Synthetic Report of the Scenario Building
Rome, 10–11 February 2011

OVERVIEW
On 10-11 February 2011, MEDPRO’s scientific committee members and other researchers met in the offices of Istituto di Studi per l’Integrazione dei Sistemi (ISIS) in Rome to discuss the details of the qualitative reference scenarios and the work progress for the quantitative scenarios. Additionally, the potential geopolitical impacts of the recent events in Tunisia and Egypt for the rest of the region were also examined during the meeting. The task and work package leaders on geopolitics and governance, energy, environmental management, and economic development also made presentations on their work progress and reference scenarios.

KEY ISSUES DISCUSSED
State of research
As noted by Rym Ayadi in her opening statements, the project is quickly approaching its first year landmark. The research work in all of the work packages (WPs) is progressing as planned. Several publications and updates under scientific coordination and scenarios (WPs 1, 8 and 9) will be available in the upcoming months. These are:

- Updated technical report on qualitative reference scenarios (D9.1; Mar. 2011)
- Technical paper on quantitative reference scenarios (D8.2; Apr. 2011)
- Updated economic and structural database (D8.1; Mar. 2011)
- Updated MEDPRO background paper (D1.1; Feb. 2011)
Thinking Ahead for the Mediterranean

Complementary to these publications, a number of deliverables, including case studies on state sustainability and prospects for peace; country sections on demography, education and social protection systems; availability of demographic data; technical reports on the future of energy supplies, renewable energy, and energy efficiency; technical papers on capital account liberalizations and determinants of financial development will be available in the upcoming months. Whenever applicable, these documents will contain short narratives for the qualitative scenarios, identify the key driving forces for change, and provide the insights and inputs sought by the GEM-E3 model,(see discussion in Sections 2.3 and 2.5).

A more detailed list of the deliverables, including deadlines and responsible persons, is available on the project’s website (http://www.medpro-foresight.eu) under member’s area. It is imperative for the work package leaders to ensure that the relevant delivery deadlines are respected.

As noted by several participants during the meeting, the recent events that took place in Tunisia and Egypt will likely have an enduring effect on the political conditions in the region. The popular support to the protests clearly puts into question the sustainability of autocratic regimes of the region. According to Nathalie Tocci (IAI), the anti-democratic practices of the past have effectively brought closer the “tipping point” that separates conformity from defiance. The calls for reform are being heard in several countries across the region. In short, a new pathway has opened for some of the countries in the region, making democratization one of the possible outcomes.

Although the events have taken place after its publication, the main arguments contained in the partial scenarios developed in the November 2010 technical paper under WP 2 (geopolitics and governance) have not changed much*. The reference scenario (“unsustainable development”) serves as a starting point for most of the countries in the region, involving some existing cooperation ties with the EU and little or no success on economic, political and social sustainability. Under the second scenario (“sustainable development”), the region sees transition through enhanced sustainability through economic, social and political reforms along with continued cooperation, primarily with the EU. Currently, a full-fledged transition to a Western-oriented democracy appears less probable within the foreseen timeline until 2030. This is

because most countries in the region lack the essential institutional and political conditions to execute and manage such a transition through peaceful and sustainable means. A more plausible form of development would be a more tempered transition, through the continued but diminishing presence of authoritarianism (i.e. bon usage du néo-authoritarisme), either in the form of military rule, re-emergence of past regimes, or newly-elected populist parties. Under this scenario, the authorities would use their power to put into place some of the most needed reforms and institutions supported by and in cooperation with external actors.

The third scenario (“polarised regional development”) incorporates the possibility that a subset of countries will experience sustainability while others will remain under-developed and remain influenced by the new powers. To some extent, the divergent conditions already exist today, with intra-regional cooperation being more prevalent in the Middle East than North Africa. Under the polarisation scenario, these divergences will become more poignant over time. EU will lose much of its influence and other actors, such as the Gulf countries, China, Turkey, Syria, and Iran, will engage more with some countries of the region. The diverging interests represented by the diverse set of actors will contribute to sporadic tensions and conflicts both within the region and with other actors such as the EU, undermining the cooperation opportunities and partly the sustainable development potential in some countries.

The fourth scenario (“decline and conflict”) involves a more pessimistic view of the future for the region. Under this scenario, the region is engulfed in radicalisation of conflicts and persistent authoritarianism. The relationships between Israel and its neighbours worsen and the continued Arab–Israeli conflict gives way to a collapse of the initiatives of dialogue and cooperation. In turn, a nuclear stand-off between Iran and the West threatens to be the most notable risk for the region as a whole. The current instability conditions in countries with civil unrest feed some of these concerns, leading to a failure of the democratic transition process and reinforcing further worsening of sustainable development.
A more detailed analysis involving country developments will be included in the forthcoming technical papers in WP 2 (i.e. D.2.2 and D.2.3), which are due in February/March 2011.

A refined version of the scenario framework was presented by Carlo Sessa (ISIS), which follows closely the original four-quadrant model. A significant portion of the discussions centred on the scope, degree and partners of cooperation. The following figure and discussion provides a summary of the narratives for the four quadrants:

Figure 1. Qualitative scenario framework

I. Reference scenario. Sustainable development in the MED-11 is limited due to continued instability and inherent weaknesses in different dimensions of development. Cooperation with the EU continues to be limited, operating through bilateral agreements and covering specific areas of interest. Gulf countries continue to invest in the region, although the areas of cooperation remain restricted. Cooperation among the MED-11 countries remains weak, especially among the Northern African (i.e. “Maghreb”) countries

II. Common development. Following a “green transition”, the region manages to achieve a sustainable development path as a whole. Common targets and strategies are formulated between the EU and the MED-11 countries, with increasing integration in a wide variety of areas of cooperation, including research, immigration, trade, energy, security, agriculture, and environment. Cooperation within the MED-11 region and with other third-countries also improves and now covers a broad set of areas.
III. Polarised development. Some of the MED-11 countries manage to diversify their economies, engage in political reform, and achieve sustainable development, achieving a “blue transition”. Others remain less developed, less diversified and prone to economic and political instability. With the emergence of regional powerhouses, clusters of partnership agreements are struck within the region and with third countries. These developments undermine the operability of some of the key cooperation areas with the EU.

IV. Failed development. The EU-MED area is under threat as the region goes through a “red transition”. Long-lived conflicts engulf the region and spread from one country to another. Failing to achieve sustainable development paths, most of the MED-11 countries face economic, social and political volatility. The absence of a stable authority undermines the EU’s and other countries’ efforts to achieve cooperation on key issues of interest, such as immigration, security and energy.

The qualitative scenario definitions summarised above are indicative of the discussions that took place during the meeting. These will be revised in line with inputs provided from the work packages, including descriptions of the key drivers and short narratives for each quadrant.

As noted by several participants during the meeting, the scenarios will need to incorporate different types of cooperation opportunities for the region. First, the scope of the relations should cover different areas of cooperation, including economic, political, environmental, social and cultural issues. Second, the degree of cooperation may vary, ranging from simple bilateral agreements on specific issues (i.e. information exchange) to broader integration (i.e. enhanced cooperation). Third, whenever applicable, intra-regional ties and cooperation with third-countries, such as the US, China, etc., will be considered. The scenarios will maintain the focus on the EU-MED relations since the research agenda centres mainly on these interactions. However, other venues of cooperation may also be crucial in shaping the future for the region. For example, as was already addressed in the polarised development scenario above, the EU’s failure to engage actively with the region may well result in other actors stepping in.
To some extent, the range of viable cooperation opportunities depends partly on the level of total wealth. In this manner, certain types of cooperation may not be feasible when the level of development is lagging in the South. For example, if the Southern Mediterranean countries fail to grow quickly, they will find it harder to negotiate deep integration agreements. Similarly, cooperation on energy is more likely when one of the two partners is rich in resources. However, it would also not be correct to suggest that these opportunities respond positively to the level of development. Immigration and cross-border cooperation become more necessary for the recipient countries when the wealth differences are greater or when the Southern countries face instability—as is currently the case. Trade agreements may be the political means to achieve cooperation in other areas.

The CEPS team has assembled a cooperation matrix that currently covers the bilateral and regional ties between the MED-11 and the EU. The coverage of the database will be extended in the upcoming month to map essential agreements between the MED-11 countries and other third-countries (i.e. the Gulf countries, US, China, etc.) and key international organisations. The final matrix will be available by mid-March 2011.

The E3M Lab/ICCS team has finalised the collection and assembly of the economic and structural database for the MED-11 countries, including a large number of indicators as well as the social accounting, trade, investment and consumption matrices, assembled from a variety of national and international sources. Most of the indicators cover the years 1990-2008; in turn the social accounting and other matrices are only available for 2004, which will serve as the basis year. The model includes over 30 sectors and covers the entire MED-11 countries, several individual EU states, other Arab states, the US, China and the rest of the world.

The data calibration ensures that the model will produce the 2004 observations as an equilibrium solution. The 2030 scenarios will then be simulated by applying the relevant parameter and policy changes to the model, all corresponding to different equilibrium solutions.
As noted in the November 2010 Milan meeting, the E3M Lab/ICCS team requires a set of inputs from all the work packages to construct the quantitative scenarios. The following list provides summary of all the relevant parameters.

Table 1. Summary of inputs for quantitative scenarios

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<thead>
<tr>
<th>Working Package</th>
<th>Inputs to scenario developments with the GEM-E3</th>
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<tbody>
<tr>
<td>WP2: Geopolitics and Governance</td>
<td>Regional/country projections and trends of geopolitical tensions and conflicts</td>
</tr>
<tr>
<td>WP3: Partial foresight on demography, health and ageing</td>
<td>Migration flows (skilled/unskilled)</td>
</tr>
<tr>
<td>WP4a: Management of environment and natural resources, including climate change, water, agriculture and biodiversity in coastal areas</td>
<td>Land productivity, Water prices, Tariffs and taxation (in US dollars)</td>
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<tr>
<td>WP4b: Energy and mitigation of climate warming</td>
<td>GHG emissions, Energy intensity and infrastructure, Climate change mitigation policies</td>
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<tr>
<td>WP5: Economic development, trade and investment</td>
<td>GDP growth/ FDI, Total factor productivity, Capital productivity, Sectoral competitiveness indicators, Sectors of monopolistic competition, Subsidies, Tariffs and barriers to trade, R&amp;D spillovers</td>
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<tr>
<td>WP6: Financial services and capital accounts</td>
<td>FDI</td>
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<tr>
<td>WP7: Human capital, social protection, inequality and migration</td>
<td>Skilled/ unskilled labour force, Migration flows and Labor productivity</td>
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Note: The detailed list of necessary inputs is available under the member’s area (login from http://www.medpro-foresight.eu/user) on the MEDPRO website (Members page -> WP8 - GEME3 Data requirements), http://www.medpro-foresight.eu/member_page/wp8-geme3-data-requirements-november-29th-2010.

The WPs identified above should provide the inputs for the reference scenarios to the E3M Lab/ICCS team by the end of March 2011. For some of the variables that measure relations with other countries, such as migration flows, trade and FDI flows, insights on the flows from and to other regions (i.e. other than the EU) under different scenarios will also be needed.

One of the key problems in providing an estimate of the supply of energy in the region is that announced projects do not always materialize, which makes forecasting energy supply and construction of the reference scenario tricky. For example, in the case of renewable energy, many projects are in place and many new ones are being introduced. However, it is not clear to what extent the new projects replace or substitute existing projects. Thus issues make the estimation of the energy potential for the region subjective.
Despite these challenges, Manfred Hafner (FEEM) and his colleagues are using their database of existing and planned additions to the energy infrastructure to come up with the energy potential for the region under the reference scenario. In addition to existing plants or those that are under construction, some of the projected investments are included after being filtered to ensure their credibility. In making the estimations for the potential energy demand from the region, the “Energy Roadmap 2050” scenarios for the EU will be used as a baseline.

According to latest analysis, the region’s renewable energy exports to the EU are likely to remain small for at least until 2030. For the moment, the planned investments and projects are highly scattered with potential for overlaps, with politics remaining the key motive behind some of the announcements. The viability of certain forms of investments, such as solar plans, has not been adequately assessed. A study for the region’s energy potential will only be completed by 2013-4.

Growth projections

On the management of environment and natural resources, Francesco Bosello (FEEM) explained his team’s work on water use, land productivity and environmental attractiveness for the region. The demand for water is shaped largely by individual, agricultural and industrial use, including energy production. In this sense, the task is strongly dependent on the use of reference scenarios on demographic tendencies and economic growth, both of which will be available by mid-March 2011. Land productivity patterns are mostly climactic and are being constructed. On environmental attractiveness, the impact of climactic change on coastal areas and tourism will be assessed at a later date, possibly (although not necessarily) using input from tourism flows into region from WP5.

As discussed by Leonor Coutinho (CCEIA), the projections for growth under the reference scenario will use the standard (Solow) growth-accounting framework to estimate growth in total factor and labour productivity. The model follows most of the standardised assumptions on capital stock and labour inputs. The data on labour and capital input is available for the years 1960-2008 for most countries although the inputs on labour quality and ICT capital are available for a smaller subset and may need to be supplemented.
A common assumption of the standard growth models is that the economies will converge towards a steady state growth path, which depends only on the rate of technological progress and the rate of labour productivity growth. This makes the model’s results depend crucially on the type of convergence that is assumed to take place within the sample. Among the various issues, the key question is to issue to determine the timing of convergence. One potential solution is to assume that growth rates are higher for countries with lower incomes but tend to decrease as they “catch up” with their richer counterparts. These assumptions will be used for the region in the final calculations. Growth projections under the reference scenarios will be available by mid-March 2011.

Two meetings will be held in the upcoming months. The first meeting will be the MEDPRO scientific workshop to discuss the progress of research, in particular the qualitative reference scenarios provided by different work packages and the quantitative work. The meeting will be held in Marseille in July 2011. Willem Pieter de Groen (CEPS) will initiate a Doodle inquiry in the upcoming weeks to schedule the exact date of the conference. The second meeting, the stakeholder engagement workshop (SEW), will be held in October 2011 in Barcelona, bringing together experts, policy-makers, and researchers with substantial experience in the region to discuss the qualitative scenarios. The final list of participants will be sent by Javier Albarracin Corredor (IEMed) to the project coordinator, Rym Ayadi (CEPS), over the summer. The researchers are also invited to visit the member’s area within the MEDPRO website (login from http://www.medpro-foresight.eu/user) for the upcoming deadlines for deliverables and the progress of work.