

The Experience of UNIDO in Reducing the Environmental Impact of Industries and Shifting to a Circular Economy

Consultative Meeting on the Environmental Dimension of the Sustainable
Development Agenda: “Solutions and Action for SDGs implementation
amid the triple planetary crisis

UN ESCWA, March 2nd, 2023, Beirut

Nada Sabra, UNIDO

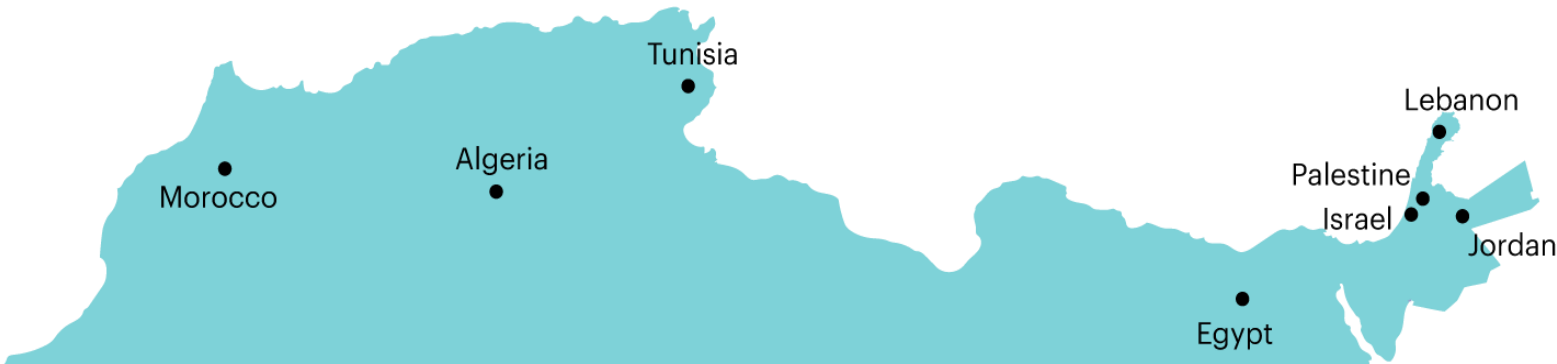
SwitchMed MED TEST II Program/National Coordinator

Implemented by

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The SwitchMed programme

Goal: fostering the switch towards sustainable consumption and production patterns for circular economy in the southern Mediterranean region



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UNIDO Component

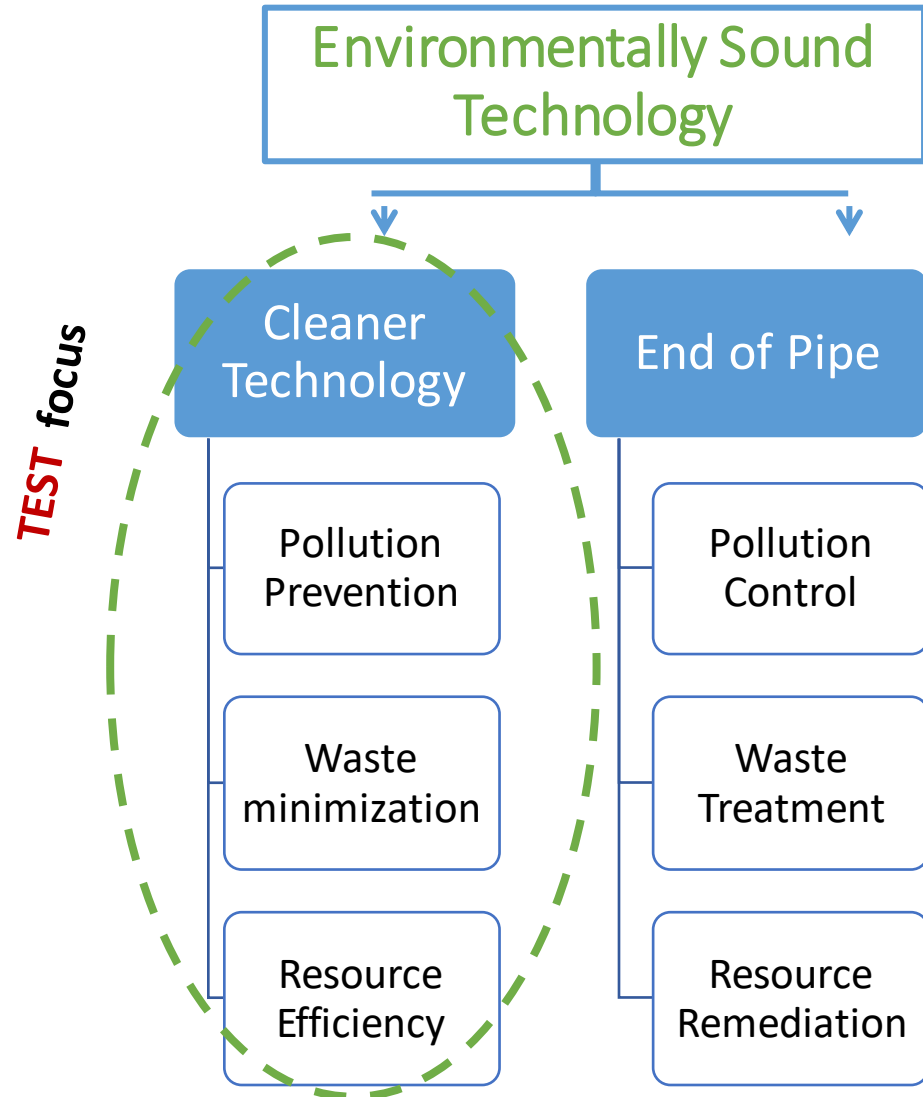
Based on **UNIDO TEST Program**

- Aim: **T**ransfer of **E**nvironmentally **S**ound **T**echnologies to industry
- Capacity building program in
 - Resource efficiency
 - industrial environmental management
- Illustrates full potential of Industry to contribute to Inclusive and Sustainable Industrial Development (ISID)



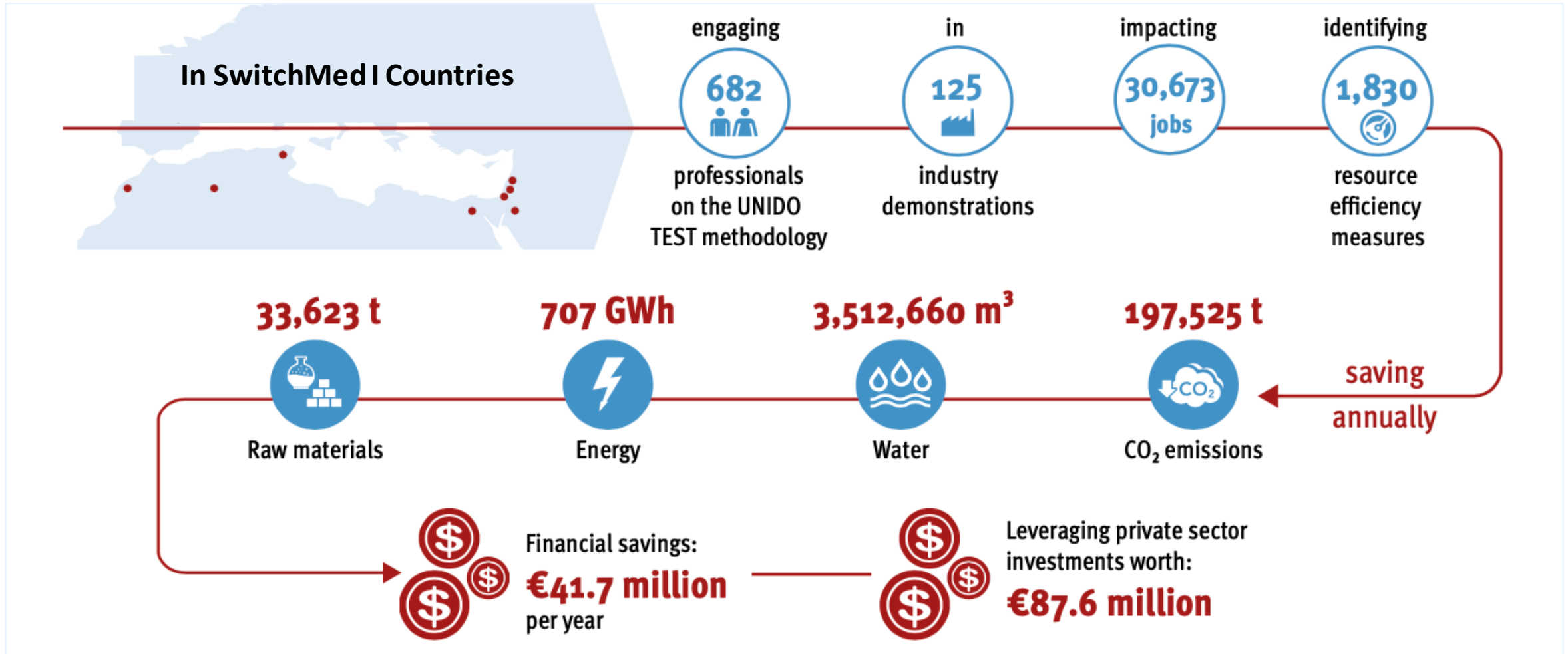
A UNIDO
Green Industry Initiative





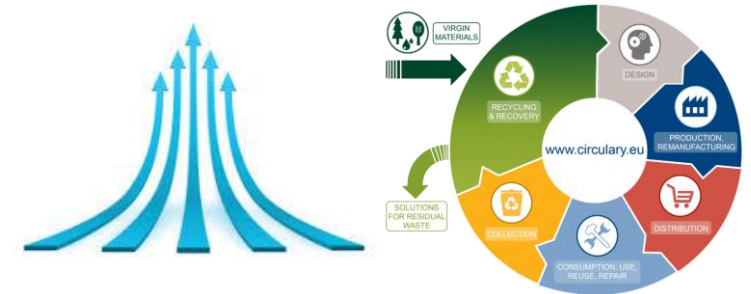
- ✓ Higher productivity, **lower operational costs**, optimized investments;
- ✓ **Lower environmental compliance costs**; smaller environmental/carbon footprint;
- ✓ Compliance with **international environmental standards** for accessing new markets;
- ✓ Secured **long-term supply of production inputs**;
- ✓ Improved relationship with stakeholders

SwitchMed I (2013-2018): Industry component results (MED TEST II Program)



SwitchMed II (2019-ongoing): MEDTEST III Program

Objective: To scale-up the achievements of SwitchMed I & deeper integrate circularity into value chains of blue economy, textile and plastic sectors.



Upscaling industrial Resource Efficiency



40 Industry Pilots in six industrial sectors to further the uptake of resource efficiency

Developing Circular value Chains (textile, plastic, blue economy)



8 Pilot projects to develop circular value chains for valorising post industrial textile waste and introduce circular design practices



6 Pilot projects to promote the uptake of safer chemicals protocols in textile manufacturing



3 Pilot projects to demonstrate the uptake of circular business models in plastic waste value chain



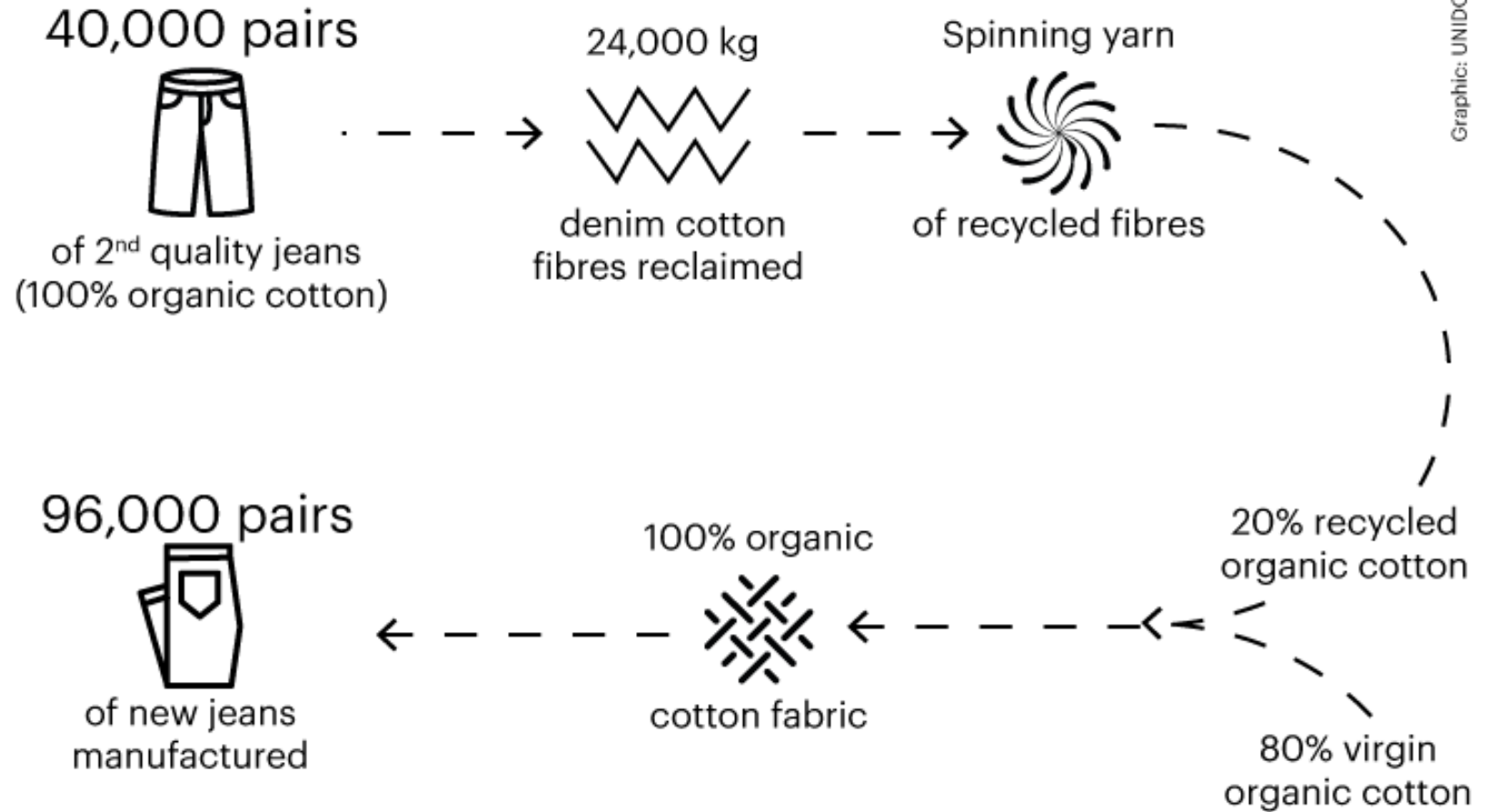
3 Pilot projects to promote resource-efficient and circular production practices in fish processing aquaculture value chain

Local recycling of 2nd quality jeans into new jeans in Tunisia

Collaboration with the Swedish denim brand, Nudie Jeans, and their suppliers in Tunisia

The pilot aimed at recycling a selection of the second quality jeans of homogeneous color (indigo) stored in the warehouses of the jeans manufacturer Denim Authority.

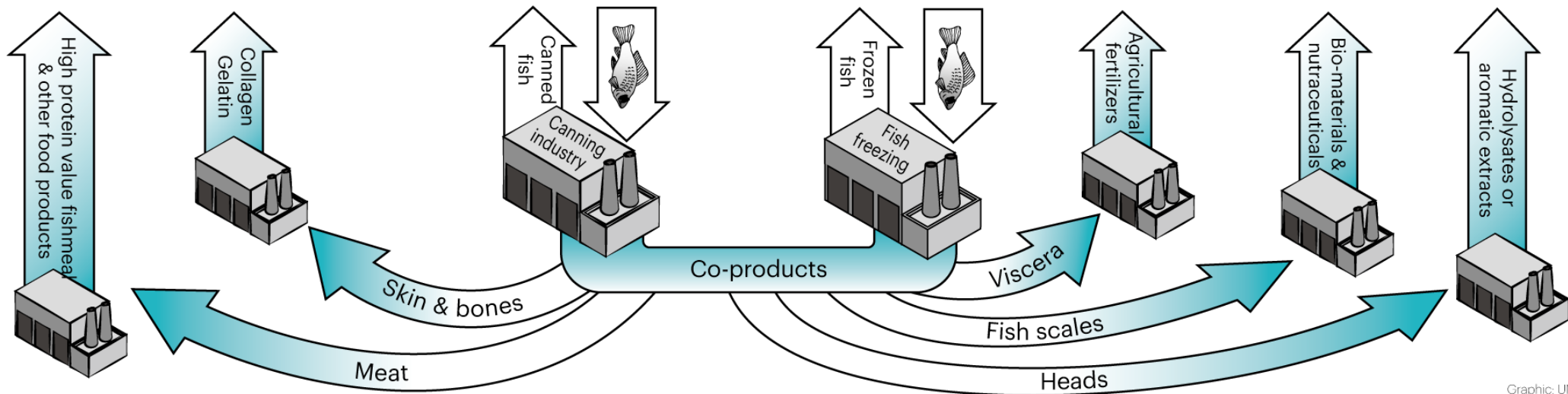
A business model for utilizing a local value chain for recycling textile waste in Tunisia could be validated, and replicated for other brands in the country.



Valorization of co-products from fish processing in Morocco

The fish canning and fish freezing sectors generate around 94% of the 280,000 tons of fish waste that the fish processing sector annually generates in Morocco. This waste goes primarily into the conventional fishmeal/fish oil processing and yields a limited in-country value for Morocco's fish processing industry. UNIDO will demonstrate the business case for valorizing fish co-products into end products with higher added value that can:

- help the industry become more profitable,
- diversify the product portfolio,
- create new jobs,
- improve the resilience of businesses,
- and better retain the value from fish co-products in the Moroccan economy.



Graphic: UNIDO

Whey valorization in Lebanon

- *Whey: polluting effluent of dairy sector, around 220,000 T/Yr generated in Lebanon, poorly valorized despite its nutritional value*
- *Valorizing whey into innovative food and beverage products*

- *Nutritious*
- *Healthy*
- *Cost affordable*
- *Easy to manufacture*



- *Demonstration of valorization in 2 pilot dairy companies in collaboration with academia*
- *Developed products*



Whey based juices



Whey based Ayran



Whey based spreadable cheese

To ensure sustainability of interventions in industry, actions need also to address

Service Providers

Develop the local market of sustainable production service providers



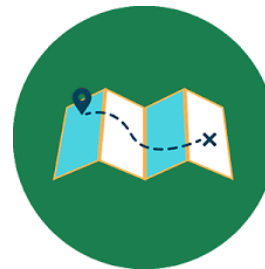
Support Green Start-ups & entrepreneurs

Important drivers of innovation



Institutional Stakeholders

Policy Actions to mainstream RECP in industry and awareness raising



Access to finance

To facilitate implementation green & circular solutions





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