Overview and achievements of
the SwitchMed - MED TEST II

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The context
SwitchMed (2014-2018) - Support and accelerate the transition of the Southern Mediterranean countries toward Sustainable Consumption and Production (SCP)
MED TEST Programme

• MED TEST I (2009-2012) MedPartnership
  3 countries, 43 companies

• MED TEST II (2014-2018) SwitchMed
  8 countries, 125 companies
Scaling up: from MED TEST I to MED TEST II

www.switchmed.eu

To stimulate the demand and supply of sustainable production services

Develop national capacities & the local market of sustainable production service providers

Scale-up adoption of best practices through industry demonstrations:

- Eco-innovative technology/Eco-Design products/packaging
- Production efficiency (modification, process control, GHK, etc.)

Engage key stakeholders (policy makers, industrial association, financial institutions) – enabling business environment
MED TEST Programme – Private Sector support

Objective: promote the adoption of greener, more resource efficient and circular economy business practices to increase productivity and reduce environmental footprint of manufacturing sector.

A unique methodology (TEST): full technical assistance package for industries and service providers to develop skills on eco-innovative technologies and process optimization solutions to greater production efficiency in the use of natural resources, a reduction of waste and energy consumption, which ultimately contribute to circular economy, economic growth and job creation in the region.
SwitchMed II (2019-2022)

Programme Management

Direct support to the private sector
- Greener and Circular Industry – MEDTEST III
- Creation and Development of Circular and Green Businesses

Creation of an enabling policy environment
- Improved regional policy framework
- Support the implementation of SCP NAPs

Coordination, networking and communication
- Networking Facility

The SwitchMed Programme is funded by the European Union
The TEST approach
POTENTIAL for RECP IN DEVELOPED ECONOMIES

Cost saving potential by material efficiency in German manufacturing companies

- Material 44.8%
- Personnel 18.7%
- Commodities 11.7%
- Taxes chargeable as expenses 3.4%
- Capital consumption 2.8%
- Wage labor 2.4%
- Energy 1.8%
- Services 1.6%
- Rent, lease 1.4%
- Others 11.4%

Possible short-term saving of material costs 20%

Sources: German Material Efficiency Agency (demea) and Federal Statistical Office – Study on SMEs
Material costs in production

Materials are often the largest share of all production expenses, using less materials can lead to significant savings!
Up to 85 percent of the productivity opportunities are in developing countries

% of total productivity opportunity by resource and region

Cleaner Production Approach

Systematic root source and cause analysis guides the identification, evaluation and implementation of RECP opportunities.
1. Revealing the “total costs” of resource use inefficiencies within production (NPOs- MFCA).

2. Assess industry resource efficient & environmental performance against sector benchmarks and international best practice.

3. Understand root causes of inefficiency (leverage points) and develop circular solutions.

4. Improve information system on priority material and energy flows (tracking major losses).
Key features of TEST

- Identification of “Priority” flow (Energy, Material, water) based on potential financial and environmental gains.

- Reveal gaps within the information system and data recording.

- Opportunities target process modifications, utilities improvements, productivity and quality gains.
Energy specifics

- Energy analysis within TEST follow a combined approach of Energy audits, and Energy Management system.


- Benefits from System Optimization far exceed the benefits from single equipment optimization.

- Energy savings can also result from optimizing water use, or increase productivity.
The business case: experience from MED TEST Programme
Added value for Industry

✓ Increased productivity, reduced operational costs, optimized investments;

✓ Minimized environmental compliance costs, reduced business risks and smaller environmental/carbon footprint;

✓ Compliance with international environmental standards for accessing new markets (global supply chains and export markets, new green markets, public procurement, etc.);

✓ Secured long-term supply of production inputs: the adoption of a resource-efficiency strategy can mitigate the effects of disruptions and price volatility in the raw materials supply chain;

✓ Improved relationship with stakeholders (investors, banks, regulatory bodies, local communities, consumer associations, etc.).
RECP sound business strategy

Manage business risks (water shortage), stakeholder’s relationship

Best practice Jordan

“Coca Cola company identified and integrated more than 30 RECP measures into existing ISO14001 system, cutting water use by 22%, energy by 44% and raw materials by 3% with total annual savings of 570k euro and a PBP of less than half a year. Approximately 40,000 m3 of water have been saved annually by upgrading CIP & internal reuse. Thanks to the reduction in product losses to drain and improved control of the WWTP, the company plans reusing wastewater for agricultural purposes, as a socially responsible action in a water scarce country like Jordan.”
Best practice Tunisia

“New Amico (DEMCO group) company jean washing realized 360 keuro savings with a PBP of 1 yr. Water savings reached 46%, savings in energy 26% and 1% in chemicals. Some of the most important projects include acquisition of Eco-Innovative E-Flows machines for textile finishing (micro-nano-bubbles technology) and recycling 40% of wastewater within process.

The company main motivation was to improve branding and respond to the increasing European market demand for green products.”
RECP sound business strategy
Improved product quality, productivity and reduced operational costs

Best Practice Palestine

“In the Sinkrot Food Company, the wafer production line revealed to be the major source of material and product losses with a reject of 15% compared to 1% of best practice. Through a modification of the product formulation, improved operational control and the installation of a new creamer section, the company not only achieved a better quality of their wafers, but also an increase in the productivity, while reducing rejects by 10% at packaging stage. Several energy efficiency measures led to a reduction by 60% of the total gas consumption at boilers and oven.”
Regional Results
Enhancing the supply of RECP service

- A main objective of MED TEST II was to strengthen the national capacity of service providers in the area of RECP.
- 682 professionals from academia, business associations, government institutions, and industries received training on the TEST tools.
- By the end of the project, 44 SPs were enabled with hands on experience in RECP.
- One SP already managed to engage four additional industries on a full commercial basis.
MED TEST II

- **125 industries** received full package technical assistance
- Leverage of **87.6 Million Euro** Impact Investment for Resource Efficiency projects
- **40%** of investments envelope pipelined (approved) through national financing schemes

**Partnership with IFIs (EBRD) and national financing institutions/programmes**
- Joint promotional actions
- Pipeline of project
- Follow up with beneficiaries

- 43% 0 y < PBP < 0.5 y
- 18% 0.5 y < PBP < 1.5 y
- 16% 1.5 y < PBP < 3 y
- 23% PBP > 3y
Resource savings opportunities for the local industries

• **24%** Average saving on Energy bill

• **5%** Average Raw material saving potential

• **20%** Average Water saving potential
Up scaling RECP in the Manufacturing sector
MENA Region perspective

18,570,856 tons of CO₂ per year

76,667 Gwh of energy per year

Corresponding to the unconditional declared contribution of Algeria for reaching the 2030 reduction target under the Paris Agreement.

Corresponding to the residential energy consumption of the inhabitants of Morocco, Tunisia and Palestine equivalent to 50 M people

UNIDO  switchmed  EU
Conclusion

- RE Proof business case due to raising production costs, resource scarcity (e.g. water) and environmental enforcement
- Savings from TEST not only impact priority flows
  - Closer look on the changes within the process reveal hidden savings
- TEST is know-how and multidisciplinary
  - SPs need to understand both Energy and Resource analysis
Thank you!

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