

# “TEST”

## An integrated Approach for Sustainable Production in the Manufacturing Sector



International Waters Conference

Promoting Transformational Change in Major Global Industries

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# Overview

- What is TEST
- TEST Experience
  - ❖ Danube River Basin TEST
  - ❖ MED TEST
- Scaling up:
  - ❖ SwitchMed & MED TEST II

# United Nations Industrial Development Organization

UNIDO is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability.

The **mandate** of UNIDO is to promote and accelerate **inclusive and sustainable industrial development** in developing countries and economies in transition.



# Sustainable Industrial Development

## Catalyze sectoral transformation

Transform industries to strive for a more sustainable pathway of growth, by adopting BAT/BEP & clean technologies, undertaking green public investments and implementing public policy initiatives that encourage environmentally responsible private investments.



*Decoupling resource depletion from economic growth*

# What is TEST?

## “Transfer of Environmentally Sound Technologies”

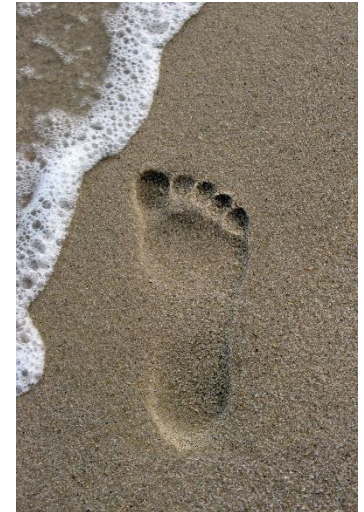
**Objective:** Support the sound management of resources’ use at **priority industrial hot spots**, to minimize use of resources, maximize productivity, and promote zero discharge, through demonstration of **best practices**, application of **clean technologies**, and **capacity building**.

The methodology demonstrates that industries can achieve **economic benefits** through the application of best environmental practices and resource efficiency.



## TEST & GEF International Waters

UNIDO assists developing countries and countries with economies in transition with the transfer of best available environmentally sound technologies and environmental practices to **improve water productivity in industry** and **prevent discharge of industrial effluents into international waters** (rivers, lakes, wetlands and coastal areas) thereby protecting water resources for future generations.



## Background

- The TEST integrated approach was developed by UNIDO in 2000, and implemented in the Danube River Basin TEST project (5 countries)
- The methodology is flexible and can be adapted to the needs of the industry and local context. Since the first project it has been replicated in over 20 countries.
- TEST consists of **five management tools** aimed at changing practices in industries/companies in a comprehensive way in order to ensure the adoption of environmental practices.



# TEST Global Application

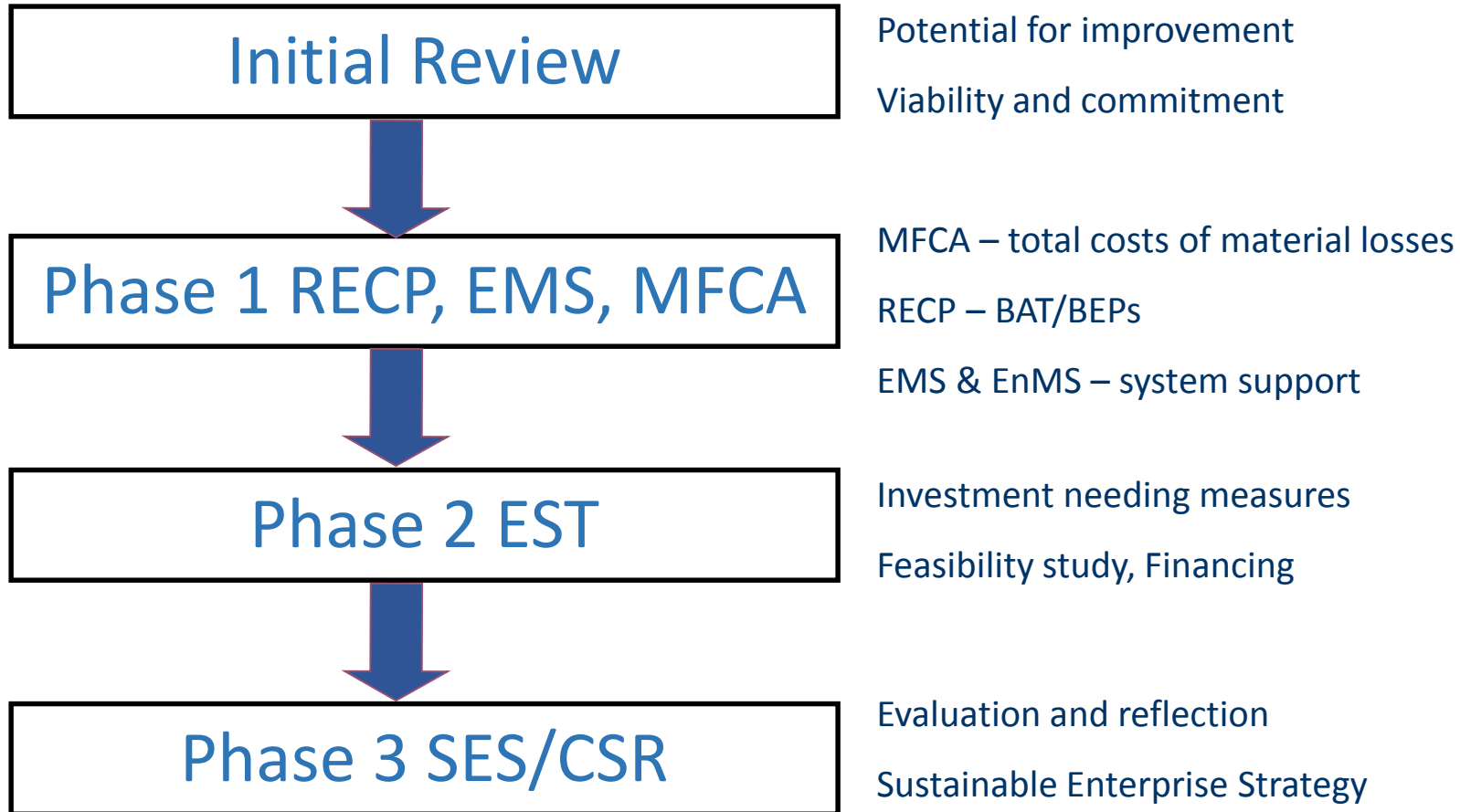
- **Hungary, Croatia, Slovakia, Romania and Bulgaria:** TEST in the Danube River Basin.
- **Mexico:** Strengthening the Effective and Democratic Water and Sanitation Management in Mexico to Support the Achievement of the Millennium Development Goals.
- **Honduras:** TEST in the Rio Blanco Basin.
- **Cambodia:** Identification, assessment and prioritization of pollution hot spots and TEST in the Cambodian section of the Mekong river basin.
- **Kenya, Senegal, Tanzania and Mozambique:** The COAST project uses TEST in the ecotourism sector.
- **Russian Federation:** TEST for industrial climate change mitigation in the Republic of Tatarstan.
- **Algeria, Morocco, Tunisia, Egypt, Palestine, Israel, Lebanon, Jordan:** MED TEST II in the Southern Mediterranean Region.



# The 5 Tools of TEST

- ➡ **Resource Efficiency and Cleaner Production (RECP)**
- ➡ **Environmental Management Systems (EMS)**
- ➡ **Energy Management System (EnMS)**
- ➡ **Material Flow Cost Accounting (MFCA)**
- ➡ **Corporate Social Responsibility (CSR)**

# TEST – main steps



# 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.).



# Danube River Basin TEST project

# Pilot TEST: Danube River Basin 2001 - 2004

- **Target:** Industrial hot spots in the Danube River Basin
- **Countries:** Bulgaria, Croatia, Hungary, Romania, Slovakia
- **Funding:** 1 M USD, GEF, Hungarian and Czech Government, UNIDO
- **Seventeen** companies participated from various industrial sectors (chemical, food, machinery, textile, pulp and paper)



# Results from Pilot TEST

## 1. Capacity building

- 90 national counterparts
- 600 employees of demonstration enterprises

## 2. Cleaner production measures implemented

- Financial savings equivalent to **US\$ 1.3 million per year**

## 3. EMS & EnMS implemented and ISO14001 accreditation received

## 4. Environmental and social dimension integrated into the business strategies



# Replication through the **MED - TEST** project



Strategic Partnership for the Mediterranean Large Marine Ecosystem

**MedPartnership**



# MED TEST

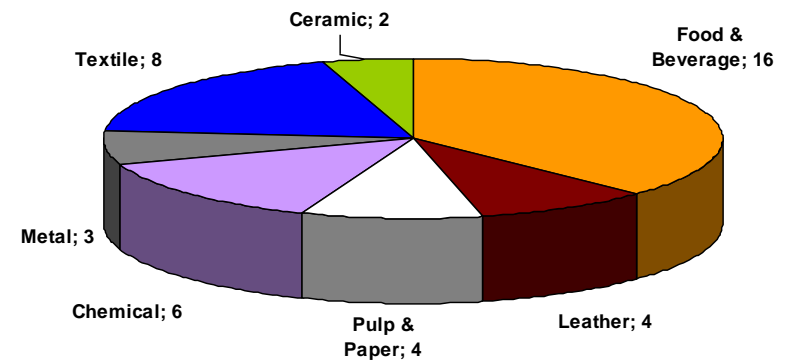


- Countries: Egypt, Morocco, Tunisia
- Funding: 2.1 M USD from GEF & Italian Government
- Duration: 2009 - 2012



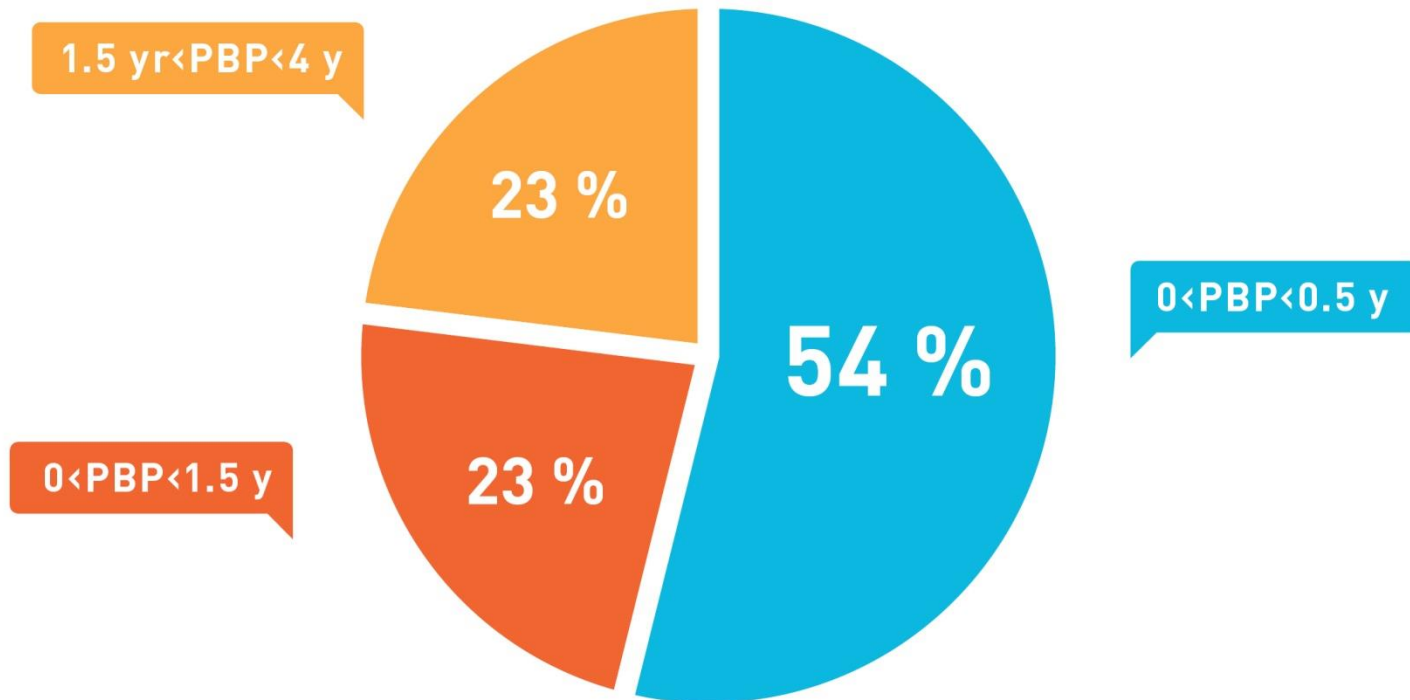
# MED TEST - Facts

- 6 national partners/service providers
- 43 demonstration industries
- 7 industrial sectors
- 30 TEST trainees
- 958 man days of training delivered to industry and trainees
- > 760 RECP measures identified
- 75% implementation rate 2012

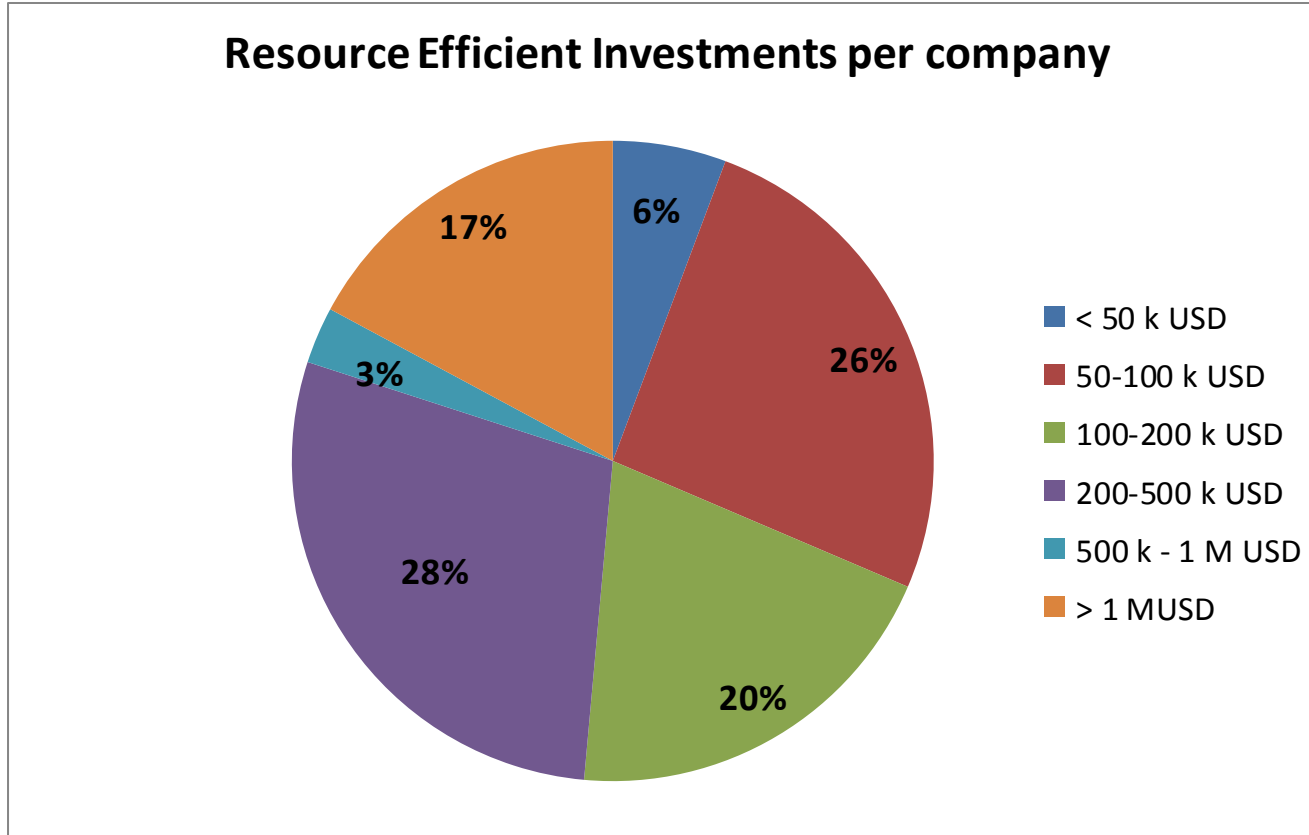


# Industry demonstrations

## Return on investment of implemented measures

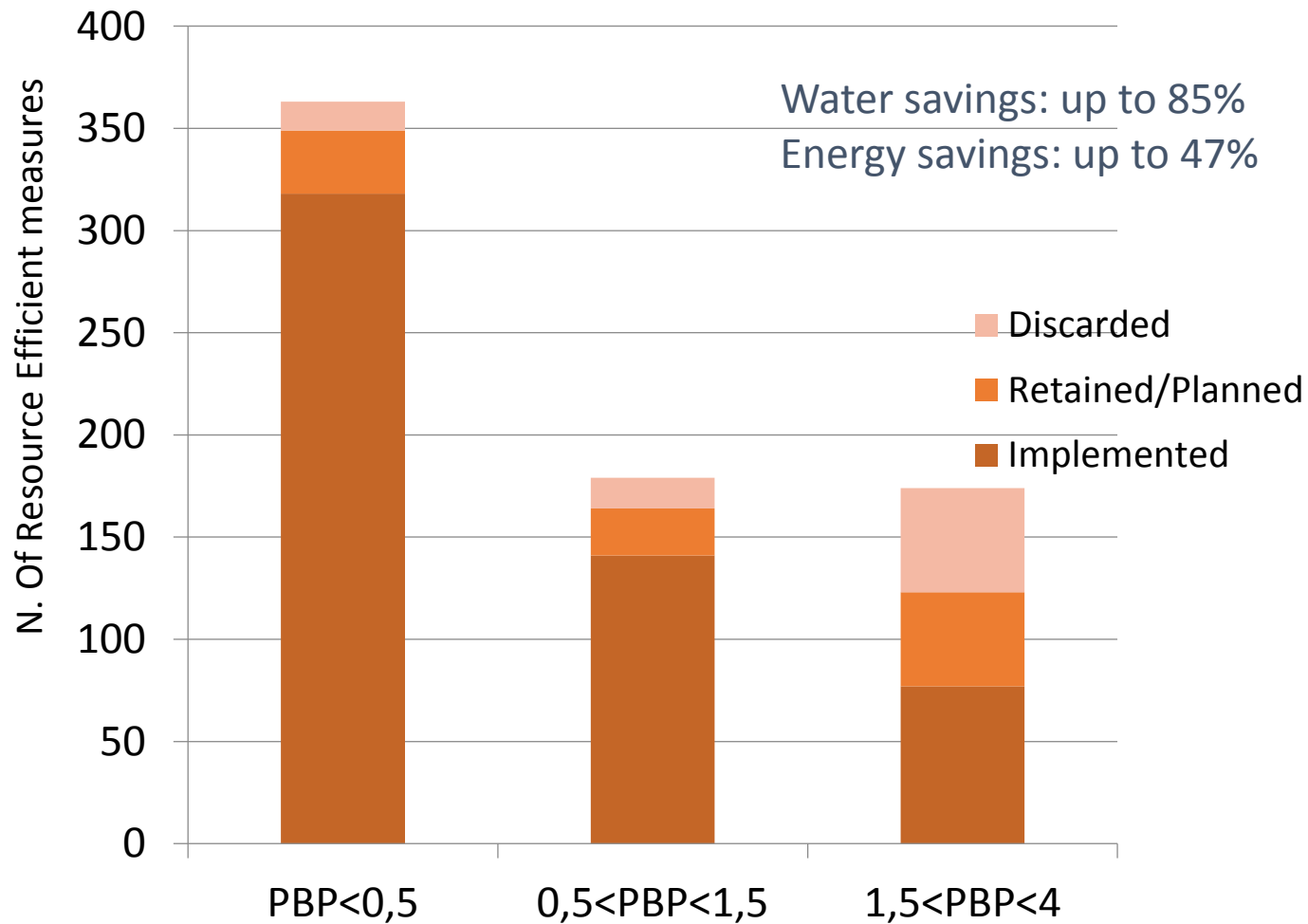


# Industry demonstrations finance



Match making **financing schemes** (KfW, bil. Credit lines, EPAP II, FODEP, FOCRED, AFD)

# Industry demonstrations



# Company Cap-Bon (SCAPCB)

## Case study: Food Sector

SCAPCB produces canned food. It has a daily production capacity to process 1,200 tons of fresh tomatoes.

Measures identified:

- Company designs
- Valorization of by-products
- New equipment
- **Overall water savings of  
129,737 m<sup>3</sup>/yr**



# GARTEX

## Case study: Textile Sector



GARTEX is a jeans production and bleaching company fully focused on exports, with a production capacity of 2,800,000 items/yr.

Measures identified:

- Adaptation of equipment
- Change in programming
- **Overall reduction in water consumption of 14,750m<sup>3</sup>/yr**



# MED TEST I -Results

54% measure PBP < 6 months  
75% implementation rate 2012

9.7 M m<sup>3</sup> water savings/yr  
263 GWh energy savings/yr  
17 M USD/yr in economic savings

**20 M USD investment leveraged from private sector**

# SwitchMed & MED TEST II

# Replication & Scaling-up



- **Funding:** 20 M EUR, donor European Commission
- **Partners:** UNIDO, SCPRAC, UNEP-MAP & UNEP-DTIE
- **Countries (8):** Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine and Tunisia
- **Duration:** 4 years (2014-2018)

SWITCH-Med Programme  
is funded by the  
European Union



Regional Activity Centre  
for Sustainable Consumption  
and Production

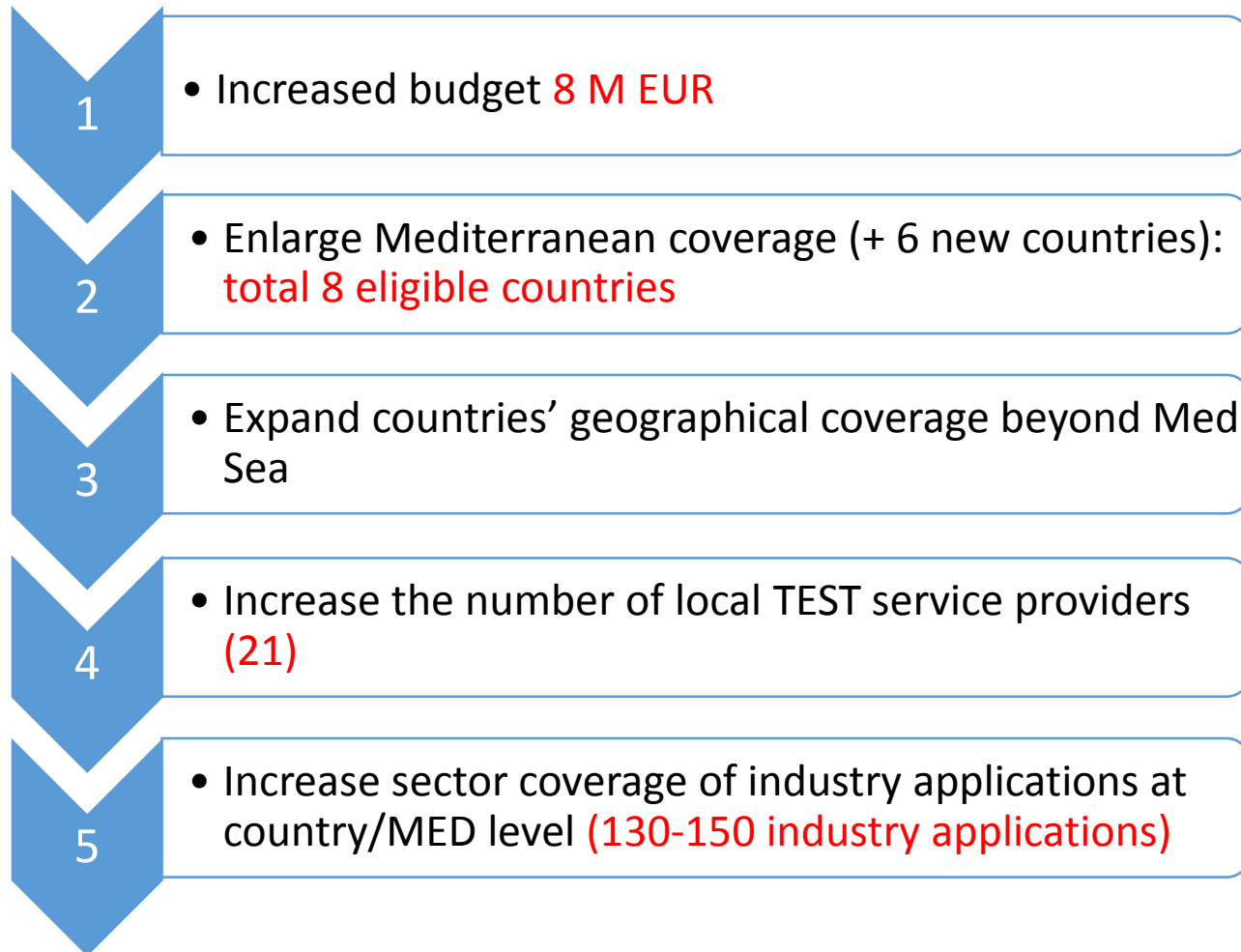
# SwitchMed

**Objective:** Facilitate the shift toward **Sustainable Consumption and Production** (SCP) in the Southern Mediterranean Region.

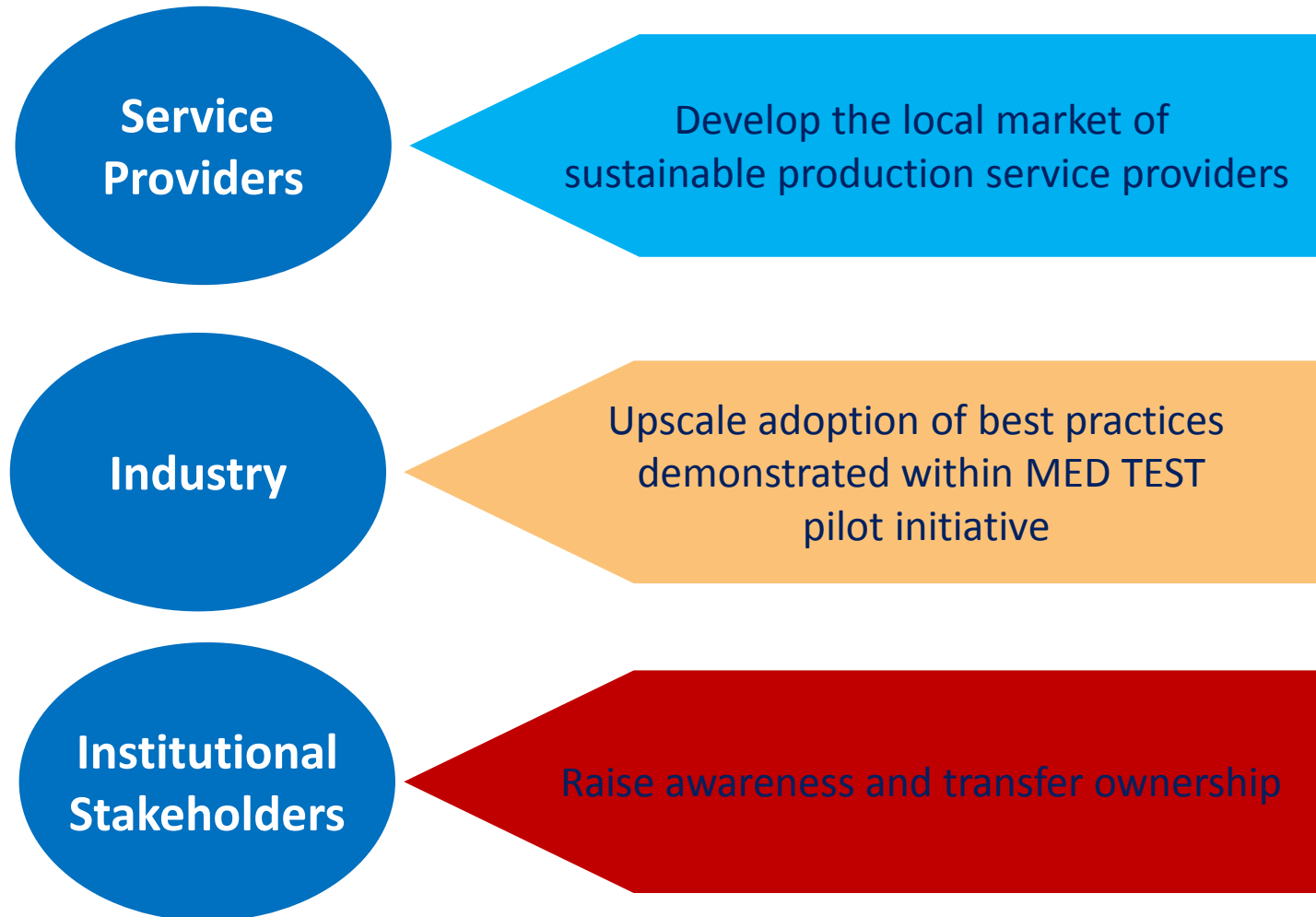
The programme consists of 3 Components:

- **Policy Component:** strengthen relevant environmental governance and policy frameworks
- **Demonstration Component:**
  - **Sustainable production - MED TEST II**
  - Green entrepreneurship and civil society empowerment
  - SCP Nation Action Plans demo
- **Networking Component:** Facilitate networking & knowledge sharing among partners, and foster lessons learned

# MED TEST II - Scaling up MED TEST I pilot experience



## MED TEST II: Target groups



# Conclusions from application of TEST

- “Significant” and “unexploited” potential for resource efficiency and integrated environmental management in industry in developing countries
- Demonstrations are key to convince **local** industry that sustainable production is a sound business strategy within their country’s framework
- Industry can be motivated and through these best practices can become engaged in Sustainable Development
- Need to enlarge the base of national service providers to cover future needs for sustainable production services



# SDGs & TEST



**Target 6.3:** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and increasing recycling and safe reuse globally;

**Target 6.4:** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity;



**Target 9.2:** Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries;

**Target 9.3:** Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit and their integration into value chains and markets;



**Target 12.2:** By 2030, achieve the sustainable management and efficient use of natural resources.

**Target 12.4:** By 2020, achieve the environmentally sound management of chemicals and wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their releases to air, water and soil in order to minimize their adverse impacts on human health and the environment.



# Thank you

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