EuroMed-2030
Long term challenges for the Mediterranean area
Report of an Expert Group
Table of contents

Acknowledgements 6

Why the Euro-Mediterranean relationship matters? 8

Trends 11
  • Demographic and macroeconomic trends 11
  • Water shortages and the impact on agriculture 23
  • Energy and climate change 29
  • Education and science 37
  • Religion and culture 49
  • Geopolitics and governance 53

Tensions 63
  • Tensions among socio-economic groups 63
  • Tensions between competing visions of the state and competing visions of reform 66
  • Tensions between hostile states 72
  • Tensions between expectations of Euro-Mediterranean cooperation 74

Transitions 79
  • Managing conflict 79
  • Win-win projects 85
  • Deeper economic integration 94
  • Towards a Euro-Mediterranean Community 102

Conclusions and moving forward 109

Annex 1. – EU research projects with Mediterranean countries 117

Annex 2. – Biographies of the experts 131
List of Tables

Table 1 – Poverty levels in Arab countries 17
Table 2 – Percentage shares of South Mediterranean Countries exports and imports to and from the EU (1995, 2006) 19
Table 3 – Gender sensitive development indicators of SEMCs and EU Member States 22
Table 4 – Trade balance in agriculture and fisheries for SEMCs, excluding Turkey (2004-2009) 25
Table 5 – Trade balance in agriculture and fisheries for Egypt (2004-2009) 26
Table 6 – Key parameters for hydrocarbon reserves and production 31
Table 7 – CO₂ emissions in SEMCs and selected countries 36
Table 8 – Indicators of gender parity 38
Table 9 – Key research indicators of SEMCs 46
Table 10 – Indicators of the knowledge economy 47
Table 11 – Concordance indices of country exports with large trading regions 96
Table 12 – Services sectors contribution to the GDP 98
Table 13 – Revealed comparative advantage of services exports in selected SEMCs 99
List of Figures

Figure 1 – Population pyramid for the Middle East and North Africa (2002) 12
Figure 2 – Net migration into the EU-25 (1980-2007) 15
Figure 3 – Agriculture in GDP 16
Figure 4 – Trends in working farm populations (1970-2003) 17
Figure 5 – Bilateral trade to 2050 (1990-2050) 20
Figure 6 – Share of EU and SEMCs exports in world trade (1990-2050) 21
Figure 7 – Water exploitation index (2003) 23
Figure 8 – Variation in *per capita* water resources (1950-2025) 24
Figure 9 – Past and projected primary energy supply to the South West Mediterranean countries 29
Figure 10 – Past and projected primary energy supply to the South East Mediterranean countries 30
Figure 11 – Schema of an EU-MENA grid 32
Figure 12 – Gross enrolment rates and average years of schooling 37
Figure 13 – Public expenditure on education, *per capita* growth and unemployment in developing regions 39
Figure 14 – Education attainment in MENA (*Weighted average*) age 25+ 44
Acknowledgements

This publication on ‘EuroMed-2030: Long term challenges for the Mediterranean area’ was prepared by the Directorate for Science, Economy and Society of the European Commission DG Research & Innovation, under the direction of Jean-Michel Baer and in cooperation with the Bureau of European Policy Advisers (BEPA) of the European Commission.

The publication benefited from the results of the group of experts ‘EuroMed-2030’, which was established by DG Research & Innovation in 2010 and was composed of the following members: Sébastien Abis, Amine Ait-Chaalal, Roberto Aliboni, Houda Ben Hannet Allal, Andrea Amato, Joaquín Arango, Nouria Benghabrit-Remaoun, Thierry Fabre, Cilja Harders, Baghat Korany, Nigel Lucas, Mireia Montané, Baruch Raz, Rafael Rodríguez-Clemente, Ibrahim Saïf, Abdel Rahman Tamimi, Mohamed Tozy, Nada Trunk Širca, Bahari Yılmaz and Saloua Zerhouni.

All the Expert’s individual contributions have been collected in a single document published electronically at: http://ec.europa.eu/research/social-sciences/index_en.html

This group has been animated by Domenico Rossetti, Pierre Valette (DG Research & Innovation) and Vasco Cal (BEPA). It benefited from very useful insights of Paraskevas Caracostas, Perla Srour-Gandon and Špela Majcen (RTD). The graphics is also the result of an idea of Cornelia Smet (RTD).

In addition to the experts, constructive advice was formulated by several colleagues from DG Research & Innovation and especially by Callum Searle and Claudio Bogliotti from the International Cooperation Directorate. Thanks also to Annabelle Ascher, Elisabetta Balzi, Lionel Banége, Mæve Barry, Indridi Benediktsson, Jean-François Dechamp, Raffaella Di Iorio, Maria del Mar Fernández Rodriguez, Maria del Pilar Gonzalez Pantaleon, Maria Kayamanidou, Philippe Keraudren, Gilles Lequeux, Angela Liberatore, Line Matthiessen-Guyader, Sean O’Reagain, Michael Poireau, Cyril Robin-Champigneul, Martine Wauters and Alejandro Zurita Centelles.

Eneko Landaburu and Jose Roman Leon Lora (EEAS) have provided useful insights at the Expert Group meeting in Rabat. Marc Pierini (EEAS) actively introduced the Expert Group meeting in Istanbul. Manel Camos Grau and Blandine Pellistrandi (COMM) have helped with the successful organisation of the Barcelona and Marseille meetings.
Many colleagues from other Directorates-General have also contributed to completing and improving this publication. Special thanks are dedicated to Immaculada Roca i Cortes from EEAS as well as Robert Krengel, Andres Bassols Soldevila, Leonello Gabrici and Georges Papageorgiou (EEAS). Thanks also to Ingrid Jenezova and Nicolas Verlet (AGRI), Jean-Louis Ville (AIrCO), Giorgio Ficarelli and Raluca Pantea (DEV), Teresa Oliveira (EAC), Sigurd Schmidt (ENER), Marie Corman and Anna Sobczak (ENTR), Andrew Murphy (ENER), Francesco Luciani (HOME), Richard Delmas (INFSO), Carla Montesi, Ariti Skarpa and Anita Vella (MARE), Peter Berkowitz (REGIO), Olivier de Laroussilhe and Sofia Munoz Albarran (TRADE).

The preliminary results of this report were presented to and discussed by more than hundred Euro-Mediterranean stakeholders that provided complementary inputs (see the list of participants at: http://ec.europa.eu/research/social-sciences/index_en.html).

Special thanks to Nigel Lucas who acted as rapporteur of the Expert Group and to Domenico Rossetti who supervised this forward looking exercise.
Why the Euro-Mediterranean relationship matters?

Is there sufficient common interest between the EU and the Southern and Eastern countries of the Mediterranean to support a special relationship? From the European side, the other shores of Mare Nostrum could appear driven by open and latent conflicts, bypassed by economic growth and lacking in personal freedoms. Marked by a high unemployment, low to medium standards of human rights, a subjugation of women in certain countries, indifferent scientific achievement, the region seems distant from European norms of modern, pluralist democracy. Global issues of climate change, resource depletion, economic management, the impact of the BRICS, all seem of more consequence to Europe than does the Mediterranean.

From the other side, European approaches may seem patronising, token and at worst hypocritical. Democracy and openness are proclaimed in principle, but not always honoured in practice. Openness in economic management does not fully extend to agricultural products and to labour markets; freedom of movement is largely an illusion. Actual and potential, legal and illegal immigrants are perceived to be treated scornfully, if not sometimes brutally. Europe is seen to collude in the wars in Iraq and Afghanistan. The new regional actors such as Iran and Turkey, the Gulf and further East to India and China may provide more fertile ground for cooperation than Europe.

Of course these are stereotypes, but they are probably not confined to extreme groups; they find resonance in many conservative political movements on both shores – movements that are reticent about dialogue or even hostile, because cooperation constitutes a threat to traditional values. On the other hand there is much positive change and constructive engagement; existing relations between old and young, rich and poor, women and men, local and global are challenged with accelerating success by young societies with better access to education and media. This open tendency is welcoming of dialogue, aware of the interdependencies of both shores of the Mediterranean and the possibilities for fertile exchanges and collaboration.

The first priority is to avoid violent and destructive conflict amongst European neighbours or at least to limit its consequences. Conflict needs to be avoided primarily for its human consequences, but also its economic costs, which are enormous, and the impact on security. Avoiding conflict means building mutual trust. Trust at a political level must be founded on mutual respect and confidence between societies. To create this bond is a long-term prospect that partly precedes and is partly formed by other more concrete aspects of cooperation.
There are concrete actions of interest to both sides and many of these have been identified within the Union for the Mediterranean. Common endeavours in education and science can strengthen the innovative basis of the SEMCs economies and can simultaneously stimulate European research; the vast reserves of solar energy in the SEMCs can provide in the long-term secure energy supplies for both sides and can be a powerful catalyst for innovation; cleaning the Mediterranean is a much over due task that can only satisfactorily be done together. These endeavours will all need private capital and will require innovation in private-public partnerships at national and regional levels.

There is still much benefit to be achieved from closer economic integration; the complementarity of traded goods between Europe and the SEMCs is high; there is a great deal to gain from free exchange of services. Most of all there is potentially a huge migration arbitrage from the complementarity of labour markets; an aging population in Europe and a young population in the SEMCs for which the national economies will not be able to find jobs.

Eventually the network of dependencies around the Mediterranean might evolve into shared common vision on which a future Euro-Mediterranean Community might be built. The Barcelona Declaration, the association agreements, the ENP, the action plans and UfM documents constitute the beginning of specific acquis of a future Euro-Mediterranean Community. There would be many political obstacles and the costs would be immense, but the benefits could be greater still.

This paper is built around ‘trends, tensions and transitions’ in the Euro-Mediterranean space. In ‘trends’ we examine the way in which critical issues in the region are evolving and how they might develop over the next twenty years. ‘Tensions’ considers how these trends will interact to generate stresses at different socio-political levels. ‘Transitions’ explores some options for intervention to correct malign tensions and benefit from benign ones; the particular choice of the ‘transitions’ is based on the four themes of cooperation described above: managing conflict; win-win projects; deeper economic integration and eventually moving towards a Euro-Mediterranean Community.

Jean-Michel Baer
European Commission Director
for Science, economy and society
December 2010
Trends

Demographic and macroeconomic trends

The population of working age is increasing rapidly in the SEMCs and the economy is unlikely to absorb all job seekers. There is some complementarity with trends in the EU-27.

Demographic disparities between the northern rim and the remainder of the Mediterranean are large, not so much in terms of fertility and life expectancy, where a process of convergence is taking place, but in the rate of growth of the population and most notably with the age structure. What is visible today is a legacy of the past; the consequence is a considerable difference in the structure of the labour forces around the region that in turn determines contrasting and complementary needs.

About 1 billion people live in the EU and in the neighbouring countries (1). Of this total roughly half live in the EU-27; slightly less than 30 % live in the countries of the South and East Mediterranean (SEMCs), including Turkey. This total is not expected to change very much over the next twenty years, but there will be significant shifts of population between the constituent countries. The population of the SEMCs will increase by some 25 % to 370 million; in the EU-27, the population will increase only very slowly, by less than 2 % over the entire period. The increase in the SEMCs will be spread roughly equally; Turkey will grow the least quickly at around 1 % per year; projections for the other parts of this group indicate average growth of 1.2 % in the Maghreb, 1.3 % in Israel and 1.8 % in the Mashreq (2).

The SEMCs has one of the youngest age profiles in the world as evidenced by the Figure 1. As the members of the cohort from 0 to 24 years grow older, significant changes will occur in the make-up of the population; this will have considerable social implications, not least for gender relations. Even though there has been tremendous progress in terms of health and education of women, labour market participation of women in the region is still comparatively low, as is their political participation and representation. This will change as women claim their share in social, economic and political developments in younger and better educated societies (3). An important indicator of this empowerment of women that is already detectable is the fall in fertility over the

(1) This group of countries is taken to comprise: the EU-27; Turkey and the countries covered by the European Neighbourhood and Partnership Instrument (ENPI), i.e. Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, Palestinian Authority, Russia, Syria, Tunisia and Ukraine.
(2) The source of the demographic data is World Population Prospects – The 2008 Revision, UN Population Division.
past twenty years. In turn, declining fertility rates will shift the age distribution in future towards older groups and will reduce the population of pre-school children. The legacy of high historic rates of population growth will be manifest as large increases in the population of working age. The combined effects of high historic growth rates and enhanced longevity will increase the population of people past normal working age.

In the EU-27, the population in the age group from 15 to 64 will fall by 6.5%, from about 330 million in 2010 to 310 in 2030. This decline contrasts with an increase in the comparable age group in the SEMCs by more than 31%; the total in this cohort will increase from 195 million to 250 million over the period. A consequence is that about 55 million more people will be looking for work. The trend is especially strong in the Mashreq, where the number of people in the age group will increase by nearly 42% over the period. In the West Bank and Gaza, the projections indicate 93% more people of working age. The largest numerical increase is in Egypt; the proportional increase is only 39%, but on a base of an existing population of 54 million this implies 20 million more jobs will be needed. The increase in the numbers of people in this age group is critical; it will determine the demand for higher educational facilities; it will create demand for housing, water, energy and transport. It is potentially the motor of development if productive functions can be created in the economy and is potentially the motor of social unrest if expectations are unmet.

Figure 1 – Population pyramid for the Middle East and North Africa (2002)
This rapid increase in the numbers of people seeking employment becomes still more challenging when set in the context of the present labour markets. Already employment rates (50-45%) are very low and female participation is still lower (25%). There is a high unemployment (15% is typical), particularly for youth (on average around 25%, but up to 35% in Egypt). The public sector has an important role in employment, but many of the jobs in this sector may add little value; there is also large informal employment (50% is typical). Social protection systems are weak or non-existent. In practice, the extended family is the main means of support for the unemployed, or underemployed. Thus, unpaid care and family work continues to be an important factor for upholding social cohesion in times of economic stress. This in turn has important implications for the labour market participation of women in the Arab world, which is among the lowest globally. Labour Market participation of women in the SEMCs witnessed a greater increase in women’s share in the labour force compared to all other regions of the world (19% between 1990 and 2003, 3% in the world) but it remains constantly low: in 2008, 31% of the total labour force in Algeria were women, 24% in Egypt 23% in Jordan, 25% in Lebanon, 22% in Libya, 26% in Morocco, Palestine 18%, Syria 21% and Tunisia 27%. Interestingly, whereas female labour market participation rose within the last 20 years – even though not substantially in most cases – it sank in Egypt (1990: 26.3%), Lebanon (1990: 31.8%), and Syria (1990: 26.2%)[4]. Most women work in agriculture and services. There is some variation in the pattern between North and South. Whereas in Italy, only 5% of the female labour force is employed in agriculture, this ratio is 18% in Greece, 10% in Slovenia and 14% in Portugal compared to 56% in Turkey, 26% in the Palestinian Authority and 39% in Egypt [5].

In the EU, by 2030, there will be 39% more people who are older than 65 years than there are in 2010. This is widely recognised as a concern; the proportion of 120 million people in this group compared to 310 million in the age group from 15 to 64 implies a big shift in socio-economic structure with immense implications for fiscal policy and social services. One of the reasons why the EU needs to maintain a larger working population is to fund the health and social services, directly, from taxation when they are provided by the state, but also from corporate profits when they are private.

In the SEMCs, the number of people beyond conventional working age is expected to increase on average by 5.9% per year, representing a total increase over the period of 117%. Within this average, there is a wide dispersion by country; Israel has the lowest growth (83% over the period) and Syria has the highest at 150%.

has the lowest growth (83% over the period) and Syria has the highest at 150%. These large additions are on a rather small base and the proportion between the numbers of the working and non-working populations remains more favourable than in the EU. In the SEMCs, there will be 7.5 people of working age for each older person in 2030, compared to a ratio of a little more than 2.5 in the EU. The rapidity of the transition in the SEMCs will have some impact on state finances and countries will need to make provision for the necessary services for older age groups. This in turn will impact on traditional family relations and the redistribution of unpaid care work within the families and among men and women.. Young men and women on both shores of the Mediterranean aspire for good education, financial independency and work experience as much as they wish to balance family obligations and their career. Demographic change in SEMCs will bring traditional gender orders under pressure as better educated women claim their share in formal labour market. In addition, the trend towards monetarization of care work in the North will have an impact in migration and labour market patterns.

There is some complementarity between the needs of the EU-27 for labour and the availability of people of working age in the SEMCs. This complementarity could make migration beneficial for both sides and if it were recognised then it could improve the public evaluation of migration and make it more acceptable. The idea is enjoying increasing international consideration, but the exploitation of sentiments of fear by unscrupulous political interests impede action. Politicians in the EU-27 need to be much clearer and more honest about the needs for new sources of skills and labour in European countries and need strongly to address the apparent contradiction that this poses with unemployment in EU economies. There are also some objective obstacles to increasing immigration from SEMCs, such as competition from more distant countries and the mismatch between skills and openings. After a sharp increase in the first half of this decade, net migration into the EU has stabilised, as shown in the Figure 2.
Large sections of the population are excluded from the benefits of growth. The rural population is large and growing and poverty is still widespread. Agriculture still accounts for a large share of GDP. The Figure 3 shows the contribution of agriculture to GDP in selected countries of the region. Only in Jordan (and Israel – not shown) does agriculture contribute a similar percentage as in the northern rim.

Presently, some 40 per cent of the population in the Southern Mediterranean area live in rural areas. As the Mediterranean is becoming increasingly urban, the ratio of the rural population to the total is declining, but because the total population is more numerous, the rural world is not being depopulated. Despite the population exodus towards the cities, the rural world is growing in size, mainly in the east of the basin (Egypt). The trends in the working farm population of the SEMCs are shown in Figure 4 along with figures from the northern rim for comparison.

Uneven development between urban and rural areas in the south of the Mediterranean is already perceptible. There is often a stark difference in development between the rural hinterlands (lack of access to clean water, poor education, inadequate health services and inadequate infrastructure) and the wealthier areas of coastal cities open to globalisation and with higher living standards. Women are often most disadvantaged with limited access to education, health care and considerable restrictions on their personal
mobility. The general weaker endowment of women with formal education, access to health care and the labour market renders women more vulnerable to poverty. There are huge differences between and within SEMCs, e.g. in ‘rural Egypt and Morocco, one in four people is poor, compared with one in ten in urban areas, and families supported by women are much more affected by poverty than those supported by men’[6].

Within the cities there are also impoverished suburbs often arising from earlier migration of the rural poor. This division and marginalization leads to more exclusion and can feed into the development of frustration and new symptoms of radicalisation. If employment cannot be found for the many people expected to enter the job market in the next few years then the extent and degree of social deprivation is likely to worsen.

**Figure 3 – Agriculture in GDP**

<table>
<thead>
<tr>
<th>Country</th>
<th>North</th>
<th>Southern and eastern Mediterranean countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Jordan</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Lebanon</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>Algeria</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Tunisia</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>14.3</td>
<td></td>
</tr>
<tr>
<td>Morocco</td>
<td>15.3</td>
<td></td>
</tr>
<tr>
<td>Syria</td>
<td>18.7</td>
<td></td>
</tr>
</tbody>
</table>

3-year average 2005-2007 as % of total GDP

Source: World Bank

A recent report of the UNDP and the League of Arab States shows that poverty rates in the Arab world are high, and have improved little over the past twenty years [7]. Table 1 shows the percentage of poor by various definitions in selected states; the main entries are percentages and the entries in brackets are millions of people. The household survey data came from Algeria, Djibouti, Egypt, Jordan, Morocco, Tunisia, and Yemen. In some places, and by some measures, poverty has increased. The challenge to the SEMCs is not only to achieve high economic growth rate, but also to transform growth to a model that brings benefits more quickly and effectively on the poor.

Table 1 – Poverty levels in Arab countries

<table>
<thead>
<tr>
<th>Poverty Line (US$ per person per day)</th>
<th>1981</th>
<th>1990</th>
<th>1996</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25</td>
<td>8.6 (14.9)</td>
<td>5.4 (12.2)</td>
<td>5.3 (13.7)</td>
<td>4.6 (14.0)</td>
</tr>
<tr>
<td>2.00</td>
<td>28.7 (49.7)</td>
<td>22.0 (49.6)</td>
<td>22.3 (57.4)</td>
<td>19.0 (58.0)</td>
</tr>
<tr>
<td>2.50</td>
<td>31.0 (71.7)</td>
<td>27.9 (76.1)</td>
<td>29.4 (89.9)</td>
<td>24.1 (94.3)</td>
</tr>
</tbody>
</table>

Source: UNDP

It is unlikely that macro-economic growth will create enough jobs or greatly reverse social deprivation

It is uncertain how the apparently complementary demographic evolutions in the EU-27 and the SEMCs will interact in practice. Capital from the EU will be seeking profitable opportunities; employers in the EU will be seeking labour. Countries in the SEMCs will be seeking investment to create new jobs and their people will be seeking employment. A critical question is whether on present trends the economies of the region are likely to be able to absorb the large volume of available labour. If jobs cannot be created for this large increase of job-seekers then maybe some of that labour will be available for work in the EU if immigration policies permit.

Projections of economic growth to 2030 were prepared for the Mediterranean 2030 study using historic data [8] and simple regression. On this basis, the total size of the economy in the EU-27 by 2030 expressed in a PPP basis in current international dollars is estimated at a little more than $23.5 trillion, equivalent to about $47,000 per capita. The total value of GDP in the SEMCs on the same basis will be a little more than $5 trillion, a large part of which will arise in Turkey ($1.9 trillion) and a significant part in Israel ($362 billion). The total of GDP in the Mashreq and Maghreb countries will be about $2.9 trillion.

The average annual rate of growth in the SEMCs will be about 4.4% on average, significantly higher than the 2.4% projected for the EU, but much of the increase in national output is compensated by the parallel growth in population and therefore the per capita rates of growth are lower and convergence of personal income to that of the EU is delayed. In 2004, the average per capita income in the SEMCs (on a PPP basis) was about 26% of that in the EU and by 2030, it is projected that it will still only be around 30%.

The average figures disguise big variations among countries. In Israel, the per capita income remains fairly constant over the period as a proportion of EU per capita income at around 85%. In Turkey, it increases from 39% to 45% so convergence is slow. In the Maghreb and the Mashreq, the proportions are 20% and 18% respectively in 2004 and they rise to 26% and 21% by 2030, so some convergence is demonstrated, but at far too slow a rate.

The projections for economic growth do not suggest that on present trends the resources will be available endogenously to create the educational facilities and the jobs needed to cater for the expected increase in the work force. This will create spillover effects for the EU and extend the reach of poverty in the SEMCs, in turn creating domestic tensions on both shores of the Mediterranean.

Europe and the Mediterranean are important trading partners and will continue to be so

The cultural map of the Mediterranean and much of what is common in values around the basin has been determined by trade. The Phoenicians were the first great naval and trading power of the Mediterranean. Purple dye from Murex shells, glass and textiles were traded across the Mediterranean; trade routes extended to Britain for tin and the Baltic for amber. Subsequently, Greek, Carthaginian, Romans, Byzantine, Venetian and Islamic merchants have created the cultural mosaic and shared customs and values that underlies the Mediterranean today.

Trade partnership through the creation of a Euro-Mediterranean Free Trade Area, was a prime aim of the Barcelona process and although only partially successful there have been detectable effects. The Table 2 shows how trade between SEMCs and the EU has evolved from 1995 to 2006. Some countries, such as Morocco and Tunisia, sustained and increased their level of exports to the EU, while others registered a decline, such as Egypt and Jordan; exports from Lebanon increased significantly to represent 10 percent of its total exports.

Table 2 – Percentage shares of South Mediterranean Countries exports and imports to and from the EU (1995, 2006)

<table>
<thead>
<tr>
<th></th>
<th>% of Exports to EU</th>
<th>% of Imports from EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>65</td>
<td>51</td>
</tr>
<tr>
<td>Egypt</td>
<td>47</td>
<td>42</td>
</tr>
<tr>
<td>Jordan</td>
<td>6.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Lebanon</td>
<td>25</td>
<td>10.7</td>
</tr>
<tr>
<td>Libya</td>
<td>81.7</td>
<td>75.5</td>
</tr>
<tr>
<td>Morocco</td>
<td>60</td>
<td>62</td>
</tr>
<tr>
<td>Syria</td>
<td>59</td>
<td>32</td>
</tr>
<tr>
<td>Tunisia</td>
<td>80</td>
<td>73</td>
</tr>
<tr>
<td>Turkey</td>
<td>55</td>
<td>51</td>
</tr>
</tbody>
</table>

Source: UNCTAD, 2008, Handbook of Statistics

The Figure 5 shows the historic evolution of both exports from the EU to the Mediterranean countries and exports from the Mediterranean to the EU together with projections to 2050. Trade is expected to increase, albeit at a slightly slower rate and the projection shown below by CEPII using the MIRAGE model estimates that it will reach a combined total of around EUR 600 billion by 2050.
Despite this encouraging trend there are other aspects of trade dynamics that are less positive. The EU is a falling force in world trade markets and the Mediterranean countries though increasing their share of world trade will remain marginal. The Figure 6 shows the shares of EU-27 and Mediterranean exports as a percentage of world trade from 1990 to 2007 (historical data) and estimates up to 2007. By that time the share of the EU in world trade will have fallen from 45% in 1990 to less than 20% in 2050. The share of the Mediterranean countries, though slowly rising, will be no more than 2-3%.

Figure 5 – Bilateral trade to 2050 (1990-2050)

![Bilateral trade graph](image-url)
Gender relations in the Arab world will change as a result of progress in a difficult environment

According to the UNDP data shown in Table 3, the social, political and economic situation of women in the SEMCs has developed in a positive direction[^9].

[^9]: The Gender Development Index is based on the HDI which combines life expectancy at birth, the adult literacy rate, enrolment ratio and estimated earned per capita income as indicators of high or low human development. The Gender Development Index (GDI) weights the HDI in a gender specific way. The Gender Empowerment Measure (GEM) measures gender inequality in three basic dimensions: economic participation and decision-making, political participation and decision-making power over economic resources.
Table 3 – Gender sensitive development indicators of SEMCs and EU Member States

<table>
<thead>
<tr>
<th>EU Country</th>
<th>GDI 2007</th>
<th>GDI Rank</th>
<th>HDI 2007</th>
<th>HDI Rank</th>
<th>GEM</th>
<th>Part. % *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyprus</td>
<td>0.911</td>
<td>27</td>
<td>0.914</td>
<td>32</td>
<td>48</td>
<td>14</td>
</tr>
<tr>
<td>France</td>
<td>0.956</td>
<td>6</td>
<td>0.961</td>
<td>8</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Malta</td>
<td>0.895</td>
<td>32</td>
<td>0.902</td>
<td>38</td>
<td>74</td>
<td>9</td>
</tr>
<tr>
<td>Spain</td>
<td>0.949</td>
<td>9</td>
<td>0.955</td>
<td>15</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.907</td>
<td>28</td>
<td>0.909</td>
<td>34</td>
<td>19</td>
<td>28</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0.927</td>
<td>24</td>
<td>0.929</td>
<td>29</td>
<td>34</td>
<td>10</td>
</tr>
<tr>
<td>Italy</td>
<td>0.945</td>
<td>15</td>
<td>0.951</td>
<td>18</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Greece</td>
<td>0.936</td>
<td>21</td>
<td>0.942</td>
<td>25</td>
<td>28</td>
<td>15</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.869</td>
<td>43</td>
<td>0.871</td>
<td>45</td>
<td>44</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MP-Country</th>
<th>GDI</th>
<th>GDI Rank</th>
<th>HDI</th>
<th>HDI Rank</th>
<th>GEM</th>
<th>Part. % *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morocco</td>
<td>0.625</td>
<td>111</td>
<td>0.654</td>
<td>130</td>
<td>104</td>
<td>6</td>
</tr>
<tr>
<td>Algeria</td>
<td>0.742</td>
<td>88</td>
<td>0.754</td>
<td>104</td>
<td>105</td>
<td>6</td>
</tr>
<tr>
<td>Tunisia</td>
<td>0.752</td>
<td>84</td>
<td>0.769</td>
<td>98</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Egypt</td>
<td>-</td>
<td>-</td>
<td>0.703</td>
<td>123</td>
<td>107</td>
<td>4</td>
</tr>
<tr>
<td>Israel</td>
<td>0.921</td>
<td>26</td>
<td>0.935</td>
<td>27</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Jordan</td>
<td>0.743</td>
<td>87</td>
<td>0.77</td>
<td>96</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>PNA</td>
<td>-</td>
<td>-</td>
<td>0.737</td>
<td>110</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lebanon</td>
<td>0.784</td>
<td>71</td>
<td>0.803</td>
<td>83</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Syria</td>
<td>0.715</td>
<td>98</td>
<td>0.742</td>
<td>107</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Turkey</td>
<td>0.788</td>
<td>70</td>
<td>0.806</td>
<td>79</td>
<td>101</td>
<td>9</td>
</tr>
<tr>
<td>Libya</td>
<td>0.83</td>
<td>54</td>
<td>0.847</td>
<td>55</td>
<td>-</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Human Development Report

In general, there is an upward trend in the development of the GDI, e.g. in Algeria it went up from 0.688 in 2002 to 0.742 in 2007, the same is true for Lebanon, Morocco, Syria and Tunisia, only the Jordanian GDI is stable at 0.734. Libya has by far the highest HDI and GDI ranks at 55 and 54 respectively. Still, the table displays a huge gap between the northern and southern shores of the Mediterranean with the exception of Israel. The marked differences between the HDI and the GDI, for example in the Moroccan and Egyptian case, which indicate the degree of gender-based discriminations can often be attributed to the considerably lower literacy rates of women. In addition, health indicators for women are rather weak with a high average maternal mortality rate.
Water shortages and the impact on agriculture (10)

Much of the Mediterranean basin is arid and as the climate changes it becomes still drier; water resources are scarce and reducing.

Fresh water has always been scarce and local around much of the Mediterranean, but encroaching desertification, the increase of population, industrialisation and the spread of tourism have made shortages acute. Not only is water scarce, its use is exclusive and sources may lie far from potential users. These three attributes mean that water has often been a source of conflict between individuals and countries. Families and clans have struggled for control of springs and countries have sought to control watersheds and aquifers. Water may not be the proximate cause of the Arab-Israeli conflict, but the Golan Heights provide much of the water in the Jordan River valley and large aquifers under the West Bank are important sources of water used by Israel.

Rates of water use in the SEMCs often exceed the capabilities of the natural water resources. The ‘water exploitation index’ measures this stress. If the index is below 25%, water exploitation is negligible; between 25% and 50%, it is acceptable; between 50% and 75%, it is high, and above 75% water resources are overexploited. The Figure 7 shows the water exploitation index in the SEMCs and some other countries in 2003.

Figure 7 – Water exploitation index (2003)

(10) See also the UNEP MAP report ‘State of the Environment and Development in the Mediterranean -2009’ coordinated by the Plan Bleu Regional Activity Centre in Marseille.
Figure 8 shows how access to water has fallen since 1950. In the case of Libya, it fell by 80% from 1950 to 1995 and is expected to fall by another 60% from 1995 to 2025. The smaller impacts for the EU member states in the Table are the consequence of low (sometimes negative) population growth over the period.

Figure 8 – Variation in per capita water resources (1950–2025)

Scarcity creates value and value generally leads to assignment or claim of ownership. The interpretation of the path from scarcity to ownership can vary between cultures. In the case of water, the distinction is stark. In Roman law, groundwater belongs to the landowner. In Muslim tradition, it is a common heritage or ‘God’s Gift’ that permits access to a range of interests and the right to drink to all. This difference of perception carries through into modern management practice, for example in debate over whether piped water should be priced or made freely available.

Scarcity implies also limits and choices within those limits. Availability of water is a strong determinant of the options for economic growth. Many of the traditional and often easiest routes to growth in the region are very demanding of water. Tourism is such a case; the Mediterranean shores (including those of the north) are visited by 220 million tourists each year. Each tourist uses about 800 litres / day, a great deal more than the average consumption in the Maghreb of 40 litres per day or the 220 litres per day average in the countries of Southern Europe.

Agriculture is at the heart of Mediterranean culture, but it depends upon water; traditional practices are hard to maintain as demand for water grows and resources shrink.
The most significant choices have to be made in agriculture. Agriculture is at the heart of culture and society in the SEMCs. The rural population is high – around 50% of the population – and stable. The share of the working farm population in the total labour force varies widely from around 2% in Israel and 3% in Lebanon to 43% in Turkey. The average contribution of agriculture to GDP in the SEMCs is 11.6%, with the same wide variation from Israel at 1.9% and Syria at 22.6%.

Agricultural practice is both diverse and specialised, covering cereals, vegetables, fruits and livestock. Linked to the diverse agricultural practice is the rich biodiversity of the region that harbours 10% of all known species in 1.6% of the world’s surface.

Ostensibly, agricultural policies in the SEMCs have been aimed at self-sufficiency, but given preference in practice to export crops. This has not stopped the balance of trade in agriculture declining over the past 50 years from a positive balance of around $200 million in 1962 to a negative balance of nearly $10 billion in 2004. The balance with the EU fluctuates, but in recent years has been negative in total and negative for most countries except Israel and Morocco. Table 4 summarises the trade balance in agricultural goods, processed agricultural products and fish and fishery products.

Table 4 – Trade balance in agriculture and fisheries for SEMCs, excluding Turkey (2004-2009)

<table>
<thead>
<tr>
<th>Exports of SEMCs excluding Turkey (1000 EUR)</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI</td>
<td>2452506</td>
<td>2674909</td>
<td>2759841</td>
<td>3270627</td>
<td>2899993</td>
<td>2842880</td>
</tr>
<tr>
<td>PAPs*</td>
<td>246791</td>
<td>290014</td>
<td>292476</td>
<td>282350</td>
<td>280517</td>
<td>238489</td>
</tr>
<tr>
<td>Fish</td>
<td>694110</td>
<td>815040</td>
<td>889813</td>
<td>901315</td>
<td>972185</td>
<td>870401</td>
</tr>
<tr>
<td>Total</td>
<td>3393408</td>
<td>3779963</td>
<td>3942130</td>
<td>4454292</td>
<td>4152695</td>
<td>3951770</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Imports of SEMCs excluding Turkey (1000 EUR)</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI</td>
<td>3519699</td>
<td>3575196</td>
<td>3728198</td>
<td>3997249</td>
<td>5672241</td>
<td>4745883</td>
</tr>
<tr>
<td>PAPs*</td>
<td>793762</td>
<td>838059</td>
<td>843801</td>
<td>950560</td>
<td>1193298</td>
<td>1228509</td>
</tr>
<tr>
<td>Fish</td>
<td>166867</td>
<td>169609</td>
<td>163078</td>
<td>173703</td>
<td>200325</td>
<td>246110</td>
</tr>
<tr>
<td>Total</td>
<td>4480328</td>
<td>4582664</td>
<td>4735077</td>
<td>5121512</td>
<td>7065864</td>
<td>6220503</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net imports by SEMCs excluding Turkey (1000 EUR)</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI</td>
<td>1067193</td>
<td>900287</td>
<td>968357</td>
<td>726622</td>
<td>2772248</td>
<td>1903003</td>
</tr>
<tr>
<td>PAPs*</td>
<td>546970</td>
<td>548045</td>
<td>551325</td>
<td>668210</td>
<td>912781</td>
<td>990021</td>
</tr>
<tr>
<td>Fish</td>
<td>-527243</td>
<td>-645632</td>
<td>-726734</td>
<td>-727612</td>
<td>-771860</td>
<td>-624290</td>
</tr>
<tr>
<td>Total</td>
<td>1086920</td>
<td>802701</td>
<td>792947</td>
<td>667220</td>
<td>2913169</td>
<td>2268733</td>
</tr>
</tbody>
</table>

* Processed Agricultural Products

Source: European Commission, DG Agriculture
Following the EU-Egypt Association Agreement concluded in 2004, half of the EU industrial exports to Egypt were liberalised and preferential treatment offered to agriculture; this has significantly increased agricultural trade, but in favour of the EU as shown in Table 5.

Table 5 – Trade balance in agriculture and fisheries for Egypt (2004-2009)

<table>
<thead>
<tr>
<th></th>
<th>Exports of Egypt (1000 EUR)</th>
<th>Imports of Egypt (1000 EUR)</th>
<th>Net imports by Egypt (1000 EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGRI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>417235</td>
<td>453635</td>
<td>483174</td>
</tr>
<tr>
<td>2005</td>
<td>11201</td>
<td>18903</td>
<td>32027</td>
</tr>
<tr>
<td>2006</td>
<td>3707</td>
<td>8754</td>
<td>9372</td>
</tr>
<tr>
<td>2007</td>
<td>4020896</td>
<td>4967311</td>
<td>7565280</td>
</tr>
</tbody>
</table>

* Source: European Commission, DG Agriculture

The SEMCs have based efforts to acquire food autonomy on large water engineering schemes designed to boost agriculture in an arid environment. In Egypt, Syria and Morocco agriculture is often inconceivable without irrigation. Turkey has lagged this trend, but is now catching up with its programme to develop south-east Anatolia through 21 dams to irrigate 1.7 million hectares from the Euphrates and the Tigris. In the SEMCs, with the exception of Turkey, by far the larger share of water in agriculture comes from surface or ground water; this contrasts strongly with the northern Mediterranean countries, where rainfall provides 83% of the supply.

At present in the SEMCs, 70-80% of all available water is used in agriculture, much of the produce from which is exported. Many typical Mediterranean products, like oranges and tomatoes, require large volumes of water for their
production. Paradoxically the SEMCs are exporting water in the form of water intensive products, even though they are perhaps the most arid inhabited region of the world. The flows are two-way. It is estimated to take 1000 tonnes of water to grow a tonne of wheat; imports of ‘virtual water’ as grain by Egypt during the mid-1990s have been calculated as equal to the flow of the river Nile.

One route for the region is to allocate water more efficiently, away from agriculture into higher value added activities and at the expense of self-sufficiency in food. In Israel, fifty years ago, agriculture accounted for 20% of GDP; now after the transition to high value-added service and manufacturing sectors, agriculture contributes less than 2%. Diversion of water from agriculture has a high political cost in the region and the logic is hard to accept in a region where agriculture is so deeply impressed in life and culture.

There is great scope for a better management of water at all levels from the village to the international community; recycling of water could be greatly extended

Scarcity inevitably engenders some form of management, whether it be imposed by force, operated through a market or administered. Water management was one of the great triumphs of the early Arab world along with important engineering successes in abstraction of water, transport and use. It was a practice that focused on efficiency, sharing and conservation and that still informs in many ways practice in rural communities today. These communities are often the poorest, located in the impoverished hinterland and cruelly exposed to desertification and dwindling resources. Modern management must cope equally with the character and expectations of these communities as with the relatively well-provisioned littoral that aligns behaviour on industrial life styles.

Modern practice aims at coordinating water resources management across sectors and interest groups, and at different scales, from local to international. It emphasizes participation in national policy and law making processes, establishing good governance and creating effective institutional and regulatory arrangements as routes to more equitable and sustainable decisions. A range of tools, such as social and environmental assessments, economic instruments, and information and monitoring systems, support this process. Gender issues are critical; women fetch and use water in rural communities. Empirical evidence demonstrates that when gender aspects are integrated into the analytical research framework the results are better accepted, because women often carry the main burden of providing water to the family and the household.

Modern techniques for efficient use of water throughout the economy and for recycling need to be adopted. Israel reuses 70% of its water, but very little is reused elsewhere, except, perhaps in Jordan. It is imperative to alter the
current refusal to consider using waste water in agriculture. A change of culture is needed where the recycled water, treated according to international standards, is accepted for specific uses, including agriculture, as a mean to address water resources scarcity. Major efforts must be made in parallel to reduce the contamination of water resources, either in urban and rural environments.

Various characteristics of water supply and use contribute to the conclusion that some part of management must be international. Rivers are natural political boundaries, but watersheds are the appropriate management unit. Rivers not only separate countries they then run through several more; along the way, water is abstracted and pollution is added. Under the ground, aquifers extend under political boundaries. International governance of water resources is essential to any rational and equitable use of resources and to any effective programme of managing water quality.

The Barcelona Process and the Union for the Mediterranean have both attributed high priority to water and environment policies. However, progress to visible results needs a consistent and shared political framework, the adoption of realistic technological approaches, and a much-strengthened campaign of public information and awareness, as well as a recovery of the best elements of the traditional Mediterranean water culture.

In this respect it is disappointing that the 4th Euro-Mediterranean Ministerial Conference on Water in April 2010 failed to approve a joint strategy for guaranteeing the water resources of the whole Mediterranean basin. This was expected to be the first major strategy of the recently created UfM that was supposed to establish the political, methodological and financial framework for developing regional policies for guaranteeing the water resources of the Mediterranean basin. It also envisaged reducing the consumption of water between now and the year 2025, to levels 25 percent below those of 2005. The technical content had been agreed, but approval was withheld by the Conference. According to the press release from the Spanish Presidency, ‘the insurmountable obstacle was a nuance of terminology, since Israel’s representatives would not accept the document referring to ‘occupied territories’ and proposed the term ‘territories under occupation’, which was not acceptable to the Arab block’ (11). It appears the same issue may be hindering work in other areas and if this tendency is confirmed it will clearly constitute an important obstacle to progress in Euro-Mediterranean cooperation.

Energy and climate change

**A substantial and increasing dependence on hydrocarbon fuels will make economies vulnerable to price fluctuations and supply shortages**

The rapid increase in population and in urbanisation over the past 40 years has stimulated high growth in demand for energy. Development has followed the coastline and river valleys. This linear structure is amenable to service by roads and networks, so access to energy in the urbanised areas is good. Access is often less in the interior, but most countries have strong programmes of rural electrification that have ensured basic services almost everywhere.

**Figure 9 – Past and projected primary energy supply to the South West Mediterranean countries**

The energy balance in most of the SEMCs has historically been heavily skewed towards oil and natural gas and there is little sign of this changing soon. Figures 9 and 10 show the historic development of primary energy supply – in million tons of oil equivalent (Mtoe) – in the western and eastern regions of the Mediterranean and its likely evolution according to a ‘Reference case’ / ‘Business as Usual scenarios produced by the Observatoire Méditerranéen de l’Energie.’
Energy supply in the west of the region has been particularly dependent on oil and gas, because of the large hydrocarbon deposits in several of the countries. The share of oil is decreasing in favour of natural gas largely as a fuel in the power sector. Under business as usual assumptions, this dependence is envisaged to continue until 2030 and beyond. There are serious implications of this dependence in terms of cost to the economy and vulnerability to shocks in price and availability.

The picture is similar in the eastern part of the region, modified by a substantial contribution from coal, mainly domestic coal from Turkey and to some extent imported coal in Israel. The Mashreq, if separated from the eastern group, would show similar dependence to the western part of the region that would provoke the same fears of vulnerability, but reinforced by the much smaller extent of local primary resources and a correspondingly higher dependence on imports.

Figure 10 – Past and projected primary energy supply to the South East Mediterranean countries

The endowment in hydrocarbons varies very considerably across countries. About half the countries have almost no national resources and rely entirely on imports. A few have large resources; they are major exporters and will continue to be. The Table 6 shows that Algeria produces more than seven times as much oil as it consumes and Libya almost seven times. In other
countries, reserves are declining and local production can no longer meet increased national demand; Egypt, Syria and Tunisia are examples. Reserves of gas will apparently last longer than reserves of oil, but only Libya and Algeria have the volume of resources that gives confidence they can rely on domestic production of gas for a large part of future supply.

Table 6 – Key parameters for hydrocarbon reserves and production

<table>
<thead>
<tr>
<th></th>
<th>Oil</th>
<th></th>
<th></th>
<th>Gas</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Production</td>
<td>% of consumption</td>
<td>Reserves / Production</td>
<td>Production</td>
<td>% of consumption</td>
<td>Reserves / Production</td>
</tr>
<tr>
<td>Algeria</td>
<td>85.6</td>
<td>746%</td>
<td>17</td>
<td>86.5</td>
<td>326%</td>
<td>52</td>
</tr>
<tr>
<td>Egypt</td>
<td>34.6</td>
<td>90%</td>
<td>16</td>
<td>58.9</td>
<td>149%</td>
<td>37</td>
</tr>
<tr>
<td>Libya</td>
<td>86.2</td>
<td>674%</td>
<td>65</td>
<td>15.9</td>
<td>100%</td>
<td>97</td>
</tr>
<tr>
<td>Syria</td>
<td>19.8</td>
<td>156%</td>
<td>17</td>
<td>5.5</td>
<td>100%</td>
<td>52</td>
</tr>
<tr>
<td>Tunisia</td>
<td>4.2</td>
<td>97%</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Human Development Report

Energy trade across the Mediterranean will be supplemented by new networks improving security throughout the region

The concept of the Mediterranean as a crossroads has merit in energy trade, especially in its relationship to Europe. Mediterranean ports take a large proportion of oil shipments to Western and Southern EU countries. Although the Suez Canal is limited in the size of crude vessels it can accept, it is still an important route for oil shipments from the Persian Gulf to European ports. Larger vessels pass the straits of Gibraltar. Trade through the Bosporus supplies Western and Southern Europe with oil from the Caspian Sea Region; it is estimated that in 2006 about 120 million tonnes of crude oil passed along this waterway. Traffic through the straits may increase along with crude production from the Caspian region, depending upon the pipeline developments that materialise.

Whether by pipeline or tanker, Turkey will become a regional energy hub linking oil-producing areas in Russia, the Caspian Sea region and the Middle East to Europe. Turkey is also the natural transit county for pipelines linking the gas market of Europe to the large resources of the Caspian and eventually maybe to Northern Iraq and Iran. In the longer term, integrated gas markets in the Mashreq could be extended backwards towards the Gulf States and Qatar and provide another major supply route into Europe, again through Turkey.

Electrical networks offer great potential for improving the security of supply all around the Mediterranean littoral and into northern Europe. An interconnected high voltage network across the Maghreb and Mashreq, with undersea connections to Europe can help develop power from wind along the coasts,
solar from the desert regions and even eventually from large hydro developments on the great rivers of Equatorial Africa. Although costly, such a scheme could bring numerous benefits to all the countries involved. The Figure 11 indicates schematically the concept. Turkey is once more an important hub, but now access is shared with several points along the North African coast.

**There is great scope for more efficient use of energy, but stronger public policies will be necessary to achieve it**

Energy efficiency has not been a priority in most SEMCs. This is true not only of the efficiency of energy use, but also the efficiency of asset utilisation and management. Efficiency has been secondary to availability and affordability. Incentives to efficiency are further reduced by the pervasive subsidies to energy all across the region. From an economic perspective, subsidies reduce the efficiency of use, reduce the revenues and profitability of generally state-owned networks and lead to poor technical and managerial performance. They also reduce the effectiveness of many policy instruments for energy efficiency; there is little point in strengthening user access to information though labels or audits if the rational decision is to continue wasting low cost energy in inefficient equipment.

**Figure 11 – Schema of an EU-MENA grid**
From a political and social perspective, subsidies to energy help support the poor in countries where the social security networks are weak. It is also sometimes claimed that subsidies stimulate development. These assertions are at least debatable. Most research suggests that energy subsidies are regressive and flow to the rich more than to the poor and the economy can be stimulated along more sustainable paths with other instruments.

The main difficulty in removing subsidies is to convince the poor that the money released will be used for pro-poor policies and not somehow find its way into the pockets of the rich. There is much evidence that the poor put great value on public services in health, education, communications and welfare. They may be willing to give up some part of energy subsidies if they think there will be a perceptible improvement in these services, but that conviction is hard to secure.

Policies for energy efficiency in SEMCs are generally weak when not totally absent. The main exception to this generalisation is Tunisia that has a good institutional and legal structure for energy efficiency that supports numerous well-thought out policy instruments. But there are signs in many other countries of the region that energy efficiency is beginning to receive more serious attention. The infrastructure of the SEMCs is developing fast and the construction sector is expected to double by 2030; the decisions made now about building design, urban layouts, transport systems and industrial equipment will determine in a large degree the energy use of the next few decades. Energy efficiency can contribute to the competitiveness of industry, the alleviation of pollution and the improvement of security of supply. Efficiency should become the number one priority in energy policy. Much technical assistance has been made available and is still available; funding from international financial institutions is accessible. The need is for political will.

**Renewable energy and especially solar energy has great potential to improve security of supply throughout the region and to promote new industrial development**

The region has impressive resources of renewable energy. The potential for solar power in principle is huge. It is said that in the Sahara it ‘rains’ the equivalent of a barrel of oil per square metre each year in the form of solar energy \(^{(12)}\). The German Aerospace Centre (DLR) has estimated that, by using less than 0.3% of the entire desert area of the MENA region, enough electricity and desalinated seawater can be produced to meet their own growing demands along with 100 GW of export to Europe by 2050. The capital

structures required are large and there are other technical issues concerning cooling water and storage, but the opportunity is there.

Energy was established as a central issue in Euro-Mediterranean relations when at the 5th EMP Ministerial Conference on Energy a Priority Action Plan for 2008-2013 was adopted that contains measures covering market reform, sustainable development and specific projects of concrete interest. These initiatives were absorbed into the UfM and in particular, the Mediterranean Solar Plan (MSP) was endorsed at the Paris Summit on 13-14 July 2008. The MSP aims to develop 20 GW of electric power and to promote an integrated renewable market in the region. Finance is in principle available from the Neighbourhood Investment Facility and the Facility for Euro-Mediterranean Investment and Partnership. Private capital has also shown interest. The Desertec consortium comprises very large and competent technical and financial interest and proposes to develop solar energy through bi-lateral, public private partnerships.

The SEMCs have generally responded positively. For example, in November 2009 Morocco announced its Integrated Solar Energy Generation Project to install 2000 MW of concentrated solar power by 2019 on five sites covering 10,000 hectares. The generation from these plants would be 4500 GWh per year, corresponding to 18% of the current annual generation. Tunisia has also launched its National Solar Plan, comprised of a portfolio of energy efficiency and renewable energy projects; Egypt is preparing its plan and several other countries have their national plans, objectives and projects.

These large capital structures are costly and so the unit cost of power is critically dependent on the financial terms. Under normal commercial terms for finance, solar power even in the favourable circumstances of the SEMCs is far from competitive. If solar plants in the SEMCs were offered the same advantages through feed-in tariffs as in the EU they would pay very well indeed, but there is no reason why SEMCs should offer these rates today.

Development of these resources could bring great benefits to both the EU and the SEMCs. Subsidies in some form need to be found, initially they may be large, but economies of scale will bring costs down and gradually reduce the need. Subsidies may be justified economically by the external benefits, especially for climate change; SEMCs might well argue that the financial support should come from the North which has used by far the larger share of the carrying capacity of the atmosphere. A fair mechanism has also to be established to share industrial benefits and strengthen the development capacity of the SEMCs.
The Mediterranean basin will be among the worst affected regions in the world as a consequence of climate change, but SEMCs contribute little to the cause of the problem.

Climate change in the Mediterranean region is not new. Temperatures 20,000 years ago were probably some 8°C below those experienced now, but 6,000 years ago were 1-3°C higher. The landscape, coastline, flora and fauna have changed as a consequence. What is happening now is different only because of the rate of change.

Changes are hard to track against natural fluctuations, especially give relatively poor information from parts of the region. There is some agreement that even if the global average temperature increase were restricted to 2°C, the average temperature in the Mediterranean will rise by more than 2°C and, because of the particular ecological and socioeconomic characteristics of the areas, the impact will be especially serious.

According to the IPCC, there is high confidence that semi-arid areas such as the Mediterranean basin will suffer from a decrease in water resources due to climate change. There will be less rain across the region generally; the most vulnerable areas will be in North Africa, especially on the edges of the desert and in the major deltas, and the littoral on both Northern and Southern shores, including many socially vulnerable areas and those with rapid demographic growth. The most severe and immediate damage from these changes will be expressed in access to water, which is already precarious. Evaporation will increase and less rain will fall; the soil will store less water, because the higher temperature will affect the porosity; desertification which is already a serious problem will accelerate. Land and marine life will move northwards and many species will be lost. New species will arrive. In forests the risk of fire hazard and parasitic attack will increase. Animals and humans will find it more difficult to cope with repeated thermal stress and the possible spread of infectious and parasitic diseases. Traditional patterns of life, linked closely to the natural environment, will be threatened. This in turn will happen to the detriment of women who often represent the most vulnerable members of rural communities. Because women are mostly responsible for water provision, food security of the family, caring for the children and the elderly, succeeding in these daily tasks will become more burdensome and expensive. This in turn leads to an increase of unpaid work and might well impact negatively on the schooling rates of boys and girls. As more men might migrate internally in search of jobs, more women, elderly and children are left without regular material and monetary support.

There are risks for commercial activity. Agricultural and fishing yields are expected to drop. Tourism may suffer; the Plan Bleu reports estimates that 1°C of warming by 2050 could reduce tourists on the southern shores by 10%. Greater exposure of infrastructure to wave action and coastal storms will gravely affect ports, lagoons and deltas. Energy production from conventional sources will also suffer; less water means less output from hydro plants and reduced yield from water-cooled thermal plants. Some renewable energy technologies will also be affected; concentrated solar power also needs cooling and whether by water or air it will be more difficult. The need to resist to more extreme events will require costly redesign of infrastructure.

Although the region will be among the worst affected parts of the world, it is only a very modest contributor to the cause of the problem. The BAU scenario of the Observatoire Méditerranéen de l’Energie suggests that CO₂ emissions in the SEMCs will increase from around 900 MtCO₂ eq. in 2007 to some 1500 MtCO₂ eq. in 2030. This represents a growth rate of around 2.3% per year. Total and per capita emissions of CO₂ in 2006 are listed in Table 7, along with some industrialised countries for comparison.

Table 7 – CO₂ emissions in SEMCs and selected countries [15]

<table>
<thead>
<tr>
<th></th>
<th>Total (Mt)</th>
<th>Per capita (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>133</td>
<td>3.98</td>
</tr>
<tr>
<td>Egypt</td>
<td>167</td>
<td>2.25</td>
</tr>
<tr>
<td>Israel</td>
<td>70</td>
<td>10.34</td>
</tr>
<tr>
<td>Jordan</td>
<td>21</td>
<td>3.62</td>
</tr>
<tr>
<td>Lebanon</td>
<td>15</td>
<td>3.78</td>
</tr>
<tr>
<td>Libya</td>
<td>56</td>
<td>9.19</td>
</tr>
<tr>
<td>Morocco</td>
<td>45</td>
<td>1.47</td>
</tr>
<tr>
<td>Syria</td>
<td>68</td>
<td>3.53</td>
</tr>
<tr>
<td>Tunisia</td>
<td>23</td>
<td>2.26</td>
</tr>
<tr>
<td>Turkey</td>
<td>273</td>
<td>3.70</td>
</tr>
<tr>
<td>TOTAL</td>
<td>871</td>
<td>3.30</td>
</tr>
<tr>
<td>China</td>
<td>6,103</td>
<td>4.62</td>
</tr>
<tr>
<td>France</td>
<td>409</td>
<td>6.7</td>
</tr>
<tr>
<td>Germany</td>
<td>880</td>
<td>10.70</td>
</tr>
<tr>
<td>UK</td>
<td>558</td>
<td>9.20</td>
</tr>
<tr>
<td>USA</td>
<td>5,975</td>
<td>19.7</td>
</tr>
</tbody>
</table>

Source: Human Development Report

In 2006, the total global GHG emissions according to the UN methodology was a little less than 30,000 Mt, so the contribution of the SEMCs was around 3%.

**Education and science**

Quality and availability of education have much improved over the past thirty years and could play a key role in the new governance of SMecs

Most of the SEMCs, 50 years ago, had poor educational systems – ill adapted to the demands of the post-war period and national independence. Since that time, a large proportion of national wealth has been spent on education, mainly formal education, and much has been achieved. Compulsory formal schooling for children is instituted across the region and enrolment rates for primary school are close to 100%. Secondary and tertiary educational facilities have been established and enrolment rates have been rising steadily. Figure 12 shows gross enrolment rates in MENA countries and average years of schooling compared to other regions in similar circumstances (16). The rapid rate of improvement in the statistical indicators reflects the effort that has been expended; there is still a gap between MENA and other regions in the years of schooling above 15, but since 1990, it has closed significantly.

**Figure 12 – Gross enrolment rates and average years of schooling**

Most countries have been quite successful in addressing the gender gap in education. Starting from an unfavourable position compared to other

(16) Much of the statistical evidence in this section is taken from the World Bank publication MENA Flagship Report on Education. The Road not Travelled: Educational Reform in the Middle East and North Africa, Washington 2007. The study covers a wider group of countries than the SEMCs, including inter alia the Gulf States and Iran.
regions the MENA has registered strong improvements. Educational attainment of women in the Arab World started as a success story. On average, in 1980 55% of all Arab men and 25% of women were literate. In 2005, this percentage rose to 82% of the males and 62% of the females. Some indicators of gender parity are shown in the Table 8; they are compiled from the 2010 edition of the UNESCO Global Monitoring Report of Education for All (17). The indicators have to be interpreted cautiously, because they can be distorted by many factors, e.g. improved gender parity can be a consequence of falling enrolment rates for boys or in the case of some indicators, especially adult literacy, respectable percentage entries for gender parity may be associated with low overall rates. Despite these reservations, it is clear that progress has been made. This evolution in education could play a key role in the governance of SEMCs and is part of the new aspirations of more and more interconnected young Mediterranean citizens.

### Table 8 – Indicators of gender parity

<table>
<thead>
<tr>
<th></th>
<th>In primary education</th>
<th>In secondary education</th>
<th>Adult literacy (15+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>0.85</td>
<td>0.91</td>
<td>0.94</td>
</tr>
<tr>
<td>Egypt</td>
<td>0.83</td>
<td>0.91</td>
<td>0.95</td>
</tr>
<tr>
<td>Jordan</td>
<td>0.99</td>
<td>1.00</td>
<td>1.02</td>
</tr>
<tr>
<td>Lebanon</td>
<td>0.97</td>
<td>0.95</td>
<td>0.97</td>
</tr>
<tr>
<td>Morocco</td>
<td>0.77</td>
<td>0.99</td>
<td>1.06</td>
</tr>
<tr>
<td>Palestine</td>
<td>NA</td>
<td>1.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Syria</td>
<td>0.90</td>
<td>0.92</td>
<td>0.96</td>
</tr>
<tr>
<td>Tunisia</td>
<td>0.90</td>
<td>0.95</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Source: UNESCO

This improvement in gender parity has been associated with a remarkable drop in fertility rates from 7.1 children per woman in 1962 to 3.4 in 2003. Though correlation does not prove causality, it is likely that education has contributed crucially to this change. Improvements in child mortality and alleviation of poverty also almost certainly owe much to the education of women.

**Public expenditures on education in the region have been less effective than elsewhere in the world**

Despite this progress, much remains to be done. Access to education is still well below that enjoyed in other parts of the world with comparable resources.

and ambitions. Of even more concern is the apparent lack of impact of education on the development process. Unemployment among graduates is high and a large proportion is employed in government service and state-owned industries whose contributions to the economy are sometimes hard to establish. In Syria, for example, all state-owned industries are obliged to take many graduates for which they have no need. This improves the employment statistics and solves certain social problems in an elementary sense, but it destroys important feedback mechanisms from the productive economy to the educational system about the types of graduates required and the skills they should possess.

The twin challenge is better to adapt the educational system to the demands of development and at the same time cope with the large expected increase in the numbers of students in secondary and tertiary education. The large bulge in the population pyramid of the 0-24 year-old cohorts will impose a huge demand on an educational system that already shows signs of strain. Over the next three decades, the demand for secondary education will increase by one-third; for tertiary education, it will double.

The improvement in formal indicators of education has been achieved with substantial resources, but comparatively modest impact on development. The Figure 13 suggests that public expenditure on education in MENA countries has been less effective in its impact on economic welfare than in other regions.

Figure 13 – Public expenditure on education, per capita growth and unemployment in developing regions

![Graph showing public expenditure on education, per capita GDP growth, and unemployment rate.](image)

**ECA**: Europe and Central Asia; **SSA**: Sub-Saharan Africa; **LAC**: Latin America and the Caribbean; **EAP**: East Asia and Pacific; **SA**: South Asia.
Per capita economic growth in the region has been relatively low, unemployment has been relatively high and yet public expenditure on education as a proportion of wealth has been the highest in the group. What is it that is limiting the impact?

There is no shortage of hypotheses to explain the observation. It has been attributed to:

- inappropriate teaching methods that emphasise rote learning to the exclusion of problem-solving;
- a rigid educational system that does not address the needs of individuals and that is unsympathetic to flexible schedules of learning outside of the normal school system;
- a decoupling of education from the rest of the economy so that the needs of individuals and business to succeed in the knowledge economy are not met;
- the bureaucratic problems in establishing business and therefore to an incapacity of the economy to benefit from the human capital delivered by education.

Running through these hypotheses there is an implicit doubt whether authoritarian governments can be sufficiently detached to deliver an educational system that is sufficiently open, adaptable and accountable to meet the complex personal and economic needs of a pluralist society. Authoritarian governments may succeed in setting up the basic structure; they can finance schools, organise recruiting and training of teachers, establish syllabuses and make materials available, but there may be limits beyond which they find it hard to go. New and emerging information and communication technologies could help to change the scene. As the Arab Knowledge Reports says: ‘knowledge can only flourish in an atmosphere of freedom and the knowledge society can have no foundation as long as extremism remains in play’ (19).

**Poor governance of education contributes to low impact. Life-long learning, improved quality assessment, monitoring and evaluation, better organised labour markets will help**

The effectiveness of public expenditures in education is higher in countries that demonstrate good governance. Analysis shows that public expenditure improves educational outcomes – defined as net enrolment in secondary education – in all countries, but countries with high values of indicators of good governance can obtain very significant improvements in their education

outcomes, whereas for countries with poor governance scores these additional expenditures have scarcely detectable effect\(^{(19)}\).

There are signs that this diagnosis is shared in broad terms by governments in many countries in the Mediterranean space that have already undertaken wide-ranging reforms of curriculum, instruction and assessments with the intention of better preparing all children for the higher educational demands of life and work. To varying degrees, curriculum guidance and assessment systems have begun to focus on a range of 21st Century skills: the abilities to find and organize information to solve problems, frame and conduct research, analyse and synthesise data, apply learning to new situations, self-monitor and improve one’s own learning and performance, communicate well in multiple forms, work in teams, and learn independently.

New models for finance and governance of education are being tried that aim at greater school autonomy; resort is being made in some countries to novel funding mechanisms with the private sector, and to competitive allocation of funds and the development of public-private partnerships that involve business and civil society organisations. More discriminating indicators of success than simple enrolments are being developed and mechanisms for monitoring and evaluating the outcomes of vocational education and training are being introduced. Key areas are quality assurance, better management of educational institutions and the reform of qualifications systems.

A recent report to the European Council by the Reflection Group on the Future of the EU 2030, of May 2010\(^{(20)}\), notes that: ‘efforts to correct the mismatch between the supply and demand for expertise must be placed at the top of priorities for the educational system. This will require a strong emphasis on upgrading skills in order to prepare individuals for employment transitions as well as for the use of new technologies and skills. A necessary precondition, in turn, will be the realisation of a flexible, life-long learning culture, where individuals are able to return to education under conditions similar to young students at any point in their careers. Learning to learn must become a guiding principle throughout the education system’. These remarks can be applied equally to the SEMCs.

Flexible systems of learning can help adapt education to the lifetime needs of people. Many children in the SEMCs have not been at school long enough or learnt well enough to equip them for productive occupations; this is part of the reason for the high rates of unemployment among young people. If current rates of dropout are maintained it is estimated that by 2030 more


than 50% of the adult population will not have completed secondary education. Links between formal and non-formal educational processes are presently weak; transparent, authentic qualifications systems are needed to support the mobility of individuals and to validate the quality of teaching across the educational sector.

Unemployment among the young is only partially the result of insufficient learning; it is also a result of learning that does not match demand in the labour market. There is evidence for example that students in the region are more likely than are their peers elsewhere to graduate in social sciences and humanities rather than science and mathematics. These personal choices may not be coherent with the national need to develop the innovative capacity necessary to create a sustainable niche in the modern, global, high-tech society. In the past when government and state-owned industries employed graduates as a matter of social policy, this disparity was not detectable and therefore not correctable. The private sector will only hire people it can use and as the locus of development shifts in this direction so the educational system must follow. Labour markets need to be better understood and the intelligence coupled effectively to the educational process.

**Educational reform offers good prospects for win-win cooperation between the EU and the SEMCs**

The EU has much to offer in its experience of teaching methods, life-long learning arrangements, materials, labour-market intelligence, quality assurance, qualification systems, financing schemes, and educational governance. The SEMCs have much to offer from a rich culture and a great commitment to learning. There are dangers; the vogue for evidence-based policies can lead to convergence to internationally recognised practice and a consequent internationalisation, or possibly Europeanisation that implies also a denationalisation. Upgrading the educational sector in SEMCs to international standards must be achieved without betraying national identity and national ambitions.

The Parliamentary Assembly of the Union for the Mediterranean is working on the task of reinforcing Mediterranean educational systems and its views are set out in its Recommendation of March 2010 [21]. The suggestions of the Assembly are comprehensive, including inter alia: a unified framework; improvement of educational quality; improved qualification systems; enhanced student exchanges. The recommendations of the Assembly have no legal force, but they carry symbolic, moral and political value.

---

The European Union has established some precedents for the unification of formal educational systems within its borders. The Bologna Process initiated with the signing of the Bologna Declaration in 1999 aims to create the European Higher Education Area by making academic degree standards and quality assurance standards more comparable and compatible throughout Europe. The process is intended to enhance quality whilst honouring the cultural diversity of Europe. The process has been influential in implementation of the European Credit Transfer System (ECTS) to enhance the readability and recognition of degrees and in the development of the European Qualifications Framework.

The Bologna development incorporates in effect two processes: convergence or integration to facilitate academic cooperation and mobility; divergence among higher education systems to serve different needs of students and to maintain and stimulate the richness of the cultural and educational traditions in Europe. The ideas are evidently applicable on a wider scale and were extended in 2007 to the Mediterranean in the Cairo Declaration ‘Towards a Euro-Mediterranean Higher Education & Research Area’. This constitutes the framework, guiding principles and general/long-term objectives of the Euro-Mediterranean cooperation in Higher Education, Research and Technological Development.

The Cairo Declaration underlined the importance of Euro-Mediterranean cooperation in supporting the development and modernisation processes in higher education, especially through the Tempus programme, and the need to strengthen the participation of the Mediterranean Partner Countries’ universities in the Erasmus Mundus Actions. Erasmus Mundus and Tempus, the two main EU instruments for implementing external cooperation in higher education, which provide support for capacity building and mobility in the region have a key role in the creation of a Euro-Mediterranean Higher Education Area [22].

A new impulse for the Euro-Mediterranean partnership was provided by the launch of the UfM that identified the Euro-Mediterranean University (EMUNI) based in Slovenia as one of the six initial priorities. EMUNI comprises an international network of universities (141 members from 37 countries in 2010) with a mission to improve the quality of higher education through the implementation of postgraduate study and research programmes with a special focus on cultural diversity.

For non-formal education, the Anna Lindh Foundation (ALF) has developed valuable activities, albeit on a less ambitious scale. The Foundation is an

---

organisation of the Union for the Mediterranean, centred on dialogue among cultures, but with wide-ranging activities in many fields relevant to human and social dialogue, including: education and youth; culture and arts; peace and co-existence; values, religion and spirituality; cities and migration; media. In education, the ALF is developing new intercultural learning approaches, tools and programmes and creating physical and virtual opportunities for educators and learners to meet. Among its priorities is the production of pedagogical resources on managing religious diversity in schools and training Euro-Mediterranean teachers on how to use these tools; in parallel it conducts regional training seminars for teachers on how to manage cultural diversity in the classroom. It supports research and academic work on issues related to Mediterranean identity and intercultural dialogue. The work of the ALF is an indication of the opportunities to open the current European educational programmes to the Euro-Mediterranean countries on a scale comparable to the effort being made in higher education. Other EU educational programmes such as Tempus and Erasmus have also developed openings to the neighbouring countries.

The extent of dropout from the educational system in SEMCs (and indeed the EU) is alarming and an obstacle to progress to a socially inclusive, multicultural Euro-Mediterranean society. Table 9 shows figures for the MENA region since 1975.

**Figure 14 – Education attainment in MENA (Weighted average) age 25+**

Many more people now benefit from education at all levels, but along with this improvement, the proportion of adults who dropped out of primary school has risen to 15–25 percent of the overall adult population from an average of 9 percent in 1970. Similar trends are visible for the adult population who went on to enrol in secondary or tertiary education. Although most dropouts will have learnt something and will have improved their chances to an extent, there is a huge waste of investment bound up in these uncompleted studies. There are opportunities here for the EU to contribute to managing this loss; most EU countries face and resolve to different degrees the problems of social inclusion in rapidly changing communities. Schools support strong community learning environments and provide children with specialised programmes designed to acclimate newcomers into the classroom settings by giving them language training and cultural orientations. Much of this practice could be adapted to the significant and unfavourable trend within the SEMCs.

Science and innovation are critical for the skills to transform production methods and to equip migrant workers for skilled jobs abroad

Science and innovation are key elements for the promotion of social cohesion and the fight against poverty. If the region is to manage the problems of unemployment, poverty and low growth then it must ensure that a large proportion of the needed 55 million jobs are high value-added jobs in industry and commerce. Much of industry in the region has been state owned and large parts still are, but there has been a sustained drive to structural reform of major industrial sectors including the privatisation of existing companies and the encouragement of new private investment. Coupled with the modernisation of legislation this has stimulated foreign direct investment that in turn has become more technologically intensive, in recognition of the quality of the workforce. Although much more needs to be done, MEDA companies are becoming partners in European supply chains.

Despite this progress, expenditure on research in the SEMCs is low and SEMCs have a poor ranking in research development and technological innovation. The overall spending in R&D is about 0.15 per cent of the gross domestic product (GDP), compared with an average of 1.4 per cent in the world, and 2 per cent in Europe. This spending is provided by the public sector to a very large extent (97 per cent) [23]. Until recently there was almost no investment in research by private companies. Table 10 shows the numbers of researchers per million of population, the expenditure on R&D as a proportion of GDP and

the payments received for intellectual property [24]. Israel is the exception among the SEMCs. Its expenditure on R&D represents more than 4 per cent of its GDP – which is the highest expenditure on R&D in the OECD – as the number of researchers (14,000 per million, four times the OECD average). Israel R&D spending is mostly coming from the private sector and Israel alone represents more than half of the R&D in the SEMCs. Israel and Turkey are associated to the EU research Framework Programmes.

Table 9 – Key research indicators of SEMCs

<table>
<thead>
<tr>
<th></th>
<th>Researchers / million (1990-2005)</th>
<th>R&amp;D expenditures (% GDP)</th>
<th>Royalty fees and licence payments per person (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>493</td>
<td>0.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Jordan</td>
<td>1,927</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Morocco</td>
<td>NA</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Syria</td>
<td>29</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Tunisia</td>
<td>1,013</td>
<td>0.6</td>
<td>1.4</td>
</tr>
<tr>
<td>OECD</td>
<td>3,096</td>
<td>2.4</td>
<td>75.8</td>
</tr>
</tbody>
</table>

Source: UNESCO and European Commission

The small communities of researchers in many countries suggests that there will be few disciplines in which that country attains the critical mass necessary for innovation and given the preponderance of social science in the educational system it is unlikely that there will be many scientific and engineering research groups that match international standards.

The same tendency is exhibited in publications and patents. In 2000, the number of original publications per million people was around 0.05 in the Arab World, compared with an average of 0.15 worldwide and 0.6 in the industrialized countries. In Africa in 2006, Egypt ranked first in scientific publications, followed by Morocco and Tunisia. The number of patents registered in the USA by Arab countries from 1980 to 2000 was 77 in Egypt, 15 for Jordan, 10 for Syria, compared to 7,652 for Israel [25]. The declining position of many Arab countries compared to the emerging markets of Brazil and China is clearly demonstrated by the comparison of indicators of the knowledge economy shown in the Table 10. These indicators have been compiled for selected SEMCs and some comparator countries from the World Bank data base: Knowledge for Development [26]. The pattern is mixed, but generally the position of many SEMCs has declined compared to competitors. In 1995 most of the

[26] The methodology and database are available on line at http://web.worldbank.org
tion of many SEMCs has declined compared to competitors. In 1995 most of the SEMCs were generally ahead of Brazil and China; now most of them are behind. It is interesting to note that generally, but not universally, the Arab countries do least well in terms of the enabling environment for the knowledge economy as measured in the index of ‘Economic Incentive and Institutional Regime’.

Table 10 – Indicators of the knowledge economy

<table>
<thead>
<tr>
<th>KEI</th>
<th>EIII</th>
<th>Innovation</th>
<th>Education</th>
<th>ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>3.22</td>
<td>3.40</td>
<td>2.18</td>
<td>1.87</td>
</tr>
<tr>
<td>Egypt</td>
<td>4.08</td>
<td>4.56</td>
<td>3.59</td>
<td>3.97</td>
</tr>
<tr>
<td>Israel</td>
<td>8.01</td>
<td>8.51</td>
<td>8.24</td>
<td>8.90</td>
</tr>
<tr>
<td>Jordan</td>
<td>5.54</td>
<td>5.57</td>
<td>5.99</td>
<td>5.67</td>
</tr>
<tr>
<td>Lebanon</td>
<td>4.81</td>
<td>5.46</td>
<td>4.42</td>
<td>5.36</td>
</tr>
<tr>
<td>Morocco</td>
<td>3.54</td>
<td>4.14</td>
<td>4.12</td>
<td>4.45</td>
</tr>
<tr>
<td>Syria</td>
<td>3.09</td>
<td>3.58</td>
<td>1.65</td>
<td>2.15</td>
</tr>
<tr>
<td>Tunisia</td>
<td>4.42</td>
<td>4.52</td>
<td>4.04</td>
<td>4.63</td>
</tr>
<tr>
<td>Western Europe</td>
<td>8.76</td>
<td>8.95</td>
<td>8.71</td>
<td>8.69</td>
</tr>
<tr>
<td>Brazil</td>
<td>5.66</td>
<td>5.23</td>
<td>4.31</td>
<td>4.81</td>
</tr>
<tr>
<td>China</td>
<td>4.47</td>
<td>3.93</td>
<td>3.90</td>
<td>3.24</td>
</tr>
</tbody>
</table>

Source: World Bank

KEI: Knowledge Economy Index; EIII: Economic Incentive and Institutional Regime; ICT: Information and Communication Technologies

The research and innovation system should be driven by a parallel search for solutions to social and political problems and the needs of industry. At present, the need for research is not even fully established in the psychology of industry. The mechanisms for industry to understand and articulate its needs are weak and there are few forums where industry and academia can meet. Research will need government funding; some countries are beginning to formulate innovation and research policies and technology parks are now being established, but the research sector still lacks critical mass and lacks real opportunities to build research collaboration with EU institutions.

Formal means of cooperation between the EU and the Mediterranean Partner Countries were put in place in the follow-up of the Barcelona Process. The Monitoring Committee for Euro-Mediterranean Cooperation in RTD (MoCo) brings together Senior Official representatives from the Mediterranean Partner Countries (MPC) and the EU Member States and Associated Countries, responsible for RTD issues with the intention to monitor and stimulate the Euro-Mediterranean cooperation in RTD. Nevertheless, a study for the
EU published in 2006, alleged that very little had been done until then to support Euro-Mediterranean cooperation in RTD and Innovation. The study concluded that if SEMCs fully understood that science, technology and engineering are essential to growth and prosperity and if states were to make knowledge and innovation a priority then the region could become a leader in research in water, energy, the environment and the biology and bio-technology of arid-zone plant-life \(^{(27)}\). Access to such expertise would be an important resource for EU companies and would justify a serious effort in Euro-Mediterranean cooperation for mutual benefit.

Since then there have been some positive steps towards a greater involvement of European institutions across the spectrum of research and innovation. Between 2002 and 2010, i.e. in FP6 and FP7 up to now, Israel and Turkey – which are fully associated to the Framework Programme – participated in more than 2000 projects with a EU financial contribution amounting to almost EUR 600 million.

In FP6 and FP7, if one takes the criterion of a participation of at least three SEMCs / Mediterranean Partner Countries in a project, there are more than 200 EU research collaborative initiatives between the Northern and Southern borders of the Mediterranean. This represents more than EUR 350 million (a list of these projects per thematic area demonstrating this cooperation is provided in Annex 1.

FEMIP, through its financing operations and technical assistance measures for the private sector, has been proactive in transmitting the message that innovation is a priority for development in the SEMCs. It has provided finance for several interesting ventures including: assistance with the development of five Tunisian science and technology parks for ICT, electronics, textiles, food processing and biotechnology, including their strategic positioning and synergies; support to a Morocco Incubation and Spin-off Network; support to the Centre for Mediterranean Integration (CMI) in Marseille, and in particular to its ‘Knowledge Economy, Innovation and Technology’ cluster programme together with the World Bank and the AFD; production of a guidebook for policymakers and economic players to facilitate the planning and management technology parks. Over the period October 2002 to December 2009, FEMIP disbursed EUR 660 million in support of the knowledge economy, of which EUR 100 million was for ICT, EUR 270 million was for education and EUR 290 million was for research, development and innovation.

Finally, regional and bilateral projects such as MED Ibtikar, RDI in Egypt and Euro-Mediterranean Charter for Enterprise have been undertaken in support of innovation.

Religion and culture

The simple duality between Islam and the West espoused by the media and demagogic politicians obscures debate

The word Islam has several expressions: it is the religion articulated by the Qur’an; it is a group of ritual practices shared by one billion people; it is a cultural identity. Within these various expressions, there are often more elements of diversity than there elements in common. The homogeneity of the Muslim world might only exist when examined from the outside.

These considerations suggest a need to escape the simple duality of Islam and the West that is commonplace in the media and in peoples’ minds and to seek a more objective basis on which to examine the relationship. The debate is charged; Edward Said applied the term Orientalism to describe what he saw as a pervasive Western tradition of misinterpretation arising out of imperialist thinking of the 18th and 19th centuries. Assertions in contemporary commentary of an immutable relationship between the teachings of the Qur’an, the political life of Muslim society and the actions of individual Muslims can be assimilated to this term.

A fixation on the literary expressions of religious concepts without concern for their practice underlies much Western interpretation of the theology of Islam. The same tendency affects Western readings of the duality of dar al-harb (territory of war or chaos) where divine will is not observed, and therefore where continuing strife is the norm and dar al-islam (territory of peace) where submission to God is observed, and where peace and tranquility reign. Even attempts to combat irrational fear or prejudice towards Islam and Muslims can fall into the same intellectual trap of selective quotation to show that there exists a ‘good’ and a ‘bad’ Islam.

There are two complementary approaches to escape this subjective and futile debate. One is to undertake critical theological analysis of the original religious texts and of the commentaries of the founders of Islam using the tools of modern linguistic, historical and sociological sciences. The other is to recognise and understand the political dimension of Islamic movements, including terrorist movements. Neither of these projects to comprehend the origins and irreducible complexities of theological and political discourse based in Islam seems yet to have found a sponsor.

Authoritarian states in Arab countries have little desire to seek for Islamic models of pluralist politics

Authoritarian states in the Arab countries have contributed to sustaining extreme tendencies that refuse any ethic of responsibility and consequently have no foundation in reason. Associated with this is a predisposition
to overlook the uncomfortable paradox that Islamic radicalism is in many cases a product of these authoritarian states that are often supported by countries in the West that claim to champion democracy. The Islamisation of society and the Islamisation of the frame of reference for the socialisation of young people were initially imposed by the state. Governments, from an early stage, used the opportunities offered by religion to establish and to legitimise an authoritarian regime in the absence of any other form of legitimacy than military force. This becomes evident when looking at gender issues and women’s rights which were often subordinated to the ‘greater’ nationalist or religious cause. Changing gender relations in fields such as family law which is ruled by religious law in most SEMCs has always been an arena of contention and conflict. Most constitutions contain clauses, which stipulate equality of women and men. At the same time, several Arab constitutions consider shari’a law as the main legal source. Thus, today’s family laws represent a mixture of European model law and traditional Islamic law. This latter has been shaped by the idea of the complementarity and fundamental difference of the sexes, which in turn legitimize different legal treatment of men and women. Thus, women in several SEMCs could enjoy lesser rights in terms of choice of marriage partners, access to or protection from arbitrary divorce, to right to child custody after divorce, access to alimony, inheritance and the right to transfer the nationality. Activists have been lobbying in almost all Arab countries for changes in these systems. Reform efforts were successful in Morocco (2004; new family code), Egypt (2000: better access to divorces, 2004 nationality law, travel without husband permission), Jordan [rise of legal marriage age], whereas parliamentarians in Jordan more than once blocked changes in family law and citizen rights. Women’s representation in the judiciary grew considerably. In Egypt a women was appointed to the Supreme Constitutional Court and in Morocco, women represent 50% of the judiciary.

The European Enlightenment advocated reason as the primary source and legitimacy for authority and sought to find a pedigree in the Romano-Christian heritage and through that to classical thought that bypassed cultural influences from the invasions from the East. This quest, in the view of some, introduced confusion between the values of the west and the values of Judeo-Christianity, whereas it is at least debatable that either Judaism or Orthodox Christianity transmits Western values. The long and bitter contestation between church and state in Europe is then transformed into a perception of a painful, but somehow inevitable evolution. The intellectual revolutions that were the basis for the separation of reason and faith, science and faith dissipate into an apparent natural mutation accepted by religious authorities.

In this scheme, Islam is perceived as the special case that cannot surmount the challenges posed by science, reason and religion and this perception feeds the idea of a clash of civilisations to the satisfaction of extremists on both sides. This sensitivity also inhibits Muslim theologians and
intellectuals from studying how other monotheistic religions have accepted the legitimacy of political empowerment by reason and have accepted the development of science in society. Consequently they are hindered from finding their own coherent approach to the transition.

Secularisation of society will continue to diverge from the practices of the state with results that are hard to predict

One more dimension of complexity is the divergence between the evident secularisation of society and the intellectual and political processes of the state that still appear dominated by a theological vision. Secularisation of political thought and practice is lagging the secularisation of social behaviour. Superficial examination of Muslim societies suggests a homogenous and ubiquitous role for religion through all political life. It is a perception shared by leaders of all political parties, old and new, nationally and locally and by new radical intellectuals. Closer examination might simply suggest that the display of religion is more the resort of an emerging middle class excluded from real political discourse and their reaction to threatening aspects of globalisation.

Rather than the ‘return of Islam’, what is happening in the Mediterranean Arab world is the renewal and redeployment of religion. The process is different in different countries according to circumstances, but the basic ideas are common. In a religion like Catholicism, revival of belief is made manifest in institutions and buildings; in Islam, the ideological manifestation is favoured. Islamic thought and practice is adapting to its environment by redefining orthodoxy and through skilful syncretism driven by internationalisation through migration and information technologies. This syncretic tendency in turn fuels puritanism and deepens divides.

The renewal of religious thought will continue; a clarification and moderation of the relationship between religion and state will emerge

The renewal of religious thought will continue. The salience of religious identities both claimed and experienced in the landscape of regional and international politics is obvious. Religion will continue to have a principal part in defining political issues and in contributing to the erosion of the political regimes now in place. Four particular trends may be especial influential:

- the crisis of religious institutions;
- an internationalisation and fragmentation of religious thought and practice;
- reconciliation of the simultaneous search for rationality and delight;
- a clarification of the relationship between religion and the state.
The model of a religious bureaucracy with a monopoly over access to salvation, the interpretation of dogma and the social conduct of believers is under threat from novel religious communities and beliefs. The capacity of the state to construct and diffuse a religious orthodoxy will become more and more limited. Young people will increasingly contest these monopolies. Pressure comes also from Islamic and Christian fundamentalists. Pressure from US religious fundamentalists for religious freedom will be hard to contain and once missionary projects from foreign churches are established it will be more difficult to contain extreme versions of Islam.

A combination of several factors will put in contention the traditional influences of religion in socialisation. The widespread availability of the internet and the access thereby to a panoply of religious ideas and alternative modes of socialisation will undermine the familiar and conventional. There are already some signs of intergenerational conflicts over secularisation and religious practice. The presence abroad of strong communities from North Africa and Turkey will legitimise different behavioural options in the social consciousness. The availability of this increasing diverse menu of religious beliefs and practices not controlled by a religious or state bureaucracy will engender religious syncretism. Changes in the interaction and social behaviour could take many forms, maybe a shift to private forms of devotion, perhaps a syncretism among forms of Islam, or perhaps to vaguer relationships between the secular and spiritual world such as characterise much of Europe. Education will have serious task to provide the kinds of moral understanding and tools necessary to make personal decisions in this more fluid world.

A shifting emphasis on the relevance of religion in social behaviour does not imply the end of a search for spiritual fulfilment. Tensions between the spiritual voyage and the rationalisation of social behaviour will be resolved pragmatically. Religious practices may change, allowing more time and opportunity for other activities, but without loss to their spiritual intensity.

The course of social secularisation that is in progress will continue to gather speed without any attempt by public authorities to modify the use of religion in the public sphere. The intellectual process of secularisation also lags the social process, so moderation of the divergence in social and political trends will be difficult to achieve. An existing collusion between authoritarian regimes and certain established religious interests will continue. The massive social, economic and cultural transformation unaccompanied by political change has been dubbed ‘transformation without transition’ [28]. The increasing and unrelieved tensions between political and social processes will raise the risks of collision and violent solutions. A clarification and moderation of the relationship between religion and state is vital.

Geopolitics and governance

There is little political cohesion in the region; strong centrifugal forces exist and are strengthening

There is a miscellany of views even as to what might constitute the political concept of the Mediterranean. Several EU countries are themselves Mediterranean. The Arab states of the Mediterranean could be perceived to share certain values, but the Arab world extends far beyond what can plausibly be called Mediterranean – the Gulf, Iraq, and Yemen. Many Mediterranean states are not Arab – Israel, Turkey and the Balkans – and indeed these form a part of the Union for the Mediterranean. Turkey is a candidate country to the EU although it is also in the Mediterranean, in the Balkans and in the Middle East. Eventually the definition of the Mediterranean used here is pragmatic; it comprises the Arab states of the Mashreq and Maghreb as one group; Israel and Palestine as a second and Turkey as a third.

The interest of these countries in the Mediterranean as a focus for political thought and action is not obvious. The Maghreb enjoys close ties with Africa and is strengthening them through commercial exchange. The Mashreq is a part of the Arab world going back into the Gulf and Iraq; cooperation with the Gulf States is steadily increasing and is tying the Maghreb countries closer to the Middle Eastern core. Even in Turkey, where the present government seeks accession to Europe, there are strong nationalist currents that see the future of Turkey in the wider Turkic community of Azerbaijan, Turkmenistan, and Uzbekistan. Just as there are trends shifting the attention of Mediterranean Arabs towards the Middle East and other global partners, so there are symmetrical trends shifting EU attention eastwards. The 2004 EU enlargement substantially modified the EU’s Mediterranean perspectives, as well as its policies and objectives. Most of the EU Member States today are more concerned with Russia than with the Mediterranean.

Even the Arab states in the Mashreq and the Maghreb exhibit significant diversity in terms of their economic structure, the nature of the political regime, their historical and cultural roots and in particular their experiences of colonialism. Consequently, there is no real cohesion. Arab nationalists tried to establish Arab unity at the end of the Ottoman Empire, but were thwarted by the colonial powers. Attempted cooperation between Syria and Egypt in the United Arab Republic failed; a loose union of Egypt, Libya, and Syria in the 70s broke up over territorial disputes; the Arab Maghreb Union exists, but has been paralysed by the dispute over the Western Sahara. Beneath the apparent communality of interest implied by the concept of the Arab world there are actually strong centrifugal forces created by disputes over land and water, conflicts with minorities and perpetual struggle for Arab leadership. These forces will persist and may strengthen.
Capacity for common or coordinated foreign policies is limited by these various inter-state conflicts, but also by the primacy of the executive in all Arab countries of the region in the formulation and implementation of foreign policy. As a result, the content of policy is mainly intended to support the regime and the intended audience is often domestic as much as external. The content is more often an external projection of domestic policy than a reasoned reaction to circumstances and appeals to nationalism may be tools to limit protest and opposition inside the country.

A sharp discriminator among the countries is their relationship with the USA; some are allies, some are far from that. The official position of the state may not reflect the mood of the citizens; all this creates uncertainty and hinders cooperation among the states. The Palestinian issue is central and ambiguous. It is a source of unity; one of the common characteristics of the societies of the Arab world is the shared sympathy with the people of Palestine and Iraq, but through the differentiated responses of Arab governments, it also becomes a source of contention. The Palestinian issue has persistently contributed to destabilise the political process inside the Arab countries in their interactions with each other and their actions towards external partners.

The Palestinian issue, the ‘war on terror’ and the wars in Afghanistan and Iraq have triggered important changes at the regional level and a new regional order is evolving. Its main defining features are escalating inter- and intra-state violence especially in Iraq, but also in Lebanon, Israel, and the [Occupied] Palestinian territories. A stronger Iran has become an increasingly prevalent actor in the Gulf and a supporter of Hezbollah and the Iraqi Shia factions. This severely limits the likelihood of successful regional political cooperation.

It might be said that power in the Arab region is shifting upwards, downwards and sideways to trans-national actors, non-state actors and non-Arab actors. These shifts, in turn, have a significant impact on the potential proliferation of weapons including potentially Weapons of Mass Destruction, the prospects of a peaceful solution of the Arab-Israeli conflict and the strengthening of violent, global and local Islamist networks.

**Most political regimes in the region are authoritarian. Economic modernisation will not necessarily bring political reform. New avenues of mobilization through Internet are emerging**

Until 2010, most political regimes in the SEMCs are authoritarian in nature and, even in those countries that are formally democratic, the election process
is manipulated by incumbents. The executive is generally untroubled by independent judiciaries and effective legislatures. These regimes owe their resilience to many factors in terms of structures and actors. On the one hand, some regimes have so far been successful in processes of adapting and modernizing authoritarian governance. On the other hand, the absence of independent economic actors and of organised civil society that gives priority to participation and accountability in politics contributes to a certain political stagnation although young educated people are more and more interconnected through social media and could play an important role in the future. Repressions, states of emergencies, human rights violations and massive foreign interventions have been constantly criticized by Arab intellectuals and activists. Among others, the Arab Human Development Reports re-opened a critical debate about the future of Arab state as do the many individual bloggers, activists and politicians who support reform in the SEMCs [30].

In authoritarian regimes, men and women alike suffer from restricted access to political decision-making, articulation of interests and representation in the organizations of the state and society. Repression of independent activism, human rights violations and impaired elections render participation in the official system ambivalent for all citizens. Women in SEMCs enjoy full civil rights since the fifties and sixties with Lebanon the first country to grant full voting rights in 1952, same year the Greek women were granted this right. Syrian women were granted the right to vote in 1946, four years after French women gained full rights. Liechtenstein (1984) and Switzerland (1971) are the European latecomers in women suffrage, in the Arab world, the Gulf countries take this role with suffrage for women in Oman and Qatar 2003 and Kuwait as late as 2005.

Most constitutions claim equality of women and men, too. In practice, gendered perceptions of politics and exclusionary practices of parties, unions and other formal bodies lead to a serious under-representation of women in most formal organizations and institutions. Some governments used women’s quotas in order to enhance representation (Egypt, Morocco, Jordan, Tunisia, PNA party quotas). On average, the proportion of women MP’s in Arab countries is 11% whereas the world average is at 19% with the Nordic countries scoring highest (over 40%) and the EU hovering around 20%. The thriving NGO sector of the Arab World is marked by major activism of women as do the new avenues of mobilization and information in the internet. Obviously, class is a major factor which influences access to these resources. Women gained representation in the most influential social movements in the region – Islamist organizations of different currents in Morocco, Egypt, Turkey, Palestinian Authority and

Lebanon to name only those which made a very successful effort to include and mobilize women [31].

Islamist forces display a wide array of positions towards liberal democracy and their allusions to human rights and good governance are met with some scepticism, even the nationalist-secularist intellectual elite may be ambivalent about democracy. Early Arab nationalist movements flirted with democracy, but succumbed eventually to populist and authoritarian leaders. In part, this may have been a reaction to the colonial history and intent to disassociate the new nations from practices in the West. Thereafter, anti-democratic sentiment has consistently been fuelled by reaction to Western (and especially USA) support for Israel and later by the wars in Iraq and Afghanistan. It is hard to for the Arab world to appreciate the virtues of democracy when they see democrats apparently indifferent to the troubles of Palestinians and actively hostile to a democratically elected government in Gaza.

It is not even certain that much of the Western world would really like to see in practice the democracy that it advocates. The West is not neutral, nor that benevolent, with respect to political evolution in these countries; the existing regimes are helpful against trans-national and extremist Islamist movements and cooperate in containing immigration. This benign neglect of EU states contributes to strengthening authoritarian regimes. Nevertheless, more and more educated young people in SEMCs using cheap and widely diffused information technologies are able to put authoritarian regimes at risk.

Authoritarian regimes will resist change, because change brings uncertainties about the future that may threaten their continuity. This resistance does not necessarily mean stagnation; there are chances for economic modernization to prevail associated with elements of good government, albeit curiously associated with the arrival of hereditary authoritarian power. This recognition of the merits of a more liberal economy is unlikely to transform into any substantive political reform. The Chinese model of development has resonance for leaders of many of the SEMCs.

If political change does occur then how might it come about? Change would come if it is sought by a broad-based constituency; the nature of that change would depend on which leaders manage to mobilise that constituency. One view is that Islamist organisations are critical to building constituencies for democracy in the Arab world. The alliance of nationalism with democracy is no longer strong on the region and populist socialism is weak. Nothing inherently opposes Islam to democracy and moderate Islamic parties already

inherently opposes Islam to democracy and moderate Islamic parties already participate in election in some countries. Christian democratic parties in Europe arose from a dialectic struggle between the church and Christians who saw a need for a separation of church and state. A similar transformation of Islam is not to be excluded (32). It is perhaps more likely that Islamist political parties, if they come to power, will establish first a form of ambiguous democracy and that then, from this basis, may manage to separate religion and state and evolve to more credible democracies, but it could be a long journey.

The Mediterranean is not the preserve of the littoral countries. The US and Russia have established interests; the Gulf States and large developing countries have an increasing presence

The USA has two historic aims in the region; it is a close ally and protector of the state of Israel and it is concerned to secure the energy sources and supply of oil produced in the Arab countries, including the Gulf States, Saudi Arabia and Iraq (besides Libya and Algeria). More recently the search for security has been extended to limit terrorist activities. The essence of the strategy is to prevent any single power or constellation of powers from dominating the region. The USA and the EU concur in their promotion of democratic transformation of the Mediterranean region, but their approaches to the Arab-Israeli conflict differ in some respects. Until recently the American view has been that democratic deficits of governments that oppose Western interest in the region should be countered with punitive measures, such as sanctions and possibly by externally imposed regimes. Whether this attitude has changed with the new administration is debateable. European policy makers give varying degrees of support to this position, but are generally more likely to sustain reform-minded forces within the countries in question and to nudge existing regimes towards the path to reform through dialogue, material support and forms of conditionality. European policy embraces a much wider range of possibilities including economic co-operation, the establishment of a shared region of free trade and regional security cooperation. The debate in the USA is inclined to diminish the centrality of the Arab-Israeli conflict and peace process in the region. Policy in the Middle East would perhaps be more effective if there were greater coordination and common purpose among EU countries and between the EU and the USA.

Links between Russia and the Mediterranean are ancient. Russia was Christianised from Byzantium and, after the fall of Constantinople to Sultan Mehmed II, a little short of 40 years before Columbus landed in America, Moscow was known to some as the ‘third Rome’. Whether this ascription was

imperial or apocalyptic is uncertain. For the last two hundred years Russia has maintained an interest in the Mediterranean, except only for two periods, one after the Bolshevik revolution and then following the collapse of the USSR. The only way that Russian ships, both military and commercial, can pass from the ports of the Black Sea to the Atlantic and Indian oceans is through the Mediterranean. Any conflict would have serious implications for the security and the economy of Russia. Political instability, the risks inherent in enduring conflicts and threats of terrorism are just as important for Russia as for the EU and the USA. Russia also shares an interest in the stability and availability of energy supplies that is reinforced by being a major exporter itself; it also has large exchanges of goods and tourist services with the SEMCs. It is therefore scarcely surprising that Russia wishes to renew its military presence in the Mediterranean, has been active in the arms trade and with strengthening political relations. For many SEMCs, especially those less warmly included by the West, this extends options for political alignment. For Russia it is inherently implausible that the Israeli-Palestinian conflict can be resolved by the EU and the USA without the participation of Russia and the United Nations. Hence, it promotes the Quartet as the relevant forum.

The exceptionally fast growth of big economies like China and India has economic and political consequences for the Middle East. India has intensified its economic and political relations with the region through the ‘Look West’ policy, but this is mainly focused on the Gulf States. West Asia does not play an important role in the Indian foreign policy. India has the second largest trade partner of the Gulf, has 4 million guest workers there, whose remittances equal 3.1% of GDP. India has also intensified its relationship with Israel especially in scientific and military activities. There is no indication that India shows any interest in democracy building, the support of civil society, the rule of law, and human rights in the Middle East and Mediterranean region.

China has a massive interest in the stability of the Middle East because it is a huge importer of oil. Beijing has recognised the security and military interest and the role of USA in the region; the Chinese government is aware of the limits of its political capabilities and its dependence on the USA for the security of oil transportation from Middle East to China. China has also been successful in export promotion and as a contractor for construction projects. In 2006, around 80000 Chinese workers were employed in the region. China has a well established principle of respect for sovereignty and non-interference in order to reduce the pressure of internal reforms and to avoid scrutiny of its own human rights violations and the repression, often involving Muslim communities. It has certainly no interest in any discussion on the democratization process and human rights issue in the region.
The Euro-Mediterranean relationship has not yet been successful in promoting political cooperation. The relationship is evolving, but it has still not found a realistic and convincing agenda.

The complex, contradictory and multi-dimensional challenges of the Mediterranean have not yet been addressed by the EU in a satisfactory and comprehensive manner. The European Mediterranean Partnership (EMP) launched in Barcelona in 1995 envisaged the creation of a shared zone of peace, prosperity and stability. This initiative, while not void of merits, failed to reach its central goals. It has been modified twice, through the European Neighbourhood Policy (ENP) and, most recently, the Union for the Mediterranean (UfM). However, the perspectives and results of these new frameworks of Mediterranean governance look as dubious and uncertain as the EMP. Why do EU Mediterranean initiatives fail to establish cooperation and solve conflicts? Why do Mediterranean conflicts prove so impervious to diplomacy?

The persistent major conflicts in the region are between Israelis and Palestinians and between Turkey and the Kurdish people; the intensity of the Israeli-Palestinian conflict and its regional and international ramifications have created great difficulties for Euro-Mediterranean diplomacy. More widely in the region, there is much potential for conflict arising from various states of belligerency; frozen conflicts and unaltered causes of conflict. There are deep structural and political roots to these intra-state conflicts. The ethnic and cultural composition of the area with many minorities and communities and the existence of states with weak legitimacy and/or identity are structural characteristics prone to conflict. The weak processes of nation and democracy-building and exclusionary nationalist-ethnic policies are destabilising political and cultural factors (33). Conflicts spill over to neighbours as refugees, terrorism, trafficking and trans-borders crimes.

The EU is interested in responding to armed and non-violent conflicts as well as the implications or spill-over effects of both, but its capacity to intervene has proved weak. The EU has evolved less as a political federation than as a community, consequently its foreign and security policy is underdeveloped and this limits the possibilities of response.

The EMP and the Barcelona process failed for several reinforcing reasons. It failed to provide solutions to existing conflicts basically because they reflected the EU’s security needs and perceptions, while neglecting those of the partners, particularly Arab partners. The EU asked for Israeli-Arab cooperation in the EMP community, while it was unable to contribute significantly and substantively to the solution of the Israeli-Palestinian conflict and

(33) Conflict and Its Sources in the Near East and North Africa: A Conflict-Prevention Perspective, Roberto Aliboni and Paolo Miggiano, Kurasat Istratijiya No 81, Al-Ahram Center for Political and Strategic Studies, Cairo, 1999.
it also asked for domestic political reforms which were seen by Arab partners as an unacceptable factor of instability and internal conflict. Failure caused the EU to shift from the EMP community-like framework to the ENP’s variable geometry of bilateral relations.

The failure of the Middle East Peace Process also undoubtedly took its toll of the Barcelona Process and this debilitating influence was completed by the Iraq war that reinforced suspicions about European motives and ambitions for hegemony. A frequent criticism of the Barcelona process was the predominant role of the European Union and the impression that it dictated outcomes. Enhanced co-ownership was repeatedly sought by the Mediterranean side. Specific disappointments identified in a Maghreb foresight study included: limited success in integrating small and medium enterprises in the region into global value chains; poor impact on access to technology and stimulation of local innovations; European investment in the region below those of Japan and the USA in their neighbours; limited market access and weak dissemination of knowledge (34).

There is some consensus on the Mediterranean side that relations with the EU need to be redefined and in particular to be translated from the logic of aid to a logic of co-responsibility. The creation of the UfM entails a new concept of shared responsibility and envisages the mobilization of civil society on both sides creating thereby the conditions of a new partnership. The most significant innovation is the creation of an inter-governmental structure of governance that replaces the community model of the Barcelona process and tends more towards the idea of co-responsibility. The structure includes a co-presidency, with one EU president and one president representing the Mediterranean partners, and a Secretariat based in Barcelona that is responsible for identifying and promoting projects of regional, sub-regional and transnational value across different sectors. There is a focus on concrete projects including projects to clean the Mediterranean Sea, establish maritime and land highways, combat natural and man-made disasters, a Mediterranean solar energy plan, a Euro-Mediterranean University and the Mediterranean Business Development Initiative for small and medium-sized enterprises.

However, reception of this new venture has been mixed in the Mediterranean world. The UfM is pragmatic and this is seen by some as an advantage. Others see the project-driven focus as insufficient to address the complex problems of the Mediterranean and unable to mobilise the full potential of the partners in dealing with problems of conflict and security. The tendency in the Arab countries is to demand a stronger EU political involvement and see the political content of the UfM as disappointing. The weakness was

made apparent during the Israeli invasion of Gaza; the UfM was impotent in that crisis and contributed nothing to resolve the conflict. Nor has it helped in the Western Sahara or in Cyprus.

The EU must take note of changes occurring in the region and must find a way to compete with centrifugal forces and new actors in the Mediterranean: it must set out a new more realistic and convincing agenda, far away from past idealism. The UfM will succeed if its economic dimension will prevail on its dubious political dimension. The basic factor for success is a more cohesive and effective EU foreign policy.
Tensions
Tensions

Trends generate tensions as different elements in society adjust in different ways to change trying to avoid costs and gain benefits. Whereas tensions and conflicts are part of human relations and are often at the basis of transformation, innovation and development, they can turn in destructive, even violent ways which may not be benign and may justify policy intervention. Tensions exist between different socio-economic groups within a state, between competing political visions of the future, between hostile states and between different expectations of Euro-Mediterranean cooperation. Tensions can arise over the distribution of and access to material and non-material resources such as land, water, participation, recognition, values and norms. Our discussion of tensions is phrased in terms of four levels:

- tensions among socio-economic groups within a state;
- tensions between competing visions of the state and competing visions of reform;
- tensions arising from hostility between states;
- tensions between different expectations of Euro-Mediterranean cooperation.

Tensions among socio-economic groups

Marginalised poor areas in the cities and countryside foster resentment and radicalism

The trends that will generate tensions of this kind are: disappointing economic performance; environmental degradation; declining access to food, water and energy; rising costs of basic services; the large actual and future demand for employment; inadequate provision for education and poorly functioning labour markets. Not all these trends are visible in all SEMCs, but they are frequently present.

There exists a strong sentiment that the Arab world is less developed than it could and should be, according to its human and natural resources. This, as well as growing poverty, creates a pervasive feeling of disappointment and a perception that unsatisfactory educational regimes, detached from demands of the economy, the failure of the public and private sectors to create new jobs, and higher prices for basic needs have in many countries enfeebled the middle class, reduced its capacity to play an active role in socio-economic changes, created social conflict and fed through into a further attenuation of public services in education, health and social security.
At present, 40% of people in the SEMCs live in rural areas. The ratio of the rural population to the total is declining steadily, but because the total is still growing, the rural world is not shrinking. Rural people are though often neglected and have not always benefitted from growth elsewhere in the economy. There is a stark difference in development between the rural hinterlands of some countries (lack of access to clean water, poor education, inadequate health services and inadequate infrastructure) and the coastal towns which are open to globalisation. Water quality and availability has become a factor in social discrimination; nearly 30 million people, 7% of the total population of the basin, have no access to a potable water source. In 2008, the Mediterranean region accounted for 60% of the population of the world’s ‘water-poor’ countries. Rural populations, who tend to be poor, are often the worst affected. Unplanned and rapid urbanisation has lead to poor use of land, weak infrastructure and inadequate housing that create marginalised poor areas within the cities. These disparities between city and countryside and within cities are sources of tension that contribute to ambivalent reactions. They might feed into political frustration and radicalisation, they might feed into growing informalisation of politics and daily life and they often feed into migration as coping strategy.

The rising cost of basic services is often reinforced by gradual removal of subsidies as a part of economic reform; higher prices are generally resented, especially by the poor, and are a frequent cause of political tension. In reality many subsidies are regressive and benefit the better off more than the poor; energy subsidies are a good example. In theory, state revenues from avoided subsidies would create higher welfare if allocated to basic education, health and other social services. In practice the poor tend not to believe that these pro-poor policies will be adopted and resist strongly price increases. The issue with energy is not only monetary cost, but the price that society is prepared to pay in terms of social needs and environmental impact for the energy it must have if progress is to be sustained.

Food security has long been a political concern in the Mediterranean region. Originally the cause of the anxiety was not so much availability as declining self-sufficiency. More recently, the concern has widened; it is now a matter of access for populations to foodstuffs and inevitably it is the poor who suffer. In the SEMCs, with the exception of Turkey, supplies are provided to a large extent through trade and even in some cases through food aid. The North African countries (from Morocco to Egypt) depend on cereal imports: in 2007-2008 they absorbed almost 20% of world wheat imports, whereas they account for only 2% of the world population. Despite the efforts to modernise farming, output cannot keep pace with the needs of a rapidly growing population, so that the deficits in the South and East are growing. The ‘hunger riots’ in 2007 and 2008 were an unfortunate reminder of how fragile food supplies still are in certain countries. Subsidies for staple foods, intended
to secure internal stability are effective in the short-term, but costly and lead people to buy subsidised products to cover their calorie needs – to the detrimen-t of a balanced diet. Undernourishment has increased sharply in North Africa and the Middle East since 2005 (13.5% of the population in 2009).

**Unemployment creates great social tension; there could be complementarity with the needs of the EU for labour**

The age profile of the region could generate a substantial growth bonus if all the able-bodied people entering the labour market could be productively employed. In practice, the economies of the region will not be able to cope. Unemployment is already high; in the past it was disguised by over-staffing of government offices and state enterprises, but the limits of this strategy are apparent. The unemployment rate is highest for new entrants to the labour market, for the young and for the educated people. The participation of women is low and their access to labour markets tends to be restricted by both an already tight labour market and social perceptions about women’s work. The tension that already exists between the capacity of economies to provide jobs and the demand for employment will become more acute. It may well be the most critical of all social tensions in the medium-term because lack of income will thwart any adjustment to other tensions.

Countries in Northern Europe are afflicted by rapid population ageing and labour shortages. Between the two sets of population and labour force structures there is a high degree of, and a potential for, complementarity. Migration appears as an important necessity for the countries bordering the South and East shores to supplement the insufficient creation of jobs indigenously. Labour migration is also highly valued in terms of the remittances it brings, which rank among the highest in the world. Out-migration is already significant, not only towards Europe, but also towards the oil-producing countries in the Gulf region, but it absorbs only a small part of the labour supply. To be more than a partial solution, it must increase substantially. Conversely, in many areas of the North, labour shortages are already chronic and widespread. In the future, in the absence of large immigration, they would constitute a serious bottleneck for economic growth and embarrass the provision of pensions for an ageing population.

Complementarity between the needs of the EU and the possibilities of the SEMCs does not guarantee significant migration flows; there are formidable obstacles to be overcome. One is competition with other supplies of labour. Migration is now global; proximity is less of an advantage. Importantly, the skills offered from SEMCs do not always match what is required. Adverse feelings and attitudes towards immigration are a very important obstacle, strengthened by immigration policies that reflect these prejudices.
The skills match between the demand of the EU-27 and the offer of the SEMCs could be improved through adequate skill formation, especially aimed at mid-level skills. Strengthening of the Euro-Mediterranean partnership in education, skills and labour market management would be mutually beneficial. Migration alone, even if greatly increased, would constitute only a palliative for the formidable employment needs that SEMCs face. Reforms to increase the ability of the national economies to create employment and to increase human capital through improvements in education are essential.

Agriculture is still an important part of the national economies of the SEMCs (12% of GDP on average and 15 to 20% in Egypt, Morocco and Syria). The sector is structurally diverse; modern high-output agrifood enterprises coexist with small-scale family operations. One-third of the active labour force (some 35 million people) works on agriculture, but the agricultural sector cannot create more jobs; normally more modern methods of agriculture normally lead to lower employment on the land. Tensions are likely over the need to provide resources to adapt this large sector of the economy to modern circumstances, whilst simultaneously fostering the rapid development of industrial and service sectors from where the bulk of new employment must come.

**Tensions between competing visions of the state and competing visions of reform**

**The historical role of the state in the economy is challenged by the global market and the emerging private sector**

There is little clarity in how SEMCs will address economic and political reform that, from the perspective of the EU, are central to Euro-Mediterranean cooperation. This engenders two sets of tensions – one set arises within individual states, between competing visions of reform and the other set (which is treated later) arises between different expectations of cooperation on the EU and SEMCs sides.

Following World War II and the end of colonial rule, development strategy in most SEMCs was based in the concept that the state had a legitimate and substantial role to manage the economy directly through state-owned enterprises and indirectly through economic planning. Many governments were single-party, socialist regimes and expressed this concept fully. This vision of the state prerogative was complemented by protectionism, founded in the view that free trade would hinder industrialisation and render the economy vulnerable to adverse movements in terms of trade.

In the late 1980s, several MENA countries shifted at varying paces toward the adoption of economic policies designed to achieve the ‘Washington Consensus’ through macroeconomic stability, further integration with the world economy, and an expanded role for the private sector. The driving forces
behind the initiation of the economic reform process were primarily unsustain-
able external debt, expanding budget deficits, double-digit inflation rates, and rising poverty. But, after 20 years of economic reform, economic perform-
ance still lagged most other regions of the world. Even those countries that applied the reforms most assiduously were still characterised by low produc-
tivity growth, high market power and rising social distress. Unemployment rates were generally high, especially among young people and labour force participation, especially for women, was low.

Recently, the emphasis in economic policy has shifted to promote efficient markets and greater and more effective private sector participation. Tax systems are being reformed to encourage investment over consumption. Legal and regulatory frameworks are being reviewed to favour investment by private capital, whether domestic or foreign. Privatisation of state-owned land and industry increased dramatically in the 1990s. Some movement was made towards cost-reflective pricing of basic services. New laws were drafted to sanction private participation in activities such as electricity generation that had previously been state preserves. Egypt and Jordan are exam-
pies of policy intent to promote private-sector led and outward-oriented economic growth, by maintaining a stable macroeconomic environment, creating a business-friendly environment, attracting foreign direct investment, and developing capital markets. This implies prioritisation of the busi-
ness environment over social welfare; to withdraw or reduce state support for the poor may cause tension at a time when poverty is increasing.

It is conceivable that there is a fundamental and irresolvable tension between economic liberalism and the authoritarian regimes that persist in the region; until quite recently this was probably received wisdom. The startling success of China and to a lesser extent Russia and revived memories of South Korea, Singapore and Taiwan appear to contradict this position and are now often cited as examples of countries where authoritarian modernisation has forged successful models of market-oriented economies that can be imitated in the Arab world and may appear as attractive options for autocratic incumbents. Among the SEMCs, Tunisia shows that an authoritarian regime can embrace the logic of economic reform.

The genuineness of these examples has been contested, e.g. in Russia (35), where it is alleged economic success was contingent on unique external factors. Another plausible position is that autocratic regimes in the SEMCs have already captured and distorted the liberal model and have transferred economic power from the state to urban and rural elites, associated to the regime. These elites have diverted resources from the poor and under-privileged that had the highest expectations of democratic reform. In this view, judicious privatisation

of state assets has been a source of patronage to create a ruling coalition appropriate to a capitalist economy [36]. A third option is that any attempt to impose preconceived models of economic reform from outside is doomed to fail. "Instead of always towering over our partners with our fashionable ideas, let us try to really develop things together, with the true tenants of modernity; let us try to find ways and means to re-establish trust in those societies where demographic change is so fast, where the situation is already so far from the traditional social relations we know, but has not yet entered into a fully institutionalised and formalised economy" [37]. Whatever view is preferred, there is sufficient uncertainty surrounding the evolution of economic reform to create tension between the needs for socio-economic development and the political evolution of many of the states in the region. In particular, it puts in jeopardy the Economic and Financial Partnership of the Barcelona Process (cf. a free-trade area aimed at promoting shared economic opportunity through sustainable and balanced socio-economic development) that is a part of the acquis transferred to the EMP. In addition, the 'gerontocracy' with the high average age of the leaders in SEMCs cannot coexist for ever with the typically much younger populations.

The pervasive hostility and occasional conflicts between regimes in the area are accompanied by huge economic costs. The case of Israel and Palestine is the most dramatic; peace within that region would bring to Israel huge economic benefits through trade and transit. An assessment of the conflict concluded that the opportunity cost since 1991 was $12 trillion and that incomes in both Israel and Palestine are now half what they would otherwise have been [38]. The closure of the border between Algeria and Morocco has created great economic loss and replaced long established trading relations with smuggling to the detriment of public order. In 2006, the United Nations Economic Commission for Africa estimated that the annual gains from liberalising trade in goods across the Maghreb were at least $350 million [39]. In view of the severe socioeconomic and security challenges facing these countries the willingness to accept the cost of this antagonistic relationship is inexplicable. The Agadir Agreement established a free trade zone between Egypt, Morocco, Jordan and Tunisia in 2004 has not increased the trade flows significantly and the EU remains the most important trade partner of nearly all its southern Mediterranean neighbours. The rigidity of political attitudes among the partner countries is crippling economic life across the Mediterranean.

---

(38) Costs of conflict in the Middle East, Strategic Foresight Group, 2009.
Most of the SEMCs have a comparative advantage in markets for primary products and labour intensive products [40]. The protection of agriculture by the EU may create tensions in the drive for trade liberalisation. Mechanisms need to be found to develop a Euro-Mediterranean agricultural and environmental policy capable of securing the supply of primary agricultural products to the area, while at the same time encouraging competitiveness and sustainability. This goal could be a major, medium-term political project for Europe, and at the same time one which would be a tangible sign of our solidarity with the countries in the Mediterranean space.

The binomial of economic liberalism and democracy is put into question by the last decade of experience in some parts of the Arab world

Economic reform in the liberal agenda goes hand-in-hand with democracy. In the last three decades of the twentieth century political change was rampant. Right-wing authoritarian regimes in Greece, Spain and Portugal were replaced by democracies; military dictatorships in Latin America gave way to elected civilian governments; there was some progress in South East Asia, especially in the Philippines and Indonesia [the largest Islamic country in the world] and communist regimes collapsed in Eastern and Central Europe. Some of this apparently remorseless tide of freedom was perhaps more apparent than real and has been to some extent reversed. But it gave rise to the notion that a unique trajectory defined the transition from authoritarian state to fully-fledged democracy, by means of an ‘opening’, a ‘break-through’ and then the ‘consolidation’ of democratic processes and practices. The question then was why the Arab world seemed such an exception.

Democracy is not measured only through a process of regular, genuine elections; it should also embody good governance, expressed as ‘a set of societal institutions that fully represent the people, interlinked by a solid network of institutional regulation and accountability whose purpose is to achieve the welfare of all members of society [41].’ Democratic societies must include freedom of speech, freedom of press, freedom of religion, and protections of basic human rights. The difficulty of rooting these ideas in SEMCs has preoccupied not only scholars in East and West, but also much of the constituency of the Arab world.

The imperfection of democratisation in the SEMCs, does not mean that there is no change. The opening up of authoritarian regimes has contributed to important reforms in the field of human rights and public liberties. There


is more space for political participation especially at the local level, there is a freer press and media in general (although clearly much remains to be done) and most of the basic institutions of a democratic state are formally present. Arab experiments with democratization have been complex and it is clear that simple concepts of a democratic transition do not apply. Understanding the processes of change in different parts of the Mediterranean cannot come from mono-causal accounts (e.g. Islamic culture inhibits democratisation or economic development will bring about more political liberalisation). Multi-causal explanations must be sought; the factors that bring democracy into being must be distinguished from those that keep a democracy stable. These explanations are not yet available, but it is clear that patronage-based politics with gestures to democratic reform have been stable in the Middle East for many years and in some cases have become hereditary; there is little reason to predict their imminent collapse.

In parallel with a sclerotic political system, huge transformations are in motion in the region. Triggered by demographic change, and new ways of exposure to economical, political and cultural dimensions of globalisation, local traditions and systems are changing quickly. Existing relations between old and young, rich and poor, women and men, local and global are challenged by young societies with better access to education and media.

Transition is not solely an endogenous process; it is also a function of external forces. The search for democracy had been subordinated to other geostrategic considerations (in Algeria for example, where Islamic fundamentalists were on the verge of power). The conflict with Israel offers a defence against democratic reform; elites in power reject internal reforms by pointing to the external dangers. The ongoing conflict is used to legitimise authoritarian regimes and a continued misallocation of huge resources to internal security.

An important stabilizing factor for authoritarian regimes has been the connivance of the West. Where democracy fits with Western policy then the West will promote democracy. Where authoritarian states serve the interest of Western security policy, then democracy is suddenly of minor concern. Where democracy produces an unacceptable result it can be rejected. Many practices of western countries during and after the Gulf War seem empty or insincere when set against the campaigns for democratisation on which the same countries have embarked.

The dubious concept of the ‘war on terror’ has been a gift to authoritarian regimes, partly because they can implement the kinds of actions required by the West and are supported accordingly and partly because it provides a perfect excuse for repression of opposition at home. In Europe, in an atmosphere presided over by concerns about terrorist threats, immigration has become increasingly securitised, especially since 9/11. The aim to eliminate the causes of spill-overs by promoting political and economic reform in the Arab countries has not been abandoned, but the need to control such
spill-overs and domestic security directly through preventive measures is at least as important now. This shift of emphasis is changing the EU’s role in the region and the perception of that role by the EU’s Southern Mediterranean partners.

Although sometimes confused and not untainted by hypocrisy, the efforts of the EU to promote democracy and human rights through the Barcelona process derive from a genuine belief in the power of this agenda to improve the lot of SEMCs, to foster stability and support a stronger relationship with its northern partners. This belief may in some detail be misguided, but in general terms is the fundamental justification of the whole edifice of cooperation. The future of this agenda within the EMP is problematic. One of the pillars of the Barcelona Process is the Political and Security Dialogue, aimed creating a common area of peace and stability underpinned by sustainable development, rule of law, democracy and human rights. Responsibility has now been passed to the UfM and its governing bodies. The full sovereignty of the Arab partners within the UfM may be an obstacle to the pursuit of this dialogue, if, as is likely some governments find the process threatening. Nor should one neglect the tendency of European governments to cast a blind eye when their own security interests are at stake.

Responsibility within the UfM for the 3rd pillar of the Barcelona Process (social, cultural and human partnership) is as yet unclear. The partnership provides a platform for open debate and dialogue, free from the internal authoritarianism of the governments of the SEMCs, and offers critical support to political reform and democratic practices in the medium-long term. The partnership is aimed at promoting understanding and intercultural dialogue between cultures, religions and people, and facilitating exchanges between civil society and ordinary citizens, particularly women and young people. It is an important component of the ‘acquis’ of the EMP because it includes human rights, the social role of women and intercultural and inter-religious dialogue. Under the inter-governmental processes of the UfM this debate will be seriously compromised (42).

Tension arises from the confrontation of illusionary expectations of an imminent transition to democracy and the reality of stable authoritarian regimes that can resist change for many years to come and over which process the EU has little and diminishing influence.

---

Tensions between hostile states

The Mediterranean is an area of conflict and prone to conflict; it encompasses diverse and separate areas. Despite analogies, the Balkan conflicts are not related to those in the Near East and North Africa; the Maghreb conflicts, while linked to those in the Near East (and the greater Middle East), are fundamentally indigenous and finally, the conflicts in the Eastern Mediterranean, the Aegean Sea and Cyprus, are only tenuously related to conflicts in the Near East, North Africa or the Balkans.

Conflicts in the Near East and North Africa have always presented direct and indirect threats and/or risks, i.e. security concerns, for both the international community and the countries in the Mediterranean neighbourhood. From an international perspective – that of the United Nations and the great powers, chiefly the USA – security concerns arise more from the area stretching from the Central Mediterranean channel eastward, considered less the ‘Mediterranean’ and more the Middle East. From the EU perspective, the area in which security concerns are more relevant is the ‘Mediterranean’, that is its southern neighbourhood.

The EU has evolved less as a political federation than as a community. For this reason, foreign and security policy is underdeveloped and responses to major armed conflicts and minor intra-state conflicts in terms of conflict resolution and partly conflict management are weak and limited. In contrast, it has developed notable capabilities in other external policies, including the European Security and Defence Policy (ESDP) and this has allowed for good responses mostly in terms of conflict prevention and, partly, conflict management.

The successive shifts from the multilateral EMP community-like approach to the bilateral ENP and, most recently, to the intergovernmental UfM attest to the EU’s awareness of the shortcomings of its Mediterranean policies. At the same time, the impression is that the new frameworks are not suitable either: the Southern partners are happy with the ENP which, however, is probably even more unable to generate conflict resolution than the EMP; on the other hand, the UfM is probably even less able to deal with conflict than the ENP, as illustrated by the fact that all the UfM was able to do after the Gaza crisis was suspend itself. Strong tension has thus arisen in the Euro-Mediterranean framework between the conflicts and the diplomacy intended to deal with them.

To make cooperation possible in Euro-Mediterranean relations, a politically more effective EU is indispensible. The lingering weakness of the EU as an international political actor not only prevented the EMP’s goals from materializing but reinforced opposing trends. In fact, while trends towards renationalization are strengthening in the EU, so are trends towards intergovernmental relations in Euro-Mediterranean relations. This is not to say that Euro-Mediterranean cooperation is lacking, but its substance is a long
way away from what the EU expected in the mid-1990s: from communitarian to intergovernmental; from multilateral to bilateral; from regional to global; from EU-centric to polycentric, with new powerful actors on the stage.

Against this backdrop of tension between conflict and the diplomacy carried out by the EU in the past fifteen years, it would be a mistake to try to reform or improve that diplomacy. Entirely fresh diplomatic avenues, more in tune with new trends, have to be pursued instead The European External Action Service led by Catherine Ashton is a positive element, but it is too soon to judge its real impact.

In an environment in which the emerging drivers are international, intergovernmental and global, the EU may still effect a good policy of conflict prevention on its own and in the ENP framework, but diplomacy to solve conflicts should be based primarily on efforts to strengthen effective multilateralism at the regional and global level. To this end, the UfM must be reinforced and made more effective; relations with the Arab League should be strengthened; the role of the United Nations in the region should be enhanced and the web of international conventions and agreements magnified and strengthened. The role of transatlantic cooperation in the Mediterranean must be reconsidered and regional powers such as the Gulf States, Turkey, and Iran have to be involved in conflict management processes and diplomatic efforts.

More can be done within the scope of existing Community policies to reduce tensions over security. EU members should agree on reinforcing and expanding the internal and external dimensions of the Justice, Freedom and Security area, attenuating if not replacing the members’ bilateral approaches, which would reinforce the EU’s role. They should also adopt a more liberal approach on immigration, coupling stronger police cooperation with a generous EU policy towards refugees. Today, cooperation is developing mostly bilaterally (with regard to terrorism): this needs to be preserved, yet it has to be channelled by the EU (that is de-nationalized).

The Mediterranean format should become more flexible and open; on the one hand, EU policies should take the Levant’s strong links with the Gulf into account; on the other hand, demands for a more particular bond between the EU and the Maghreb should not go unheeded. New actors in the region should be regarded as opportunities rather than exclusively as competitors. The EU should see globalisation as a factor that can enhance effective multilateralism and help solve conflicts regionally.
Tensions between expectations of Euro-Mediterranean cooperation

There is a tension from the fundamentally different expectation of the partnership on each side that is difficult to resolve

The Barcelona Process and the Union for the Mediterranean concern exclusively the countries of the Mediterranean. The massive, eastern-oriented enlargement of 2004 caused the European Commission to add a wider ENP. The policy applies to the EU’s immediate neighbours by land or sea (with the exception of Russia) and offers a privileged relationship, building upon a mutual commitment to common values (democracy and human rights, rule of law, good governance, market economy principles and sustainable development). The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration, but is careful to dissociate the process from enlargement. It is a Community policy implemented bi-laterally.

Although the ENP covers both the eastern and southern neighbours, experience suggests that the affiliation to the East of Germany and the newly admitted member states shift the emphasis of the policy away from the Mediterranean. Apart from Turkey, and perhaps Israel, the SEMCs have no hope of becoming full members of the EU in the short or medium-term, although some local progression such as the ‘Statut avancé’ with Morocco can be expected. The benefits on offer of a more intimate relationship with European markets in the context of a global economy may be insufficient therefore to induce partners to adopt the domestic reform measures seen by the EU as critical.

In the EMP, the SEMCs were not true partners; the EMP was not an intergovernmental organisation or platform, but essentially an EU policy to which all pertinent initiatives and final decisions were subordinate. This weakness was acknowledged in the design of the UfM that adopted an organisational structure based on the principle of ‘parity’. This approach, it was hoped, would ensure that the Arab partners would have a more interested and constructive attitude. As noted earlier, this expectation has not yet been met and there is in reality a critical structural obstacle to the idea of parity given the unequal economic and political conditions of the two entities entering into this partnership; one is the donor and the other is the recipient country.

There is a tension from the fundamentally different expectation of the partnership on each side that is difficult to resolve. The SEMCs would like that the EU should desist from issuing instructions for reform and should instead simply acknowledge each nation’s modernisation priorities and support their implementation without troubling them with the need for economic and political reform. This does little to achieve the main objective of the EU, which is to secure its borders by a cordon of well-governed, economically stable, democratic states.
It is clear that the EU will continue to develop its own economic programmes, many of which have an important Mediterranean focus such as the free movement of goods and the development of large-scale projects regarding infrastructure and transport. This is an opportunity for cooperation between the European Commission and the UfM Secretariat, especially regarding financing of such projects for which the EU has the financial means and the UfM has not. The EU could show interest in contributing to the UfM’s large-scale projects. It is also a possible source of tension; if the general tenor of activities within the UfM departs significantly from the agenda of the Community then cooperation may be difficult. This tension might be alleviated if the participation of the EU in the UfM were returned to a correct institutional framework and if the regulations regarding the EU co-Presidency of the UfM and the structure of the Secretariat were revised. The UfM needs to be visibly a policy of the entire EU and not just of Southern Europe or selected Mediterranean states of the EU.

Even if the Commission does provide substantial financial support it is not likely that it will be able consistently to divert funds from its own programmes. The European Investment Bank (EIB) will be in a similar position. There is some expectation of financial support from the Gulf region, but the Gulf Cooperation Council has already established its own Mediterranean programme and is unlikely to find the presence of Israel in the UfM congenial. Private-public partnerships have been explored, especially in the case of solar energy with the Desertec industrial initiative, but there is a very long way to go in defining bankable investments before private capital will be allocated in adequate volumes to such activities. Tensions between the expectations of the UfM and the financial resources to match could well arise.

While for the countries of the East Adriatic area – and a few other new members – the UfM represents a natural and probably welcome dimension in strengthening their relationships with the EU, the UfM does not offer the same perspective for the non-EU states of North Africa and the Near East. These states are already satisfied with their bilateral relations with the EU through the ENP. The multilateral dimension is of relatively little interest except possibly to tame and contain the EU’s residual ambitions for political reform in the region. But this is certainly not in the EU’s interest, and indeed, runs contrary to its stated objectives.

The tension between the maintenance of the acquis communautaire created by the EMP and the intergovernmental framework put in place for the UfM has been described earlier. The EU should not deceive itself that it can defend the multilateral and community ‘acquis’ of the EMP within the UfM framework as it is constitutionally different. One option might be to insert a significant multilateral component within the realm of the Neighbourhood Policy.
The exclusion of agriculture from the free-trade agenda and its curious omission from the list of large scale concrete projects that it misses a vital area of cooperation that could help reduce serious tensions in the agricultural sector and in rural communities. Nevertheless, successful prosecution of these projects is important. Whether Euro-Mediterranean cooperation should be limited to this kind of concrete venture is a question that still needs to be examined, but the proposals have merit and they should be accomplished. In contrast, the notion that they can promote political solidarity, the absence of which was brutally revealed by the EMP experience, is an illusion to be discarded.
Transitions
Managing conflict

The notion of a ‘clash of civilisations’ is inadequate. Both shores of the Mediterranean face similar challenges and there is scope to mobilise the open-modernist tendencies on both sides.

The Mediterranean region will face many challenges over the next twenty years and perhaps the most important of these is to create the circumstances that will permit this region that is so critical to global stability to evolve towards a more peaceful and serene future. This transition ‘Managing Conflict’ seeks to identify the necessary actions at the level of Euro-Mediterranean to reduce existing tensions; if this cannot be achieved then it is unlikely that other forms of cooperation can progress. In this sense this transition is fundamental.

The Euro-Mediterranean region is destabilised by a range of political, economic, social and cultural factors that have been described earlier. For the immediate purpose they can be resumed as:

- the legacy of history;
- disillusion and disappointment with progress so far in Euro-Mediterranean cooperation;
- recent specific events.

The historical legacy arises from the intensity and density of past experience across the region that informs the consciousness and collective references on both sides and still conditions personal and political dealings. From the crusades, through colonisation and wars of liberation to modern issues of immigration, fundamentalism and terrorist attack, relations have often been marked by tension and anguish. To ignore this legacy would be foolish and it must be accepted without taboo if the Euro-Mediterranean dialogue is to progress.

The various forms of partnership between the two shores of the Mediterranean that have been explored since 1995 have raised different and divergent expectations from the two sides. These expectations have not been met and have given way in some quarters to disappointment and mistrust.

Among unmet expectations, those relating to visas and immigration stand out. The expectation was that efforts at increased cooperation between the two shores would have beneficial effects both for immigrants, whether legal or illegal, and for visa applications. Many in the Southern side hold the view...
that immigrants from the region are not always well treated in the North, and
that visa applicants are looked upon with suspicion. Yet, contrary to such
expectations, visa and migration policies have become more restrictive, both
in order to fight irregular immigration and for security considerations.
In general terms, in spite of the efforts being carried out by the EU towards
promoting the integration and social inclusion of migrants, attitudes towards
immigrants seem to have become less open and favourable, on account both
of the turn taken by a number of domestic political agendas and of the influ-
ence exerted in many countries of Europe by populist xenophobic
parties. In particular, instances of harsh treatment inflicted upon illegal immi-
grants, in some cases involving families with young children living and working
in the EU for many years, have notoriously contributed to negative perceptions.
Complaints are often heard in the sense that the requirements of European
consulates to visa applicants are arbitrary, even vexatious at times, and that
the procedures are not harmonised across the Schengen area. Inasmuch
as they exist, these practices do not contribute to the development of a climate of confidence and respect. The fact that they recurrently hamper
the mobility of people who work for the promotion of dialogue between the
EU and neighbouring states has been pointed out as a paradox.
Numerous specific events over the past ten years have contributed to rein-
force these tensions and this spirit of mistrust. Many of these events arose
at first out of radical Islamist groups using terrorism in North Africa and
exporting it to Europe. More in general, the war on terror declared by USA
president George W. Bush and what was viewed, in Arab populations, as his
rather unconditional support to Israeli policies exacerbated tensions in Euro-
Mediterranean relations. Most of these same events arose out of the Israeli-
Arab-Palestinian conflicts (such as the war with Lebanon in 2006 and the war
of Gaza in 2008/2009) and the perceived weakness of Europe in their frame-
work. On a wider scale, the wars in Iraq and Afghanistan, the indelible
passage of Guantanamo, Bagram, Abou Ghraib into Arab hearts and minds,
rendition and the use of torture have had traumatic consequences. Much
of this is only marginally the responsibility of the EU, but the inability to inter-
vene in any effective way may lead eventually to the sentiment that the EU is
(at worst) collusive or (at best) so weak as to have little value as a partner.
On the other side, the actions of a radicalised minority have created a percep-
tion that terrorism is undermining western society through the very values
of free speech, tolerance, liberty of expression and movement that are among
the finest attributes of pluralist democracy. The attacks in the USA, Madrid
and London; the apparent spread of fundamentalist networks in Western
Europe; the abuse of student visas by extremists; a strengthening will
to impose cultural practices foreign to host countries and even the military
success of fundamentalism in Afghanistan contribute to a sense of a civilisa-
tion under threat.
In this context, the thesis of a ‘clash of civilisations’ seems robust and convincing and reasons to hope are few, but there are other ways of looking at what is happening. If the geographical confrontation that seems to define the clash of civilisations is discarded and replaced by an alternative confrontation between traditional-conservative groups and open-modernist groups on both sides of the Mediterranean, then from this vision emerges a quite different outlook for cooperation and exchange. Both the EU and the SEMCs are confronted with divergent conceptions of the future, broadly defined by these two opposed positions with a continuous spectrum between. The conservative vision is inevitably reticent about dialogue between the two shores or even hostile, because cooperation constitutes a threat to traditional values. The open-modernist tendency is by its nature welcoming of dialogue and here there are many possibilities for fertile exchanges and collaboration.

The first step in avoiding conflict is therefore to improve the existing structures of dialogue and cooperation whilst respecting the characteristics of each partner. This need for improvement exists certainly for formal dialogue at political level, but dialogue should also be enlarged and intensified by involving stakeholders from business, NGOs, students and youth. Given the presence of large communities of southern Mediterranean origin living in some EU countries, dialogue with the southern shore of the Mediterranean will improve also the internal dynamics of European societies.

To the extent that the media are a powerful influence on opinion and collective perceptions, they have a serious duty that is not always well discharged. European countries have a central principle of the freedom of the press and information and this is recognised as essential to democracy. This principle should be exercised with a sense of responsibility and respect, especially in situations sometimes prone to tensions and tensions. This frequently is not the case and the media often reinforce stereotypes and prejudices for the sake of sensationalism and political manipulation.

The EU is an important economic actor within the Mediterranean region. It is not yet a significant political actor. Now it has the tools; it remains to be seen whether it has the will.

The capacity to exercise more decisive political action on the international stage would make the EU a more desirable political partner for the Arab world. A firm and visible position in foreign and security policy is long overdue. Much is expected of the recent appointment of the first permanent president of the European Council and of an EU High Representative for Foreign and Security Policy. In this context, the creation of a genuine European diplomacy should strengthen the credibility of European action. Four areas where action by the EU can avoid or mitigate conflict are: Cyprus (with a significant impact in terms of relations between the EU and Turkey); the Balkans with the need to stabilise
Bosnia-Herzegovina and Kosovo; Western Sahara; Israeli-Palestinian and Israeli-Arab issues that are the priority for stabilising the Mediterranean.

The EU is present in the Middle East process, but not enough. Its involvement in the framework of the Quartet, alongside the USA, Russia and the United Nations, is significant and meaningful. The Quartet’s communiqué of 19 March 2010 is an important contribution to the [re]construction of a viable and plausible peace process and demonstrates the need for concerted action by international stakeholders on this complex issue. Unilateral action by the USA is no longer a reasonable option, hence the importance of strengthening the EU action in a convincing and effective manner. Unfortunately, the effectiveness of the Quartet is at present limited by the lack of credibility in the Arab countries of the present representative of the Quartet in the region. Regardless of his personal qualities, the present incumbent is perceived as imposed by former USA president Bush as a reward for support for the war in Iraq. If the Quartet, and therefore the EU, is to act effectively and convincingly in the region, the question of representation needs to be reconsidered promptly.

Stabilisation has not only to be envisaged in political terms, but also in terms of the security and military aspects. The EU has been an important economic actor within the Mediterranean region for a long time and has steadily increased its visibility through its economic and financial instruments. It is not yet a significant political actor, although as noted above, it now has the tools, the means the reasons and the potential. It remains to see whether it has the political will. Much will depend on whether the EU has the volition and the means to develop an effective military capability. Realism requires that this option would be exercised in coordination with NATO, but if the EU wants to be credible it must be able to deploy the political (and ultimately military) role with distance and distinction vis-à-vis the USA.

Ways and means to diminish tensions – encouraging movement, mutual respect, exchange and understanding

The Euro-Mediterranean process since 1995 has privileged a multilateral framework of cooperation that failed mainly because of the lack of coherence in the ‘Mediterranean’ concept and because of the negative impact of the Israeli-Palestinian conflict. Faced with this deadlock, the EU has opted de facto for bilateral actions with individual Mediterranean countries, whilst maintaining an illusory multi-lateral umbrella. These bilateral processes are likely to endure, but there are probably also opportunities to develop a European approach at the sub-regional level, particularly towards the Maghreb and the Middle East.
The changing socio-demographic composition of populations on both sides of the Mediterranean has created diverse societies that include, especially in the North, significant communities from the other shore that over time and through the generations, become components of the host societies. Avoiding conflict requires a shared vision of inclusion and common destiny across the region that cannot come to pass overnight. Several stages will be necessary: transition first from common interests to shared principles (or better – common principles) and only then to shared (or common) values.

Common interests that provide a plausible basis for fruitful cooperation include: political stability, economic growth, social development, cultural awareness and the promotion of human rights. For any process of transition towards common values to be sustainable, it must be accepted and incorporated into the consciousness of people on both sides of the Mediterranean (or at least large sections of the populations). Priority areas where action within the Euro-Mediterranean relationship could lead to rapid and tangible improvements are: improving the dialogue of governance; migration; visa policy; media and culture; education. Much of course is being done within a variety of European institutions; the following discussion indicates what the expert group sees as priorities for further development of policy in these areas.

The first requirement for promoting mutual understanding in the Euro-Mediterranean area and fostering mutual respect based on common and shared values is open dialogue between all countries and full participation in all formal arenas of Euro-Mediterranean cooperation. This is not at present achieved; meetings are cancelled and participation withdrawn as gestures of discontent with wider political issues. This policy of the ‘empty chair’ prevents any tangible progress and must be replaced by mutual trust and respect promoted by informal dialogues and facilitation of communication between the concerned actors. It is necessary first to attain a common understanding of the costs of the ‘empty chair’ for cooperation and to offer the facilitation of communication and mediation between the concerned actors. Technical solutions to the ‘empty chair’ and innovative political solutions such as substitution or representation may also be developed.

More realistic and compassionate approaches for migration are needed, approaches that would recognize the legitimate concerns of host countries and at the same time eschew taboos and stereotypes. In order to make a positive contribution to the development of friendly cooperation between countries at the two shores of the Mediterranean, and also to the harmonious functioning of European societies, of which people from the South of the Mediterranean make a sizeable component, migration policies should strive to find fair solutions to the existing problems and to stand on solid foundations based on cooperation and mutual understanding and immune to the influence of short-term electoral considerations and demagogic winds.
A real integration of people from immigrant backgrounds in Europe should be sought that respects both the fundamental values of the host societies and the socio-cultural specificities of immigrant communities. This can be achieved through policies for employment, education and housing that are proactive and responsive to situations of marginalization and/or exclusion (proactive and inclusive common immigration policy), enlarging the avenues for legal migration. Such an effort should be coherent at a European level and should build upon the proposals for more balanced migration policies already contained within the concept of a Common Immigration Policy for Europe and the Global Approach to Migration. Specifically, it is desirable to seek the establishment of European-wide policies: to integrate people of immigrant origin; to provide education (primary, secondary and tertiary) adapted to the socio-cultural, educational and economic development of young immigrant (affirmative action policies) and to implement housing policies that promote mixed socio-economic and cultural order to foster understanding and mutual respect.

In the view of the expert group, a more confident and open policy for visas should be sought with transparent and harmonised implementation, that takes into account the diversity of situations, is able to adapt and is therefore more respectful of individuals. Key elements of this would be harmonised visa procedures in all EU countries with harmonised application forms, documents required, time-limits for delivery, duration of visas, motivations and reasons for refusal. It would also be advantageous to create European visas adapted to situations of applicants: e.g. business visas, technical visas, scientific visas, visas for journalists and to permit long-term visas with multiple entries. Eventually it should be possible to foresee a Euro-Mediterranean Circulation card (in the same spirit as the US Green Card) that permits the holder to move freely within the Euro-Mediterranean space. Such proposals may seem naïve in present political circumstances, but it is perhaps equally naïve to consider that effective and mutually beneficial cooperation in science, commerce and humanities can occur without some better mobility of people.

In the case of the media, stronger affirmative action in favour of better intercultural understanding should be promoted. The intensification of joint initiatives in media and cultural productions would be a positive step to a better perception of other cultures, their characteristics and specificities. A shift of emphasis would be refreshing, towards the factors that unite cultures rather than those that divide, towards what brings together rather than what separates. Such a shift would help defuse tensions and create opportunities for working together. Many endeavours could be envisaged. A pan-Mediterranean television network might be launched with multilingual, multi-channel broadcasts over the entire Euro-Mediterranean Community through satellite, digital and cable channels. Linked to an innovative website and to other media (radio,
print, publishing), the network would pool the energy, experience and resources of public and private television in the North and South of the Mediterranean and should have the mission to develop joint programmes of information, culture, science and entertainment. Financial support would be beneficial for common cultural productions and to encourage mobility of journalists, designers and artists. A ‘Euro-Mediterranean Freedom of Speech’ label might be introduced to protect journalists and artists.

In the case of education, the quality, compatibility and comparability of the Mediterranean higher education systems should be increased. Effective and balanced mobility should be enhanced in the region. EU-funded programmes in higher education should be fully exploited. Existing initiatives for a better understanding of cultures and societies and of their intellectual and artistic heritage should be significantly strengthened. The respect of others begins with understanding and understanding begins with knowledge and acquaintance. The Anna Lindh Foundation has initiated valuable work in this area on which future endeavours can be built. Exchange of teachers and staff at all levels of education (primary, secondary, tertiary) would be an effective instrument. This would require the development and implementation of mechanism for the relocation of teachers for one year minimum periods (North>South and South>North). There should be scope also for socio-cultural discovery and familiarisation of schoolchildren, college students, high school and university students by exchange during the holidays (one stay of 15 days in the North / one stay of 15 days in South), with the completion of a joint project during the exchange. Common text books should be considered, especially in history; the elaboration of a history manual as a shared heritage to be used across the Euro-Mediterranean area would be a valuable exercise. Language learning and skills upgrading should also be emphasised.

Win-win projects

Concrete, ‘win-win’ projects are the heart of the UfM; they address issues of interest to both partners, where results are less problematic and more visible than the ambitions of Barcelona

The Barcelona Process was designed to support political, economic and social reforms in the Mediterranean Partners Countries that would to help bridge the economic gap between the two shores. Progress has been disappointing (see the geopolitical and governance section of ‘trends’). The UfM revitalises the process through a framework of multilateral relations between the EU and the Mediterranean non-EU countries that complements continuing bilateral relations under the European Neighbourhood Policy and the pre-accession framework. The UfM combines an intergovernmental political structure with a pragmatic approach to the original Barcelona objectives,
seeking to complement these with specific projects that address critical issues of interest to both sets of partners and where results may be easier to achieve and will be more visible.

Concrete, ‘win-win’ projects are at the heart of the UfM. The implied, if not overt, rationale is that economic integration has been unsatisfactory and the political position of the EU in the region is weak, but that progress can be made in specific areas of well-defined common interest. Chief among these endeavours are the de-pollution of the Mediterranean Sea; improved transport by means of better maritime and land highways; creation of capacity for disaster-management; a Mediterranean solar energy plan; stronger regional education centres; and initiatives for Mediterranean business development. The work programme for 2009 also envisaged cooperation in related policy areas: transport, water, trade, health, research, education, intercultural dialogue, migration, and gender equality, democracy and political pluralism.

It is still not clear how the transition will be made from the procedures of the Barcelona Process managed by the European Commission, to the Union for the Mediterranean, managed by the Co-Presidency and the UfM Secretariat. Despite this uncertainty, the global objectives pursued in the Barcelona Declaration are still perceived as valid; as is manifest in the retention of the EU-Mediterranean Summits and the thematic EU-Mediterranean Partner Countries Interministerial Conferences. The inter-governmental structure strengthens co-responsibility, but in some respects hinders progress and jeopardises the successful conclusion of projects because it inhibits the decision taking processes due to their political nature. The summit planned for May 2010 has been postponed to November following political differences between the Arab states and Israel and, as noted earlier, the common water strategy has been blocked by similar tensions within the concerned inter-ministerial conference. In addition to the political obstacles, progress in EU-Mediterranean cooperation has been hampered by slow development in MPC-MPC cooperation in crucial aspects such as research and trade; physical trade between the MPCs has not developed rapidly despite the political progress represented by the Agadir Free Trade Agreement of South-South cooperation signed by Tunisia, Morocco, Jordan and Egypt in 2007.

Despite the obstacles and disappointments there has been some significant advance. The Association Agreements together with the previous MEDA Programme and the European Neighbourhood Policy Instrument (ENPI) are a substantial manifestation of the economic pillar of the Barcelona Process. The network of bilateral Euro-Mediterranean Association Agreements is now almost complete. EU-MPC trade is making significant advance as expressed in the evolution of the total exports and imports of the MPC to the EU, now worth respectively EUR 67 billion and EUR 60 billion annually, with annual growth rates since 2000 of 10% a year for exports 4% a year for imports.
In those areas of economic cooperation that rely on the availability of scientific and technological capacity, there has also been some progress; all the industrial goods originating in MPCs now have duty free access to the EU market and reciprocally MPCs are progressively eliminating their tariffs on imports of EU industrial goods over the next twelve years. Many significant barriers still remain, such as the lack of credible and comprehensive conformity assessment systems (testing, surveillance, inspecting, auditing, certification, registration, and accreditation) in some countries; differences in labelling and packaging requirements; differences in customs testing procedures; weak market surveillance systems; and lack of flexibility in choosing international standards. Of particular importance to MPCs are the additional Sanitary and Phyto-Sanitary (SPS) inspection procedures for specific agrofood products differentiated by geographical and religious requirements. IPR has also proved intractable; there are differences in the degree of rigour with which IPR laws and regulations are enforced; some legal provisions are weak; there is a low level of public awareness regarding IPR related measures and a lack of technical capacity for implementation of policy objectives in the area.

Generally, the most important failing of the EU-MPC partnership with regard to scientific and technical cooperation is the slow process of convergence. There is an unsatisfactory lack of regional and sectoral coverage with regard to liberalization of fluxes in goods, services and knowledge; formal commitments with regard to many of the nominal ambitions of the partnership are lacking and insufficient attention has been paid to facilitating and realising the necessary improvements in domestic legal and regulatory capacity with respect to many of the vital functions of liberalised markets.

Stronger European instruments may be required, but a more proactive role of the MPCs is indispensible

The principal financial instrument of EU-MPC cooperation is the ENPI, but there is some possibility to employ the Structural Funds and the seventh Framework Program is also applicable and important for research and innovation. The overall allocation for the ENPI is almost EUR 12 billion for the period 2007-2013. The priority areas for regional co-operation with the South have been defined in the European Commission’s Regional Strategy Paper (2007-2013) and Regional Indicative Programme (2007-2010) for the Euro-Mediterranean Partnership. Around 90 percent of the funds are used for bilateral actions and about 10 percent is allocated to the regional cooperation. The Regional Indicative Programme is complemented by the Cross-Border Cooperation (CBC) Programme for the Mediterranean Sea basin. Funding for the Cross-Border Cooperation programmes comes not only from the ENPI but also from the European Regional Development Fund (ERDF). The funding available for 2007-2010 is EUR 583 million, of which EUR 275 billion from ENPI, and EUR 308 million from ERDF. For 2011-2013, similar funding is likely.
The application of these instruments is sometimes poorly coordinated. There exist instruments, such as the Twinning Programmes, financed by the ENPI and aimed at improving the performance of a given sector, whilst within FP7 there is also provision for Specific International Cooperation Actions (SICAs) aimed at addressing common scientific objectives; coordination of these instruments might lead to better results. Hence, while formally much has been achieved with the signing of the Association Agreements and the Action Plans, this bureaucratic advance has yet to translate into a meaningful impact on cooperation, trade and growth. Moreover, as more bilateral FTAs are signed, so the likelihood of incoherent agreements with slightly different provisions increases. Bilateral negotiations should respect a set of common mechanisms covering all the MPCs in order to generate a stronger South-South integration and to guarantee a fair regional EU-MPC dialogue on the issues of common interest (43).

The EU has dedicated large sums in support of the Mediterranean policy. Since 1995, the Commission has deployed EUR 1.66 billion on regional projects for the Mediterranean, of which EUR 94 million were spent in and another EUR 92 million are foreseen for 2010. The main financial instrument available to the Commission is the Neighbourhood Investment Facility (NIF). Volumetrically it offers the largest possibilities; the multiplying effects of grants through the mobilisation of finance from bilateral and multilateral financial is substantial; by May 2010, in less than two years of activity, the NIF has supported around EUR 5.5 billion investment in infrastructure in the Mediterranean region (44). A second important instrument that the Commission and the European Investment Bank have created to serve the priorities of the UfM is the Mediterranean Facility for Investment and Partnership, generally known by its French acronym – FEMIP. The budgetary support of the Commission to FEMIP is intended to facilitate the access of SMEs to technical assistance and risk-capital finance. In FP6 and FP7, SEMCs participated in more than 200 EU research projects representing more than EUR 350 million (a list of these projects is provided in Annex).

It is however clear that the resources of public budgets cannot meet the considerable financial demands of the region. According to EIB estimations, the energy sector over the next ten years will need EUR 100 billion; an additional EUR 110 billion is required for urban renewal [water, transport, sewage]; EUR 20 billion for infrastructure [motorways, ports] and EUR 20 billion for support of enterprise development. The participation of private sector actors [infrastructure funds, banks, utilities] will be indispensable to the replication and extension of UfM projects. It is necessary to ensure that regulatory frameworks that

(43) Conclusions of the 8th Conference of Ministers of Trade of the Union for the Mediterranean, Brussels 9 December 2009.
(44) Address by Stefan Füle, European Commissioner for Enlargement and Neighbourhood Policy, at the Union for the Mediterranean ‘For’UM’ meeting, 27 May 2010, Marseille.
control private capital allow a reasonable return, commensurate with risk, and that the legal frameworks governing those investments provide adequate security to investors. Financial participation by actors from the SEMCs is highly desirable; it provides comfort to external private capital and builds ownership within the MPCs. Mechanisms to introduce local savings into the financial structure of these activities should be sought. The ‘financial perspectives’ of the EU are established for seven-year periods. The present financial perspective was agreed by Member States in 2006, before the creation of the UfM, and expires in 2013. Discussions on the financial perspectives for 2014-2020 have begun so it is now timely to propose strategies and priorities for the Mediterranean partnership over that period.

One constraint to the application of the financial instruments of the Commission appears to be that from the MPC side there is not a serious effort to access the opportunities, either in the pace of adaptation of the regulatory framework to the common EU-MPC objectives or the provision of matching financial resources. The conclusion is that although EU Instruments may not be enough, and certainly are cumbersome in their use, the limiting factor may actually be the lack of a symmetrical engagement from the MPCs to guarantee the common effort in areas of common interest.

**The scope of activity should be extended to a wider range of actions aimed at win-win cooperation and common benefits**

With knowledge and innovation the essential determinants of competitive advantage in the global economy, the capacity to innovate is considered by most nations as an essential element of response to both current and future challenges. As discussed in ‘trends’, MPCs urgently need to enhance their resources in the field of education, science, research and technological development if they are to improve their innovative capacity and to compete on the new world stage. A common agenda of the EU and the MPC to develop scientific and economic partnership based in this common interest could contribute to convergence in economic and social development and help bridge the gaps in these fields.

In developing innovation policies in MPCs, it is necessary to identify sectors at local level with the best potential for competitiveness and job creation and to find the delicate equilibrium between supporting traditional sectors that offer strategic competitive strengths and promoting new sectors that may have higher margins and greater long-term potential. It may well be easier to introduce an innovation ‘culture’ into traditional sectors, where the knowledge and experience on which to found innovation exists, than into totally new industries that are barely known or understood by the local population and by the work force. Such can be an example of the textile and clothing which has been recognised as priority sectors for the region.
In order to generate synergies with the industrial sector, research centres and the general socioeconomic apparatus in MPCs, the Association Agreements should include: the establishment of national research and innovation systems; the reinforcements of the knowledge infrastructure; the improvement of managerial skills and the effectiveness of information dissemination. The promotion of clusters that integrate production and knowledge actors together with the administrations could help to promote not only industrial companies but also companies delivering services to industry; the involvement of the business and academic sectors is a decisive factor in transforming a business culture characterized by low trust and a lack of cooperation between the private sector and the government into a more cooperative culture \(^{45}\). Guidelines for a system of governance support from the scientific sectors should be agreed.

It is desirable to investigate new potential for cooperation between the EU and the MPCs and among the partners themselves. The running Euro-Mediterranean Dialogue on the future of the textiles and clothing sector promoted by the Euro-Mediterranean Industrial Cooperation Work Programme is furthermore a good example that might be replicated. In this framework was organised also a conference on technical textiles and innovation in order to share good practices between innovative enterprises and research centres of the EU and SEMCs. However, a need remains of identifying the means to ensure the follow-up of such events in order to prevent the uncertainty of progress related to the development of cooperation and transfer of knowledge between the shores of the Mediterranean. The main emphasis should be on the transfer of EU knowledge and expertise in managing and developing industrial sectors: electricity, environment, water, and telecommunications offer good opportunities for this kind of activity.

The collection and dissemination of reliable data collection is often lacking in the MPCs and this deficiency impedes the monitoring of many issues concerning cooperation in business, science and technology. Revision of the data collection methodologies and the introduction of common standards in all the MPCs are both highly desirable.

Incoherence among national administrations has many detrimental consequences for cooperation. Time management is a serious impediment to cooperation; the rhythm of cooperation is dictated by the rhythm of the participant with the most dawdling administration. In general, MPC administrative structures are conceived for managing procedures and resources relating to national matters. The disconnection between management and function can also engender a variety of problems in the process of international collaboration.

This problem is not confined to any particular sector, but affects the global design of the national administrations and their interdependency. A new focus of national legislation for administrative practice is needed, taking into account the needs of the globalised world. Instruments like the Twinning Programmes financed by TAIEX should be used more intensively, but with a comprehensive approach, incorporating the key sector of the administrations, such as finance and justice.

A common agenda of the EU and the MPC to develop scientific and economic partnership based in common interest can promote convergence in development and help solve common problems

In the view of the expert group the topic of common interest that underpins all others is education. The educational systems of the SEMCs need support to ensure delivery of the appropriate skills in sufficient volume and quality through a process that demonstrates conformity to transparent standards. Good skills, appropriate to the labour market and of reliable quality are a prerequisite to benefit from the migration arbitrage (‘migration arbitrage’) identified earlier in trends. A better assimilation of labour into EU economies in skilled jobs will also help contribute to better integration of communities. Improved skills will also attract inward investment in outsourcing and in joint ventures; it will also contribute to spontaneous creation of employment and wealth by national entrepreneurs and contribute to political and social confidence and stability.

Much has been done in promoting educational reform and exchanges, but much more is possible and beneficial to both sides. Among priority activities are: harmonisation and recognition of qualifications in the Euro-Mediterranean space (high school diplomas and university degrees); developing quality assessment and assurance, curricula and teaching; increasing social inclusion, certification and participation in education; improving labour market intelligence and linking it effectively to curricula; fostering life-long learning; preparing professional courses and introducing the accumulation of ECTS-Med (European Credit Transfer System dedicated to students in the SEMCs); encouraging South-South interaction in joint research and study programmes; fostering programmes of Euro-Mediterranean studies in North and South.

It is in the common interest to increase the innovative capacity of the SEMCs. It has been documented in earlier sections that the innovative capacity at present is disturbingly low, but this stands in sharp contradiction to the outstanding performance of many individuals from the SEMCs working abroad. Evidently the local political and social environment is not conducive to innovation. This can be changed and there as noted earlier several programmes with funding from the EIB to help foster innovation centres.
There are several topics of very substantial common interest that could act as foci for innovation. Solar energy is an excellent example. A Euro-Mediterranean innovation partnership for solar energy would help mobilise and strengthen the industrial and technological capacities of SEMCs around a common and significant effort towards large scale deployment of solar energy for local and European markets. This would stand in continuity with the ongoing Mediterranean Solar Plan (MSP) and the project ‘Paving the Way for the MSP’, at present being implemented with EuropeAid funding. An essential incentive for SEMCs to participate convincingly in these activities is that they should benefit from the industrial spin-off. There is a great opportunity to create focused clusters of high-level research and innovation based in the SEMCs.

The activities of this innovation partnership should include: implementation of harmonised, robust, stable institutional and regulatory frameworks in SEMCs and the EU to support large-scale deployment of solar energy; identification of centres of excellence that can potentially contribute to innovation in the area and linkage in a technology platform; set-up of a credible platform dedicated to training, transfer of knowledge and awareness; development of a Strategic Research Plan for large scale bulk supply, small scale distributed projects and associated network technologies and design; establishment of precise cost-reduction targets for solar components and implementation of targeted programmes of research to achieve them; identification of grid control technologies (smart grid) to absorb distributed sources (wind, small scale solar). The final objective might be to demonstrate plant on significant scale (1 GW) within 10 years – including the technical, commercial and financial aspects.

The water sector offers another great opportunity for ‘win-win’ policies. There has been considerable effort expended in this area already, but political difficulties have impeded progress. There is a wide range of activities that need to be addressed through multiple programmes that might be coordinated under the Conference of the Ministries of Water. Among priorities are: technological development of desalination of brackish water (mapping of resources, development of strategy, improvement of technologies); establishment of clear targets for component and system performance and cost – desalination could again be an area suitable for an innovation partnership; coordination of activities and policies for decontamination of discharges into the Mediterranean sea; design and implementation of effective policies to deal with water poverty; development of efficient technologies and practices of water use including the promotion of the reuse of waste water – big cultural changes would be needed; socio-economic research on welfare implications of water allocation; creation of targets for water efficiency – benchmarking and the coordination of policies for management of water resources. It might be easier to initiate cooperation in the technical areas than in the contentious matter of policies and water allocation.
The two rims of the Mediterranean face another common problem in the management of climate change. The southern countries have been grappling with desertification and the challenges of arid lands for centuries and have much relevant experience; the northern rim has considerable competence through agricultural policies of extension programmes designed to support farmers in adapting to new technologies and changing circumstances. A common Euro-Mediterranean extension programme to combat climate change in arid countries might be considered that combines the training of professionals, the creative use of ICT, research and innovation and linking public and private sector initiatives. Among the priority actions are: implementation of harmonised, robust political and practical systems in SEMCs and the EU to support coordinated approach to dispersed intervention to manage climate change; definition of commercially viable innovative businesses to manage climate change and natural hazards; research and financial support to identify and to help innovative start-up businesses; multi-disciplinary research especially linking socio-economic and physical sciences; effective mechanisms for linking researchers and citizens across the region (scientists, farmers ...); use of internet technologies and extension workers to establish and disseminate best practice; establishing infrastructure to monitor and exchange data.

A similar, dispersed, but coordinated, extension programme to promote green, sustainable agriculture on both sides of the Mediterranean might also be effective in combating common issues of rural depopulation and preservation of biodiversity. It would be structurally similar to the proposed programme on climate change, but would have additional content, such as business development and marketing of green products. The two initiatives might be combined.

A project-based approach to cooperation has limitations. Successful completion of the concrete projects envisaged under the UfM and their replication and extension using private finance would be a major achievement, but they will not radically change the economic prospects of the MPCs. They will not bring about the high sustained rates of economic growth that are necessary to underpin convergence and to satisfy the vast need for new jobs identified earlier in the section on trends. A transition based on win-win projects is also unlikely to do much to strengthen the economic, political and institutional reform agenda. All these actions, although necessary, will have little chance of success if the MPCs do not allocate the necessary resources from their national budgets and from the private sector to participate effectively.

However, the main obstacles for EU-MPC cooperation, which are the mutual ignorance of the cultural frames and worse, the misunderstanding of the root of behaviours and social values must be addressed (see ‘Avoiding Conflict’). Perhaps the main problem for a win-win approach in EU-MPC cooperation is the lack of a conscious perception on all sides that there is no alternative to collaboration in solving many of the problems that are piling up in this
Deeper economic integration

Deep integration faces severe political obstacles, but building and upgrading institutional capacities can eventually produce results

The Barcelona Process envisaged an economic and financial partnership of the EU and the MPCs and the gradual creation of a Euro-Mediterranean Free Trade Area. The partnership was put into effect by both North-South and South-South bilateral and regional arrangements.

Most progress has been made in the North-South dimension. The bilateral arrangements between the EU and MPCs are known as association agreements except in the case of Turkey, with whom the EU has established a customs union and Syria. The Euro-Mediterranean Association Agreements are of unlimited duration and are primarily directed towards ‘creating an area of prosperity’ through the establishment of free trade zones, which cover essentially trade in goods. These Agreements are being completed with a series of bilateral negotiations aiming at deepening the Euro-Mediterranean Free Trade Area in the areas of trade in services and establishment, further liberalisation of agricultural, processed agricultural and fisheries trade, as well as establishing a binding dispute settlement mechanism.

Though some progress was made in the South-South dimension, the network of Free Trade Agreements is not yet complete both geographically and on substance. South-South economic integration remains an essential element towards the establishment of a fully fledged Euro-Mediterranean Free Trade Area. The 2007 Agadir Agreement (Tunisia, Morocco, Jordan and Egypt) which aims at more closely integrating the economies of Arab Mediterranean countries is a positive element in this respect. The Palestinian Authority is likely to join the Agadir Agreement in 2011. Furthermore, Free Trade Agreements have been concluded by Israel and by Turkey with some Mediterranean partners.

In the medium to long term, the objective is to establish a deep and comprehensive Euro-Mediterranean Free Trade Area. This will imply progressively turning the existing Euro-Mediterranean Association Agreements into deep and comprehensive Free Trade Agreements through new negotiations, mostly on non tariff and regulatory issues such as public procurement, intellectual property rights, competition, trade facilitation, trade and sustainable
development or transparency matters. It will also require completing the network of free trade agreements amongst Southern Mediterranean countries and reinforcing them beyond 2010 by covering services, investment and non tariff and regulatory issues.

Complementary to the Euro-Mediterranean trade partnership, the ENP has in principle the advantage that it permits a variable geometry and allows country-specific commitments based on the Action Plans agreed jointly between the EU and the neighbouring countries. The ENP Action Plans have focused on agreeing on commitments in regulatory areas not covered by the Association Agreements. In practice, the Action Plans are not legally binding instruments but are useful to set out jointly agreed priorities. They contain priorities, although the list of priorities is very long. The first notions of the ENP held out the prospect of full implementation of the four freedoms, but proposals for free movement of persons were later removed and market access for agricultural products from MPCs also faces difficulties.

The action plans for certain countries have been more specific than others on addressing issues that could enhance deeper integration, for example the stimulation of investment. The record of investment flows from the EU to the Arab countries is mixed. Tunisia and Morocco have attracted good volumes, but Egypt, Jordan and Lebanon have fared less well. The Action Plan with Egypt includes proposals to enhance investment flows. Other countries such as Jordan and Lebanon have followed the Egyptian example on investment, while countries such as Tunisia and Morocco have managed to include trade facilitation, competition policy and intellectual property rights in their action plans.

The perceived weakness of the ENP and its rather general approach was disappointing for the Arab countries; the concept of the UfM seemed to promise a more effective instrument to promote regional initiatives that was not conditional on a breakthrough in the Middle East peace process. In practice the unresolved Israeli-Palestinian conflict has prevented advance in this forum also. The failure of the water agreement (see ‘trends’) demonstrates the difficulties that are going to face the UfM in any regional initiative. With this precedent, it is difficult to envisage how energy, tourism, or infrastructure projects can be advanced. The pessimistic view might be that deeper integration under such framework has little chances to succeed unless a political breakthrough such as the two state solutions and reconciliation can be achieved. The more optimistic vision is that building and upgrading institutional capacities and on-going and future work towards regulatory convergence will gradually lead to the deepening of economic integration and should be pursued.
There is good potential to increase trade within the SEMCs and between them and the EU

The existing state of bilateral trade is discussed within Trends. To justify stronger policies to promote trade there need to be clear benefits. There are several simple methods to determine the potential of trade between partners. The results in the Table 11 show concordance indices for selected Arab countries with the main trading blocs of the world. Generally the Arab countries have a higher concordance with Europe than other regions and they also have high concordance with other countries in the Arab world. For example, in 2008 Egypt had its highest concordance [61.4 %] with the European Union and its lowest [19.3 %] with Japan in 2008. Its export concordance with the Arab region started low in 1998 at 33.2 % but climbed to 41.5 % in 2008 indicating an improvement in its potential for higher exports flows with the region. This evidence offers strong support for initiatives to strengthen trade flows within the Arab world and between the Arab world and the EU.

Table 11 – Concordance indices of country exports with large trading regions

<table>
<thead>
<tr>
<th></th>
<th>World</th>
<th>Arab</th>
<th>EU</th>
<th>NAFTA</th>
<th>Japan</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>63.1</td>
<td>60.8</td>
<td>33.2</td>
<td>41.5</td>
<td>59.8</td>
<td>61.4</td>
</tr>
<tr>
<td>Jordan</td>
<td>63.2</td>
<td>58.8</td>
<td>37.4</td>
<td>38.1</td>
<td>62.2</td>
<td>54.4</td>
</tr>
<tr>
<td>Morocco</td>
<td>63.3</td>
<td>62.7</td>
<td>18.7</td>
<td>39.2</td>
<td>58.3</td>
<td>59.3</td>
</tr>
<tr>
<td>Palestine</td>
<td>NA</td>
<td>41.1</td>
<td>NA</td>
<td>26.8</td>
<td>NA</td>
<td>33.5</td>
</tr>
</tbody>
</table>

Source: World Bank

For example, in the case of Morocco, the country has a high concordance with the EU that increased slightly between 1998 and 2008 from 58.3 % to 59.3 %. The concordance value for Moroccan exports with Arab imports increased over time; more than doubling in 10 years from a low of 18.7 % in 1998 to 39.3 % in 2008. Declines in the concordance indices between 1998 and 2008 are noted for Moroccan exports with Japan, and China. Those associated with NAFTA increased slightly from 24 % in 1998 to 25.6 % in 2008. Somewhat similar tendencies are seen in the other countries shown. Overall this analysis suggests that there is a high potential to increase trade flows if we can address issues that obstruct trade flows from achieving its full potential.

This theoretical analysis suggests a good potential for further trade, but does not indicate what level of trade might develop. The World Bank has recently published a report on trade facilitation for the Mashreq countries [46] the

insights from which may be more widely applicable. Over the next 10-15 years, the region is expected to develop a significant export trade in fruits and vegetables. This will require an improvement in logistics so that the countries can deliver higher value food products to markets in Europe and the Gulf. These include fresh and table-ready products. Improved logistics will be needed in order to develop large efficient processing facilities.

It is also expected to Jordan and Syria will experience growth in clothing exports, especially Syria that will take advantage of its local supplies of cotton. In order to compete in this global industry, both countries will have to establish viable niches. It is unlikely that either of these countries can compete in basic contract manufacturing against lower-cost producers and Asia, so they must seek to enter markets for higher value garments that have a greater fashion component and are produced in small order sizes. To be competitive in this market will need a substantial improvement in the logistics both inbound for the supply of accessories and synthetic materials and outbound for direct delivery to retail outlets. This is an opportunity where collaboration with the EU could be beneficial; these countries to penetrate the market, further steps would be needed to improve market access. Technical assistance is important in areas of developing accreditation laboratories and market surveys and other relevant tools that would accelerate trade and investment exchange.

Another area in which increased trade is foreseen in the World Bank study is the production of equipment for both production and consumption. This will build on current small-scale activities in the fabrication of appliances and basic machinery where the principal market is other countries within the Mashreq region. For example, Jordan’s success in developing a pharmaceutical industry producing for distribution in the region suggests that the other countries will also identify niches for consumer products to be distributed through the region and the EU market. The growth of these exports will depend on efficient cross-border movements as well as improved logistics for the delivery of the import inputs so as to allow just-in-time production and marketing.

**Deeper integration can be mutually beneficial in markets for services, finance and labour**

The largest contributor to the economy in most of the SEMCs is services, as shown in Table 12. Algeria is an exception, because of the large contribution from natural resources, mainly hydrocarbons, but even in Algeria the service sector is a large employer.
Table 12 – Services sectors contribution to the GDP

<table>
<thead>
<tr>
<th></th>
<th>GDP/capita current prices (EUR)</th>
<th>Services share in GDP (%)</th>
<th>Services share in employment (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>2770</td>
<td>32.9</td>
<td>29.8</td>
</tr>
<tr>
<td>Egypt</td>
<td>1066</td>
<td>48.7</td>
<td>48.8</td>
</tr>
<tr>
<td>Israel</td>
<td>15726</td>
<td>73.6</td>
<td>76.0</td>
</tr>
<tr>
<td>Jordan</td>
<td>2034</td>
<td>76.6</td>
<td>72.7</td>
</tr>
<tr>
<td>Lebanon</td>
<td>4598</td>
<td>72.7</td>
<td>75.4</td>
</tr>
<tr>
<td>Morocco</td>
<td>1716</td>
<td>56.0</td>
<td>56.5</td>
</tr>
<tr>
<td>Palestine</td>
<td>1003</td>
<td>68.9</td>
<td>76.7</td>
</tr>
<tr>
<td>Syria</td>
<td>1415</td>
<td>41.9</td>
<td>50.1</td>
</tr>
<tr>
<td>Tunisia</td>
<td>2447</td>
<td>52.7</td>
<td>55.2</td>
</tr>
</tbody>
</table>

Source: European Neighbourhood: a statistical overview, Eurostat, 2009

Developing the services sector by removing barriers to exports of services, identifying strength and weakness andformulating policies to support promising activities could be a fruitful area for further cooperation. Analysis shows that there are several service sectors where the SEMCs possess high potential and where they enjoy comparative over other countries.

In view of this potential, bilateral negotiations on the liberalisation of trade on services and establishment are on-going since 2008 between the EU and Egypt, Israel, Morocco and Tunisia. Exploratory talks are being conducted with Jordan. In addition, SMPCs which are members of the Agadir Agreement are also exploring the possibility to further develop liberalisation of trade in services amongst themselves.

The Table 13 shows the Revealed Comparative Advantages (RCAs) for different SEMCs on a global scale. The higher the figure the greater the advantage; the high RCAs in several sectors suggests that trade in services could act as a catalyst for further integration between SEMCs and the EU.
Effective policies to support cooperation in the services sector must address issues far beyond the scope of traditional trade liberalisation. The enabling of supportive business environments, efficient logistics and infrastructure are as important in fostering international competitive activities as are measures of trade liberalisation. Normally these considerations are subsumed under the title of ‘non-tariff measures’. The EU with the SEMCs should identify promising sectors that merit support then provide capacity building for management of the business areas at government level along with transfer of skills to qualify operators who can provide such services to their client in the EU.

The services sectors could serve as a catalyst for deeper integration if arrangements can be structured to exploit the comparative advantages they already enjoy. The business climate in SEMCs has shortcomings as described in the ‘Doing Business’ report and the report on the implementation of the Euro-Mediterranean Charter of Enterprise of 2008; they are especially weak in legislation, enforcing contracts, employing workers, getting credit (legal rights) and the costs of creating business \(^{(47)}\). These should be priority areas for deepening cooperation with the EU.

Several factors contribute to expect that the SEMCs will have good opportunities to attract more FDI in the future \(^{(48)}\). First, the drive for greater

---

\(^{(48)}\) Mediterranean Partner Countries Facing the Crisis, FEMISE, August 2009.
competitiveness in European companies has led to the redeployment of their value chains and, as a result, the adoption of ‘nearshoring’ strategies that give preference to the southern shores of the Mediterranean. Second, there is a renewed interest from the oil-exporting countries to invest in the region. Third, the Mediterranean region is specialized in ‘trustworthy’ sectors such as tourism, agriculture, and energy, less risky markets to which investors turn in times of crisis. Fourth, the improvements made by the SEMCs in their business environment since the mid-1990s have also produced results and considerably enhanced their attractiveness, even in relation to the Eastern countries.

The medium-term prospects for FDI could be bright if the SEMCs can take advantage of the stagnation of capital inflow to other regions to increase their own market share by diverting flows thanks to their renewed attractiveness. This, however, will not be an automatic movement. It will be necessary to further boost current strengths, i.e. make further progress in the qualification of human capital ensure an even more efficient business climate and foster greater openness to trade, e.g. through the conclusion of the on-going bilateral negotiations. These are all areas where support from EU institutions and capacity building can support a transition to deeper integration. These areas are also part of the priority areas under the ENP Action Plans.

The free movement of labour is considerably more controversial on the EU side than is the free movement of capital. The Association Agreement and the Action Plan include provisions related to the living and working conditions of legally settled migrant communities, the prevention of illegal migration, and the reduction of migratory pressures, but nothing on the management of further labour migration. In the view of the expert group, given the demographic structure in both the SEMCs and the EU with young educated and unemployed in the SEMCs and an increasing demand in the North, much can be done to introduce measures to encourage labour movement on both shores of the Mediterranean.

Vocational training offers good opportunities for cooperation; this is an area where special training and standards can be introduced in the short run to upgrade the level of skills available in the SEMCs. The ENP framework has allocated resources to the education and training and the Euro-Mediterranean Charter for Enterprise includes jointly agreed guidelines regarding skills development, but the issue has not emerged as a top priority; it should be addressed on an equal level with investment and trade. Actions to support this are given under ‘Win-win’. There is a need to link all these issues and to establish a clear understanding of the dynamics of growth, the labour market and migration.
There is room to enhance mutually beneficial activities through a holistic, but targeted approach to deeper integration

The Euro-Mediterranean Association Agreements and the South-South network of free trade agreements provide a good basis for economic integration. The conclusion of the on-going negotiations is not sufficient to bring the benefits of deep integration to Mediterranean partners. Euro-Mediterranean trade relations need to address more deeply non tariff barriers and ‘behind the border’ issues. Therefore, the EU and SMPCs have agreed on the common objective of deepening the Euro-Mediterranean Free trade Area in order to include the removal of non tariff obstacles to trade and gradual regulatory convergence on areas of mutual interest. Such deep and comprehensive Euro-Mediterranean Free Trade Area would promote the diversification of trade and investment relations between the EU and the Mediterranean region, contribute to a more favourable investment climate and to attract both domestic and foreign investment, through increased transparency, predictability and sustained economic growth.

The Action Plans of the ENP are also a good basic instrument, but they need to identify specific priorities and set measurable objectives that permit monitoring performance and evaluation of achievements.

There are several areas of economic activity that could contribute to expand trade between the SEMCs and the EU. The EU can improve the existing financial mechanisms that it is using to deliver budgetary assistance to SEMCs. Instead of the unconditional financial assistance, this support could be directed towards specific sectors or projects. These sectors or projects can be identified with the partner countries and could be associated with some performance indicator that would enable observers to measure the efficiency of the intervention.

There still barriers to investment inflows. It is not clear how the future looks given the global economic crisis, but the SEMCs appear resilient at present. At this stage, the priority is to foster an effective and successful business environment that will permit the SEMCs to grasp the opportunities once the global economy grows out of the crisis.

Labour movement is the most contentious issue and tends to be seen in present political circumstances by the North as synonymous with illegal migration. This is a facile position and more needs to be done at political and official level to understand the linkages between labour movement, the demographic structure, skill levels and economic growth. Reviewing migration in isolation is to the benefit of neither side.
Towards a Euro-Mediterranean Community

A Euro-Mediterranean Community faces five major obstacles: lack of a shared vision; lack of political will; lack of trust; lack of resources; lack of suitable institutions.

A transition towards a Euro-Mediterranean Community represents the most encompassing and positive version of a possible future development. Even though it is not very likely to happen under the current circumstances such an integrated scenario would be a major achievement. To create a Euro-Mediterranean Alliance which could become a Euro-Mediterranean Community, participants have to tackle five major obstacles of today’s Euro-Mediterranean relations: lack of a shared vision; lack of political will; lack of trust; lack of resources; and lack of suitable institutions.

Vivid, fruitful and sustainable cooperation should not rely on mechanistic and functionalist visions even though the history of the EU might suggest otherwise. There is no simple causal link between economic liberalization and political liberalization and deepening and broadening of cooperation always depends on favourable conditions and political will. Cooperation is a long-term endeavour and the costs involved are substantial – as are the costs of a possible failure.

Most theories of cooperation agree that trust is the main ingredient of successful cooperation and lack of trust is the main reason for failing cooperation and enduring conflict even though mutual benefits can be created in principle. Trust can be built but this is a long-term process involving many material and non-material resources and incentives; not the least it needs political will and a vision why this could be fruitful. After the Second World War, it took more than two generations, enormous effort and much money to create the European Union of today. Successes need to be reinforced and actively supported on a daily basis as the current financial and currency crisis shows in a quite spectacular way. What is true for the EU as a success-story is even more important for the more ambitious, difficult, and complex processes involving Europe’s neighbours and friends.

The ‘acquis’ determines the shared vision of a Euro-Mediterranean Community; the institutions will privilege co-responsibility; cohesion, convergence, progressive integration and possible accession are milestones on the way

The ‘acquis’ of Barcelona should serve as a starting point for a shared vision. This acquis will serve as a regulatory frame and a roadmap at the same time thus leaving space for collaborative development of institutions.

and policies of the Community. Social cohesion and material, legal, economic, social and political convergence are preconditions for cooperation, deeper integration and possible accession. Cooperation and integration could follow the approach of variable geometry, permitting differentiated sectoral integration on the route towards accession. In this context, the promises of the ENP: a stake in the internal market and access to the four freedoms come into play. Accession itself is a highly formalized process of pluri-bilateral negotiations, which follows an institutional routine set by the EU. The full adoption of the Community acquis is a precondition. The necessary processes of adaptation take time and they have been strongly supported materially and non-materially by the EU in all enlargement rounds of the Union.

The concept of an acquis underpins the normative and regulative framework of cooperation within the EU. The EU acquis represents all the foundational principles of the Union and as such it is a condition required of future partners that they adhere to the same rules. Whereas the steps towards reaching and even demonstrating adherence can be a matter of debate the acquis itself cannot. Even though the binding rules and obligations of the acquis and the accession to this acquis constitute the most encompassing vision it is also deeply asymmetric, as newcomers cannot change the rules. Their incentive is the future possibility to set (and change) the rules. The acquis maps out the main aims of any integration and convergence scenario.

A special Euro-Mediterranean acquis determining a shared common vision is a necessary condition for a future Euro-Mediterranean Community. The Barcelona Declaration, the association agreements, the ENP, the action plans and UfM documents already constitute a specific acquis of a future Euro-Mediterranean Community. A condensed version of the implicit and explicit agreement already reached in these documents would map the shared vision of all members of such a community. It would constitute a formal commitment of all partners and legitimise the institutional rules and procedures already developed (e.g. the complex mixture of bi- and multilateralism, the basket-structure and the specific role of the Commission as a guardian of the EMP). In addition, it embodies the political will of all parties involved and it defines a shared vision of the aims, institutional set ups and necessary steps of the Euro-Mediterranean Community. Not all aims have to be fulfilled before entering the Euro-Mediterranean Community because this acquis serves as a vision and a roadmap. But the ‘potential acquis’ as it was aptly coined in a Euromesco report has to be fully acknowledged as the shared vision, including the aims of the Barcelona declaration of 1995 such as the respect of fundamental values and freedoms, the rejection of violence and power politics between states, the commitment to build a common economic area and cooperation beyond governments by strengthening civil society.

The Euro-Mediterranean Community builds on the institutional acquis of the Barcelona Process including the latest institutional innovations of the Union for the Mediterranean. Two major aims have to be pursued: first, to overcome the
structural asymmetry of governmental relations within the EU setting and second, to ensure the broadest societal involvement possible, i.e. co-responsibility of governments, intermediary organisations and the citizens of the Union. This implies different sets of rules on the different levels of interaction. On the inter-governmental level, rules of cooperation such as the right of agenda- and budget-setting, decision making, financial contributions, and responsibility for results have to be developed in order to create procedural legitimacy as well as to be able to produce tangible outputs. There are many models of such an institutional structure e.g. in the framework of accession processes, but also in the EMP-UfM framework. Among them are the Euro-Mediterranean committees, the shared presidency, Euro-Mediterranean Secretariat, multi-sectoral Euro-Mediterranean Unit, majority voting, and conflict resolution procedures. On the transnational level of cooperation between intermediary organisations and individual human beings, the institutional set-up has to be flexible and enabling. The idea is to create fora for building trust through transnational exchange, shared experience, dialogue, and hospitality. The Euro-Mediterranean civil forum, the Euro-Mediterranean Parliamentary Assembly, the Anna-Lindh-Foundation, the Euro-Mediterranean Human Rights Forum and the multiple existing networks in the field of economic cooperation can serve as models for these enabling spaces. They should foster the broadest participation; create spheres of non-interference by governments, spheres of mutual respect and a spirit of unity in diversity as the Euromesco report coined it.

Cohesion and convergence are the mechanisms which are used in order to put into operation the general vision of peace, well-being, respect of human rights and the rule of law. Some experts suggest that with democratic development in SEMCs, these countries could become the first new members of the Council of Europe. Convergence policies have been at the core of EU policies in order to promote growth-enhancing conditions and factors leading to economic, social and territorial convergence for the least-developed Member States and regions. The aim was, and still is, to create social cohesion through equitable and sustainable growth, thus balancing huge disparities in welfare and development whilst creating solidarity and the social basis for peace.

If the political will exists genuinely to move towards a territorial economic integration in the Euro-Mediterranean area then a territorial cohesion policy will be needed. Regional imbalances should be identified and progressively alleviated. Implementation of European financial instruments such as Structural and Cohesion Funds would need to be extended to the SEMCs with priority to interventions aimed at the regional, meso-regional or sub-regional levels. In order to create cohesion and convergence, substantial funding will be necessary even if the eligibility threshold is set at much less than the EU norm of a GNP below 90% of the Community average. There is a huge gap between the ‘incentives’ or assistance presently on offer and the enormous costs of the necessary adaptation processes; funding this gap would be an intimidating prospect for politicians of the north.
Getting there will face much scepticism and many obstacles

Realising the aim of a Euro-Mediterranean Community is a daunting venture; it must face the criticism and scepticism of most experts and policy makers in the field and must address a wide variety of problems, dilemmas and obstacles. Many of these obstacles have been described within the trends and tensions sections and some under the transition ‘Avoiding Conflict’: lack of trust and cooperation and the decreasing legitimacy of the EU as normative power; the interpretation of foreign and domestic relations in terms of security, military interests and cultural identity relations on both shores of the Mediterranean (exacerbated by the war on terror and the war in Iraq). These common obstacles differ in this new context only because the greater ambition of the venture makes it more vulnerable, but some concerns merit particular mention.

Institutional asymmetries are a strong feature of present relations of the EU and surrounding states, accompanied by galloping institutional inflation and diffusion. The EMP was asymmetric in the sense that it was controlled by the Commission; the ENP strengthened this impression. You choose your partners, but not your neighbours so the urge to control is stronger. The UfM created new institutions, but is severely de-politicised. In addition, and as important as the institutional set-up are the beliefs and values of the partners. As long as a paternalistic language of conditionality, incentives and modernising countries prevails then the vision of a community will remain pure rhetoric. This in turn is absolutely detrimental for the building of much needed trust especially as the ruling elites on both sides of the Mediterranean will have to construct political will to engage in costly, time consuming changes in all major fields of the society, economy and politics. A renewal of agreement of the above mentioned Barcelona acquis could represent a symbolic and concrete first step towards a new rhetoric.

The regional dimension to cooperation is very important, but is making little perceptible progress; the bilateralism of the ENP may actually be weakening the idea of a Euro-Mediterranean Community in terms of shared culture, history, and humanity. The project-oriented approach of the UfM might enhance regional community building and cooperation on a practical level, but whether or not it does so depends on how the practical activities are conducted. Regionalism and multilateralism are both ways of reaching the aim of a Euro-Mediterranean Community, but at the same time constitute aims in themselves. The multilateral dimension would enhance those non-governmental types of cooperation in economy, migration, education, culture which rank below highly institutionalized activities and still constitute the bulk of sustainable measures in building trust between the two shores of the Mediterranean. At government level, reaching peace in the Middle East is a critical short-term and medium-term aim (the ‘Avoiding Conflict’ transition). Without a fair and sustainable solution to this protracted conflict there will be no progress towards building a security community.
The authoritarian regimes of the region constitute the main domestic barrier for progress in terms of democracy, human rights and rule of law. It is difficult to think of meaningful incentives to loosen their grip on power. But as noted within ‘trends’, Arab societies are experiencing profound social, cultural and economic changes that have not yet been coupled with political change at the level of the regimes. These transformations without transitions are creating enormous pressures on the regimes and the social contracts that they often fail to serve because of a lack of resources. Local tensions and uprisings driven by unmet daily needs as well as openly critical groups and movements are active all over the Arab world. How to support these forces without trapping them in allegedly neo-imperialist relations is a critical question for a future community.

The EU cannot and should not buy authoritarian regime out of power; at the same time, it should abandon the idea of more or less indirect ‘trickle-down-effects’. There is huge potential for political change in the region as many recent polls show, but it has to be pursued by those who live there and who will pay the price of possible repression. The process of change suggests that it is inevitably open ended. The inability to control outcomes poses dilemmas for the EU. As long as it is not willing to engage with the outcomes of democratic processes then the EU has no legitimate position to demand more democracy. The creation of spaces for the participation of collective non-governmental intermediary actors as well as ordinary citizens will provide for those exchanges and experiences which are necessary in order to further change. But change which could come from the new and educated Arab generation is desirable. Nevertheless, it carries the risk of developing in a non-desirable direction.

A first step might be followed by an enlargement of the Council of Europe to the SEMCs and the progressive implementation of the European Convention on Human Rights in the most advanced SEMCs. The common interest in establishing a system of shared social and civil rules will be then be materialised by the extension of the Council of Europe to SEMCs. The aims of this initiative would be: to build a basis of shared values around the Mediterranean and its environment (Africa, Middle East, Asia); to strengthen civil societies in the South; to foster interaction between them and European civil societies (NGOs) and to address some of the issues related to post-colonisation [50].

[50] Beside the creation of a Euro-Mediterranean Community, some experts speak about a Mediterranean Alliance. The latest differs from the first for the intensity of the process and for the geopolitical dimension. The Euro-Mediterranean Community is based on shared values and principles, therefore it requires a deeper cohesion. As the Mediterranean Alliance would be based on common interests, it would be less stringent. This Alliance could progressively enlarge the geopolitical dimension of the Euro-Mediterranean Community that is necessarily more restricted.
Conclusions

and moving forward
Conclusions and moving forward


The Mediterranean, seen as an area of conflict, distorted perceptions and preconceptions with several of boundaries and partitions, nevertheless offers a great potential for cooperation between states, industry, civil society organisations and people. This is demonstrated by every day interpenetration and interactions between both sides of the Mediterranean which underline numerous common interests.

In the view of the Working Group, cooperation between the EU and the SEMCs, despite the undeniable disappointments on both sides, remains a priority. The costs of delivering this cooperation maybe high, but the costs of inaction are higher still and the benefits are large.

This report has presented trends, tensions and transitions for the Euro-Mediterranean area by the year 2030.

Trends

Contrasting demographic and macroeconomic trends on the two sides of the Mediterranean offer real prospects of economic complementarities. Put simply, Europe will need workers from the South if it is not to shrink and to age and possibly to decay. The need for jobs in the young and growing populations of the South side of the Mediterranean may in the right circumstances match the need for labour of the ageing European Union; it should be an objective of policy to create those circumstances. Proactive engagement of politicians to honestly address the real practical needs for more flexible immigration policies in the face of hostility from nationalistic and xenophobic political elements is an essential first step.

One key to unlock this potential is education. In spite of real progress, much remains to be done to adapt the education systems in the countries in the South to the requirements of economic development. It is in the interests of both parties that better trained youth on the Southern side of the Mediterranean should contribute to more economic development at home and find jobs in their own countries – and also that future labour migrants have the qualifications needed in the European labour market. Europe has much expertise to offer in this domain as in the domain of research.
There are important resource constraints that operate on both sides of the Mediterranean. The shortage of water is a serious concern on both shores and is likely to get worse as a consequence of climate change; the impact on agriculture and rural communities is dramatic. Management of these issues would benefit from a cooperative approach across the Euro-Mediterranean area. Europe can offer technical expertise for improved management of water resources. Potentially the SEMCs could develop research and innovation capabilities in desalination, recycling and agriculture of arid lands. Euro-Mediterranean cooperation aiming to encourage where necessary the international management of the resource should be reactivated.

Many SEMCs are among the worst affected by climate change, although they contribute only very little to the global problem. Technical assistance with adaptation activities is well justified. The countries are, with some exceptions, also vulnerable in terms of security and cost of energy supply. This implies the need for common strengthening of supply networks, improvement of energy efficiency and taking advantage of huge renewable energy potentials. Cooperation is in the mutual interest in order to: strengthen supply networks; improve energy efficiency and to take advantage of the huge potential in renewable energy, notably solar energy, in the countries of the region. Concrete projects which have been initiated should be reinforced, and a suitable financial and commercial framework should be found for Europe’s involvement in these developments and their future benefits that ensures their commercial value and ensures a return to the host countries through the creation of related opportunities for research, innovation and manufacture of the necessary materials and equipment.

On a more cultural and political side, the report shows that the trends of religion and culture as well as geopolitics and governance will require more focused attention. On the one hand, the existing stereotypes of the confrontational relation between Islam and European Enlightenment values create a serious obstacle to deepening of the Euro-Mediterranean dialogue that implies an imperative for a positive intercultural dialogue. On the other hand, the political concept of the Mediterranean is not obvious and needs to be as such taken into consideration, while the Member States of the EU are working towards strengthening of the common vision of the European Union in the framework of its external policies.

Tensions

Four levels of tension linked to those trends were identified by the expert group. The first level comprises a set of tensions among social groups arising out of disappointing economic development, the risks of adverse social effects of the needed economic reforms, food insecurity and high employment. As noted, it is in Europe’s interest to try to reduce these tensions that could well lead to violent internal conflicts with a potential for spill-over into other arenas.
There are also tensions between competing visions of the State and the reformers, between aged authoritarian leaders and young generation. The implementation in the countries of the South of reforms heading towards a market economy raises the question of the compatibility between economic liberalism and maintained authoritarian political regimes. The effectiveness of the intergovernmental mechanisms provided in the Union for the Mediterranean is doubtful.

Tensions between hostile States are already very evident in the region. Europe has been rather unsuccessful in its attempts to contribute to their resolution. A politically stronger Europe will be needed to be able to help solve these tensions within a multilateral approach together with the other actors in the region. A stronger European external policy is indispensable.

The final set of tensions noted by members of the Working Group arises out of differing expectations on each side of the Mediterranean of the aims of cooperation. Europe’s principal aim is to secure its borders by a cordon of well-governed, economically stable and democratic States. The other Mediterranean countries expect the European Union to support their reforms and acknowledge their progress while desisting from issuing injunctions. The institutional mechanisms which were successively put in place to manage Euro-Mediterranean cooperation were weakened by these different expectations.

Transitions

The report identifies four possible transition scenarios for Euro-Mediterranean cooperation by 2030. These transitions represent to some extent a scheme of progressively higher ambition, but they should not be seen as necessarily sequential. They are four possible story lines and reality may take a part from each. Indeed, even now there is some simultaneous progress along the four lines that the Group envisages.

The first transition is Managing Conflict. This is probably an essential prerequisite for significant progress with other transitions for which a politically and diplomatically stronger Europe is needed. The report makes concrete suggestions for progress, including better functioning cooperation institutions, less rigid and more harmonised immigration and visa policies, promoting better mutual understanding notably via the media, education programmes and exchanges.

‘Win-win’ projects are at the heart of the objectives of the Union for the Mediterranean; this approach defines a second form of transition. Priorities have been well defined within the UfM, but uncertainties about the process are delaying or preventing progress. Much can be done in the area of trade, in scientific and technical developments that are crucial for the future – and which demand involvement by the Southern countries themselves – as well as in education. Concrete propositions of new initiatives are presented in the report.
The third form of transition is towards deeper economic integration and the embrace of the ‘four freedoms’. It includes, but is not limited to, fully achieving trade liberalisation. There is still a great potential for trade per se, especially in the services sector, investment and free movement of capital. The report stresses the need for proper planning and management of further labour migration.

The final transition is towards a Euro-Mediterranean Community. Building on the acquis of Barcelona this would create a Union of one billion people. The report identifies five major obstacles of today’s Euro-Mediterranean relations to be tackled if a real Euro-Mediterranean Community is to be created: lack of a shared vision, lack of political will, lack of trust, lack of resources, and lack of suitable institutions. The starting point should be the ‘acquis’ of Barcelona involving the promise of access to the four freedoms going together with the full acceptance of the Community acquis and a supporting convergence and cohesion policy – and, for the countries in the South, the perspective of future participation in establishing the common rules. The report proposes various initiatives aiming gradually to overcome the existing scepticism and the many obstacles on both parts and to develop mutual trust. In this respect as in others, the report stresses the need to reinforce the multilateral dimension of cooperation.

Avicenna plan and euro-mediterranean agency for research and innovation?

Throughout the report, education, science and innovation are emphasised as main topics for cooperation in themselves and necessary conditions for others. The experts’ work contributes to deeper strategic thinking on future research and innovation, particularly considering that it is sometimes difficult for the politicians of the region to meet. Therefore the creation of ties between the countries is mostly done by the students, teachers, researchers and academics. These can be, according to the Belgian Presidency of the Council (51), seen as ‘intermediate bodies and opinion-makers who make up the backbone of our societies’ and are ‘drivers of evolution and progress’ as well as ‘factors of long term stability’. In this respect, two of the expert proposals are especially worth mentioning.

First, the ‘Avicenna Plan for Education, Culture and Mobility’ which bases itself on the belief that the respect of others begins with understanding and understanding begins with knowledge and acquaintance. Its principal aim and justification would be to reap the demographic dividend, but the value would extend in reality across all aspects of social, scientific, economic and political life and underpin the creation within the SEMCs of research and

innovation skills in key technologies for the development of arid countries. In this view, it envisages the strengthened cooperation in the field of education in the Euro-Mediterranean area. This would start with the mobility of teachers and staff at all levels of education, familiarisation for schoolchildren, college students, high school and university student exchanges during holidays, use of common textbooks (in particular a common history manual) and upgrading skills as well as learning languages. Further steps would include harmonisation and recognition of qualifications, developing of quality assessment and assurance, curricula and teaching, fostering life-long learning, encouraging South-South as well as North-South research and study programmes and introducing the ECTS-Med system. All these initiatives would not only improve mutual understanding and enhance cultural tolerance, but could also help diminish the unemployment rates in the SEMCs and offer more specialised and targeted educational programmes, which respond better to the needs of the labour market.

Second, the proposal of a ‘Euro-Mediterranean Agency for Education, Research and Innovation’ is building on the idea of the Avicenna plan and adding the goal of setting up a common agency with an equal and active role in all of the countries of the Euro-Mediterranean area. It is seen as a step towards a Euro-Mediterranean science, technology and innovation Union based on the belief that the win-win collaboration is a cultural and educational approach, where populations must be conscious of a closer cooperation between the two sides of the Mediterranean. This proposal aims at addressing the impact of migrations, pollution of the common sea, climate change, energetic models as well as scientific and business opportunities. In this view the concrete proposals include the review of relevant policies, regulations, practices and competences, definition of common research programmes and technical cooperation and a creation of a significant (not necessarily complete) free-trade zone for goods, services and agricultural products using common standards. In addition a common agenda of the EU and SEMCs would need to be drafted and the Association Agreements should support the establishment of national research and innovation systems and clusters.

**Euro-Mediterranean Cooperation In The Eu’s Research Framework Programmes**

In addition to the insights already described, the work of the expert group contributed also to deeper strategic thinking on future research and innovation activities at the EU level and the debate on the strategic research agenda. In the meantime it is important to note that the constructive support of the EU to the development of the Euro-Mediterranean relationship from the resources of the research Framework Programmes (FP).
Involvement of the SEMCs in the FP is already significant. Between 2002 and 2010, more than 200 EU research projects have been approved with substantial participation from South and Eastern Mediterranean Countries, amounting in total to more than EUR 300 millions. Israel and Turkey are already fully associated to the Framework Programmes; they contribute finance and they participate in the EU research activities under the same condition as EU Member States. Between 2002 and 2010, more than 2400 Israeli and Turkish teams have participated in the FPs. The EU financial contribution to Israel and Turkey amounts to almost EUR 600 millions. Annex 1 contains a list of the projects and provides a good overview of research themes where the EU and SEMCs already collaborate.

The constructive support of the EU to the development of the Euro-Mediterranean relationship from the resources of FP7 is expected to continue at an important level. In 2011, about EUR 71.5 million of projects relevant to the Mediterranean area are foreseen. Funding will address two critical issues – the management of the deteriorating physical environment of the Mediterranean littoral and the need to strengthen R&D capacity.

A large scale integrated project will be funded to provide a scientific rationale for a basin-wide promotion of sustainable development in the Mediterranean and the Black Sea by developing a customised expert systems and an integrated knowledge-base for understanding the evolving patterns of anthropogenic and natural pressures (52). A second large-scale integrated project within the same Call will create the scientific basis for establishing networks of marine protected areas for conservation and good management of marine living resources; it will in parallel assess offshore wind energy potential and evaluate synergies and conflicts of use with other marine activities (53). In the same spirit, a collaborative project within the Environment Call will enhance monitoring and management systems for the North African Mediterranean coastline, with the intent to identify and assess the risks posed by global change and human development to the regional economies and to support the development of adaptation strategies to reduce these risks and mitigate impacts (54).

---

(54) Assessing the ecosystem status, including fisheries, within the Mediterranean marine coastal areas of North African countries: CALL ID: ENV.2011.4.1.4-2.
Within the agricultural sector a project will be funded to help introduce cover crops, catch crops and various forms of mulch into cropping systems to improve the soil, manage pests and suppress weeds. To be effective, the introduction of cover crops and mulch systems will require changes in farm practices and will need to be suited to specific production systems and agro-climatic conditions. These issues will also be addressed [55].

A very large research effort will be launched that integrates Coordination and Support Action and Collaborative Project funding schemes in one project to carry forward the prototype operation and development of a GMES service that will help both Europe and the Mediterranean partners to formulate better environmental policies [56].

Support to the strengthening of R&D capacity will be made available in imminent Calls. An activity within INCO will support actions to reinforce cooperation with particular research centres in ENP countries not already associated to FP7 [57]. Particular support will be offered to cooperation in forestry research with the intention to resist fragmentation and to strengthen the contribution of research to sustainable forest management [58]. Another series of actions will stimulate dialogue and cooperation with strategic partner countries in order to improve cooperative research links and increase collaborative R&D in information and communication technologies. The activities should also help launch targeted research projects that address innovative models of technology business [59].

---

[56] Prototype operational continuity of GMES services in the Marine Area: SPA.2011.1.5-01.
[57] Reinforcing cooperation with Europe’s neighbours in the context of the ERA – Activity ERA-WIDE (Mediterranean Countries): FP7-INCO-2011-6-2 / Mediterranean countries.
[59] International partnership building and support to dialogues: FP7-ICT-2011-7 / Objective ICT-2011.10.3.
Annex 1.

EU research projects with Mediterranean countries

The below list of projects presents the EU research activities under the sixth and seventh Framework Programmes (FP6 and FP7) with a substantial participation of southern and eastern Mediterranean countries between 2001 and 2010. This list includes only the projects where at least three partners from SEMCs participate.

Between 2002 and 2010, more than 200 EU research projects have seen a substantial participation of SEMCs amounting for more than EUR300 millions.

It is worthwhile mentioning that Israel and Turkey are fully associated to the Framework Programmes. This means that they financially contribute to the FP and that they can participate in the EU research activities at the same condition than EU Member States. Between 2002 and 2010, there has been more than 2400 participation of Israeli and Turkish teams in the FPs. The EU financial contribution to Israel and Turkey amounts to almost EUR600 millions.

The below list of projects, although not exhaustive, provides a good overview of research themes where the EU and SEMCs collaborate.
<table>
<thead>
<tr>
<th>EU PROJECT</th>
<th>TITLE</th>
<th>PERIOD</th>
<th>EC CONTRIBUTION</th>
<th>FP6/FP7</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQUAMED</td>
<td>The future of research on aquaculture in the Mediterranean region</td>
<td>01/06/2010 to 31/05/2013</td>
<td>EUR 996,852</td>
<td>FP6</td>
</tr>
<tr>
<td>AQUARHIZ</td>
<td>Modulation of plant-bacteria interactions to enhance tolerance to water deficit for grain legumes in the Mediterranean dry lands</td>
<td>01/03/2004 to 28/02/2007</td>
<td>EUR 1,030,000</td>
<td>FP6</td>
</tr>
<tr>
<td>CIBEWU</td>
<td>Citrus rootstock breeding for efficient water and nutrient use</td>
<td>01/01/2006 to 31/12/2008</td>
<td>EUR 1,280,000</td>
<td>FP6</td>
</tr>
<tr>
<td>DIMAS</td>
<td>Deficit irrigation for Mediterranean agricultural systems</td>
<td>01/09/2004 to 31/05/2008</td>
<td>EUR 1,015,000</td>
<td>FP6</td>
</tr>
<tr>
<td>EL MAA</td>
<td>Integrated water management of Mediterranean phosphate mining and local agricultural systems</td>
<td>01/09/2005 to 30/06/2009</td>
<td>EUR 1,600,000</td>
<td>FP6</td>
</tr>
<tr>
<td>EU MEDAGPOL</td>
<td>Measuring the impact of agricultural trade liberalisation</td>
<td>01/03/2004 to 01/03/2007</td>
<td>EUR 960,000</td>
<td>FP6</td>
</tr>
<tr>
<td>GEWAMED</td>
<td>Mainstreaming gender dimensions into water resources development and management in the Mediterranean region</td>
<td>15/02/2006 to 14/02/2010</td>
<td>EUR 1,250,000</td>
<td>FP6</td>
</tr>
<tr>
<td>INECO</td>
<td>Institutional and economic instruments for sustainable water management in the Mediterranean region</td>
<td>01/07/2006 to 30/06/2009</td>
<td>EUR 739,987</td>
<td>FP6</td>
</tr>
<tr>
<td>INNOVAMED</td>
<td>Innovative processes and practices for wastewater treatment and re-use in the Mediterranean region</td>
<td>01/01/2007 to 31/12/2009</td>
<td>EUR 480,000</td>
<td>FP6</td>
</tr>
<tr>
<td>IRRISEASOIL</td>
<td>A cheap easy-to-handle desalination approach for crop irrigation under Mediterranean conditions</td>
<td>01/04/2004 to 31/12/2007</td>
<td>EUR 1,250,000</td>
<td>FP6</td>
</tr>
<tr>
<td>MDFROL</td>
<td>Farming around the Mediterranean</td>
<td>01/04/2004 to 28/02/2007</td>
<td>EUR 1,170,000</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDINDUS</td>
<td>Advanced technologies for the treatment of industrial and coastal waters of the Mediterranean region</td>
<td>01/10/2004 to 30/09/2007</td>
<td>EUR 941,995</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDITATE</td>
<td>Mediterranean development of innovative technologies for integrated water management</td>
<td>01/05/2004 to 31/10/2007</td>
<td>EUR 1,648,497</td>
<td>FP6</td>
</tr>
<tr>
<td>MELIA</td>
<td>Mediterranean dialogue on integrated water management</td>
<td>01/09/2006 to 31/08/2010</td>
<td>EUR 2,000,000</td>
<td>FP6</td>
</tr>
<tr>
<td>NOSTRUM-DSS</td>
<td>Network on governance, science and technology for sustainable water resource management in the Mediterranean region</td>
<td>01/08/2004 to 31/01/2008</td>
<td>EUR 1,010,000</td>
<td>FP6</td>
</tr>
<tr>
<td>OPTIMA</td>
<td>Optimisation for sustainable water resources management</td>
<td>01/07/2004 to 30/06/2007</td>
<td>EUR 1,499,997</td>
<td>FP6</td>
</tr>
<tr>
<td>OPTIWHEAT</td>
<td>Improving the yield stability of durum wheat under Mediterranean conditions</td>
<td>01/07/2006 to 30/06/2010</td>
<td>EUR 1,800,000</td>
<td>FP6</td>
</tr>
<tr>
<td>PERMED</td>
<td>Improvement of native perennial forage plants for sustainability of Mediterranean farming systems</td>
<td>01/10/2004 to 30/09/2008</td>
<td>EUR 1,365,000</td>
<td>FP6</td>
</tr>
<tr>
<td>QUALIWATER</td>
<td>Diagnosis and control of salinity and nitrate pollution in Mediterranean irrigated agriculture</td>
<td>01/01/2006 to 31/12/2009</td>
<td>EUR 1,450,000</td>
<td>FP6</td>
</tr>
<tr>
<td>SESAME</td>
<td>Assess and forecast changes in the Mediterranean and Black seas ecosystems and their ability to provide services</td>
<td>01/11/2006 to 30/04/2011</td>
<td>EUR 10,000,000</td>
<td>FP6</td>
</tr>
<tr>
<td>EU PROJECT</td>
<td>TITLE</td>
<td>PERIOD</td>
<td>EC CONTRIBUTION</td>
<td>FP6/FP7</td>
</tr>
<tr>
<td>------------</td>
<td>-------</td>
<td>--------</td>
<td>-----------------</td>
<td>---------</td>
</tr>
<tr>
<td>TRITIMED</td>
<td>Exploiting the wheat genome to optimise water use in Mediterranean ecosystems</td>
<td>01/09/2004 to 31/08/2008</td>
<td>EUR 1 320 000</td>
<td>FP6</td>
</tr>
<tr>
<td>WADI</td>
<td>Sustainable management of Mediterranean coastal fresh and transitional water bodies: a socio-economic and environmental analysis of changes and trends to enhance and sustain stakeholder benefits</td>
<td>01/01/2006 to 31/12/2008</td>
<td>EUR 1 820 000</td>
<td>FP6</td>
</tr>
<tr>
<td>WATNITMED</td>
<td>Management improvements of water and nitrogen use efficiency of Mediterranean strategic crops</td>
<td>01/01/2005 to 31/12/2008</td>
<td>EUR 1 386 700</td>
<td>FP6</td>
</tr>
<tr>
<td>AGORA</td>
<td>Advancing Mediterranean forest research capacities</td>
<td>01/01/2010 to 31/12/2012</td>
<td>EUR 986 540</td>
<td>FP7</td>
</tr>
<tr>
<td>ANIMAL-CHANGE</td>
<td>An integration of mitigation and adaptation options for sustainable livestock production under climate change</td>
<td>tbc to 31/12/2012</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>AQUAMED</td>
<td>The future of research on aquaculture in the Mediterranean region</td>
<td>01/06/2010 to 31/05/2013</td>
<td>EUR 996 854</td>
<td>FP7</td>
</tr>
<tr>
<td>ARIMNet</td>
<td>Coordination of agricultural research in the Mediterranean</td>
<td>01/10/2008 to 30/09/2012</td>
<td>EUR 999 999</td>
<td>FP7</td>
</tr>
<tr>
<td>BIO CIRCLE</td>
<td>Creating a CIRCLE by extending the BIO NCP network to Third Country NIPs</td>
<td>01/10/2008 to 30/09/2010</td>
<td>EUR 1 412 680</td>
<td>FP7</td>
</tr>
<tr>
<td>BIO CIRCLE 2</td>
<td>Reinforcing the international cooperation in FP7 FAFB strengthening the CIRCLE of Third Countries BIO NCPs</td>
<td>tbc</td>
<td>EUR 999 969</td>
<td>FP7</td>
</tr>
<tr>
<td>BIODESERT</td>
<td>Biotechnology from desert microbial extremophiles for supporting agriculture research potential in Tunisia and Southern Europe</td>
<td>01/01/2010 to 31/12/2012</td>
<td>EUR 958 213</td>
<td>FP7</td>
</tr>
<tr>
<td>CATTLECON IKTA</td>
<td>Improving, transference and applicability of knowledge in conservation and characterization technologies in cattle breeds from Egypt and the Iberian Peninsula</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>CB-WR-MED</td>
<td>Capacity building for direct water reuse in the Mediterranean area</td>
<td>01/11/2010 to 30/04/2013</td>
<td>EUR 490 665</td>
<td>FP7</td>
</tr>
<tr>
<td>CREAM</td>
<td>Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>EAU4Food</td>
<td>European Union and African Union cooperative research to increase food production in irrigated farming systems in Africa</td>
<td>tbc</td>
<td>EUR 3 995 053</td>
<td>FP7</td>
</tr>
<tr>
<td>ENTOMOBIO</td>
<td>Insect pest control in vineyards and olive groves with entomopathogenic agents (nematodes, bacteria and fungi) and pheromones</td>
<td>tbc</td>
<td>EUR 1 342 372</td>
<td>FP7</td>
</tr>
<tr>
<td>GENERA</td>
<td>Use of genomic and proteomic tools for the development of contaminant specific biomarkers for the environmental risk assessment of aquatic ecosystems</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>EU PROJECT</td>
<td>TITLE</td>
<td>PERIOD</td>
<td>EC CONTRIBUTION</td>
<td>FP6/FP7</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>-------------------</td>
<td>---------</td>
</tr>
<tr>
<td>HEALTHY FOOD FOR LIFE</td>
<td>Supporting healthy lifestyles in the Mediterranean area</td>
<td>01/03/2009 to 28/02/2013</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>ICONZ</td>
<td>Integrated control of neglected zoonoses: improving human health and animal production through scientific innovation and public engagement</td>
<td>01/04/2009 to 31/03/2014</td>
<td>EUR 5,995,003</td>
<td>FP7</td>
</tr>
<tr>
<td>IPRABIO</td>
<td>Integrating new practices in programs of biological control against agricultural pests</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>MAREX</td>
<td>Exploring marine resources for bioactive compounds: from discovery to sustainable production and industrial applications</td>
<td>01/08/2010 to 31/07/2014</td>
<td>EUR 5,999,984</td>
<td>FP7</td>
</tr>
<tr>
<td>MycoRed</td>
<td>Novel integrated strategies for worldwide mycotoxin reduction in the food and feed chains</td>
<td>01/04/2009 to 31/03/2013</td>
<td>EUR 5,770,000</td>
<td>FP7</td>
</tr>
<tr>
<td>NextGen</td>
<td>Next generation methods to preserve farm animal biodiversity by optimizing present and future breeding options</td>
<td>01/04/2010 to 31/03/2014</td>
<td>EUR 2,999,999</td>
<td>FP7</td>
</tr>
<tr>
<td>PARAVAC</td>
<td>Vaccines against helminth infections</td>
<td>tbc</td>
<td>EUR 8,944,185</td>
<td>FP7</td>
</tr>
<tr>
<td>SIRIUS</td>
<td>Sustainable Irrigation water management and River-basin governance: implementing user-driven services</td>
<td>01/10/2010 to 30/09/2013</td>
<td>EUR 2,499,997</td>
<td>FP7</td>
</tr>
<tr>
<td>SIRRIMED</td>
<td>Sustainable use of irrigation water in the Mediterranean region</td>
<td>01/07/2010 to 31/12/2013</td>
<td>EUR 2,999,078</td>
<td>FP7</td>
</tr>
<tr>
<td>SUSTAINMED</td>
<td>Sustainable agri-food systems and rural development in the Mediterranean Partner Countries</td>
<td>01/03/2010 to 28/02/2013</td>
<td>EUR 1,996,773</td>
<td>FP7</td>
</tr>
<tr>
<td>SWUP-MED</td>
<td>Sustainable water use securing food production in dry areas of the Mediterranean region</td>
<td>01/07/2008 to 30/06/2012</td>
<td>EUR 2,728,104</td>
<td>FP7</td>
</tr>
<tr>
<td>ULIxes</td>
<td>Unravelling and exploiting Mediterranean Sea microbial diversity and ecology for xenobiotics’ and pollutants’ clean up</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>EU PROJECT</td>
<td>TITLE</td>
<td>PERIOD</td>
<td>EC CONTRIBUTION</td>
<td>FP6/FP7</td>
</tr>
<tr>
<td>------------</td>
<td>-------</td>
<td>--------</td>
<td>-----------------</td>
<td>--------</td>
</tr>
<tr>
<td>ADU-RES</td>
<td>Co-ordination action for autonomous desalination units based on renewable energy systems</td>
<td>01/04/2004 to 30/09/2006</td>
<td>EUR 620000</td>
<td>FP6</td>
</tr>
<tr>
<td>CIRCE</td>
<td>Global change and ecosystems: climate change and impact research</td>
<td>01/04/2007 to 31/03/2011</td>
<td>EUR 1000000</td>
<td>FP6</td>
</tr>
<tr>
<td>CRESMED</td>
<td>Cost efficient and reliable rural electrification schemes for South Mediterranean countries based on multi solar hybrid grids</td>
<td>01/01/2006 to 30/06/2009</td>
<td>EUR 900000</td>
<td>FP6</td>
</tr>
<tr>
<td>DISTRES</td>
<td>Promotion and consolidation of all RTD activities for renewable distributed generation technologies in the Mediterranean region</td>
<td>01/01/2007 to 31/12/2009</td>
<td>EUR 999832</td>
<td>FP6</td>
</tr>
<tr>
<td>HYRESS</td>
<td>Hybrid renewable energy systems for the supply of services in rural settlements of Mediterranean Partner Countries</td>
<td>01/10/2006 to 30/09/2009</td>
<td>EUR 1 249 990</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDISCO</td>
<td>Mediterranean food and agro industry applications of solar cooling technologies</td>
<td>01/10/2006 to 30/09/2009</td>
<td>EUR 1 400 000</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDITERRANEAN-AIRCON</td>
<td>An advanced solar-driven air conditioning system for Mediterranean climate</td>
<td>01/01/2007 to 31/12/2009</td>
<td>EUR 1 147 980</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDRES</td>
<td>Cost-effective renewable energy for rural areas in the Mediterranean region</td>
<td>01/01/2007 to 31/12/2009</td>
<td>EUR 1 159 781</td>
<td>FP6</td>
</tr>
<tr>
<td>OPEN-GAIN</td>
<td>Optimal engineering design for dependable water and power generation in remote areas using renewable energies and intelligent automation</td>
<td>01/01/2007 to 31/12/2009</td>
<td>EUR 1 299 985</td>
<td>FP6</td>
</tr>
<tr>
<td>POWERSOL</td>
<td>Mechanical power generation based on solar heat engines</td>
<td>01/01/2007 to 31/12/2009</td>
<td>EUR 1 050 000</td>
<td>FP6</td>
</tr>
<tr>
<td>PURATREAT</td>
<td>New energy efficient approach to the operation of membrane bioreactors for decentralised wastewater</td>
<td>01/01/2006 to 31/12/2008</td>
<td>EUR 899 986</td>
<td>FP6</td>
</tr>
<tr>
<td>RAMSES</td>
<td>Renewable energy agricultural multi-purpose for farmers</td>
<td>01/10/2006 to 30/09/2009</td>
<td>EUR 1 300 000</td>
<td>FP6</td>
</tr>
<tr>
<td>REMAP</td>
<td>Renewable energy in the Mediterranean area</td>
<td>01/01/2007 to 31/12/2008</td>
<td>EUR 389 985</td>
<td>FP6</td>
</tr>
<tr>
<td>SOLATERM</td>
<td>Promotion of a new generation of solar thermal systems in the MPC</td>
<td>02/10/2006 to 01/10/2008</td>
<td>EUR 800 000</td>
<td>FP6</td>
</tr>
<tr>
<td>TERMISOL</td>
<td>New low-emissivity and long lasting paints for cost-effective solar collectors</td>
<td>01/10/2006 to 30/09/2009</td>
<td>EUR 875 000</td>
<td>FP6</td>
</tr>
<tr>
<td>BAT4MED</td>
<td>Boosting best available techniques in the Mediterranean partner countries</td>
<td>01/12/2010 to 31/05/2013</td>
<td>EUR 943 365</td>
<td>FP7</td>
</tr>
<tr>
<td>BIOWALK4BIOFUELS</td>
<td>Biowaste and Algae knowledge for the production of 2nd generation biofuels</td>
<td>01/04/2010 to 31/03/2014</td>
<td>EUR 2 902 500</td>
<td>FP7</td>
</tr>
<tr>
<td>CARBOCHANGE</td>
<td>Changes in carbon uptake and emissions by oceans in a changing climate</td>
<td>01/03/2011 to 26/02/2015</td>
<td>EUR 7 000 000</td>
<td>FP7</td>
</tr>
<tr>
<td>CLARA</td>
<td>Capacity-Linked water supply and sanitation improvement for Africa’s peri-urban and rural areas</td>
<td>tbc</td>
<td>EUR 1 989 826</td>
<td>FP7</td>
</tr>
<tr>
<td>EU PROJECT</td>
<td>TITLE</td>
<td>PERIOD</td>
<td>EC CONTRIBUTION</td>
<td>FP6/FP7</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------</td>
<td>---------</td>
</tr>
<tr>
<td>CLIMATE FOR CULTURE</td>
<td>Damage risk assessment, macro-economic impact and mitigation strategies for sustainable preservation of cultural heritage in the times of climate change</td>
<td>01/11/2009 to 31/10/2014</td>
<td>EUR 4,964,866</td>
<td>FP7</td>
</tr>
<tr>
<td>CLIMB</td>
<td>Climate induced changes on the hydrology of Mediterranean basins: reducing uncertainty and quantifying risk through an integrated monitoring and modelling system</td>
<td>01/01/2010 to 31/12/2013</td>
<td>EUR 3,148,945</td>
<td>FP7</td>
</tr>
<tr>
<td>CLIM-RUN</td>
<td>Climate local information in the Mediterranean region: responding to user needs</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>COMET</td>
<td>Integrated infrastructure for CO₂ transport and storage in the west Mediterranean</td>
<td>01/01/2010 to 31/12/2012</td>
<td>EUR 2,343,129</td>
<td>FP7</td>
</tr>
<tr>
<td>DEWFORA</td>
<td>Improved drought early warning and forecasting to strengthen preparedness and adaptation to droughts in Africa</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>EU CHIC</td>
<td>European cultural heritage identity card</td>
<td>01/09/2009 to 31/08/2012</td>
<td>EUR 998,502</td>
<td>FP7</td>
</tr>
<tr>
<td>FIRESENSE</td>
<td>Fire detection and management through a multi-sensor network for the protection of cultural heritage areas from the risk of fire and extreme weather conditions</td>
<td>01/12/2009 to 30/11/2012</td>
<td>EUR 2,697,092</td>
<td>FP7</td>
</tr>
<tr>
<td>FUME</td>
<td>Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world</td>
<td>01/01/2010 to 31/12/2013</td>
<td>EUR 6,178,152</td>
<td>FP7</td>
</tr>
<tr>
<td>GEONETCAB</td>
<td>GEO Network for capacity building</td>
<td>01/11/2009 to 31/10/2012</td>
<td>EUR 999,992</td>
<td>FP7</td>
</tr>
<tr>
<td>LEDDRA</td>
<td>Land and ecosystem degradation and desertification: assessing the fit of responses</td>
<td>01/04/2010 to 31/03/2014</td>
<td>EUR 3,062,042</td>
<td>FP7</td>
</tr>
<tr>
<td>MATS</td>
<td>Multipurpose applications by thermo-dynamic solar</td>
<td>tbc</td>
<td>EUR 125,155,52</td>
<td>FP7</td>
</tr>
<tr>
<td>MED-CSD</td>
<td>Combined solar power and desalination plants: techno-economic potential in Mediterranean Partner countries</td>
<td>01/06/2008 to 31/05/2010</td>
<td>EUR 999,960</td>
<td>FP7</td>
</tr>
<tr>
<td>MEDIARAS</td>
<td>Membrane distillation in remote areas</td>
<td>01/09/2008 to 01/09/2011</td>
<td>EUR 2,119,946</td>
<td>FP7</td>
</tr>
<tr>
<td>MedSeA</td>
<td>Mediterranean Sea Acidification under changing climate</td>
<td>01/02/2011 to 31/01/2014</td>
<td>EUR 3,490,000</td>
<td>FP7</td>
</tr>
<tr>
<td>MIRAGE</td>
<td>Mediterranean intermittent river management</td>
<td>01/01/2009 to 31/12/2011</td>
<td>EUR 3,498,479</td>
<td>FP7</td>
</tr>
<tr>
<td>NACIR</td>
<td>New applications for cpv’s: a fast way to improve reliability and technology progress</td>
<td>01/01/2009 to 31/12/2012</td>
<td>EUR 4,397,583</td>
<td>FP7</td>
</tr>
<tr>
<td>NIKER</td>
<td>New integrated knowledge based approaches to the protection of cultural heritage from earthquake-induced risk</td>
<td>01/01/2010 to 31/12/2012</td>
<td>EUR 2,736,114</td>
<td>FP7</td>
</tr>
<tr>
<td>EU PROJECT</td>
<td>TITLE</td>
<td>PERIOD</td>
<td>EC CONTRIBUTION</td>
<td>FP6/FP7</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>----------------------</td>
<td>---------</td>
</tr>
<tr>
<td>PEGASO</td>
<td>People for ecosystem based governance in assessing sustainable development of ocean and coast</td>
<td>01/02/2010 to 31/01/2014</td>
<td>EUR 6 999 684</td>
<td>FP7</td>
</tr>
<tr>
<td>PERPETUATE</td>
<td>Performance-based approach to the earthquake protection of cultural heritage in European and Mediterranean countries</td>
<td>01/01/2010 to 31/12/2012</td>
<td>EUR 2 237 475</td>
<td>FP7</td>
</tr>
<tr>
<td>RESSOL-MEDBUILD</td>
<td>Research elevation on integration of solar technologies into Mediterranean buildings</td>
<td>01/01/2010 to 31/12/2012</td>
<td>EUR 1 000 000</td>
<td>FP7</td>
</tr>
<tr>
<td>SHARE</td>
<td>Seismic hazard harmonization in Europe</td>
<td>01/06/2009 to 31/05/2012</td>
<td>EUR 3 200 000</td>
<td>FP7</td>
</tr>
<tr>
<td>SMooHS</td>
<td>Smart monitoring of historic structures</td>
<td>01/12/2008 to 30/11/2011</td>
<td>EUR 1 405 000</td>
<td>FP7</td>
</tr>
<tr>
<td>WASSERMed</td>
<td>Water availability and security in Southern Europe and the Mediterranean</td>
<td>01/01/2010 to 31/12/2012</td>
<td>EUR 2 933 973</td>
<td>FP7</td>
</tr>
</tbody>
</table>

**HEALTH**

<table>
<thead>
<tr>
<th>EU PROJECT</th>
<th>TITLE</th>
<th>PERIOD</th>
<th>EC CONTRIBUTION</th>
<th>FP6/FP7</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHILD TRAUMA NETWORK</td>
<td>Psychological network support to violence traumatized children: disasters, conflicts</td>
<td>01/01/2005 to 31/12/2006</td>
<td>EUR 780 000</td>
<td>FP6</td>
</tr>
<tr>
<td>ECHINONET</td>
<td>From country level to a pan-European perspective: a co-ordinated approach to controlling cystic echinococcosis</td>
<td>01/07/2004 to 30/06/2007</td>
<td>EUR 422 783</td>
<td>FP6</td>
</tr>
<tr>
<td>LEISH-MED</td>
<td>Monitoring risk factors of spreading of Leishmaniasis around the Mediterranean Basin</td>
<td>01/12/2004 to 30/11/2007</td>
<td>EUR 600 000</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDGENET</td>
<td>Euro-Mediterranean network for genetic services</td>
<td>01/10/2006 to 30/09/2008</td>
<td>EUR 749 000</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDREONET</td>
<td>Surveillance network of Reoviruses, Bluentonque and African Horse Sickness, in the Mediterranean basin</td>
<td>01/01/2007 to 30/06/2010</td>
<td>EUR 460 000</td>
<td>FP6</td>
</tr>
<tr>
<td>RABMED-CONTROL</td>
<td>Identifying ecological and epidemiological key factors for rabies dynamics and control in North Africa and implications for rabies status in South West Europe</td>
<td>01/07/2006 to 30/06/2009</td>
<td>EUR 1 100 000</td>
<td>FP6</td>
</tr>
<tr>
<td>CANOMICS</td>
<td>Multicentre discovery of breast cancer biomarkers</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>DEEP</td>
<td>Deferiprone evaluation in paediatrics</td>
<td>01/01/2011 to 31/12/2014</td>
<td>EUR 5 262 963</td>
<td>FP7</td>
</tr>
<tr>
<td>EUMEDNETvsTB</td>
<td>Building a cooperative strategy between Europe and Mediterranean countries for upgrading tuberculosis research and control</td>
<td>01/03/2010 to 28/02/2013</td>
<td>EUR 9 999 915</td>
<td>FP7</td>
</tr>
<tr>
<td>EUNAM</td>
<td>EU and North African Migrants: Health and health systems</td>
<td>01/01/2010 to 31/12/2013</td>
<td>EUR 1 998 430</td>
<td>FP7</td>
</tr>
</tbody>
</table>
### HEALTH-NCP-NET
**Title:** Coordination Action for Reinforcing the Health National Contact Points Network  
**Period:** 01/05/2008 to 30/04/2012  
**EC Contribution:** EUR 2 000 000  
**FP6/FP7:** FP7

### HEPACUTE
**Title:** Host and viral factors in acute hepatitis C  
**Period:** 01/11/2010 to 31/10/2013  
**EC Contribution:** EUR 2 999 500  
**FP6/FP7:** FP7

### HOMITB
**Title:** Host and microbial molecular dissection of pathogenesis and immunity in tuberculosis  
**Period:** 01/11/2008 to 31/10/2011  
**EC Contribution:** EUR 2 998 251  
**FP6/FP7:** FP7

### LEISHDNAVAX
**Title:** Development of a DNA vaccine for visceral leishmaniasis  
**Period:** 01/01/2009 to 31/10/2011  
**EC Contribution:** EUR 2 989 200  
**FP6/FP7:** FP7

### LEISHDRUG
**Title:** Targeting the Leishmania kinome for the development of novel anti-parasitic strategies  
**Period:** 01/10/2008 to 30/09/2011  
**EC Contribution:** EUR 2 852 233  
**FP6/FP7:** FP7

### MEDCHAMPS
**Title:** Mediterranean studies of Cardiovascular disease and Hyperglycaemia: Analytical Modelling of Population Socio-economic transitions  
**Period:** 01/03/2009 to 31/08/2012  
**EC Contribution:** EUR 2 703 359  
**FP6/FP7:** FP7

### NEURUROMED
**Title:** Mediterranean Neurosciences Network  
**Period:** 15/11/2009 to 14/11/2012  
**EC Contribution:** EUR 1 000 000  
**FP6/FP7:** FP7

### PREVENTION T2D
**Title:** Life Style and Genetic Factors in Prevention of Type 2 Diabetes  
**Period:** 01/08/2008 to 31/07/2009  
**EC Contribution:** EUR 1 238 489  
**FP6/FP7:** FP7

### RAPSODI
**Title:** Pre-clinical studies of a PSA-based human vaccine candidate targeting visceral, cutaneous and mucocutaneous leishmaniasis and development of the associated procedures for further clinical trials  
**Period:** 01/01/2009 to 31/12/2011  
**EC Contribution:** EUR 2 737 301  
**FP6/FP7:** FP7

---

### SOCIAL SCIENCES, HUMANITIES, SCIENCE IN SOCIETY & EDUCATION

### RAMSES 2
**Title:** Network of research centres in human sciences on the Mediterranean area  
**Period:** 01/01/2006 to 31/05/2010  
**EC Contribution:** EUR 3 400 000  
**FP6/FP7:** FP6

### CLICO
**Title:** Climate change, hydro-conflicts and human resources  
**Period:** 01/01/2010 to 31/12/2012  
**EC Contribution:** EUR 2 991 352  
**FP6/FP7:** FP7

### ESCIENTIAL MED
**Title:** European science festival – Mediterranean exhibitions  
**Period:** tbc  
**EC Contribution:** EUR 2 220 006  
**FP6/FP7:** FP7

### MEDPRO
**Title:** Prospective analysis for the Mediterranean region  
**Period:** 01/03/2010 to 28/2/2013  
**EC Contribution:** EUR 2 647 339  
**FP6/FP7:** FP7

### SED
**Title:** Science education for diversity  
**Period:** 01/01/2010 to 31/12/2012  
**EC Contribution:** EUR 999 999  
**FP6/FP7:** FP7

### SHEMERA
**Title:** Euro-Mediterranean research cooperation on gender and science: SHE Euro-Mediterranean Research Area  
**Period:** 01/01/2007 to 30/06/2010  
**EC Contribution:** EUR 1 991 835  
**FP6/FP7:** FP7

### VALUES
**Title:** Value analysis of local utilities of enterprises from social sector  
**Period:** tbc  
**EC Contribution:** EUR 152 000  
**FP6/FP7:** FP7
<table>
<thead>
<tr>
<th>EU PROJECT</th>
<th>TITLE</th>
<th>PERIOD</th>
<th>EC CONTRIBUTION</th>
<th>FP6/FP7</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCHAEDMAP</td>
<td>Archaeological management policies</td>
<td>01/11/2007 to 31/10/2009</td>
<td>EUR 480 000</td>
<td>FP6</td>
</tr>
<tr>
<td>HAMMAM</td>
<td>Hammam, aspects and multidisciplinary methods of analysis for the Mediterranean region</td>
<td>01/09/2005 to 31/08/2008</td>
<td>EUR 1 900 000</td>
<td>FP6</td>
</tr>
<tr>
<td>INFRARTSONIC</td>
<td>Development of a novel and integrated portable non-destructive analysis system for the documentation of artworks</td>
<td>01/01/2006 to 31/12/2008</td>
<td>EUR 1 259 988</td>
<td>FP6</td>
</tr>
<tr>
<td>MED-COLOUR-TECH</td>
<td>Investigation, revival and optimisation of traditional Mediterranean colouring technology for the conservation of the cultural heritage</td>
<td>01/01/2006 to 31/12/2008</td>
<td>EUR 1 200 000</td>
<td>FP6</td>
</tr>
<tr>
<td>MEDISTONE</td>
<td>Preservation of ancient Mediterranean sites in terms of their ornamental and building Stone: from determining stone provenance to proposing conservation/restoration techniques</td>
<td>01/01/2006 to 31/12/2008</td>
<td>EUR 1 043 120</td>
<td>FP6</td>
</tr>
<tr>
<td>NOESIS</td>
<td>Non-destructive image-based manuscript analysis system</td>
<td>01/09/2004 to 30/08/2008</td>
<td>EUR 709 850</td>
<td>FP6</td>
</tr>
<tr>
<td>OPERHA</td>
<td>Open and fully compatible next generation of strengthening system for the rehabilitation of Mediterranean cultural heritage</td>
<td>01/01/2006 to 31/12/2008</td>
<td>EUR 1 299 997</td>
<td>FP6</td>
</tr>
<tr>
<td>PAPERTECH</td>
<td>Innovative materials and technologies for the conservation of paper of historical, artistic and archaeological value</td>
<td>01/07/2004 to 31/12/2007</td>
<td>EUR 1 300 000</td>
<td>FP6</td>
</tr>
<tr>
<td>PATINE DU DESERT</td>
<td>Re-creation of the patina of Saharan sandstones, carrying engraved or painted work, 15 000-year witnesses of climate changes</td>
<td>01/09/2004 to 01/09/2007</td>
<td>EUR 895 000</td>
<td>FP6</td>
</tr>
<tr>
<td>PROHITECH</td>
<td>Seismic protection of historical buildings by reversible mixed technologies</td>
<td>01/10/2004 to 30/09/2008</td>
<td>EUR 2 400 000</td>
<td>FP6</td>
</tr>
<tr>
<td>PROMET</td>
<td>Innovative conservation approaches for monitoring and protecting ancient and historic metals collections from the Mediterranean basin</td>
<td>01/11/2004 to 30/04/2008</td>
<td>EUR 2 599 999</td>
<td>FP6</td>
</tr>
<tr>
<td>QUARRYSCAPES</td>
<td>Conservation of ancient stone quarry landscapes in the Eastern Mediterranean</td>
<td>01/11/2005 to 31/10/2008</td>
<td>EUR 999 998</td>
<td>FP6</td>
</tr>
<tr>
<td>SHADUF</td>
<td>Traditional water techniques: cultural heritage for a sustainable future</td>
<td>01/07/2004 to 30/09/2007</td>
<td>EUR 1 109 880</td>
<td>FP6</td>
</tr>
<tr>
<td>WIND-CHIME</td>
<td>Wide-range non-intrusive devices toward conservation of historic monuments in the Mediterranean area</td>
<td>01/06/2004 to 31/05/2007</td>
<td>EUR 780 000</td>
<td>FP6</td>
</tr>
<tr>
<td>OLDMASON-RYREPAIR</td>
<td>Exchange of experience on the preservation of historic and old water masonry structures</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>SOKAR CHAPELS</td>
<td>Sokar and Nefertem chapels in the Egyptian temple of Sethy I in Abydos (1294 – 1279 B. C.)</td>
<td>19/10/2009 to 18/10/2012</td>
<td>EUR 172 501</td>
<td>FP7</td>
</tr>
</tbody>
</table>
### EU PROJECTS

<table>
<thead>
<tr>
<th>EU PROJECT</th>
<th>TITLE</th>
<th>PERIOD</th>
<th>EC CONTRIBUTION</th>
<th>FP6/FP7</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioNexGen</td>
<td>Development of the next generation bioreactor system</td>
<td>01/09/2010 to 28/02/2014</td>
<td>EUR 3419571</td>
<td>FP7</td>
</tr>
<tr>
<td>CapWa</td>
<td>Capture of evaporated water with novel membranes</td>
<td>01/09/2010 to 31/08/2013</td>
<td>EUR 3588140</td>
<td>FP7</td>
</tr>
<tr>
<td>ESTEEM</td>
<td>Enhancing safety and security aspects in transport research in the Euro-Mediterranean region</td>
<td>01/04/2008 to 30/11/2009</td>
<td>EUR 648000</td>
<td>FP7</td>
</tr>
<tr>
<td>NATIONMEM</td>
<td>Nano-structured Tion photo-catalytic membranes for water treatment</td>
<td>01/07/2010 to 30/06/2013</td>
<td>EUR 2993238</td>
<td>FP7</td>
</tr>
<tr>
<td>NO BUG</td>
<td>Novel release system and Bio-based Utilities for insect repellent textiles and Garments</td>
<td>15/10/2009 to 14/10/2013</td>
<td>EUR 3055431</td>
<td>FP7</td>
</tr>
<tr>
<td>Open Garments</td>
<td>Consumer open innovation and open manufacturing interaction for individual garments</td>
<td>01/09/2008 to 31/08/2011</td>
<td>EUR 3614960</td>
<td>FP7</td>
</tr>
<tr>
<td>SIRAJ</td>
<td>SBAS Implementation in the regions ACAC and ASECNA</td>
<td>tbc</td>
<td>EUR 877390</td>
<td>FP7</td>
</tr>
</tbody>
</table>

**LONG TERM CHALLENGES FOR THE MEDITERRANEAN AREA**

**NANOTECHNOLOGIES, PRODUCTION & TRANSPORT**
## SPACE, ICT and SECURITY

<table>
<thead>
<tr>
<th>EU PROJECT</th>
<th>TITLE</th>
<th>PERIOD</th>
<th>EC CONTRIBUTION</th>
<th>FP6/FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D-COFORM</td>
<td>Tools and expertise for 3D collection formation</td>
<td>01/12/2008 to 30/11/2012</td>
<td>EUR 8450000</td>
<td>FP7</td>
</tr>
<tr>
<td>CASSANDRA</td>
<td>Common assessment and analysis of risk in global supply chains</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>COADVISE</td>
<td>Co-advising PhD for IT Research in the Mediterranean region</td>
<td>01/02/2009 to 31/01/2012</td>
<td>EUR 518400</td>
<td>FP7</td>
</tr>
<tr>
<td>Controlled Systems</td>
<td>Deterministic and stochastic controlled systems and applications</td>
<td>01/10/2008 to 30/09/2012</td>
<td>EUR 3761677</td>
<td>FP7</td>
</tr>
<tr>
<td>CoopLab</td>
<td>A federated test bed environment for experimentation on wireless cooperative networks</td>
<td>tbc</td>
<td>EUR 268500</td>
<td>FP7</td>
</tr>
<tr>
<td>CUTE</td>
<td>Crystalline Undulator: theory and experiment</td>
<td>tbc</td>
<td>EUR 322700</td>
<td>FP7</td>
</tr>
<tr>
<td>DARECLIMED</td>
<td>Data repositories and computational infrastructure for environmental and climate studies in the Eastern Mediterranean</td>
<td>01/02/2011 to 31/03/2013</td>
<td>EUR 753053</td>
<td>FP7</td>
</tr>
<tr>
<td>EPIKH</td>
<td>Exchange programme to advance e-infrastructure Know-How</td>
<td>01/03/2009 to 28/02/2013</td>
<td>EUR 1190000</td>
<td>FP7</td>
</tr>
<tr>
<td>EUMedGrid-Support</td>
<td>Sustainability of e-infrastructures across the Mediterranean</td>
<td>01/01/2010 to 31/12/2013</td>
<td>EUR 740000</td>
<td>FP7</td>
</tr>
<tr>
<td>GTTP</td>
<td>The Galileo teacher training programme</td>
<td>tbc</td>
<td>EUR 3522784</td>
<td>FP7</td>
</tr>
<tr>
<td>INDICATE</td>
<td>International network for a digital cultural heritage e-infrastructure</td>
<td>01/09/2010 to 31/08/2012</td>
<td>EUR 600000</td>
<td>FP7</td>
</tr>
<tr>
<td>JOIN-MED</td>
<td>Establishing the EU-Mediterranean ICT research network</td>
<td>01/02/2009 to 31/07/2011</td>
<td>EUR 910000</td>
<td>FP7</td>
</tr>
<tr>
<td>LinkSCEEM</td>
<td>Linking scientific computing in Europe and the eastern Mediterranean</td>
<td>01/04/2008 to 31/01/2010</td>
<td>EUR 570000</td>
<td>FP7</td>
</tr>
<tr>
<td>LinkSCEEM-2</td>
<td>Linking scientific computing in Europe and the eastern Mediterranean – Phase 2</td>
<td>01/09/2010 to 31/08/2014</td>
<td>EUR 2450000</td>
<td>FP7</td>
</tr>
<tr>
<td>MEDAR</td>
<td>Mediterranean Arabic language and speech technology</td>
<td>01/02/2008 to 31/07/2010</td>
<td>EUR 798552</td>
<td>FP7</td>
</tr>
<tr>
<td>MyOcean</td>
<td>Development and pre-operational validation of upgraded GMES marine core services and capabilities</td>
<td>01/01/2009 to 31/03/2012</td>
<td>EUR 3380000</td>
<td>FP7</td>
</tr>
<tr>
<td>NMFRDisaster</td>
<td>Identifying the needs of medical first responder in disasters</td>
<td>01/05/2008 to 30/06/2009</td>
<td>EUR 815080</td>
<td>FP7</td>
</tr>
</tbody>
</table>
## INCO – Horizontal – S&T

<table>
<thead>
<tr>
<th>EU PROJECT</th>
<th>TITLE</th>
<th>PERIOD</th>
<th>EC CONTRIBUTION</th>
<th>FP6/FP</th>
</tr>
</thead>
<tbody>
<tr>
<td>EARN</td>
<td>Euro-Algerian research networking</td>
<td>01/10/2010 to 30/09/2013</td>
<td>EUR 509 966</td>
<td>FP7</td>
</tr>
<tr>
<td>ERAfrica</td>
<td>Developing African-European joint collaboration for science and tech-</td>
<td>01/12/2010 to 30/11/2013</td>
<td>EUR 1 990 000</td>
<td>FP7</td>
</tr>
<tr>
<td>ETC</td>
<td>European Tunisian cooperation</td>
<td>01/09/2009 to 30/08/2012</td>
<td>EUR 499 905</td>
<td>FP7</td>
</tr>
<tr>
<td>Global Palestine</td>
<td>Understanding Global Palestine</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>IJERA</td>
<td>Integrating Jordan into the European Research Area</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>INCAM</td>
<td>Improving national assessment and monitoring capacities for integrated</td>
<td>01/01/2011 to 31/12/2012</td>
<td>EUR 499 904</td>
<td>FP7</td>
</tr>
<tr>
<td>JEWEL</td>
<td>Jordan Europe wide enhanced research links in ICT</td>
<td>01/11/2010 to 31/10/2013</td>
<td>EUR 498 632</td>
<td>FP7</td>
</tr>
<tr>
<td>JoRIEW</td>
<td>Improving capacity of Jordanian research in integrated renewable</td>
<td>01/11/2010 to 31/10/2013</td>
<td>EUR 499 233</td>
<td>FP7</td>
</tr>
<tr>
<td>M2ERA</td>
<td>Morocco to ERA</td>
<td>01/12/2008 to 30/11/2011</td>
<td>EUR 513 812</td>
<td>FP7</td>
</tr>
<tr>
<td>MAP2ERA</td>
<td>Strengthening EU cooperation capacity of the national institute of</td>
<td>01/12/2010 to 30/11/2012</td>
<td>EUR 442 605</td>
<td>FP7</td>
</tr>
<tr>
<td>MIRA</td>
<td>Mediterranean innovation and research coordination action</td>
<td>01/01/2008 to 31/12/2011</td>
<td>EUR 4 000 000</td>
<td>FP7</td>
</tr>
<tr>
<td>PERA</td>
<td>Palestine for European Research Area</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
<tr>
<td>ShERACA</td>
<td>Shaping Egypt’s association to the ERA and Cooperation Action</td>
<td>01/12/2009 to 30/11/2012</td>
<td>EUR 499 987</td>
<td>FP7</td>
</tr>
<tr>
<td>SUWARESA</td>
<td>Capacity and knowledge building on the sustainable use of water</td>
<td>tbc</td>
<td>tbc</td>
<td>FP7</td>
</tr>
</tbody>
</table>

LONG TERM CHALLENGES FOR THE MEDITERRANEAN AREA
Annex 2
Annex 2.

Biographies of the experts

Sébastien ABIS

Sébastien Abis, political analyst, Master in Strategic and European Affairs, is an Administrator at the General Secretariat CIHEAM (International Centre for Advanced Mediterranean Agronomic Studies). He is responsible for overseeing relations with the French authorities and with the Mediterranean Agronomic Institute (MAI) of Montpellier, one of the four MAIs of CIHEAM. Since 2005 in the CIHEAM, Sébastien Abis is responsible for strategic development planning and communication policy. He coordinates, at scientific and technical levels, the annual report Mediterra, a compendium of shared expertise intended as a decision-making tool. He is also the founder and the chief editor of the Watch letter, a three-monthly publication. Sébastien Abis is the author or co-author of about 100 research papers and documented conference presentations. He is member of the editorial board of two international scientific reviews, Futuribles Journal and Confluences Méditerranée.

Amine AIT-CHaalAL

Amine Ait-Chaalal is Professor of International Relations (‘International Organizations’, ‘Diplomatic Issues’, ‘U.S. Foreign Policy’, ‘Foreign Policy and Humanitarian Action’) at the Political Science Department of the Université catholique de Louvain (Louvain-la-Neuve, Belgium/UCL). He holds a Ph.D. in Political Science-International Relations from UCL and a M.A. in International Politics from Ottawa University (Ontario, Canada). He is director of the Study Centre on International Crises and Conflicts (Centre d’études des crises et conflits internationaux/CECRI) at UCL. He has taught or undertaken research stays in various institutions (Zhejiang University, Hangzhou; Fundação Alexandre de Gusmão/FUNAG, Brasília; Universidade de Brasília; School of Advanced International Studies/SAIS, Johns Hopkins University, Washington, D.C.; School of International and Public Affairs/SIPA, Columbia University, New York; John F. Kennedy Library, Boston; Institut de relations internationales et stratégiques/IRIS, Paris; Institut d’études politiques, Toulouse; Institut d’études politiques, Paris; Université Saint-Joseph, Beirut; Association des études internationals, Tunis; Institut diplomatique pour la formation et les études, Tunis). He is involved in scientific networks related to international relations. His current research and publications deal with the U.S. foreign policy, the Middle East, the Balkans, the Euro-Mediterranean matters and the Brazilian foreign policy.
Roberto ALIBONI


Andrea AMATO

After his university studies (Political Science), Andrea Amato worked as socio-economist in the field of agriculture and rural development at the National Institute ENAIP. From 1974 to 1978 he was the General Director of IFATA (Institute for rural development and agricultural extension service). Afterwards he served as National Executive of the CGIL (Italian General Confederation of Labour), in charge of Agro-industrial Economics and subsequently of Mezzogiorno Development and European Policies. From 1982 to 1994 he was a Member of the European Economic and Social Committee, mostly committed to Economics, Regional Development and Cooperation with Mediterranean and ACP Countries. Since 1993 he is President of the Mediterranean Institute (IMED), based in Rome. He is Professor at the Master ‘Development Cooperation’ of CIRPS (Centro Interuniversitario di Ricerca per lo Sviluppo Sostenibile) at Rome University ‘La Sapienza’. In 2007 he has been a member of the International Expert Group, gathered at the ‘Institut de la Méditerranée’ of Marseille, that elaborated an Opinion on the Mediterranean Union proposed by President Sarkozy. He is one of the founders of the FEMISE Network (Euro-Mediterranean Forum of Economic Institutes). He is the author of articles and essays published in Italian and foreign publications. In 2009, he has been awarded ‘Chevalier de l’Ordre National du Mérite’ by the President of the French Republic.
Joaquín ARANGO

Joaquín Arango is Professor and Chair of the Department of Sociology at the Complutense University of Madrid, and Director of the Center for the Study of Migration and Citizenship at the Instituto Universitario de Investigación Ortega y Gasset. He has previously been Director of the Spanish National Centre for Social Research (CIS); President of the Board of Directors of the European Centre for Research and Documentation in Social Sciences (‘Vienna Centre’); Chair of the Expert Group on Imbalances in the Mediterranean of the Council of Europe; member of the European Population Committee; Undersecretary of the Spanish Ministry of Education and Science and Vice-Chancellor of the Universidad Internacional Menéndez Pelayo. He is member of the Spanish National Commission for the Evaluation of Scientific Research, and member of the Boards of institutions as the Centro de Investigaciones Sociológicas and Real Instituto Elcano de Estudios Internacionales y Estratégicos, European Inclusion and Citizenship Index, and ZEIT-Bucerius Schtiftung Scholarships in Migration Studies. He is co-editor of the Yearbook of Immigration and Immigration Policies (Spain), takes part in several research projects in Spain and Europe, and serves in Editorial Boards of a number of journals. He is author of over a hundred scholarly publications.

Nouria BENGHABRIT-REMAOUN

Nouria Benghabrit-Remaoun is Director of CRASC (National research centre of social and cultural anthropology), Head of research and lecturer-researcher in sociology of education and development, childhood, youth, and gender. She has chaired the Arab Scientific Committee of the UNESCO Forum for Higher Education Knowledge and Research [2003-2008]. She is an elected member for North Africa of the executive committee of the CODESRIA (Senegal) and vice-President of the board of directors of the African Institute of Governance (I.A.G in Dakar). She is elected member representing Algeria at the board of AUF (University Agency of the French-speaking world). She is working in several research projects at the CRASC dealing with Couple, School/Family, Women and life project, University. Nouria Benghabrit-Remaoun has published and edited several books including L’Algérie 50 ans après. Etat des savoirs en sciences sociales et humaines 1954-2004, Ed CRASC, 2008; Etude du lien potentiel entre usage problématique de drogues et VIH/Sida en Algérie, Ministère de l’enseignement supérieur et de la recherche scientifique, ONUSIDA, OPU June 2006; Le préscolaire en Algérie – Etat des lieux et perspectives, Ed CRASC, 2005. She has also published several articles on research, education, higher education, gender equality, employment, ethics and deontology, violence towards women and pre-schooling in Algeria. She has also established the Unit of management of programmes for Algerian associations.
Houda BEN JANNET ALLAL

Houda Allal is Director of Studies and Head of Renewable Energy and Sustainable Development Division at OME. She joined OME in 1992 where her activities include energy prospects, analysis and financing of renewable energy projects, energy efficiency and demand side management, implementation of the Kyoto Protocol and especially the Clean Development Mechanism in the Mediterranean region as well as impact assessment projects. She has also participated in several research projects and studies for the EU and has coordinated several large Euro-Mediterranean projects dealing particularly with renewable energy development in the Mediterranean region such as REMAP, MEDRES and MED-CSD Projects. She is also lecturer at the Ecole des Mines de Paris and the University of Versailles. She graduated in energy economics at the Institut Français du Pétrole, University of Paris2/Assas and University of Dijon [France]. She holds a Ph.D. from the Ecole des Mines de Paris.

Thierry FABRE

Thierry Fabre is a political scientist. He is scientific coordinator of the network of excellence Ramses (Réseau d’excellence des centres de recherche en sciences humaines sur la méditerranée). He is specialist of Mediterranean questions. His main field of research is culture and representations and he had published many books and articles on this subject. He is scientific director, with Mohamed Tozy and Dionigi Albera, of the ‘Mediterranean dictionary’ that will be published in 2011 and 2012. He is now in charge of the planning and international affairs of the Museum in Marseille, Musée des civilisations de l’Europe et de la Méditerranée.

Cilja HARDERS

Cilja Harders is director of the ‘Center for North African and Middle Eastern Studies’ at the Otto-Suhr Institute for Political Sciences of the Freie Universität Berlin since 2007. She was speaker at ‘Europe in the Middle East – the Middle East in Europe’, a joint post-doc programme of Wissenschaftskolleg, Thyssen-Foundation and Berlin-Brandenburgische Akademie in 2008/2009. She received her Ph.D. in Political Science from the University of Hamburg and has been working as Assistant Professor at the Universities of Münster and Bochum. She has extensive research experience in the Middle East since 1992 (Egypt, Jordan, Syria, Lebanon, Gulf and Morocco) including affiliations with the American University in Cairo and the French Research Center CEDEJ.
She has published on Middle Eastern Politics and Societies, Transformations and Authoritarianism, Politics ‘from below’, Local Governance, Foreign Policies after September 11th, Arab-European Relations, Regional Cooperation in the Middle East, Gender and Violence, and Gender and Participation. Cilja Harders directed an interdisciplinary MA-Programme in Gender Studies at the University of Bochum. She is currently Principal Investigator and Board member of the Graduate School: Muslim Cultures and Societies at Freie Universität Berlin. She is member of the Graduate School ‘Transnational Studies’ and ‘Graduate School for Global Studies’ (Fudan Shanghai). In addition, she is serving as Vice Dean for student affairs since 2009 in the Department for Social and Political Sciences at Freie Universität Berlin.

Bahgat KORANY

Bahgat Korany is Professor of International Relations and Political Economy at the American University in Cairo and Director of the AUC Forum. Since 1994 he has been an elected Fellow of the Royal Society of Canada. Prof. Korany has been a visiting Professor at various Universities, including Alger, Dakar, Harvard, Princeton, Oxford, Aix-en-Provence and Paris. In addition to being a regular newspaper columnist (e.g. Al-Ahram, Egypt; Al-Ittihad, United Arab Emirates), he has published, in English and French, nine books and about 140 articles/book chapters, some of which have been translated into Spanish, Italian and Chinese. His most recent academic activity was as member of the Core Authorship Team of the UNDP 2009-Arab Human Development Report, Challenges to Arab Human Security.

Nigel LUCAS

Nigel Lucas is an independent consultant. He was Director of Environmental Resources Management (ERM) UK until 1997 and Professor of Energy Policy at Imperial College in London. Previously, he worked as Professor of Energy Planning and Chairman of the Division of Energy Technology at the Asian Institute of Technology in Bangkok. He established and for three years advised to the ASEAN-EU Energy Training and Research Centre (AEEMTRC) in Jakarta (now the ASEAN Centre for Energy). He has experience of policy, regulatory, technical and economic aspects of the power sector gained through 35 years of work in the field. He has frequently advised governments and international institutions. He was elected a Fellow of the Royal Academy of Engineering in 1994. He has published or edited 8 books and over 100 papers on policy and governance and directed or contributed to 60 consulting projects including several national and regional projects in North America and the Middle East.
Mireia MONTANÉ

Mireia Montané is currently Director of the International Office for Cooperation in Education at the Catalan Ministry of Education and representative at the Committee of Education of the Council of Ministers of the European Union. She holds a Ph.D. in Linguistics of the University of Barcelona. She is Member of the Board of the Collegi de Doctors i Licenciats en Filosofia i Letres de Catalunya, the main regional institution for in-service teacher training. She is Coordinator of several International, European and Euro-Mediterranean projects in the field of research in education, teacher education, assessment of 21st century skills, knowledge building and networking. She is also representative of the Ministry of Education of Catalonia at Anna Lindh Foundation (ALF) in Spain, in collaboration with the European Institute of the Mediterranean (IEMED) in Barcelona. She has published research results concerning quality indicators in education with the International Association for the Evaluation of Education Achievement (IEA) and OCDE. She is member of the board of European Journal for Teacher Education (Brussels), Dirigenti Scuola (Milano), Bulletí d’Educació del Departament d’Ensenyament de la Generalitat de Catalunya, and the Review of the Collegi de Doctors i Licenciats de Catalunya. She has been awarded with the 2001 Education Award of the Institut d’Estudis Catalans.

Baruch RAZ

Baruch Raz started his scientific career in the early 1960s as chemical physicist at Tel Aviv University, doing basic research on nanomaterials. In the mid-1970s, he took the directorship of a centre at the Tel Aviv University dealing with technological policy. For almost 20 years he was intimately involved in suggesting and formulating alternatives for choice of government policies that transformed the Israeli economy from agricultural to hi-tech. In this capacity he was involved in technological forecasting, furthering the relations between industry and academia. Prof. Raz was involved in an intensive international career, teaching courses on technological innovation and related subjects in locations from Chile and Mexico to Singapore as well as in many European countries. Prof. Raz was also invited in consulting to many governmental institutions including Chile and Mexico as well as Israel and international institutions like UNIDO and UNDP. From 1993, he served as Scientific Counsellor at the Israeli Embassies of Western Europe. During this period he was strongly involved in the negotiations leading to the inclusion of Israel in the EU Framework Programmes for Research and Development. During his career, Prof. Raz was member of boards of directors of some of the leading Israeli companies in the high-tech sector.
Rafael RODRIGUEZ-CLEMENTE

Rafael Rodríguez-Clemente holds a Ph.D. in geology by the University of Barcelona. Professor of Research in the Spanish Council for Scientific Research (CSIC) he is currently attached to the Doñana Biological Station (Estación Biológica de Doñana) a research centre located in Sevilla (Spain). Former Delegate of CSIC in Brussels and later in the Andalusia Region of Spain. He was Member of European Advisory Groups in RTD and Representative of Spain in the Program Committee of ‘Regions of Knowledge’ and ‘Research Potential’ of the 7th Framework Programme. He is specialist in Crystal Growth, Thin Films and Particles obtention, and Biomaterials. During the last 12 years he focused his activity on European and Spanish science policy, international scientific relations, knowledge management and management of international scientific cooperation and capacity building projects. Leader of more than 30 Research Projects financed by the European Commission, the Spanish National Plan of research, Program CYTED of Ibero-American Scientific Cooperation and the Catalan Government Research Plan, he is currently coordinator of the FP6 Project MELIA and FP7 INCO.Net project MIRA. He is also author or coauthor of more than 160 scientific publications (3 books, editor of several other books), 2 patents and more than 20 publications in Spanish newspapers on scientific issues.

Ibrahim SAIF

Ibrahim Saif obtained his Ph.D. from the School of Oriental and African Studies (SOAS) – University of London. Dr. Saif has taught at both the University of London and Yale University, where he gave courses on Economies of the Middle East. He served as Director of the Center for Strategic Studies (University of Jordan) and Resident Scholar (Carnegie Middle East center in Beirut). He also serves as a consultant to international organizations such as World Bank, International Monetary Fund and International Labor Organization. He is fellow at the Economic Research Forum and member of the Global Development Network. Currently he is Secretary General of the Economic and Social Council, Jordan.

Abdelrahman TAMIMI

Since graduation, Abdelrahman Tamimi worked in the field of water resources in the Occupied Territories. During the last 23 years, he focused his activities on water resources management and planning on the regional and national levels. He participated in setting the negotiation strategy for the Palestinian delegation in the multilateral talks in addition to his participation in all the negotiation rounds. He was member in the Palestinian counterparts to the
EC and the World Bank before the establishment of the Palestinian authority. He worked on the priorities and planning of the strategic projects. He has been a consultant for institutions dealing with water and environmental projects in the Occupied Territories (UNDP, GTZ, EU, World Bank, etc). He has expertise in water governance, water policy, water institutions, social conflicts and water and environmental conflicts in the Middle East. He has been coordinator of many international research projects addressing water policy and water resources planning. Dr. Tamimi has recently been appointed member of National water council, the National reform committee, and the National committee for social agenda and poverty alleviation. He holds Ph.D. in water resources management and Ms, BSc in Geological Engineering. He has a MA in International Studies. Currently he is Director of Palestinian hydrology group for water and environmental resources development and part time lecturer at Alquds University.

Mohamed TOZY

Mohamed Tozy is Professor at University Hassan II Ain Chock in Casablanca and SciencesPo Aix. He is researcher at the Mediterranean sociology laboratory (Mediterranean House of human science) and Director of the Moroccan centre of Social Sciences of the University Hasan II. He is also Visiting Professor at the New York University, SciencesPo Paris, Autonomous University of Madrid and University of Venice. He is expert to various development and research institutes and organisations such as the Institut Royal des Etudes Stratégiques du Maroc, World Bank, International Fund for Agricultural Development, Food and Agriculture Organisation and Foundation Anna Lindh. He is President of the association TARGA-Aide for development and author of books ‘Monarchie et Islam politique au Maroc’, ‘La Méditerranée des anthropologues’ and ‘Maisonneuve la rose et L’Islam au quotidien: Enquête sur les valeurs et pratiques religieuses au Maroc’.

Nada TRUNK ŠIRCA

Nada Trunk Širca has a Ph.D. in Management in Education from the MMU - Manchester Metropolitan University, UK. She holds a B.A. in Mathematics (University of Ljubljana, Slovenia) and M.Sc. in Management in Education (MMU). From 1995 she is working in higher education, she was Dean and Director of the Faculty of Management, University of Primorska (Koper, Slovenia). From 2007 she is Director of Secretariat of the Euro-Mediterranean University [EMUNI] with the seat in Slovenia. Prof. Trunk Širca is a member of numerous committees at home and abroad, e.g. Professional Council of the RS for General Education, Council for higher Education, EERA – European Educational Research Association. Her research and teaching fields include management in HE, quality and evaluations in tertiary education, the recognition of knowledge and lifelong learning in higher education.
Bahri YILMAZ

Bahri Yilmaz holds a BA in Economics from Istanbul University. He received his Diploma Arbeit and his Ph.D. from Bonn University in Economics. He was a Post-Doctoral Research fellow at University of Cambridge. He has worked at several academic institutions including the Universities of Hacettepe, Ankara, Munster, Munchen, Bilkent and Sabanci (Jean Monnet Chair since 2002). He was visiting fellow at Pembroke College, Cambridge and the Center for European Studies Harvard University. Dr. Yilmaz has worked as Economic Advisor, Head of Official Representative of Turkish Chambers of Commerce and Industry in the Federal Republic of Germany and Chief Advisor to the Ministry of State for EU Affairs in Ankara (1997-2002). Prof. Yilmaz is member of the European Association of Development and Training Institutes, the Association for German University Members, the European Association of Development and Training Institutes, the UK Royal Economic Society, the Business and Industry Advisory Committee to the OECD, the St. Anthony’s College in Oxford, the Wolfson College in Cambridge, and the European Community Studies Associations. His main fields of interest include EU, economics of Mediterranean region, international political economy, newly emerging markets, foreign direct investments, and globalization. He is author of numerous articles published in Turkey and abroad.

Saloua ZERHOUNI

Saloua Zerhouni is a political scientist and Associate Professor at Mohammed V University (Rabat, Morocco). She has done extensive work on elites as agents of change, theories of political transformation, Moroccan parliament, Islamists, youth, women and political participation in Morocco. She was visiting researcher at Georgetown University, (Washington D.C.), research associate in the German Institute for International and Security Affairs (Berlin) and contributed to a study on ‘Elite Change in the Arab World’. Dr. Zerhouni has participated in numerous national and international conferences and provided consultancy to a variety of national and international institutions such as the Royal Institute of Strategic Studies in Morocco, the Friedrich Ebert Foundation and the National Democratic Institute in the US. In 2004, she coordinated a project on Moroccan Scenarios in 2025, and she wrote and edited a report on: ‘A Discussion about the Future : Moroccan Scenarios in 2025’ that was published by the Friedrich Ebert Foundation (in French and Arabic). Among her recent publications is a co-edited book with Ellen Lust-Okar ‘Political Participation in the MENA Region’.
How to obtain EU publications

**Free publications:**
- via EU Bookshop (http://bookshop.europa.eu);
- at the European Commission’s representations or delegations. You can obtain their contact details on the Internet (http://ec.europa.eu) or by sending a fax to +352 2929-42758.

**Priced publications:**
- via EU Bookshop (http://bookshop.europa.eu);

**Priced subscriptions (e.g. annual series of the Official Journal of the European Union and reports of cases before the Court of Justice of the European Union):**
Intensifying the relationship between the European Union and the countries on the Southern and Eastern shores of the Mediterranean has been a key target since the Barcelona process. This objective has been reinvigorated with the Union for the Mediterranean. The ‘EuroMed-2030’ forward looking report is divided into three parts: the trends, the tensions and the transitions in the Mediterranean area in the next two decades.

This ‘EuroMed-2030’ report addresses the trends in the fields of demography and macroeconomics, water and agriculture, energy and climate change, education and science, religion and culture, and geopolitics and governance.

Tensions among socio-economic groups, between competing visions of State and reform, between hostile States and between the expectations of Euro-Mediterranean cooperation are identified.

Finally, four transitions for the future Euro-Mediterranean relations are presented: managing conflict, win-win projects, deeper economic integration and towards a Euro-Mediterranean Community.