



Eco-Innovation (Eco-I) Supplement - Electronics

UNEP Eco-innovation supplement for electronics - Business models, circularity and learnings from SMEs in developing countries

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global
environment
facility
INVESTING IN OUR PLANET



GLOBAL BEST PRACTICES ON EMERGING CHEMICAL POLICY ISSUES OF CONCERN UNDER SAICM

LEAD
IN PAINT

CHEMICALS
IN
PRODUCTS

KNOWLEDGE
MANAGEMENT

DATES



Start: Jan
2019

End: June 2023

BUDGET



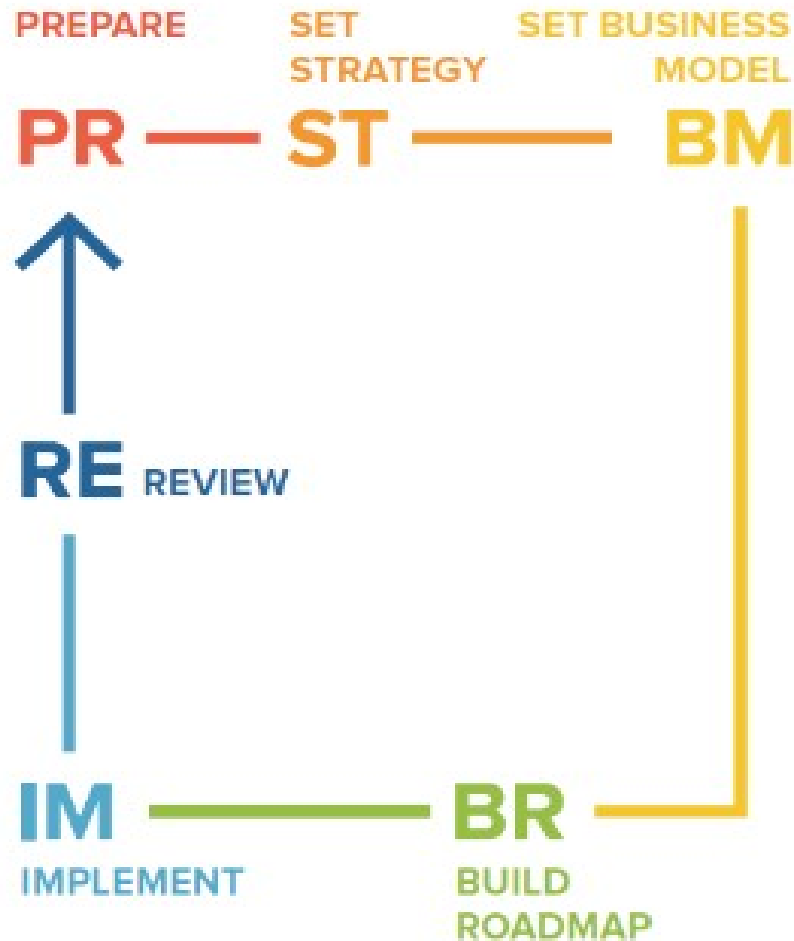
Total: \$8.2
M

Funded by the Global Environment
Facility.



**includes actual expenditures + commitments as of 30 June 2023*

The eco-innovation implementation process – 6 phases in an iterative process

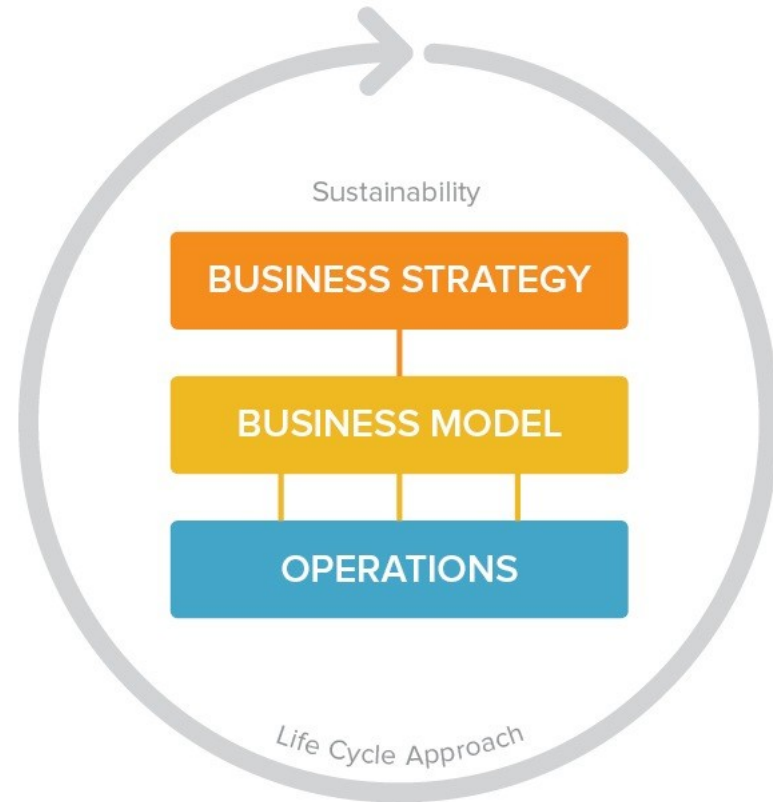


More than 30 templates are a very valuable source

What is Eco-innovation?

is the development of a **business strategy** and application of a **business model** that incorporates **sustainability in all business operations** based on a **life-cycle approach**, and in cooperation with **value-chain partners**.

It implies **modifications** or **new solutions** to products, processes, market focus and organizational structure, aiming at reducing the **environmental and social impact** of businesses.



Eco-innovation is a process to help you **develop and diversify sustainable business models** that reduce your social and environmental impacts, as well as the impacts along your value chain to make you **more resilient and competitive**.

Companies participating in the pilot...

Compumax

(computer assembly)

GRUP@ INTERSYS

*(repairing of
mobiles/tablets/computers)*



*(electronic medical equipment
retailer/maintenance/repairer)*



Consultoría y Diseño en Climatización *(air conditioners solutions)*

mabe

(refrigerators producer)



10 años

(refurbisher)

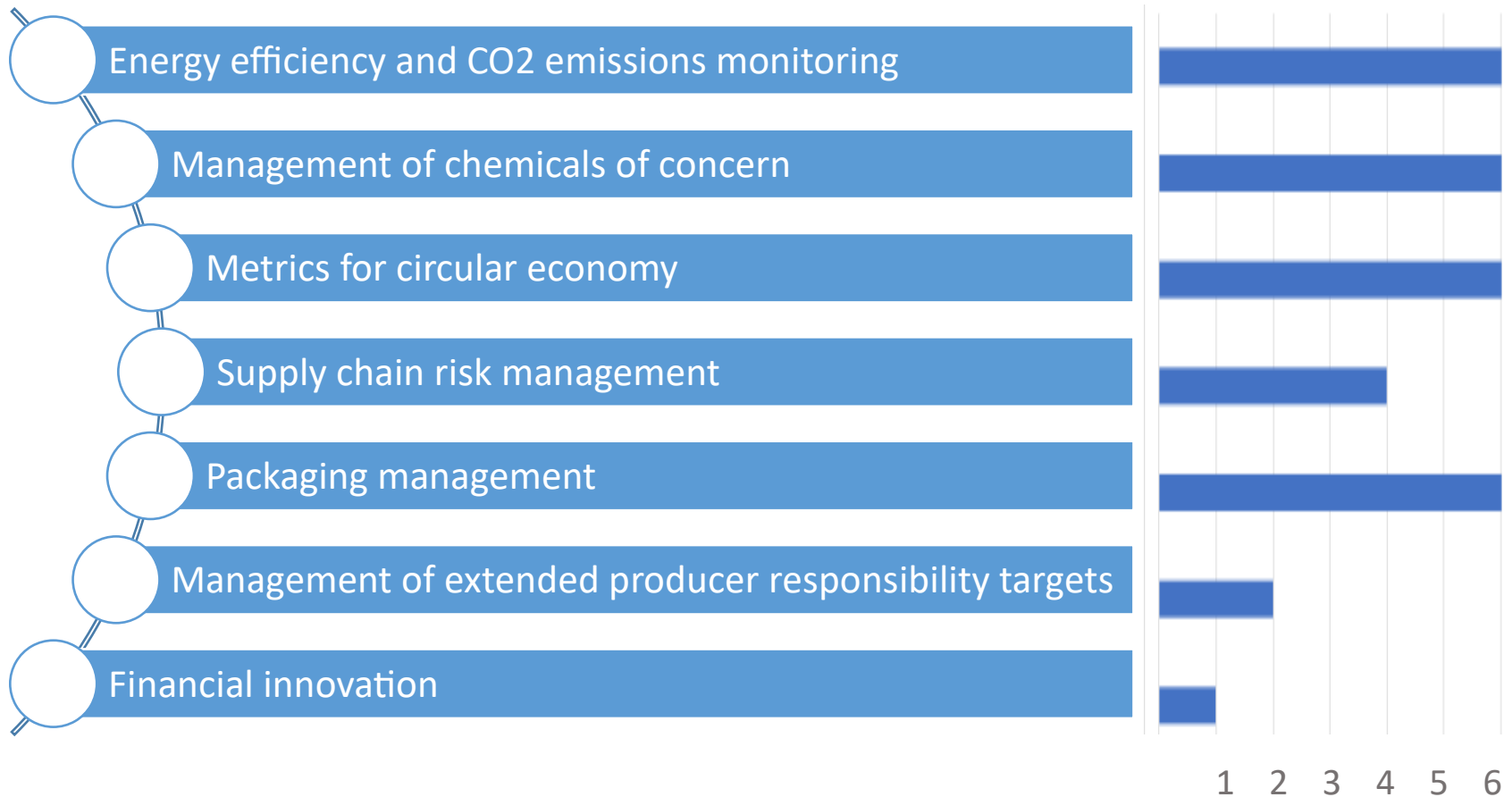


SMEs in the emerging regions are mainly assemblers of components produced in Asia or other advanced regions.

Hotspots identified in the electronics companies piloting the Eco-Innovation Supplement for Electronics

Improvement potential on:

of companies concerned



Circular business models agreed by companies

<p>Pattern 1: Circular supplies</p>	   
<p>Pattern 2: Resource recovery</p>	 
<p>Pattern 3: Product life extension</p>	    
<p>Pattern 4: Sharing platforms</p>	<p>None</p>
<p>Pattern 5: Product as a service</p>	   

Example: Silicon Latina's pathway

Before



(H)CFC

Restricted flame retardants & non restricted ones

0% recycled plastic content

Use of plastic with low recyclability, down-cycling



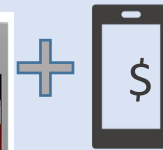
Business model 1: Eco-efficient Electronics

- Screens with recycled plastics
- Energy efficient refrigerators

Business model 2: User-centered Electronics

- Screens with recycled and recyclable plastics
- Smart refrigerators with demonstrated energy savings

After



Savings

30% less energy consumption
40% less CO2 emissions

R-600



((only approved Flame Retardants))

80% of recycled plastic contained

Plastic with high recyclability, up-cycling

2 años

Learnings from the pilots

- Eco-innovation opportunities identified focus more on on-site and downstream activities. Less influence or not at all on suppliers (or upstream activities)
 - Growing sector with growing challenges in the emerging regions (extended producer responsibility targets, REACH & RoHS adopted regulations, high supply chain disruption risks evidenced during COVID-19, energy efficiency potential, growing pressure on critical raw materials)
 - Data management culture
 - The smaller the companies, the more challenging becomes the resources resources available for eco-innovation projects
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Thank you

Please visit the UNEP Eco-innovation website: <https://www.unep.org/eco-innovation>
Please drop us an email if you would like to be added to our Eco-innovation mailing list.

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