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INDUSTRIAL DEVELOPMENT ORGANIZATION



Resource Efficiency in Industry

RESOURCE EFFICIENCY &
SUSTAINABLE CONSUMPTION
FOOD WASTE – ENERGY – BIOMASS

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

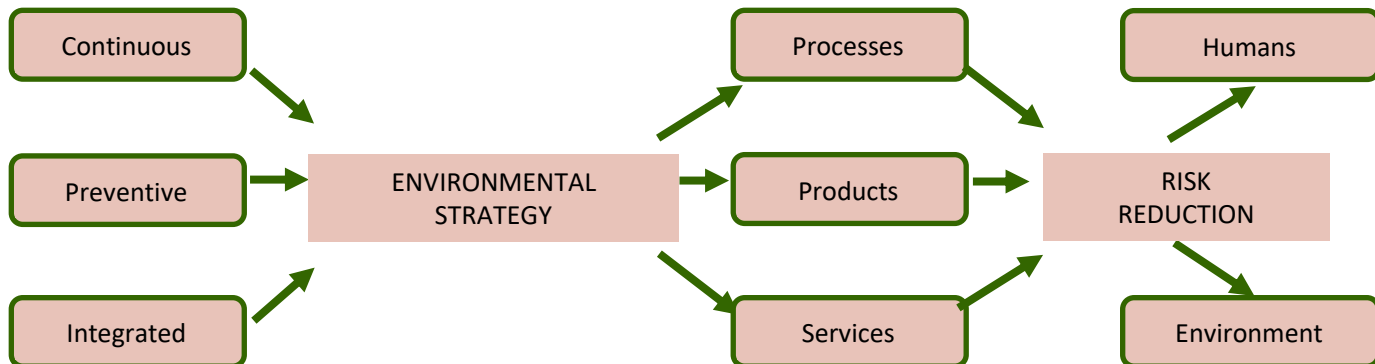


ISID INCLUSIVE AND
SUSTAINABLE
INDUSTRIAL
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Resource efficient and cleaner production

*“Resource efficient and cleaner production is the continuous application of an integrated, preventive environmental **strategy** towards processes, products and services in order to increase overall efficiency and reduce damage and risks for humans and the environment.”*

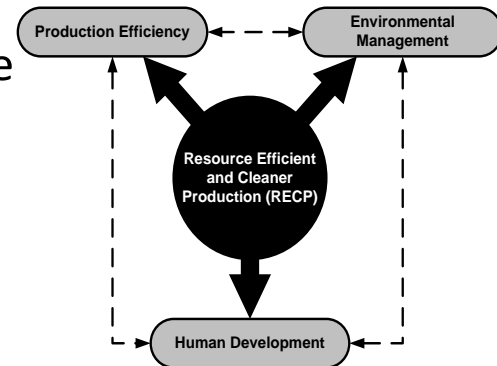




Resource efficient and cleaner production

RECP sustainability dimensions:

- *Production efficiency*
 - Through improved productive use of natural resources by enterprises
- *Environmental management*
 - Through minimization of the impact on the environment by enterprises
- *Human development*
 - Through reduction of risks to people and communities from enterprises and supporting their development





TEST Methodology

Transfer of Environmentally Sound Technologies

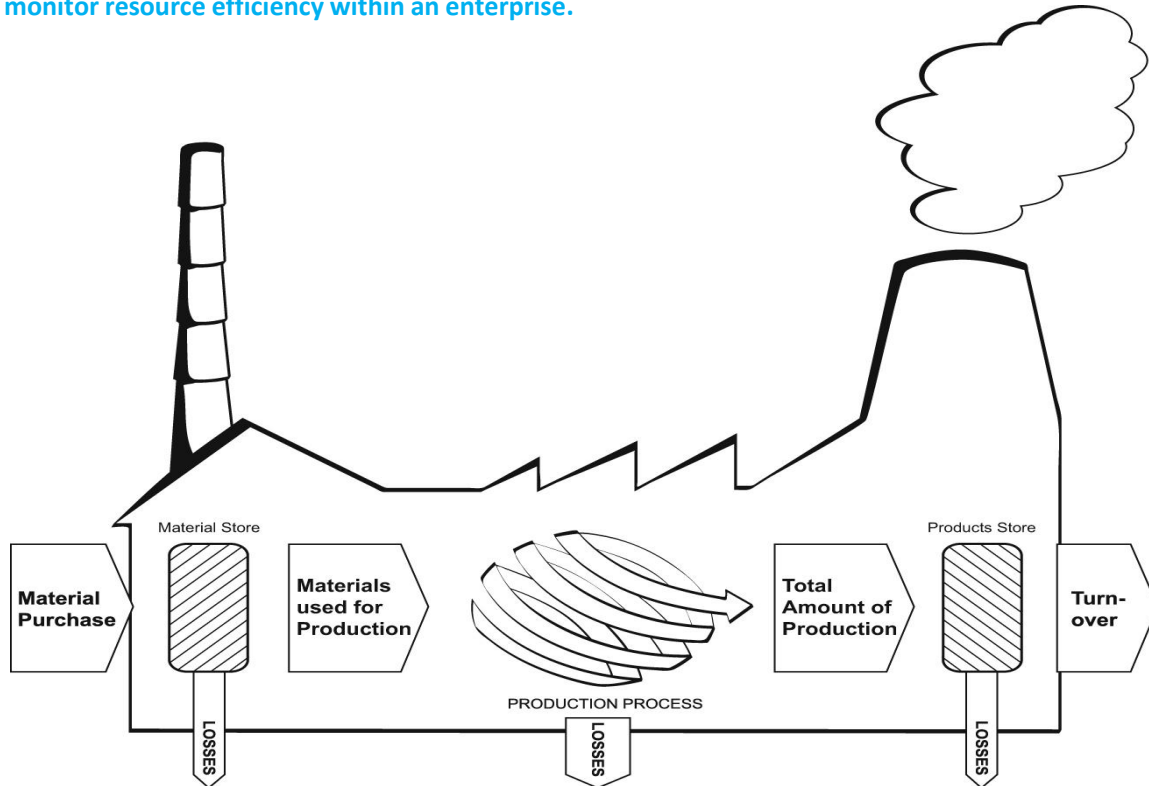
Address the challenges and barriers industries face to become more resource & energy efficient, non-polluting, produce products that are responsibly managed throughout their life cycle, while increasing productivity and access to international markets.

1. Revealing the “total costs” of resource use inefficiencies within production.
2. Assess industry resource efficient & environmental performance against sector benchmarks and international best practice
3. Install an effective information system on priority material and energy flows
4. Development of an **RECP** Action Plan



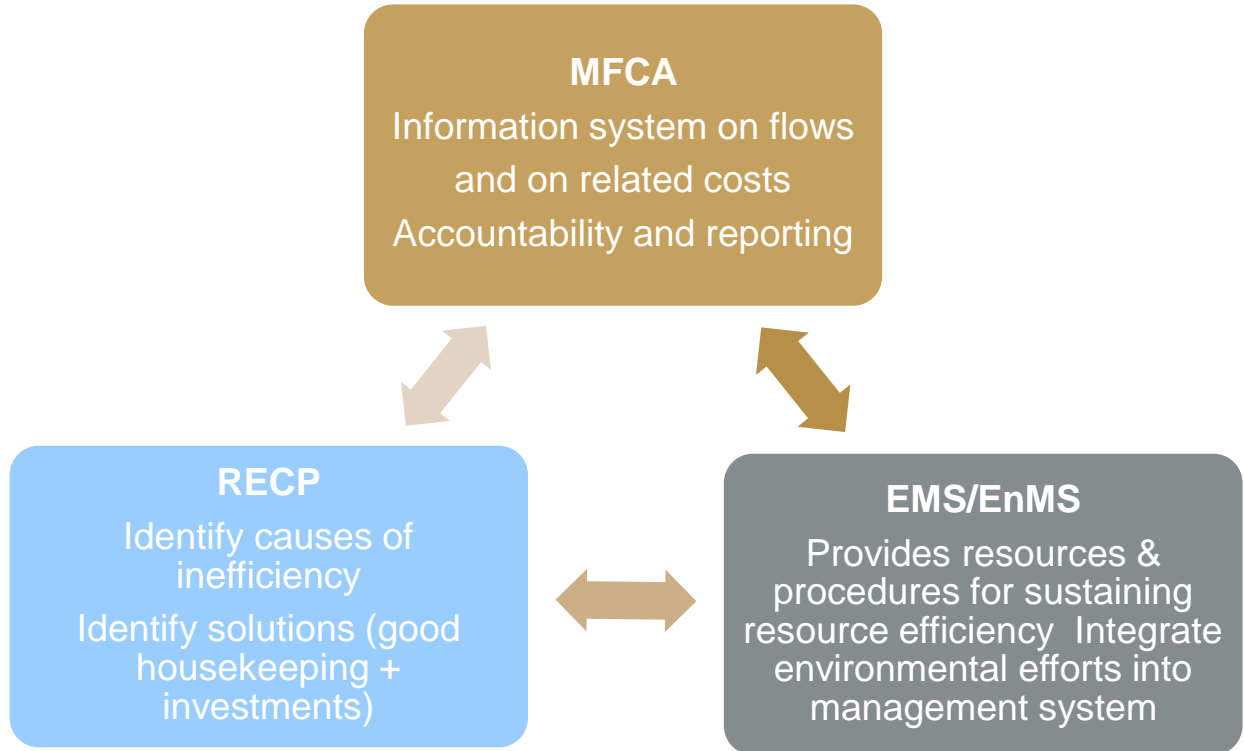


We cannot manage what cannot be measured and therefore **we need to monitor resource efficiency within an enterprise.**





TEST Methodology





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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 national law and 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.).



SWITCHMED



- **SWITCHMed is a Regional initiative** aimed at stimulating the creation of new greater business opportunities and decent employment while reducing the environmental footprint of consumption and production activities.

It responds to the regional commitments of national governments to common challenges toward a resource efficient, low carbon and circular economy in the Mediterranean.

- **Countries:** Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine & Tunisia



Funded by the
European Union





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RECP sound business strategy Improved product quality, productivity and reduced operational costs

Best Practice Palestine

The wafer production line of a large Food company 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**





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

Best practice Jordan

*“Beverage 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.”*





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Innovation, new business and green market opportunities

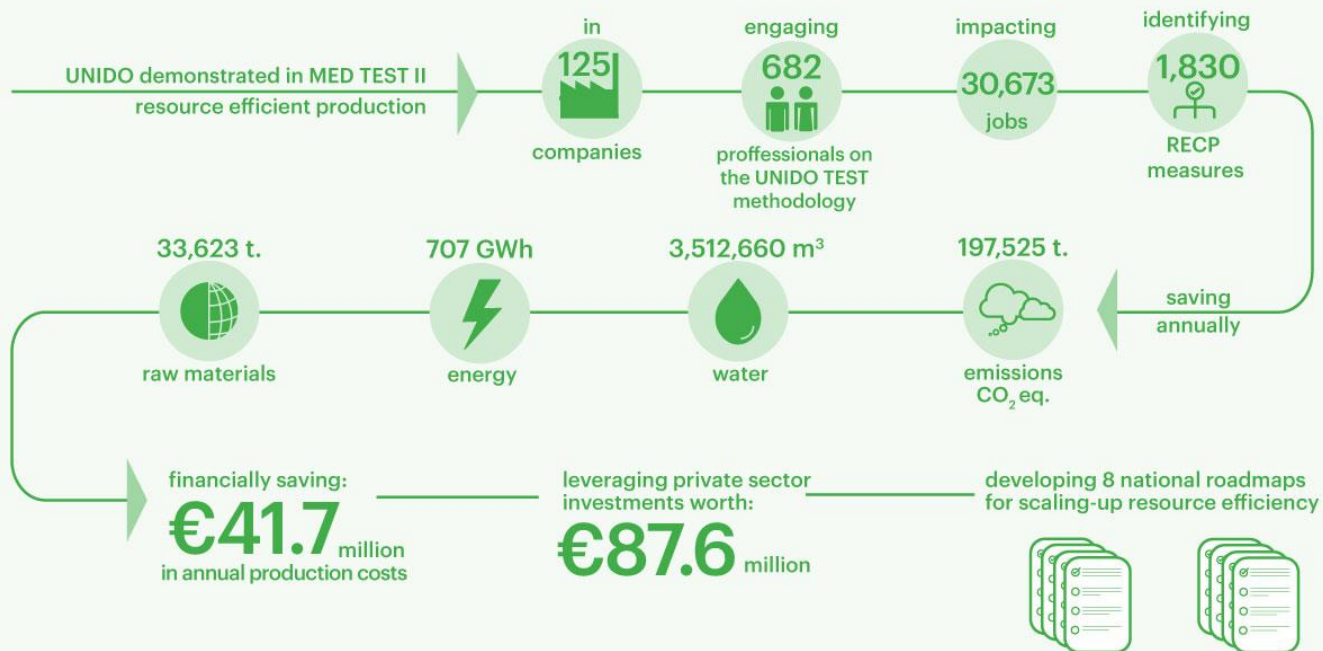
Best practice Tunisia

*“Jean washing company realized 360k euro 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.”*





Results from SwitchMed I (2014 – 2018)



CONCLUSIONS

- Significant and unexploited potential for **resource efficiency** and integrated environmental management in industry;
- Demonstrations are key to convince **local** industry that sustainable production is a sound business strategy within their country's context;
- Need for a large base of national service providers to cover future needs for **sustainable production services**;
- Strong interest from industries for **eco-innovation** technologies to boost competitiveness and improve environmental performance.
- Industry can be motivated and through these best practices can become engaged in **Sustainable Development**;



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