

Solar Thermal Action Plan for the Mediterranean

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Tirana, Albania



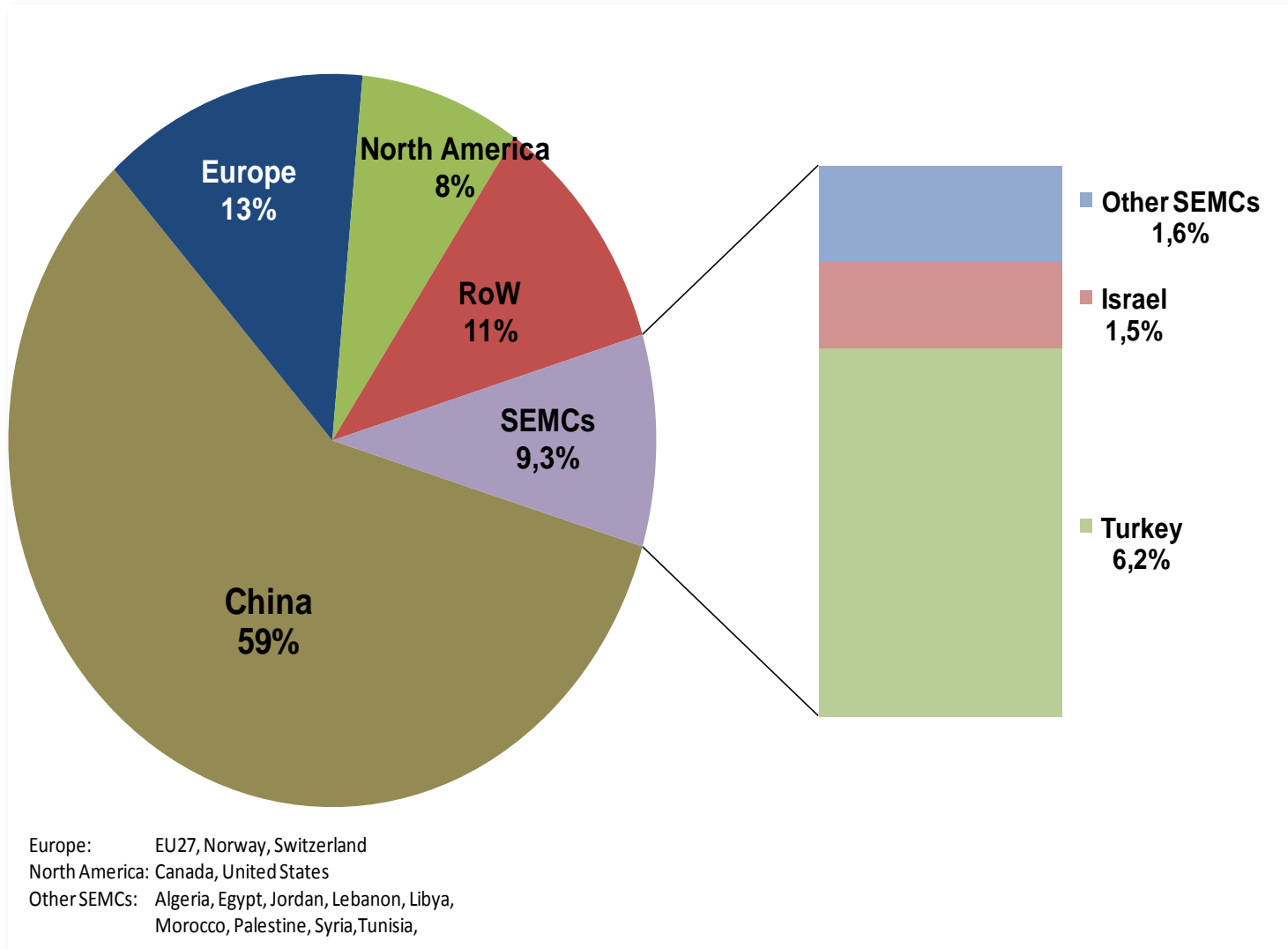
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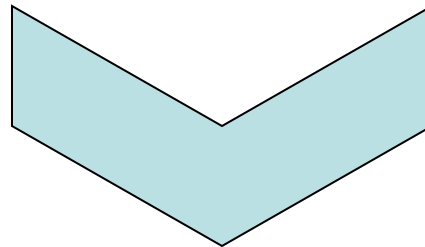
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- Overview of global market trends
 - Developing a solar action plan
 - Addressing and overcoming barriers
 - Highlighting benefits
 - Enhancing public policy support



Developing a Solar Thermal Action Plan



Solar Thermal Strategy

Addressing & overcoming barriers

Barrier	Case example of how to overcome such barrier
High costs of solar systems compared to purchasing power	Financial incentive: Such mechanisms as the one developed in Tunisia within the “PROSOL” program, would make access to the technology easier.
High subsidies for conventional energy/electricity	De-subsidization: Morocco, within its SHEMAI Program, made a study concluding that the earnings coming from the avoided subsidies to butane will allow the state to invest in SWH through subsidy scheme.
Lack of quality control regulations (testing labs, standards, certification)	Certification Scheme: The Lebanese Center for Energy Conservation (LCEC) has successfully implemented a prequalification scheme for solar water heater manufacturers and suppliers. The scheme enables SWH companies to benefit from the national subsidy programme, which offers SWH clients a USD 200 subsidy in addition to an interest-free loan.
Low awareness of end-users	Awareness raising: All programmes promoting SWH system such as PROSOL (Tunisia), PROMASOL (Morocco), or ALSOL (Algeria), include an awareness raising component through advertising (TV, radio, etc.).
Surface availability on roofs	Building codes: Jordan is preparing a Solar Law mandating new buildings to install solar water heating systems, taking into account the roof space challenge, and conflicting use of space.
Lack of data/documentation and monitoring	Global and regional initiatives: To develop and maintain a database. Initiatives like the “Global Solar Water Heating Market Transformation and Strengthening Initiative” represent a very relevant step forward in terms of knowledge sharing and access to data.

● *Energy and CO₂ emission savings*

- Total energy savings in the SEMCs is estimated at around **17895 GWh**, corresponding to around **1.6** million tons of oil equivalent (Mtoe).
- The total annual avoided CO₂ emissions are estimated at **4.7 million tons**.

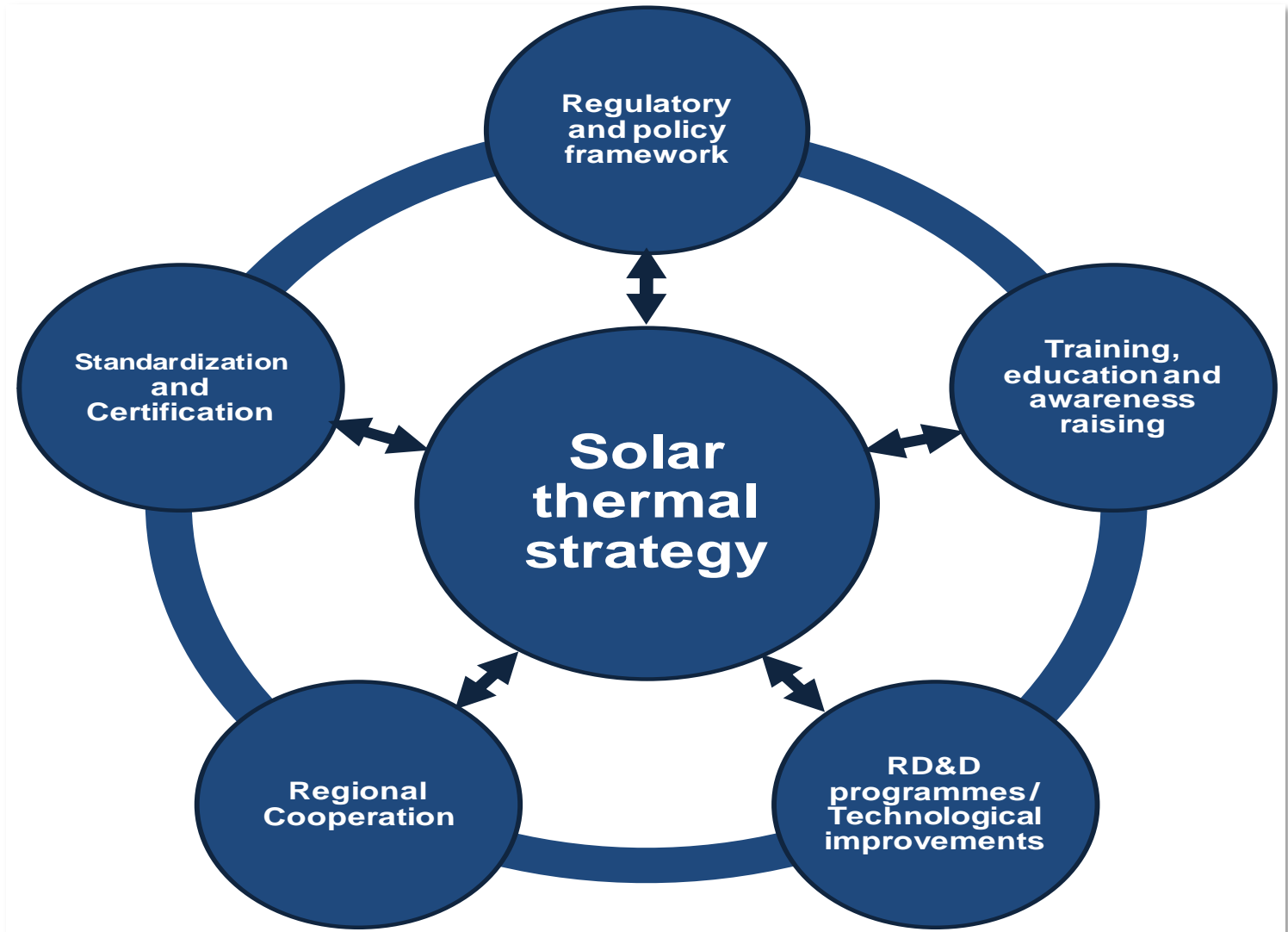
● *Job creation*

- Worldwide employment in 2011 is estimated at about **5 million people** in the renewable industry either directly (manufacturing, installation, etc...) or indirectly (jobs related to industry like suppliers of certain items such as copper smelting plants supplying solar hot water manufacturers).

● *Reducing subsidies*

- Cost savings thanks to avoided subsidies to fossil-fuel or electricity based water heating.

Pillars of the Solar Thermal Strategy



- **Regulatory and policy framework**
 - Setting up binding targets with progress monitoring;
 - Adopting a legislative framework providing for support mechanisms, including solar regulations;
 - Phasing-out of fossil fuel subsidies;
 - Engaging banks in providing loans for SWHs
- **Training, education and awareness raising**
 - Conduct awareness raising campaigns including spots on radios, TV, newspapers and websites, etc;
 - Involving all the stakeholders in the design of such awareness campaigns;
 - Design education tools including energy costs, subsidies, benefits of solar thermal application, etc;
 - Design special program in the technical and vocational training

- **Standardization and certification**
 - Imposing mandatory certification schemes
 - Requiring certification and accreditation for installers
 - Adopting the “SHAMSI” scheme at the national level
- **Technological improvements/RD&D**
 - Strengthening R&D capacities for the following components: solar collectors, storage, multi-functional building elements like fully integrated facade and roof collectors, and system design for industrial applications
- **Regional cooperation**
 - Creating a regional platform for dialogue, experience sharing and collaborative programs like regional industry association;
 - Establishing joint R&D programs; and
 - Developing a database for knowledge sharing

- The objective of this action plan was to identify the **enabling environment** for boosting and investing in solar water heating in SEMCs by showing the **status of solar thermal technologies**, their **potential benefits** and **prerequisites** for an uptake of this market.
- Barriers highlights during the last Regional Workshop in Beirut: **high up-front investment costs**, **institutional gaps** and **low awareness** among the end users, etc.
- The action plan underlines some of the critical factors for a wide scale deployment, including **regulatory** and **policy framework**, **technological improvements**, **cost reductions**, and **social acceptance**.



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