



ENERGY EFFICIENCY: A STRATEGIC AGENDA FOR GOVERNMENT AND INDUSTRY

Amman, 9 November 2009

*Technical and Economic Potential of Energy Efficiency
in the MENA-Region: Experiences from EU-Projects*



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MED-ENEC Project

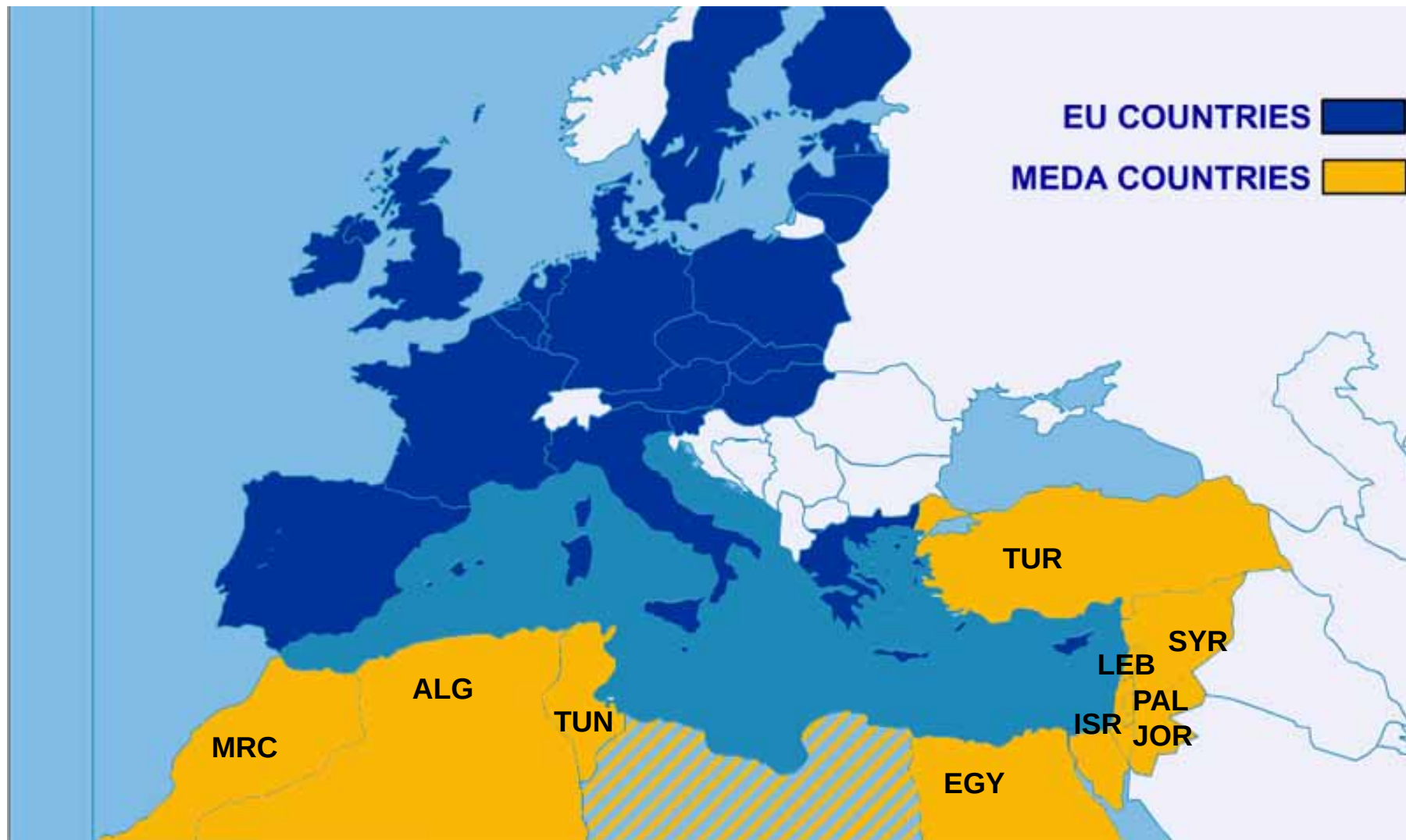
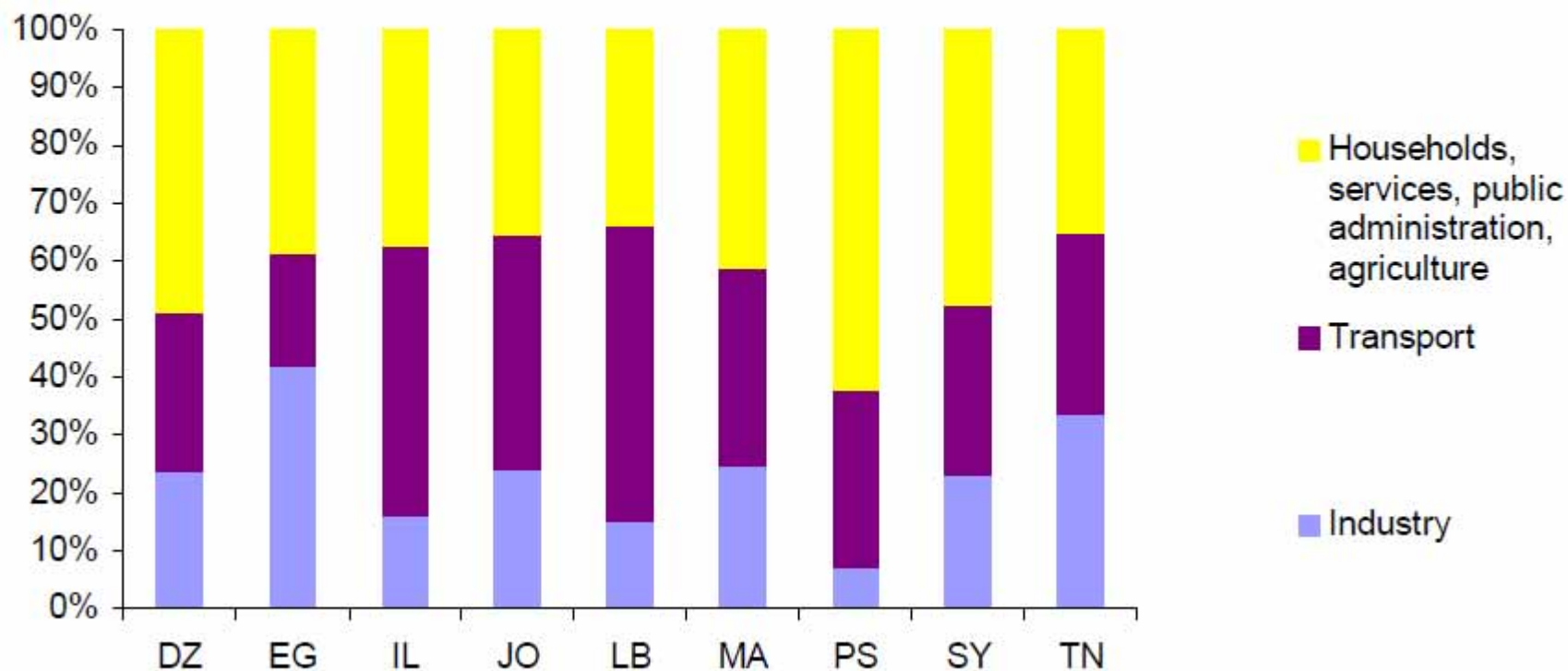


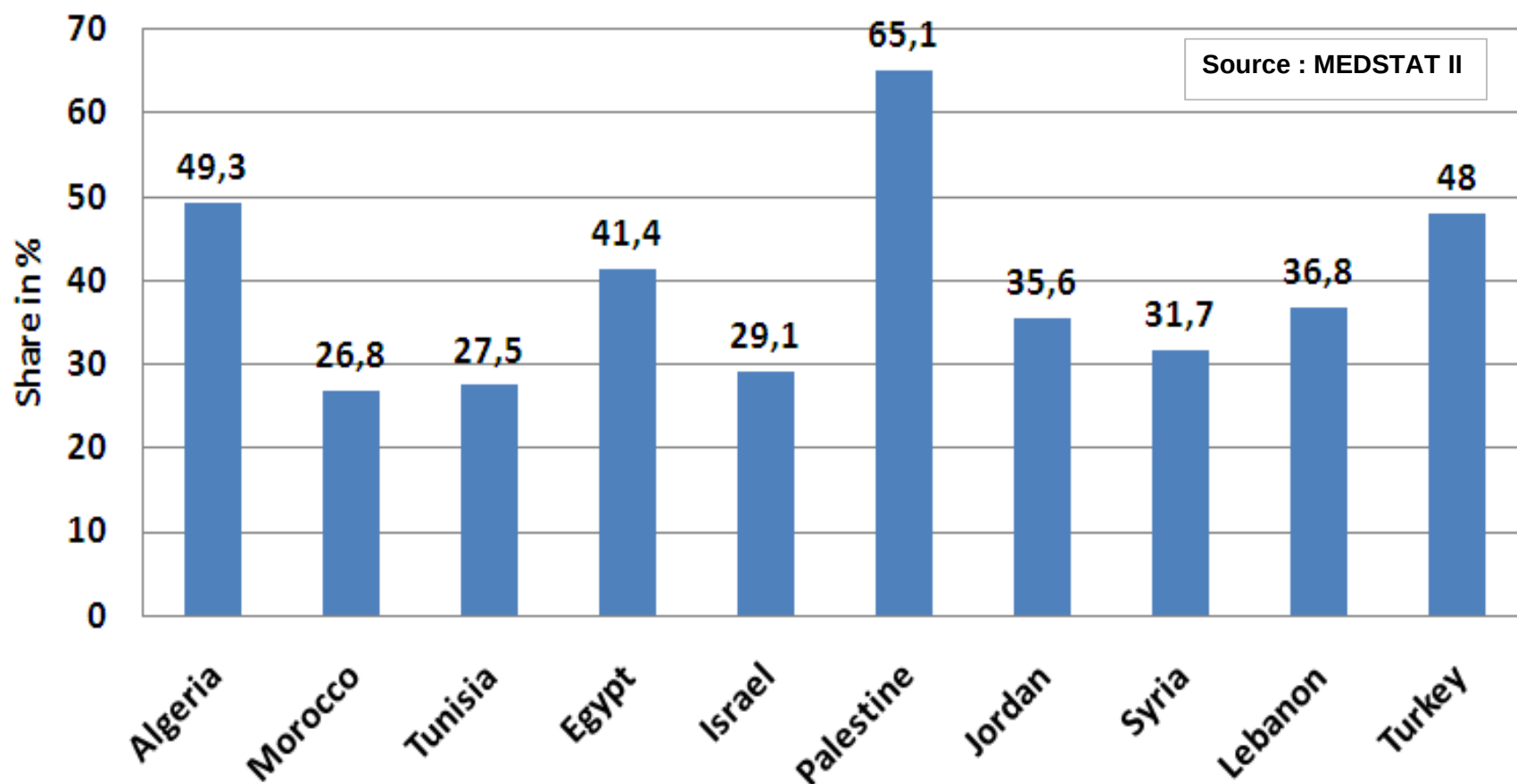


Figure 9: Breakdown of final energy consumption by sector, 2005 (%)



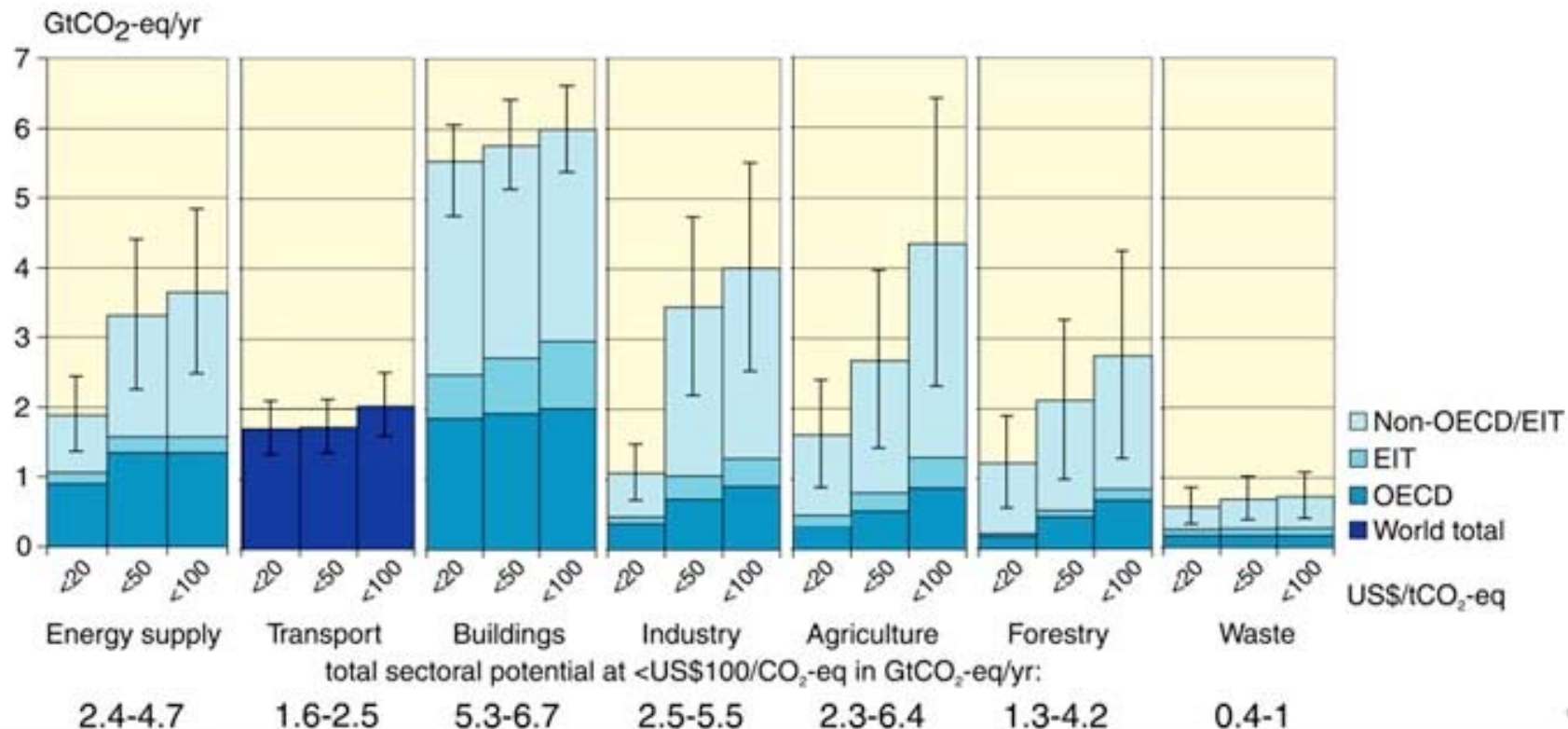


Share of the building sector in the final energy consumption In Southern MEDA Countries (year 2007)





Economic mitigation potential by sector in 2030 estimated from bottom-up studies

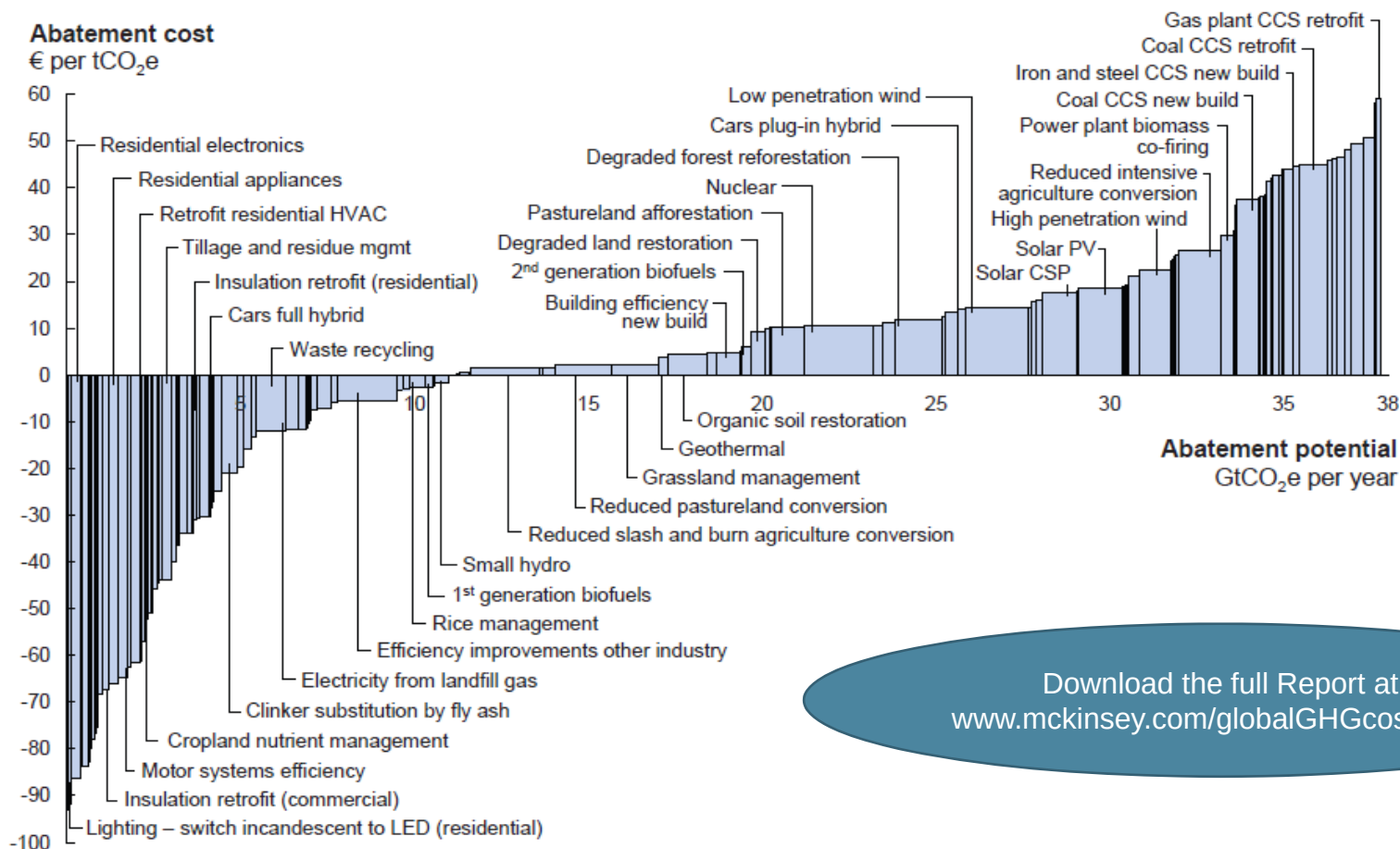


Source: IPCC Synthesis Report



McKinsey&Company: Global Greenhouse Gas Abatement Cost Curve (Version 2, 2009)

Global GHG abatement cost curve beyond business-as-usual – 2030



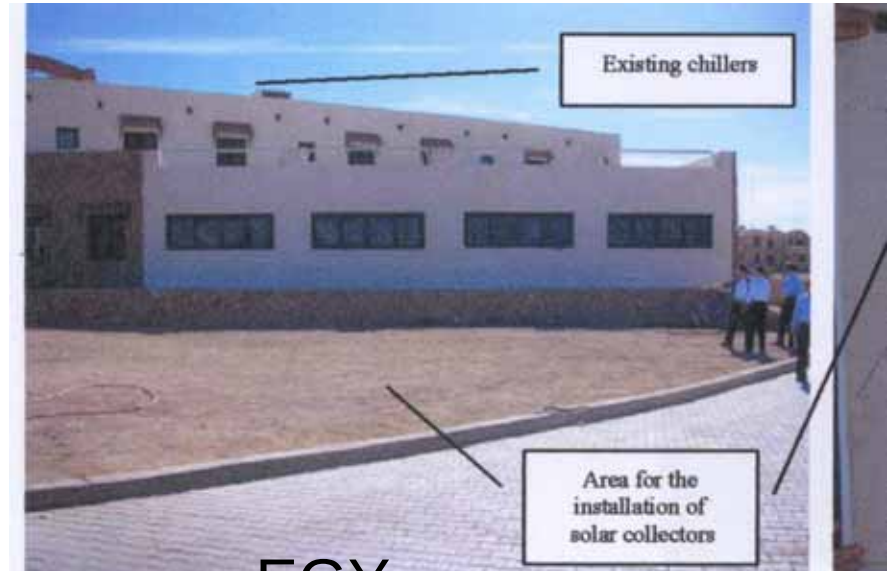
Download the full Report at
www.mckinsey.com/globalGHGcostcurve

Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €60 per tCO₂e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.
Source: Global GHG Abatement Cost Curve v2.0

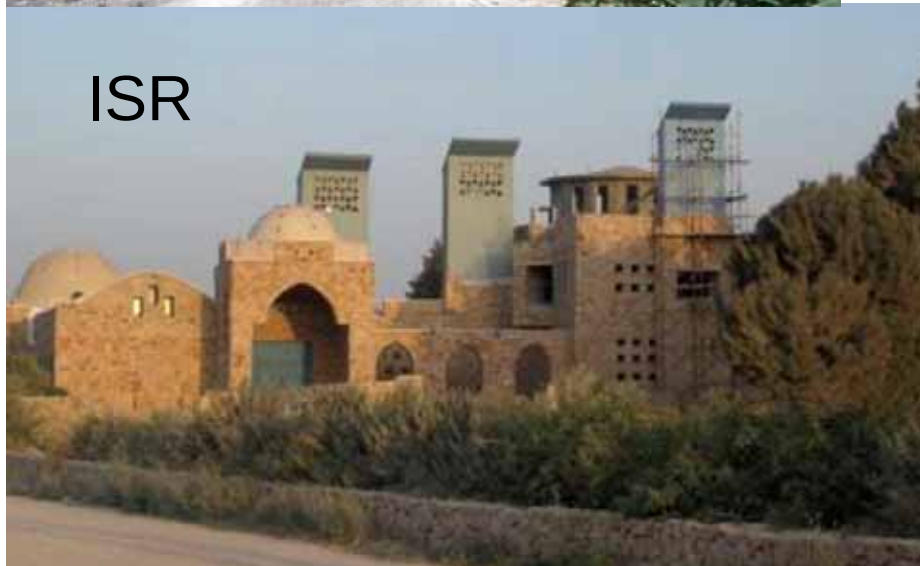
MED-ENEC Pilot Projects (1)



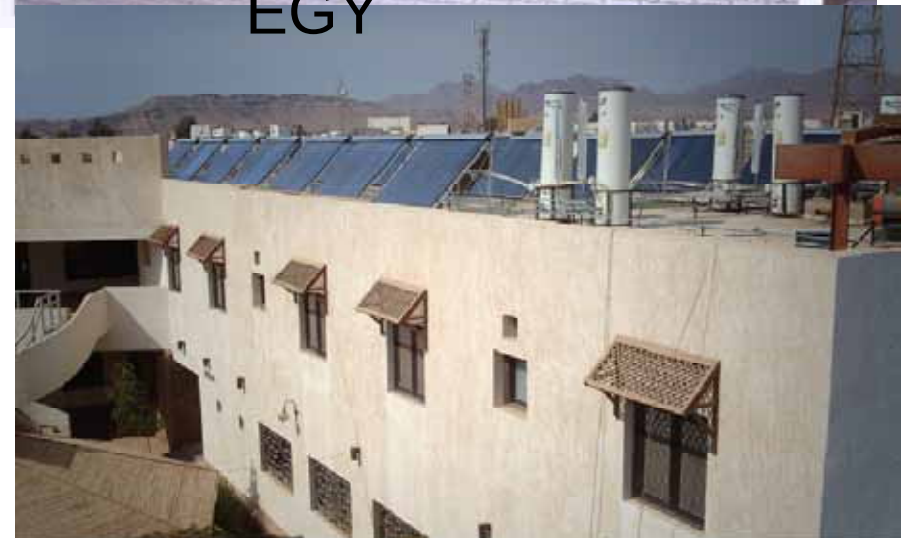
ALG



EGY



ISR



MED-ENEC Pilot Projects (2)



MRC



JOR



LEB

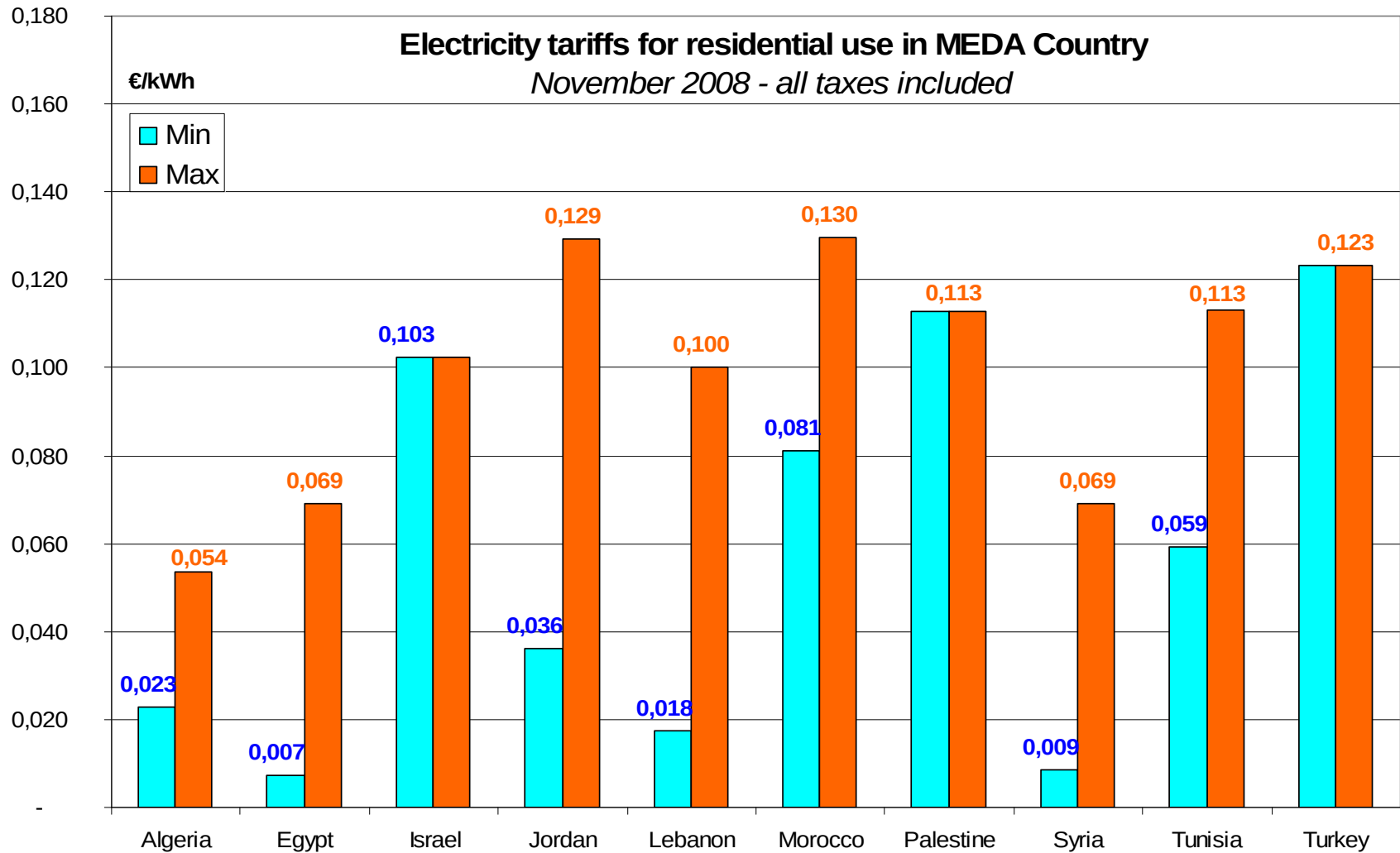
MED-ENEC Pilot Projects (3)





Reasons for the dissemination gap?





Source: www.med-enec.com



Market barriers and failures on...

Demand - side

Trustworthy
Information

Financing +
up-front cost

Split
incentive

Supply - side

Know-how,
products

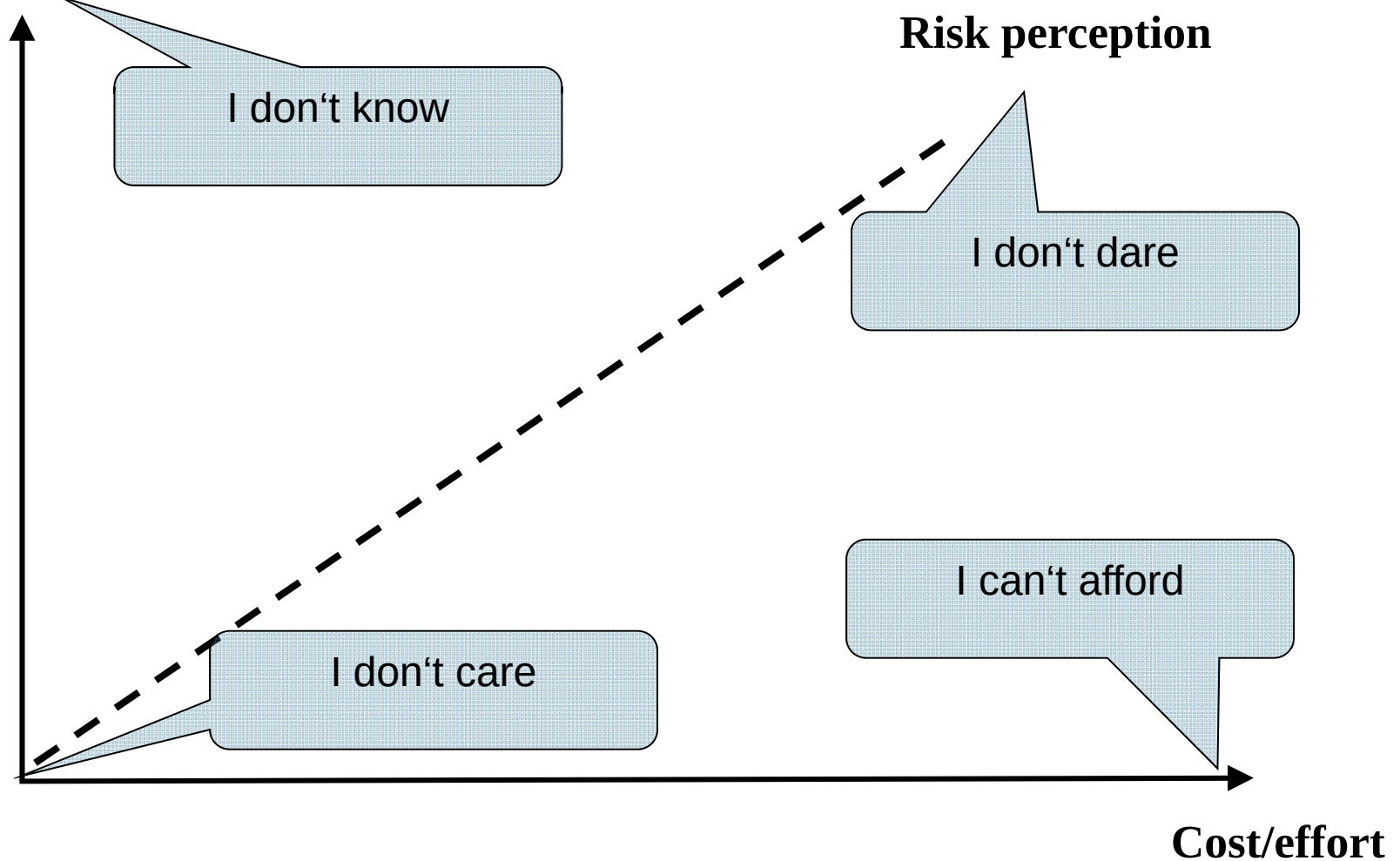
Economies
of scale

Non-economic
factors

**High transaction costs = unfavourable risk perception
(effort/benefit)**



Information/know-how gap





Success story of market creation for Eco-Innovation: The German Feed-in Law



Renewable Energy Law

approved by the German parliament in March 2000;

fixes an attractive selling price for clean energy fed into the electricity grid (20 years)

- biomass,
- geothermal,
- photovoltaic energy,
- wind energy,
- hydropower

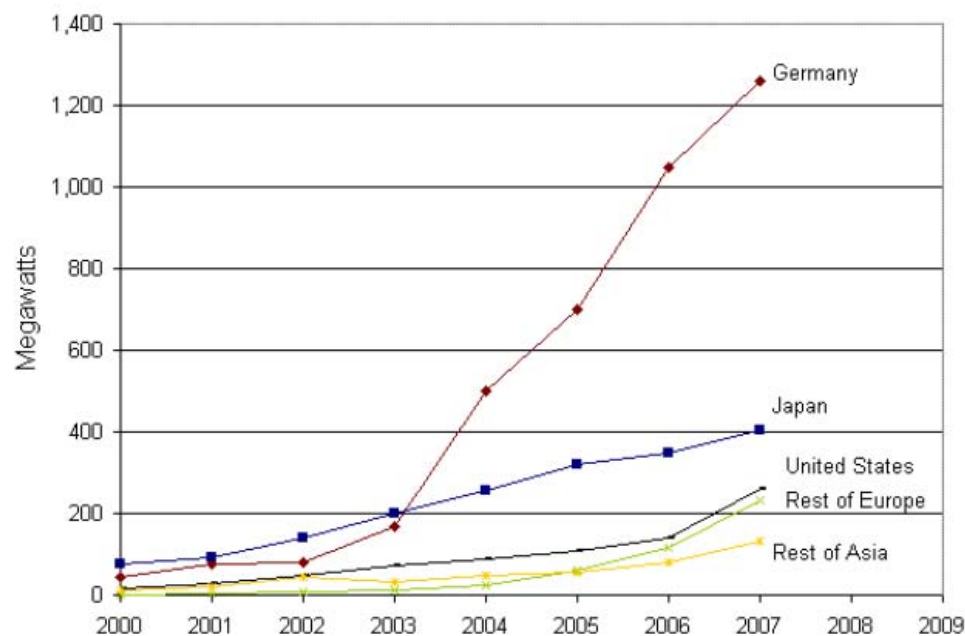
Guaranteed price for photovoltaic energy: 44 ¢– 47 ¢ / kW

Current consumer price for electricity < 20 ¢ / kW



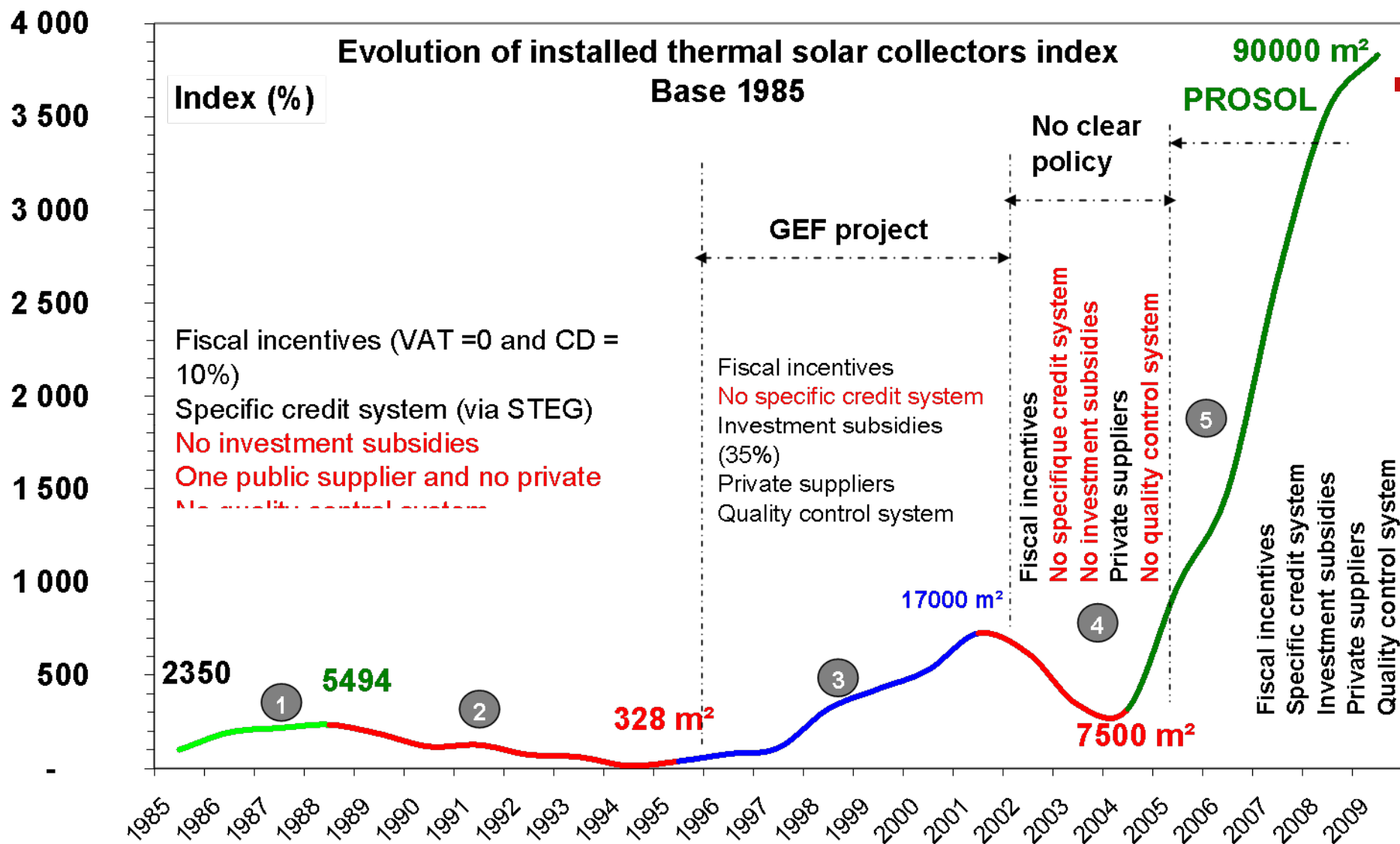
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Annual Photovoltaic Installations, Select Countries and Regions, 2000-2007



Source: Prometheus Institute

Success story « ProSol » in Tunisia





« Stick »	« Carrot »	« Tambourine »
• Reduction of energy subsidies • Laws & regulation (SWH for public buildings, thermal building code) • Mandatory quality standards for suppliers and installers	• Smart financing & credit program • Tax holidays & exemptions • R&D, TT support for national producers	• Awareness and information campaigns • PP-program with developers • Energy agency • Curricula development, vocational training, etc.



1. High technical potentials for energy savings exist in buildings.
2. However, there is an important dissemination gap.
3. Energy subsidies and high transaction costs through market failures are major constraints for large-scale dissemination.
4. Comprehensive policy packages, including regulation, information and financing as well as public procurement are necessary in order to develop markets, create jobs and foster energy security.



Tapping a Hidden Resource Energy Efficiency in the Middle East and North Africa

February 2009

Sustainable Development Network
Middle East and North Africa Region
Energy Sector Management Assistance Program (ESMAP)



ESMAP

Download at:
www.med-enec.com



Climate Change and Energy in the Mediterranean



Plan Bleu
Regional Activity Center
Sophia Antipolis
July 2008