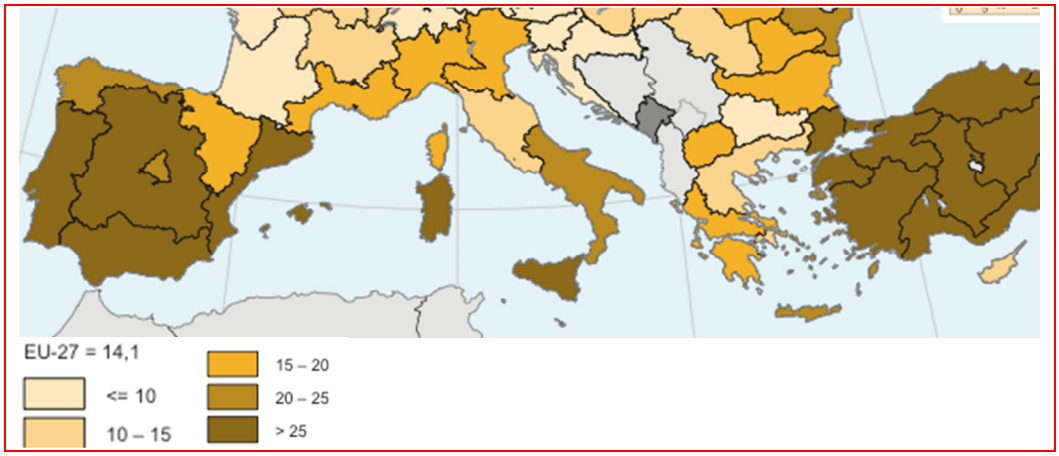
4.1.4 Education

The EU objective with regard to education and training 2010 is to improve the quality and effectiveness of education and training;

- by lowering the percentage of early leavers from education and training to less than 10%;
- by increasing the share of the population aged 30-34 with upper secondary or tertiary education attainment from 31% to at least 40%.

To date, in the MED space, only the Slovenian regions have reached the **objective relating to the school drop-out rate** and lie below the 10% mark. The Rhone-Alps region, regions of central Italy and of the east of Greece, as well as Cyprus have also shown satisfactory results in this policy area with early leaver rates ranging between 10 and 15%. Languedoc-Roussillon, PACA, the regions of northern Italy and the west of Greece range from 15 to 20%; the west and the south of Spain, Sardinia and Sicily and Crete have a higher than 20% early leaver rate.

Map 21 Early leavers from education and training (% of the population of 18-24 year-olds)



Source: Eurostat GISCO 2012

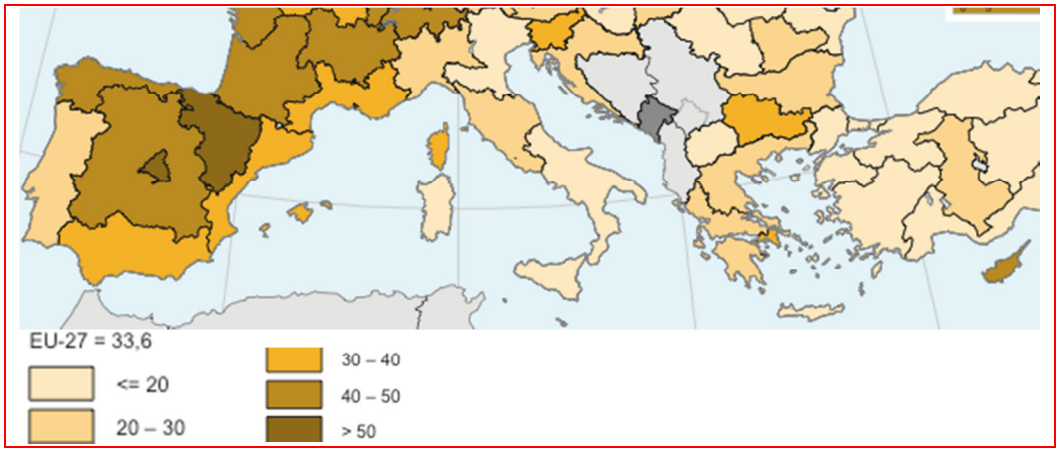
For the objective relating to **upper secondary and tertiary educational attainment**, only the Rhone-Alps region and Cyprus attained the European benchmark of 40%. Other regions fell below this target: in southern Italian regions, in Sardinia and Sicily, the share of the population of 30-34 years with upper secondary and tertiary education attainment is even lower than 20%.

These figures should however be qualified: students from these regions obtain their diplomas in other areas (of their own country) or abroad; for example, Cypriot students abroad account for 85% of the total student population of Cyprus (Eurostat, data 2009); this rate is 10% for Malta but varies from 0.90 to 1.36 for Italy, France, Portugal and Spain (the statistics are not available for Greece).

In addition, with regards to tertiary education, the MED space universities on the whole are not listed among the best European universities. According to the Times

Higher Education World University ranking 2012-2013[79], the best university of the MED Space, i.e. (ENS Lyon) is ranked 170th among world universities (when the best European university, Oxford, came second). Lyon is followed by the universities of Grenoble, Barcelona, Milan, Trieste, Bologna, Montpellier, Thirty, Turin, and Crete.

Map 22 People aged between 30-34 with tertiary educational attainment (2010)



Source: Eurostat GISCO

After examining all the education systems, it should be noted that the **spending on education** (expressed in percentage of GDP) is higher than the European average in France, Cyprus, Malta, Portugal, and Slovenia (5.48% of the GDP). In certain countries, spending on education is even increasing. This increase highlights public authorities' desire to reinforce this essential sector of economic and human development and is allowing them to regain ground to a certain extent in relation to other European countries: while spending on education (as a % of GDP) increased by 8.8% in Europe between 2001 to 2010, it increased by 32% in Cyprus, 57% in Malta and 17% in Spain[80].

Moreover, in the MED space, as is the case in the nearly all European countries, and in order to ensure equal opportunities, access to education and higher education remains free of charge.

4.1.5 Skills development and life-long learning

Education and training are not only linked to business enterprise and innovation needs but also to governmental policies for employment and social inclusion. The EU therefore aims to provide broad support for skills development, education and lifelong learning (notably by developing education and training infrastructures).

Two examples can be used to illustrate this aim:

- With regard to children's access to primary and pre-primary education, Portugal, Spain, France and the majority of the Italian regions meet European standards with more than 95% of 4 year-old children enrolled in school. This rate is lower for Greece, Cyprus and Slovenia; where it still does not exceed 60% (Eurostat data 2009).
- With regard to lifelong learning, the MED space performs at the EU average: only the Scandinavian countries, Finland, the Netherlands and the United Kingdom seem to offer better possibilities (Eurostat data, 2008).

[79] http://www.timeshighereducation.co.uk/world-university-rankings/2012-13/world ranking/region/europe

[80] Eurostat 2013

Moreover, countries like Slovenia (with 15.9% of the population from 25 to 64 year olds enrolled in training), Portugal (11%) and Spain (10.8%) perform above the European average which stands at 8.9%[81].

4.1.6 Poverty and social exclusion

With regard to poverty and social inclusion, the Strategy Europe 2020 fixes the following objective: "*The number of Europeans living below the national poverty lines should be reduced by 25%, lifting over 20 million people out of poverty*". This headline target is then divided into three sub-groups:

- Persons living in households with low work intensity
- Persons at risk of poverty after social benefits
- Persons in a situation of severe material deprivation

For the MED space, **26.6% of the population is at risk of poverty or social exclusion** (data for 2011). The regions least at risk were Aragon, Slovenian regions, French regions, Catalonia and Malta. The regions most at risk are Ceuta and Melilla, Andalusia and Murcia. Developments between 2004 and 2011 were also variable: While in Crete or in Ceuta, this rate dropped by almost 25% over the period, it strongly increased in the Balearic Islands and in Catalonia. On the scale of the MED space, this rate dropped considerably (falling from 27.1% in 2004 to 26.5% in 2011).

In addition, for the sub-groups at national scale, it should be noted that[82]:

- For the group "persons living in households with low work intensity" , half of the MED States have a rate above the EU average of 10% (Croatia, Spain, Greece, Italy), while the other half fall below average (France, Malta, Slovenia, Portugal and Cyprus. Cyprus showed the best results at a European Union level).
- For the group "persons at risk of poverty after social transfers", the European average stood at 17% in 2011. Slovenia, France, Cyprus and Malta are below this average while the other States (Spain, Greece, Croatia, Italy and Portugal) are above.
- For the group "persons in a situation of severe material deprivation", the European average in 2011 stood at 9.8%. Spain, France, Slovenia, Malta and Portugal are below this average while Cyprus, Italy, Croatia and Greece are above. In Greece, in 2011, more than 15% of the population was in this situation.

For all measures of poverty and exclusion the trend is upward for most regions, owing to the economic crisis.

Nevertheless, it has been stressed that the strength of the Mediterranean family model may act as a social buffer, playing a part in absorbing social shocks in times of crisis: primarily descending-directional (i.e. from parents to children) inter-generational solidarity makes it possible to compensate for job loss. It is estimated, for example, that in France, financial transfers have almost doubled over the last few years, now counting for the equivalent of 4% of GDP[83].

4.1.7 Health

Inclusive growth also covers issues such as health and social services (notably with regard to infrastructures).

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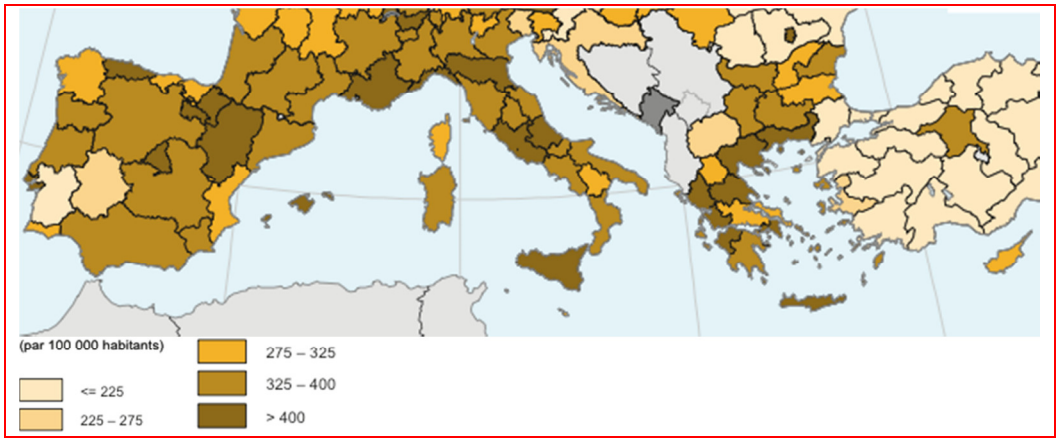
[81] http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Lifelong_learning_statistics

[82] NUTS2 data unavailable

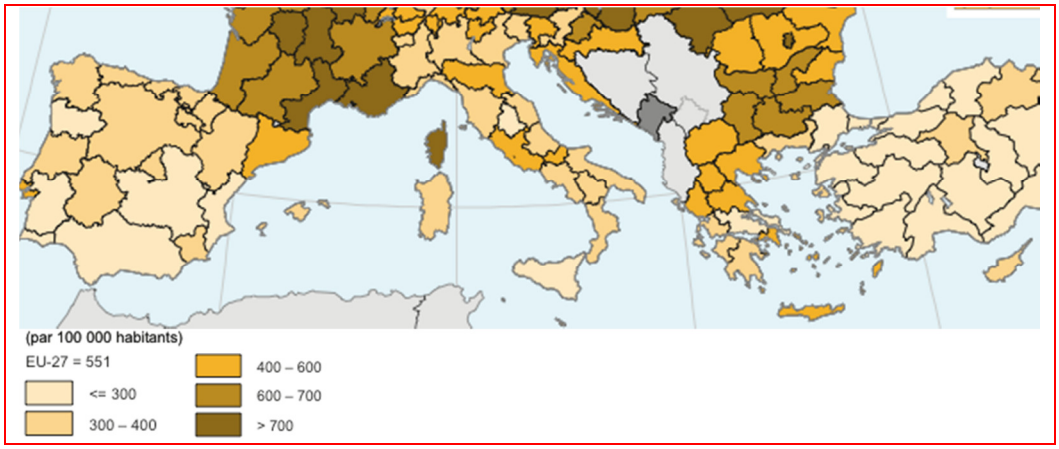
[83] *La famille, ultime amortisseur social*, (The Family, the Ultimate Social Buffer) Le Monde newspaper, 11/06/2013

For the MED space, two important facts are worth underlining: while the number of practising doctors is high across the whole region (with the exception of Alentejo in Portugal), the number of hospital beds per 100 000 people is low, or even very low (with the exception of the French regions involved in the programme).

Map 23 Number of doctors per 100 000 people (Source: Gisco 2009)



Map 24 Number of hospital beds per 100 000 people (Gisco 2009)



4.2 SWOT analysis for the "inclusive Growth" objective

SWOT analysis for the "inclusive Growth" objective	Strengths	Weaknesses	Opportunities	Threats
(8) to support employment and labour mobility	– The appeal of MED space universities (Barcelona, Milan, Rome, Aix-Marseilles, etc.) – The high level mobility of certain students during their course of study (Greece, Cyprus in particular, Italy and Spain to a lesser extent)	– Low employment levels (with wide disparities between territories. Some regions are close to the European objective of 75% while others have a lower than 50% employment rate) – Low employment levels of women (with wide disparities between regions lying above the European average and others with a lower than 33% employment rate of women) – High unemployment rate, high youth unemployment rate and a high long-term unemployment rate (well above the European average)	– Labour mobility within the States, even between states of the MED space	– The high unemployment rates have seen a strong increase over the last few years, and the rates are sometimes above 25% – The drain of human resources notably of young people, graduated or not, towards other European countries or developing countries (notably Latin America)
(9) to promote social inclusion and to fight against poverty	– A strong descending intergenerational solidarity, acting as an important social buffer for the crisis	– A large percentage of the population is at risk of poverty and social exclusion	– The important role played by the social and solidarity economy in certain countries, such as Italy, and the potential for social innovation	– The alarming human and social effects of the crisis (levels of poverty and extreme poverty)
(10) to invest in skills, education and lifelong learning/training	– A full range of high quality and free training offered in all the MED space regions	– Still a high level of early school leavers compared to the European average	– A progressive decrease in the rate of early school leavers	

by developing education and training infrastructures	– A choice of professional training offered that is average for the EU		– Sending on education is increasing in most MED space countries	

4.3 Conclusions for the "inclusive Growth" objective for the MED space

4.3.1 Lessons from the Operational Programme for 2007-2013 with regard to inclusive growth

To date, the MED Programme does not have any experience with regard to inclusive growth. The themes under consideration within this objective were not included in any previous MED programme priority.

4.3.2 Specific features and added-value of the transnational cooperation, conditions for project implementation

The questions related to employment, labour mobility or social inclusion and the fight against poverty are addressed by other funds (notably the ESF, but also regional ERDF OPs, even FEADER and other European programmes). They generally require local solutions to be sought and implemented at a closer level to the final beneficiaries. The cross-border MED space programmes also address the following issues:

- With regard to the creation of business incubators (Thematic Objective n°8, under priority 8a), regional funds ERDF, FEADER and ESF are already being mobilised. Moreover, the added-value of exchanging experience at a transnational scale has not been convincingly demonstrated.
- With regard to medical and social infrastructures (Thematic Objective s n°9, Investment Priority 9a), except for when they concern infrastructures, these actions would seem more relevant on a local or regional scale, or as part of a cross border approach.
- It should also be stressed that the multiplicity of organisational stakeholders involved in the area of social cohesion, their diversity and their size tends to complicate the implementation of transnational cooperative projects (project leaders' funding capacity, as well as any technical issues involved in the setting up and managing the project), and increase the risk of the programme's strategy becoming fragmented around small projects.
- With regards to training (Thematic Objective n°10), provisions in the ETC regulation focus on the funding of infrastructures, which are also funded by regional ERDF OPs. Infrastructures aside, the policy areas related to training and mobility are also addressed by European programmes aiming to foster the European mobility of students and to put in place coherent and joint training opportunities at a transnational scale. These include, for example, the programmes Leonardo, Erasmus, Grundvig, or Eramus Mundus or, in the field of research, the Marie-Curie actions in the 7th framework programme for research.

4.3.3 Main challenges for the 2014-2020 MED programme with regard to inclusive growth

The challenges involved in inclusive growth are multiple across the MED space. They fall into two key categories:

- Labour market challenges and, in particular, forward planning for changes in employment (notably in light of the ageing population). These fundamental developments call for the ability to make detailed plans for change in order be able to develop specific training programmes and courses that are adapted to the different regions.
- Training

– To develop life-long learning and training: this objective is not specific to the MED space and is linked to the high unemployment rates across Europe (general

unemployment, long-term unemployment and youth unemployment). In a context of increased labour market flexibility, and business needs for more multi-skilled workers, this entails the provision of labour force training. The aim is to enable individuals to be able take on different jobs throughout their lives.

– To reduce the number of early school leavers: this issue is strongly correlated to social exclusion and precariousness. It remains important for the MED programme.

Nevertheless, and despite the importance of social issues, which have become even more important with the current economic crisis, selecting these challenges as Thematic Objectives for the MED programme is less of a priority. There are several; reasons for this:

- the lack of previous experience of the MED programme in these fields of policy and;
- many of the related challenges are addressed by other European funding instruments (notably the ESF);
- a transnational approach only offers a low added-value.

We note however that some of the challenges associated with inclusive growth could be addressed under other Thematic Objectives. It is possible to address them under Thematic Objective 1, which focuses on innovation, by conceptualising the approach to innovation as a "triple helix". The Triple Helix involves cooperation between the worlds of higher education & research, business and professional training and can connect to questions of employment, including helping individual citizens to acquire new skills.

5. Governance in the MED space: macro-regions in conjunction with TO11

Macro-regions stem from "the European Union Strategy for the Baltic Sea Region and the role of macro-regions in the future cohesion policy" adopted in 2009. The Danube macro-region[84] was established in 2011, and other macro-regions are either currently being studied or are in the process of being established (notably the Adriatic macro-region which directly concerns the MED space).

The purpose of macro-regions is to bring together a coherent group of territories with a view to cooperating to solve common economic and environmental problems. For the Baltic Sea Region, for example, the aim is to coordinate the strong cooperation that already occurs in different policy areas and to structure it around four pillars: environment, prosperity, accessibility, and safety. When the macro-regions were created, the Commission stressed the fact that there would be no new funds, no new legislation, and no new institutions (the three "no's").

In the Europe 2020 strategy, the territorial dimension of the EU's cohesion policy and its other policies has been given a greater role. Moreover, the proposal for an ERDF-ETC[85] regulation expressly stipulates "*the transnational cooperation can support the development and the application of macro-regional strategies and programmes for the maritime basin (including the external borders of the EU)*". Article 6 establishes the macro-regions as an Investment Priority for transnational cooperation under the Thematic Objective n°11 regarding the strengthening of institutional capacities and public administration effectiveness. The macro-regions thus open up new prospects in territorial cooperative projects and may make it possible to strengthen the links between regional programmes, with a view to meeting Europe 2020 strategy objectives. They can also dovetail with other major European strategies (Trans-European transport networks or integrated maritime policy for example).

The concept incorporates principles of[86] :

- " integration — objectives should be embedded in existing policy frameworks (EU, regional, national, local, de pre-accession), programmes (EU, country-specific, territorial cooperation, sectorial), and financial instruments;
- coordination — policies, strategies and funding resources should avoid compartmentalisation whether between sectorial policies, actors or different tiers of government;
- cooperation — countries should cooperate, and sectors also, across the region, changing the "mindset" from inward to outward-looking regional development ideas;
- multi-level governance — different levels of policymakers should work better together, without creating new tiers of decision-making,
- partnership — EU and non-EU countries can work together on the basis of mutual interest and respect".

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[84] Communication concerning the EU strategy for the Baltic Sea region, COM(2009) 248 du 10.6.2009 and the communication entitled "EU Strategy for the Danube region", Brussels, 8.12.2010, COM(2010) 715.

[85] Proposal for a regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, for the objective "Territorial Cooperation", COM(2011) 611 final/2

[86] Report from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions concerning the added-value of macro-regional strategies (COM(2013) 468 final), 27/06/2013

The experience gained in the Baltic and the Danube shows seven areas where macro-regions offer added-value[87] :

- Results in terms of projects, actions, decisions, networks: macro-regional strategies have helped to develop new projects or have given momentum to existing transnational projects;
- Improved policy development : marshalling national and regional approaches into more coherent EU-level implementation;
- Improved value for money : through the creation of synergies between programmes, which helps to achieve the critical mass that attracts external financing;
- Greater integration and coordination, both between countries and between authorities inside countries, as well as a more cross-sectorial approach to policy in a given territory;
- Tackling regional inequality and promoting territorial cohesion through i) identifying economic, social and territorial disparities and ii) delivering real solutions;
- Promoting multi-level governance through coordination between national, regional and local authorities on planning and funding;
- Improved cooperation with neighbouring countries, both with EU candidate (Serbia, Bosnia-Herzegovina, Montenegro, etc.) and non-candidate countries (Norway, Russia, Moldova, etc.).

The question of macro-regions is important for the MED programme, particularly in light firstly, of the **decision to create a new macro-regional strategy for the Adriatic and Ionian area by the end of 2014 (December 2012 decision of the European Council).** This decision came just after the unveiling of the "maritime Strategy for the Adriatic Sea and Ionian sea" (November 2012). It is important, secondly, in light of the prospect of establishing other macro-regions in the programme area.

The Adriatic and Ionian macro-region will bring together Greece, Albania, Bosnia-Herzegovina, Montenegro, Serbia, Croatia, Slovenia and Italy. It is expected that it will be focus on four fundamental pillars[88] :

- Maximising the potential of the blue economy (creating conditions for innovation and competitiveness, maritime transport, maritime and coastal tourism, aquaculture)
- Improving the state of health of the marine environment (waste management, biodiversity, etc.)
- A safer maritime space (passenger and goods transport, in particular oil and gas, sea vessel hygiene, accident and risk planning, etc.)
- Sustainable and responsible fishing activities (in line with the common fisheries policy)

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[87] Ibid.
Rapport du Parlement européen sur l'évolution des stratégies macro-régionales de l'UE : pratiques actuelles et perspectives d'avenir, notamment en Méditerranée (2011/2179(INI))

[88] Communication from the Commission "A Maritime Strategy for the Adriatic and Ionian Seas", COM(2012) 713 final, 30/11/2012:
xhttp://ec.europa.eu/maritimeaffairs/policy/sea_basins/adriatic_ionian/documents/com_2012_713_en.pdf

The Adriatic and Ionian macro-regions are also important for the EU's neighbourhood policy, especially in regard to the integration of the western Balkans into the European Union.

The question of the articulation between the transnational MED cooperation programme and its different macro-regions (existing or future) is a multifold one: how can the MED OP's strategy be coordinated and articulated with those of the macro-regions? How can the initiatives and projects in the Adriatic/Ionian macro-region be supported? With a view to achieving a balanced territorial coverage, how can the emergence of other macro-regions be supported? How, in the longer-term, can the strategies of the different macro-regions be coordinated within the MED space?

While macro-regions can bring a relevant local governance dimension to the MED space, making it possible to think in terms of subdivisions in a very vast area, the MED programme can offer its experience of transnational cooperation and funding to projects pursuing common objectives.

At this stage, as the MED programme and macro-regions are currently developing their strategies in parallel, it is too soon to identify the areas of and conditions for strategic coordination. It is nonetheless necessary to lay the foundations for doing so and to pave the way for integrating the macro-regional dimension when the time comes.

All of this points to the **selection of TO11,** which aims at "*enhancing institutional capacity and an efficient public administration by strengthening of institutional capacity and the efficiency of public administrations and public services related to implementation of the ERDF, and in support of actions in institutional capacity and in the efficiency of public administration supported by the ESF*"

The selecting TO11 could also make it possible to strengthen coordination between three European territorial cooperation programmes that support different but also certain common areas (MED, ENPI and the next South-East Gateway programme).

6. Cross-cutting challenges in the MED space

There are a number of challenges that are equally relevant for the European Union's different smart, sustainable, inclusive growth objectives.

The 'Mediterranean Agricultural Economy' and 'Blue Growth' are representative as much of the particular characteristics of the Mediterranean, which justifies a transnational approach, as of the diversity of underlying challenges facing policymakers, which justify incorporating a cross-cutting component in the programme.

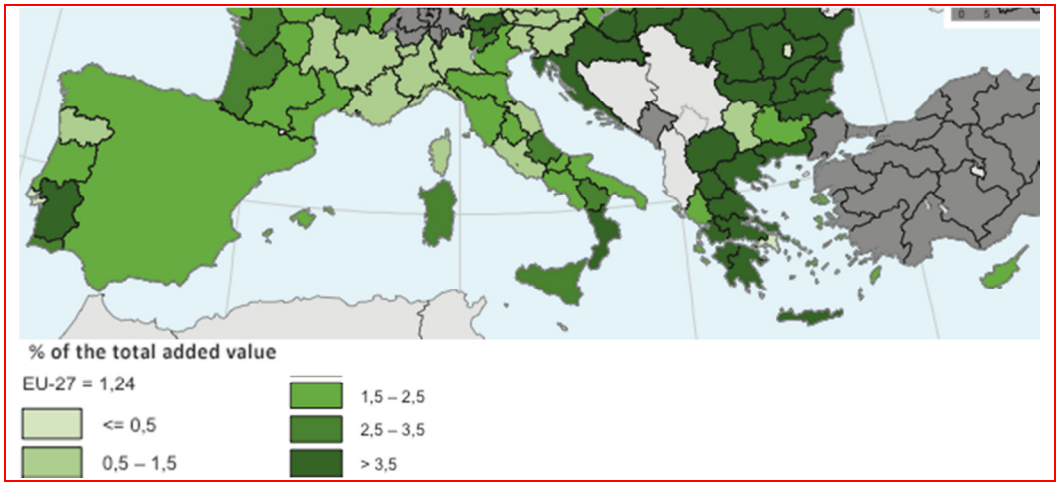
These two themes are presented in more detail in the paragraphs that follow. We explain, in separate sections, why they matter for smart, for sustainable, and for inclusive growth, and their respective objectives.

6.1 Focus on: "The Mediterranean Agricultural Economy"

6.1.1 The principal challenges facing the Mediterranean agricultural economy

Agriculture plays a role of central importance in the economies of MED countries. In Greece, in Calabria, in the Algarve and Alentejo, and in Croatia, agriculture represents over 3.5% of national wealth creation. It also plays a significant role in the other Italian regions and in Spain.

Map 25 Share of agriculture in the economy, as a percentage of total added value (Source: Eurostat/Gisco 2009)



The Mediterranean economy, and notably Mediterranean agriculture and agrifood, is based on a distinctive range of produce that is found across the MED space due to common climatic and geological conditions. Three crops – olives, wine and citrus fruit – are emblematic of this Mediterranean economy, of its comparative advantages, but also of the challenges it faces.

The market for olives and olive oil is highly profitable and offers excellent future perspectives for the MED space[89]:

- 75 % of the world's production of olive oil comes from the EU and in particular from Spain, Italy and Greece. Spain alone produces half of the world's olive oil; for the third successive year, in 2011-2012, the harvest was abundant (a historical record of 1.6 million tonnes produced in Spain, 400 000 tonnes in Italy and 300 000 tonnes in Greece). EU production has risen by 9% over the last three years to reach 2.4 million tonnes today.

[89] *Olive oil trading trends in the European Union*, The International Olive Council, Market newsletter, Marche 2013

- Consumption has also risen strongly, reaching 3.1 million tonnes in 2011. While domestic consumption in the producer countries has remained at high levels, the rising demand is the result of a growing appetite in developing countries, which has been increasing by 13% per year since 2007. For example, Chinese imports rose from 2,000 tonnes in 2003 to 45,000 in 2012 and, according to trade specialists, this double-digit rate of increase should continue for the next five years.
- The olive oil industry remains nonetheless fragile, and faces several challenges[90] :
  - It is vulnerable to the vagaries of the climate (chronic lack of rainfall), uneven terrain (characterised by steep slopes and a high degree of fragmentation), and also to a long history of human activity (affecting natural ecosystems) which has led to rates of erosion that give grounds for concern more than in other regions of the continent.
  - Price-competitiveness is weak and industry profitability is following a declining trend.
  - The product suffers from a lack of 'visibility' and from an imbalance within a sector in which products of differing quality grades are marketed under the same names/labels (lack of a visible classification between the different products).
  - The Mediterranean countries of Europe must compete against other producers, notably from countries to the south of the Mediterranean area.
- There are challenges with regard to quality improvement at all stages of production (quality upgrading in order to obtain a designation of origin or regional integration in a sustainable olive oil production system for example) thereby offering opportunities to boost the industry in rapidly changing global market, opportunities that European territorial cooperation is well-placed to help seize. There are specific challenges with respect to both smart growth (research, innovation and technology transfer, SME support) and sustainable growth (energy efficiency for SMEs, water use management, waste management, protection of the natural and cultural heritage). Inclusive growth is also an important dimension. In Spain, it is estimated that the sector creates 32M days of work[91].

  It is worth mentioning that a project designed to improve the competitiveness of the sector and the protection of the environment by networking producers and research & technology transfer centres has already been supported as part of a European transnational cooperation programme[92].

  Projects undertaken as part of the MED 2007-2013 programme in the area of agrifood allow us to highlight the following:
  - The need to (1) strengthen capacity and inter-organisational arrangements between economic operators, (2) enhance links between tourism, environmental issues and agriculture and (3) strengthen links between the different agrifood sectors.
  - The potential for policy action to (1) promote the local consumption of local agricultural and agrifood produce, (2) organise logistics aspects and marketing of local produce and products, thereby making the most of recognition by the UNESCO of the "Mediterranean diet", and (3) exploit the potential for alternative forms of theme-based tourism, for example in relation to agriculture, culture, or environmental protection.

[90] 'The challenge of globalisation for the Mediterranean olive oil sector', Yvette Lazzeri, *Centre d'Etudes et de Recherches Internationales et Communautaires* (University of Marseille), Conference at the CCF in Tlemcen, November, 2009

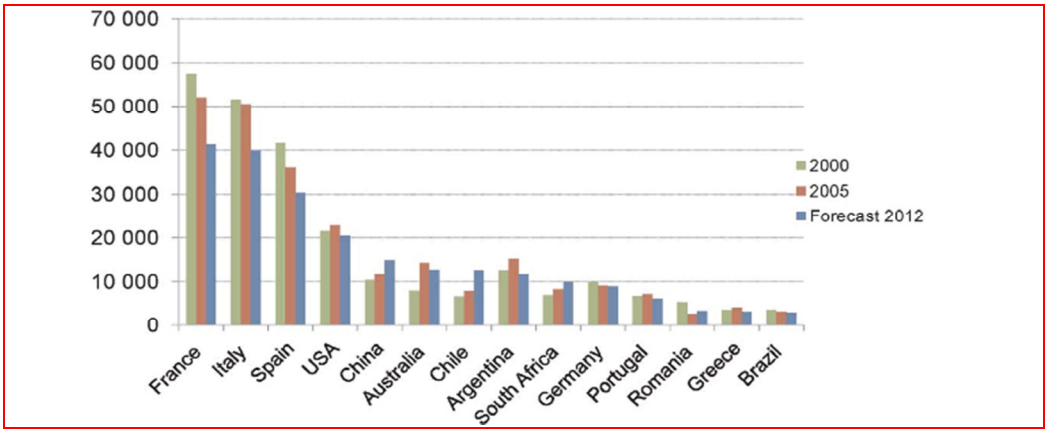
[91] Source: Spanish national Agency for Olive Oil

[92] http://www.oilca.eu/fr/index.htm

For the wine industry, the main observations and challenges are similar to those associated with olive production:

- Wine production is an essential industry for the economy of MED space countries: **France, Italy, Spain, Portugal and Greece are among the largest wine producers in the world** (in terms of volume, and in spite of competition from other countries: the United States, China, Australia, etc.)

Graph 8 Wine Production (in thousands of hectolitres; source: 2013 statistical report by the International organization of vine and wine)



- **The industry is confronted with general production challenges, which are common to the different countries of the MED space and which can justify the use of a common approach within the transnational co-operation framework:** the wine industry is a strategic one not only in terms of production and contribution to the country's trade balance but also in terms of employment and the dynamism it brings to the fabric of numerous rural areas. Nevertheless, in some wine growing areas, this industry is having to face a major crisis notably due to economic and environmental factors. The requirements that need to be met to ensure the sustainability of production systems (requirements stemming from market demands on quality and quality, economic and commercial competitiveness and sustainability, the appeal of vine growing-related professions, environmental preservation, soil and environmental quality) are increasingly numerous, more constraining and more varied, compared with previous decades. In order to adapt to this new environment and to a perpetually changing world, research and innovation will be of fundamental importance.
- **The developments in innovation in a sector often considered "traditional" are already very numerous, with regard to products** (the fact that the Japanese market requires lighter wines that producers do not possess the know-how to develop, the development of bio wine, etc.), and with regard to **techniques and production tools** (the French competitiveness cluster, Qualiméditerranée, for example, set up the Vinnotec project on the development of ICT to meet the new challenges of the wine producing industry: typology of the state of the vine or grape, fermentation using new sensors and assistance with optimizing associated production process (with systems to assist decision-making).

A final example: The challenges facing the citrus fruits sector are similar to those for olive and wine production:

- The Mediterranean is the world's traditional citrus fruits producing area. In 2011-2012, total Mediterranean production represented 38% of world production

(20.6Mt.). After Egypt, Spain and Italy are the Mediterranean's leading producers[93].

- The European market accounts for 60% of world consumption, but new markets are emerging rapidly (notably in Eastern Europe, Russia, and China).
- The sector is being affected by an 'innovation crisis' and by competition from producers, such as Israel, which are producing products that increasingly meet customer wants.
- There are opportunities for substantially enhancing the competitiveness of the sector, notably in product innovation and supply chain logistics.

As is the case for the olive or wine production industry, transnational cooperation can also offer a relevant scale of action for the innovation agenda in the citrus fruits sector.

6.1.2 Translating Mediterranean Economy challenges into Thematic Objectives and Investment Priorities

Challenges identified for the MED space	Relevant Thematic Objectives	Relevant Investment Priorities
To enhancing sectoral competitiveness (notably by raising productivity, innovation in quality, processing or product marketing	TO1/ "strengthening research, technological development and innovation" TO3/ "enhancing the competitiveness of SMEs"	All Investment Priorities under the TO1 & TO3
To protect a sector that is vulnerable to climatic conditions and fragile ecosystems subject to substantial soil erosion	TO6 "protecting the environment and promoting resource efficiency"	IP6a/ "addressing the significant needs for investment in the waste sector to meet the requirements of the environmental *acquis*"; IP6b/ "addressing the significant needs for investment in the water sector to meet the requirements of the environmental *acquis*";
To promote sustainable production and business development in the sector across the entire supply chain	TO4/ "supporting the shift towards a low-carbon economy in all sectors"	IP4b/ "promoting energy efficiency and renewable energy use in SMEs;

6.2 Focus on "The Blue Economy"

6.2.1 The principal challenges of Blue Growth

The Blue Economy aims to create **a sustainable sea-based and coastal economy**; it involves, notably:

– The sustainable protection and exploitation of resources (the potential of marine energy, the preservation of deep mineral resources, the protection of biodiversity);

[93] FAO data, 2012

- Introducing policies for sustainable fishing, aquaculture, and agriculture (and for the sustainable management of fisheries resources in particular);
- Transforming industry and transportation (the development of maritime transport as an alternative solution to road transport, the social dimension of international maritime transport);
- The management and sustainable development of ports;
- Adopting sustainable development in sectors such as tourism, pleasure boating and other marine recreation activities.

Blue growth is also an objective within **the European Union's wider integrated maritime policy[94] initiated in 2007** which, with a view to advancing blue growth goals, stresses the need to strengthen governance and stakeholder coordination in the sector, as well as to produce strategies for the different maritime zones (Mediterranean, Atlantic, Baltic, etc.). The aim is not to replace existing maritime policies in areas such as the environment, research, transportation, business, or regional policy, but to coordinate them.

In 2012, the European Commission set out its definition of the Blue Economy by identifying five priority areas[95] : blue energy, aquaculture, maritime, coastal and cruise tourism, marine mineral resources, and blue biotechnology.

It is estimated that for the Mediterranean area the **potential for blue growth is of the order of 500 to 600 billion Euros**[96]. Some 30% of world seaborne trade (by volume) transits via the Mediterranean (entire region), either to or from the more than 450 ports and terminals located along its shores, as does some 25 % of the world's seaborne oil shipments. More than 150 million people live along the Mediterranean's coasts, a figure which doubles during the holiday season. Half of the EU's fishing fleet operates there (the industry is essentially made up of craft-scale operators and small fishing vessels), and marine aquaculture production is also expanding.

The MED space enjoys substantial potential in terms of Blue Economy development. The sector already benefits from the presence and coordination of numerous organisations (such as the EIB, FEMIP, and IMO). The International Maritime Organization in the Mediterranean for example is working on, on the one hand, education, training, and disseminating information and, on the other, monitoring and control, in order to ensure that policies and practices are adhered to and properly implemented. Funding is also provided. Between the end of 2002 and 2012, the EIB has for example provided more than 13 billion Euros of funding to Mediterranean countries and has mobilised around 35 billion Euros of additional capital in collaboration with international financial institutions, bilateral agencies, and the private sector.

6.2.2 Translating Blue Economy challenges into Thematic Objectives and Investment Priorities

For a transnational cooperation programme like the MED programme, activities must dovetail within a vast existing policy arena. Taking into account the organisational stakeholders and the resources available, projects under the **EU's different Thematic Objectives** in the MED programme may involve pilot initiatives, seed projects, and small-scale initiatives conducted by a small number of partners in a specific target zone of the Mediterranean and having the potential of leading to larger-scale projects.

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94 http://ec.europa.eu/maritimeaffairs/policy/index_en.htm

95 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0494:FIN:FR:PDF

96 Estimation presented at the FEMIP Conference (Facility for Euro-Mediterranean Investment and Partnership) on the Blue Economy in the Mediterranean, Athens, March 2013

Projects implemented during the 2007-2013 period offer some first avenues of analysis:

- In the case of tourism for example, projects undertaken as part of the MED programme for 2007-2013 have highlighted the environmental impact of tourism and the need to explore ways to promote sustainable tourism;
- In the case of maritime transport safety, partners underline the need to establish a Mediterranean partnership for the exchange of information with a view to ensuring its quality and use.
- In the case of ports, even if this question is difficult to tackle within a transnational programme due to the diversity of organisations having responsibility for port management in the MED space, there are both needs and potential in, for example: the use of ICT to manage congestion problems; new coordinated approaches between producers and exporters (cargo clustering); the standardisation of administrative procedures and norms, and of containers, in order to enable more rapid and efficient transportation logistics, and improved coordination between ports, maritime terminals and land transport, etc.

The potential of Blue Growth projects ought to be explored in greater detail by the programme at the end of the 2007-2013 period using residual funds and fund returns. New projects, which should be launched early in 2014, may provide promising ideas that could be developed in the next programming period.

Table 7 Translating Challenges into Thematic Objectives and Investment Priorities

Challenges identified for the MED space	**Relevant Thematic Objectives**	**Relevant Investment Priorities**
To protect and sustainably exploit natural resources (marine energy potential, preservation of deep mineral resources, protection of biodiversity)	TO6/ "protecting the environment and promoting resource efficiency"	All Investment Priorities
To transform industrial and transportation activities (development of maritime transport as an alternative to road transport, the social dimension of international maritime transport)	TO7/ "promoting sustainable transport and removing bottlenecks in key network infrastructures"	IP7c/ "developing environment-friendly and low-carbon transport systems and promoting sustainable urban mobility";
To apply sustainable development in sectors such as tourism, pleasure boating, and other marine recreational activities.	TO1/ "strengthen research, technological development and innovation" TO3/ "enhancing the competitiveness of SMEs"	IP1b/ "promoting business R&I investment, product and service development, technology transfer, social innovation and public service applications, demand simulation, networking, clusters and open innovation through smart specialisation"; IP3a/ "promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms";

		IP3b/ “developing new business models for SMEs, in particular for Internationalisation”;

6.3 Incorporating these two cross-cutting themes into the programming

We have chosen to focus separately on these two fundamental themes: the agricultural economy of the Mediterranean and Blue Growth, as they are clearly fundamental aspects of the Mediterranean, of its identity and of its potential for economic and social development, and are therefore integral to any territorial diagnostic. Moreover, these two themes can truly constitute a cross-cutting dimension to the programme: mediterranean agriculture is today important as much as a vector for innovation as a parameter in the search for a more efficient use of water resources.

If this proposition is deemed relevant, different approaches regarding programming strategy might be envisaged: it may be possible, for example, for each of the selected thematic objectives, to give a specific role to these two themes (using specific project calls, by earmarking a part of the programming budget, by establishing dedicated facilitation and support tools). Alternatively, in application of the principle of smart specialisation to the MED space, programme partners could envisage focusing the actions under thematic objective n°1 on the questions of blue growth or on the mediterranean agricultural model/the mediterranean agri-food industry.

7. Scenarios for the strategy of the 2014-2020 MED programme

Drawing on the information presented in this report and also on discussions with the Task Force at the meeting in Marseille on 12 July, we propose the following scenarios for the 2014-2020 MED programme strategy.

These scenarios have been established in line with the proposal for a regulation of the European Parliament and of the Council on specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal[97] in which article 5 on thematic concentration requires that transnational cooperation programmes select four thematic objectives. The proposed regulation may yet be modified to provide more flexibility; by requiring that 80% of the OP's budget be earmarked for 4 OT, with the remaining 20% not subject to the thematic concentration requirement.

Therefore, the following matrix has been designed around a **core strategy based on TOs n°1, 4, 6 and 11** (making up the 4 TOs).

Depending on the partnership's priorities, two variations may be envisaged:

- Focusing the programme more on **smart growth** and incorporating the TO n°3 on business competitiveness
- Focusing the programme more on **sustainable growth** and incorporating the TO n°5 on supporting adaptation to climate change and risk management

Table 8 Scenarios for the strategy of the 2014-2020 MED programme

	Core Strategy	Focus on Smart Growth	Focus on Sustainable Growth
1) strengthening research, technological development and innovation			
(4) supporting the shift towards a low carbon economy in all sectors			
(6) protecting the environment and to encourage the sustainable use of resources			
(11) enhancing institutional capacity and an efficient public administration by strengthening of institutional capacity and the efficiency of public administrations and public services related to implementation of the ERDF, and in support of actions in institutional capacity and in the efficiency of public administration supported by the ESF			
2) Enhancing access to and, use and quality of information and communication technologies (ICT)			
3) enhancing the competitiveness of SMEs			
(5) supporting climate change adaptation, risk management and prevention			
(7) promoting sustainable transport and to remove the bottlenecks to essential infrastructure networks			
(8) supporting employment and labour mobility			
(9) promote social inclusion and to fight against poverty			
(10) investing in skills, education and lifelong learning/training by developing education and training infrastructures			

[97] COM (2011) 611 final/2 en date du 14/03/2012

Annexe A : List of people asked to be interviewed

Country	Name	First name	Contact details	Interview
ALBANIA	RAKAJ	Greta	greta.rakaj@mie.gov.al	X
BOSNIA-HERZEGOVINA	BOJANIC	Nada	nbojanic@dei.gov.ba	X
CYPRUS	CONSTANTINOU	Constantia	cconstantinou@planning.gov.cy	
CYPRUS	KASTANOU	Litsa	lkastanou@planning.gov.cy	
CROATIA	TOMASEVIC	Daniela	daniela.tomasevic@mrrfeu.hr	
SPAIN	URIARTE	Marian	muriarte@sgpg.meh.es	
FRANCE	ARPIN-PONT	Thierry	thierry.arpin-pont@paca.pref.gouv.fr	X
FRANCE	POLLET	Géraldine	gpollet@regionpaca.fr	
GREECE	EMMANUEL	George	gemmanouil@mou.gr	
GREECE	KATSIYIANNI	Eleni	elenkatsi@mou.gr	
ITALY	RUSCA	Rossella	rossella.rusca@tesoro.it	X
ITALY	TOZZI	Maria Dina	mariadina.tozzi@regione.toscana.it	X
MALTA	MINTOFF	Celia	celia.mallia@gov.mt	
MALTA	HOLLIER		claire.hollier@gov.mt	
MONTENEGRO	SEKULOVIC	Ratka	ratka.sekulovic@gov.me	
Portugal	ROCHA	Raquel	raquel.rocha@ifdr.pt	X
SLOVENIA	KOBE	Nadja	nadja.kobe@gov.si	X