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Local manufacturing of Renewable Energy in the Arab Region

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Renewable energy potential in the MENA region

- Wind speed suitable for the production of electricity in various locations of many countries
- High Solar Irradiance

- Vast desert lands, semi-flat, and mostly uninhabited.
- Pilot and commercial projects, industrial potential, Technical staff and available labor.
- Official interest in RE/ Plans and Policies to diversify the energy mix.
- A tool to reduce emissions.
Benefits from increasing share of RE in total final energy consumption

- 24.4 million jobs in the renewable energy sector by 2030.
- Save up to 4 million lives per year in 2030.
- Boost the global GDP by up to USD 1.3 trillion.

Source: IRENA RE Roadmap, 2016 Report
Local Manufacturing of RE components

- RE market is growing in the Arab region as countries strive to diversify their energy mix.

- Installed capacity in MENA Countries will reach 107 GW by 2030.

- Parts, such as cables and electronic components, are often not specific to a certain type of RE technology.

- RE manufacturer is therefore probably better off concentrating on the manufacture of less complex and more versatile components.

Projection of local manufacturing in the MENA for CSP, PV & wind

- All components with short-term localization period and not complex “low complexities” could be locally manufactured.

- PV and wind systems are expected to be manufactured in the Arab countries during mid-term localization periods.

- CSP is the only technology which would require a long-term localization period (due to CSP generator and turbine which are significantly complex).
Inter-Arab Trade Agreements and Zones

- Agreement to Facilitate the development of trade among Arab countries (1981, 1997)
- Greater Arab Free Trade Area/GAFTA (~ all Arab Countries, 2005)
- Agadir Agreement (Egypt, Jordan, Morocco, Tunisia, 2001)
- Council of Arab Economic Unity (Egypt, Iraq, Jordan, Kuwait, Libya, Mauritania, Palestine, Saudi Arabia, Sudan, Tunisia, Syria, UAE, Yemen)
- Arab Maghreb Union (Algeria, Tunisia, Libya, Mauritania and Morocco)
- Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates)
- Treaty of Joint Defense and Economic Co-operation of the League of Arab States
The ambitious target of each country can create momentum in RE component manufacturing.

The regional market should be considered in order to justify such investments.

Parameters to enhance interregional Arab cooperation:
- Unified Arab standards, accredited testing facility
- Arab free tax zone
- Shared zones for common products
Study General Recommendations based on Gaps

- Government clear vision
- Financial sector (currency state, banking sector, incentives...)
- Institutions (R&D, capacity building, NGO)
- Infrastructure (energy, land, roads, logistics,..)
- Time frame protection for industries
- Access to markets: free zones, tax holidays

Study General Recommendations based on Gaps
# Recommendations for encouraging local RE manufacturing in the Arab region

<table>
<thead>
<tr>
<th>Substantial political support</th>
<th>Competitive local players</th>
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<th>Investment and finance</th>
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<td>- Formulate a long-term RE strategy with national targets and a regulatory framework</td>
<td>- Conduct awareness-raising initiatives</td>
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<td>- Encourage financial institutions to grant low interest loans</td>
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<td>- Define a national plan for RE equipment manufacturing</td>
<td>- Assess the feasibility of production line upgrades</td>
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<td>- Implement financial support mechanisms in the form of price, tax and other incentives</td>
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<td>- Reform fossil fuel subsidies</td>
<td>- Foster business links through joint ventures</td>
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*Source: European Investment Bank (EIB) and International Renewable Energy Agency (IRENA), 2015.*
Thank YOU