Doing business in the Euro-Med
Focus on green technology sector

Helsinki, 30 Mai 2017
Why partnering with South Med countries?
EUROMED Invest: What are we talking about?

Framework program for the development of economic relations between the 28 EU Member states & 10 Mediterranean Parner Countries: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria* and Tunisia.

- **Aim:** Develop lastingly business relations, investments and business partnerships between the two shores of the Mediterranean
- **Target:** Companies, entrepreneurs, BSOs; More than 7000 beneficiaries in the Euro-Med
- **Strategic sectors:** agrifood, water & renewable energies, cultural & creative industries, transports & logistics, tourism
- **Activities:** 80 business & capacity building events in South Med & Europe
- **Network:** 79 affiliated business support organisations in the Euro-Med
- **Duration:** 3 year programme (2013-2016) + 6 month extension until December 2017
- **Budget:** €5 millions, 80% financed by the European Union, 20% by the MedAlliance Consortium

* EU cooperation with Syria is currently suspended given the political situation in the country.
Euro-Med: A strategic region for the future

- **GDP Annual Growth Rate**
  - EU: +1.9 % (2016)
  - South Med: Surprising resilience +2.7% (2016) same average of the last 4 years;
  - The worst world economic gap GDP/capita: 1 to 7 in 2011, a time bomb!

- **Growth synergies**
  - Demand in South Med markets grows by 3-5% /year
  - Strategic position of the South Med as logistic and financial hub to access Africa
  - EU companies need growth relays: Trends towards “near-shore” & responsible co-locations: invest in the future

- **Population**
  - South Med = 270 mln in 2010 360 mln in 2030
  - Euro-Med= 570 mln inhabit in 2030 (45 % North, 55 % South)

- **Jobs badly needed in the South Med**
  - Over 2010-20, 50-75 mln jobs needed (IMF 2011)

- **South Med accounts for about 9 % of the world’s energy demand**
  - Energy forecast multiplication by 2.6 by 2025 (OME)

- **Ongoing political transition, humanitarian crisis, risk persistent radicalisation**
  - Inclusive development is urgently needed, instability undermines investment
The untapped potential of green sector

- **MED accounts for about 9% of the world’s energy demand**
  In 2014 renewables represent 6% of the energy mix in the whole region
  Total Primary Energy supply is composed of following: Oil 57%, Natural gas 29%, Coal 8% and Renewables 6%

- **Abundant deposits of energy resources, mainly solar and wind energy**
  Extremely favourable climatic conditions and huge deserts which could host large productions
  16% of renewables in energy mix by 2040
  35% of electricity production by 2040 (MEDENER)

- **Energy efficiency, Green techs for urban challenges & accompanying the industrial takeoff**
  Rising domestic consumption, rapid urbanisation, rising industrial development needs
  Economies characterized by a high rate of energy intensity (ie energy consumption per unit of GDP)
  Energy saving potential is estimated at 50% in the South
A favorable regional framework for business
Legislations & concrete initiatives

From the EU side:

- The EU Directive 2009/28 provides an institutional framework favoring the development of Euro-Mediterranean cross-border flows of renewable energies
- The Commission also proposed extending the Community Energy Treaty to the Mediterranean Partner Countries (MPCs) as measures to deepen EU-MPC economic integration and promote their economic development

From the South side:

- Legislations have evolved to set up systems of renewable power production & to adapted standards of energy efficiency; an acceleration in the implementation as well as some adjustments are however necessary to pave the way for private investors (reduce fossil fuel subsidies + feed-in tariffs)
- Ambitious strategies to raise the share of renewables in their production (Israel, Egypt and Morocco: respectively 20, 20 and 40% by 2020, Algeria: 20% by 2030)

Concrete initiatives:

Mediterranean Solar Plan by the Union for the Mediterranean (UfM)
- Objective of the MSP is to deploy 20 gigawatts of installed renewable energy capacity in the region by 2020 and to support the deployment of renewable energies in the region to supply Europe with Mediterranean solar energy in the future

Concrete initiatives:

- 9 billion dollar Solar Plan in Morocco, concentrated solar power plants in Morocco and Tunisia, photovoltaic panels in Algeria
- Wind farms in Egypt, 421 million euro investment in Israel in solar, biomass power facilities
Renewable energies in Algeria: preparing “life after-oil”

Algerian Renewable Energy and Energy Efficiency Program:
- 27% share of renewables in electricity production by 2030
- Saving of 300 billion m3 of natural gas (8 times national consumption in 2014)
- Energy efficiency: 60 MTOEs of cumulative energy savings by 2030
- The program is open to national and foreign public and private sector investors

- Feed-in-tariff law in 2014 defining guaranteed purchase prices for electricity produced by the private sector from renewables for 20 years
- National Fund for Renewable Energies and Cogeneration (FNREC), fed by a levy of 1% of the petroleum royalty
- Energy efficiency tax introduced by the Finance Bill 2017
- 51/49% law
State of the art of green sector in Algeria

Part des ENR dans la production totale d'énergie primaire (%)

- Biocarburants et déchets: 0,3%
- Charbon: 0,1%
- Pétrole: 37,2%
- Gaz naturel: 62,4%

Production totale d'énergies renouvelables (Mtep)

Origine des investissements étrangers dans les énergies renouvelables

1. USA
2. France

Grands projets (capacité en MW)

- Solaire thermique à concentration (CSP)
- Photovoltaïque
- Eolien

- Réalisé
- En cours
Renewables in Egypt: boom of wind and solar

- Contribution of renewable energies by 20% of the total electricity generation by the year 2022, 12% of which from wind energy
- 35% electricity in 2035
- 65% electricity in 2050

- Liberalization of electricity sector in 2015
- Risk reduction schemes for private developers, including contracts for the purchase of electricity
- Green electricity at regulated sales prices, with foreign exchange buybacks by the Egyptian Electricity Transmission Company
- Public guarantees from 20 MW and tax incentives
- Remove subsidies for energy by 2019

On an area of 80km²
Wind farms operational since 2001
General electricity: 6.6 billion kWh

Large scale grid connected wind farms on Suez Gulf
State of the art of green sector in Egypt
Morocco: first regional producer of green electricity in 2020

National Program for the Development of Renewable Energies 2010-2030:
- Target of achieving 52% of its green electricity capacity by 2030
- Energetic efficiency: -12% primary demand 2020

- Law 13-09 on Renewable Energies (2010) Opening of production to competition, access to the electricity network, export of green electricity, construction of direct line for export
- Law No. 47-09 on Energy Efficiency: energy performance of equipment and buildings; Mandatory energy audit; Energy impact study, Establishment of energy services companies
- National Agency for the Development of EnR and EE (Law 16-09); "Moroccan Agency For Solar Energy" (Law 57-09)
- Creation of the Energy Development Fund
- Investment Charter (granting of tax and customs advantages)
- Purchasing rates for two years for the acquisition by the state company of the electricity produced in renewable energy (high voltage only)

Ouarzazate Solar Power Station Noor 1 CSP

Installed capacity of 125-160 MWp
2500 ha Noor Solar Project final capacity: 580 MWp
State of the art of green sector in Morocco
Renewable in Tunisia: development of major projects

National Program for the Development of Renewable Energies 2013-2030:
- Reduce its energy consumption by 30% and reach 30% of electricity from renewable sources by 2030

- Tunisian Solar Plan (PST): Reference program for renewable energies, available on the website of the National Agency for Energy Management (ANME)
- Law on the production of electricity from renewable energies (2015): complements the two previous laws (2004 and 2009) to (i) define a national plan for the production of electricity from renewable energies, (ii) expand Self-producer status to local authorities, public enterprises and private companies with the possibility of reselling the surplus to STEG and (iii) authorizing the production of green electricity for export

Bio fuels represent 10.2% of the energy mix in Tunisia and are produced by the private sector.
State of the art of green sector in Tunisia

Part des ENR dans la production totale d'énergie primaire (%)
- Solaire, éolien, géothermie: 0,6%
- Biocarburants et déchets: 0,8%
- Pompes à chaleur: 10,2%
- Pétrole: 36,2%
- Gaz naturel: 50,2%

Production totale d'énergies renouvelables (Mtep)

Origine des investissements étrangers dans les énergies renouvelables
- France: 7
- Royaume-Uni: 2
- Italie: 2
- Allemagne: 2
- Japon: 2
- Autres UE: 5

Grands projets (capacité en MW)
- Solaire thermique à concentration (CSP): 9
- Photovoltaïque: 10
- Éolien: 3
- Hydro: 9

Réalisé: 🛡️
En cours: 🔗
En projet: 🏭

Clusters et pôles
- Énergies renouvelables (ENR): 🌿
- Multisectoriel dont ENR: 🌿
Foreign Direct Investment trends
### Number of FDI Projects Announced in MED Countries (2006-2015)

<table>
<thead>
<tr>
<th>Year</th>
<th>Renewable energies</th>
<th>Conventional energies</th>
<th>Water &amp; Green tech</th>
<th>Other sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>3</td>
<td>71</td>
<td>4</td>
<td>689</td>
</tr>
<tr>
<td>2007</td>
<td>6</td>
<td>96</td>
<td>17</td>
<td>705</td>
</tr>
<tr>
<td>2008</td>
<td>8</td>
<td>101</td>
<td>15</td>
<td>691</td>
</tr>
<tr>
<td>2009</td>
<td>20</td>
<td>103</td>
<td>13</td>
<td>700</td>
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<tr>
<td>2010</td>
<td>17</td>
<td>66</td>
<td>5</td>
<td>594</td>
</tr>
<tr>
<td>2011</td>
<td>27</td>
<td>52</td>
<td>10</td>
<td>520</td>
</tr>
<tr>
<td>2012</td>
<td>10</td>
<td>50</td>
<td>7</td>
<td>376</td>
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<tr>
<td>2013</td>
<td>16</td>
<td>50</td>
<td>4</td>
<td>105</td>
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<tr>
<td>2014</td>
<td>22</td>
<td>42</td>
<td></td>
<td>537</td>
</tr>
<tr>
<td>2015</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

### EU FDI Announcement in Renewables & green tech

<table>
<thead>
<tr>
<th>Host country</th>
<th>Year</th>
<th>Investor</th>
<th>Country of origin</th>
<th>Project description Eng.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>2015</td>
<td>Mainstream Renewable Power</td>
<td>Ireland</td>
<td>Lekela Power, 40% owned by Mainstream Renewable Power, to create a 50 MW solar-power station and 2 wind-power stations, in the Gulf of Suez</td>
</tr>
<tr>
<td>Egypt</td>
<td>2015</td>
<td>Actis</td>
<td>United Kingdom</td>
<td>Lekela Power, 60% owned by Actis, to create a 50-MW solar-power station and two wind-power stations, in the Gulf of Suez</td>
</tr>
<tr>
<td>Israel</td>
<td>2015</td>
<td>Atlantic</td>
<td>France</td>
<td>The provider of thermal comfort solutions to buy a 51% stake in Israeli Chromagen, a manufacturer of solar water solutions</td>
</tr>
<tr>
<td>Egypt</td>
<td>2015</td>
<td>BUILDING ENERGY</td>
<td>Italy</td>
<td>The company to partner with the public institution NREA for the construction and operation of two 50 MW photovoltaic plants in Benban</td>
</tr>
<tr>
<td>Egypt</td>
<td>2015</td>
<td>Siemens</td>
<td>Germany</td>
<td>The group to build a rotor blade manufacturing facility in the Ain Soukhna region to supply equipment for 12 wind farms with a total capacity of 2 GW</td>
</tr>
<tr>
<td>Jordan</td>
<td>2015</td>
<td>SunRise PV systems</td>
<td>Greece</td>
<td>The SME to be awarded one of the four BOT contract for the construction of a 50 MW solar-run power plant in Jordan, its first project outside Greece</td>
</tr>
<tr>
<td>Morocco</td>
<td>2015</td>
<td>Voltalia</td>
<td>France</td>
<td>The electricity producer from renewable energy sources, owned by the Creadev private equity fund, to set up Volta Maroc</td>
</tr>
<tr>
<td>Morocco</td>
<td>2015</td>
<td>Glual</td>
<td>Spain</td>
<td>The manufacturer of wind turbine components, but also solar concentrators, heliostats, solar farms, to set up Glual Energy Morocco</td>
</tr>
<tr>
<td>Egypt</td>
<td>2014</td>
<td>ITALCEMENTI / ITALGEN</td>
<td>Italy</td>
<td>The Renewable Energy branch of the cement group to invest in the construction of a 120 MW wind farm in the coastal town of El-Zaafarana</td>
</tr>
<tr>
<td>Lebanon</td>
<td>2014</td>
<td>MK-GROUP</td>
<td>Germany</td>
<td>The group, also known as Care-Energy, to open an office in Beirut to sell energy supply systems to the Middle East, using Lebanon as a hub</td>
</tr>
<tr>
<td>Morocco</td>
<td>2014</td>
<td>ABENGOA / ABENER</td>
<td>Spain</td>
<td>The group to set up a 51-49 JV with local InfraMaroc, SEDA, for the 20 year BOT contract of the water desalination plant of the Great Agadir</td>
</tr>
<tr>
<td>Jordan</td>
<td>2014</td>
<td>EP GLOBAL ENERGY</td>
<td>Cyprus</td>
<td>The investor to finance 19% of the construction of a wind power plant in Tafleth implemented in JV with InfraMed fund and Emirati Masdar</td>
</tr>
<tr>
<td>Israel</td>
<td>2014</td>
<td>EDF ENERGIES NOUVELLES</td>
<td>France</td>
<td>The group to launch 5 solar plants totalling 32 MW in Goulot, Lahav, Nahal Oz, Kerem Shalom and Mishmar Haneguv in JV with Arava Power</td>
</tr>
<tr>
<td>Israel</td>
<td>2014</td>
<td>Seb</td>
<td>France</td>
<td>The household appliances group to invest along private US investor in Advanced Mem-Tech, an Israeli water treatment company</td>
</tr>
</tbody>
</table>

Source: Mipo-Anima (2014 and 2015)
The support of EUROMED
Invest to the sector
Support of EUROMED Invest to the sector

- 1 Matchmaking platform
- 1 Sector strategy
- 9 Business Roadshows
- 2 Mentoring missions for companies
- 1 Mentoring Exchange for BSOs
- 1 Business guide
EUROMED Invest Business guides

www.euromedinvest.eu
**Euro-Med: Priorities & complementarities**

**Boost the energy transition in Europe**
- EU green companies need growth relays to be less dependent to national incentives
- Diversify the energy provisioning: primary energy production is insufficient to meet the demand
- Increase proportion of renewable energies in its consumption: green energy +2% in 2016
- Achieve results of the Europe 2020 strategy & give concrete response to climate change policies
- Give a concrete response to immigration crises: invest in a real industrial, economic and human co-development with partner countries

**Diversification & reduction of intensity in the South**
- Meet energy demand growth rate (X4 than in Europe)
- Be less dependent to import & fossil energies
- Avoid the risk of fossil resources depletion for oil exporting countries (Algeria, Egypt, Libya)
- Manage the rising of the energy bill in which fossil fuels account for over 94%
- Give a concrete response to greenhouse gas emission targets & energy climate change policies

**Accompany a regional integration**
- Boost the implementation of consistent policies
- Translate expected objectives of single projects (MEDRING, Mediterranean Solar Plan, DESERTEC, Medgrid, Med-TSO, RES4MED) to national priorities, including financing mechanisms;
- Develop electrical interconnections to maximise the use of resources, to foster regional integration and to allow the export of green electricity from Mediterranean countries to Europe;
- Introduce systems for energy management (EMS), which corresponds to ISO 5001, and the spread new certifications
- Generalize the implementation of training programs in this field.