



# Circular Economy

## Guidelines for businesses

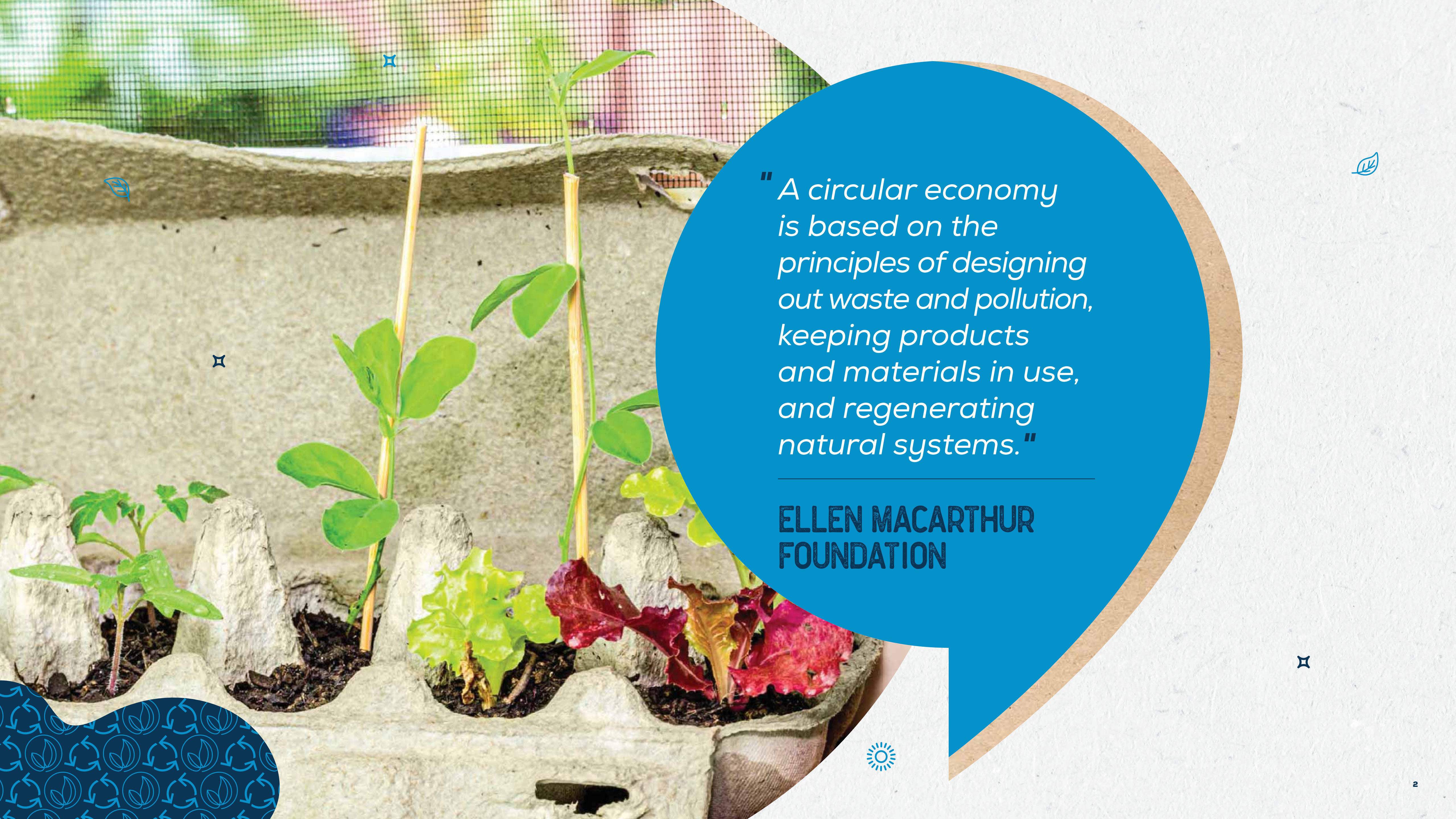
We commit to engage in sustainable consumption and production, including a local agricultural value chain, through producer/importer and consumer responsibility to valorise and optimize resources and by-products.



# Signe Natir

FOR A SUSTAINABLE & INCLUSIVE MAURITIUS





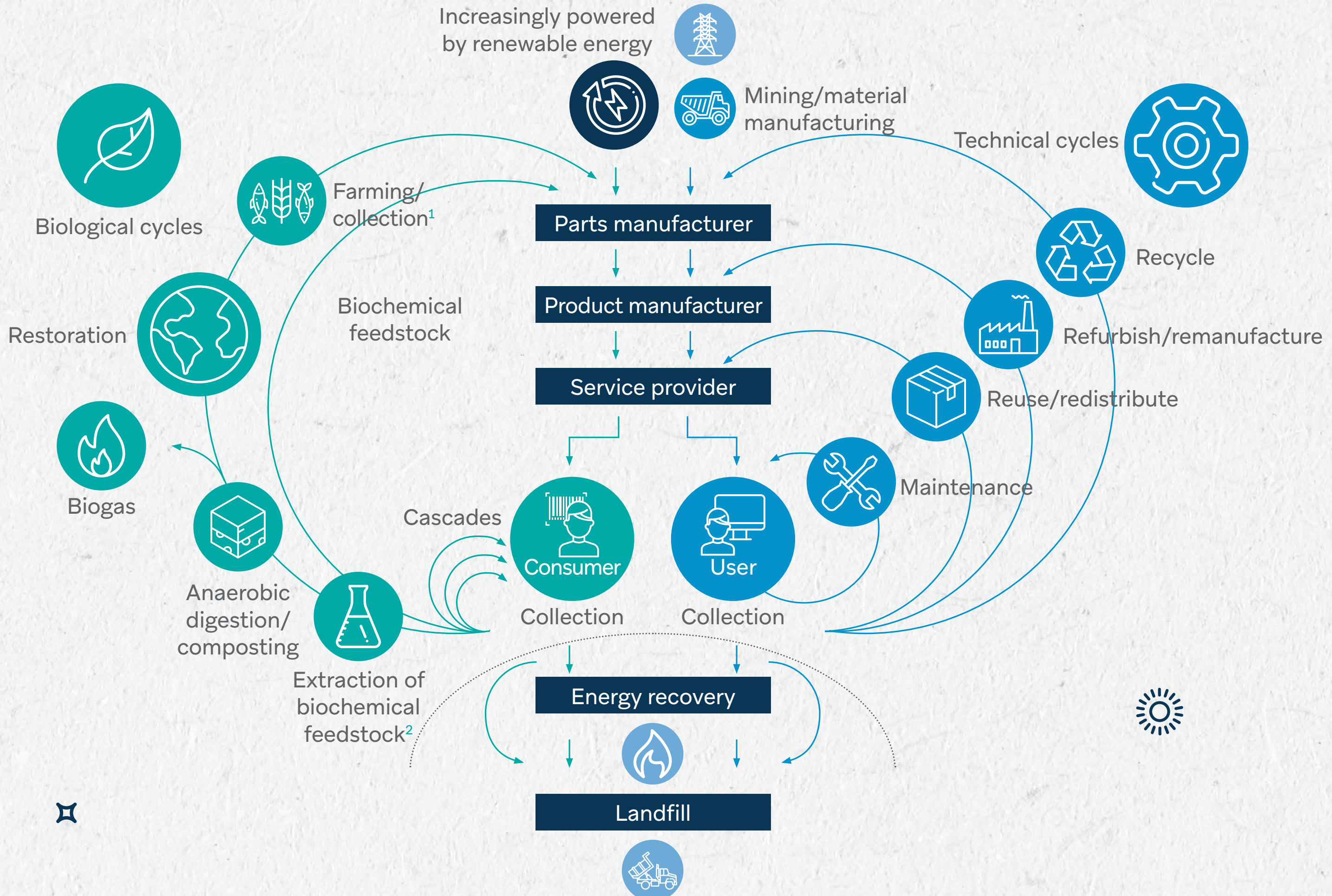
*"A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems."*

**ELLEN MACARTHUR  
FOUNDATION**



# Understanding circular economy

Circular economy aims to the design and use of our products, materials, and re-sources to maximize their value before disposal. The principle is to conserve and re-use resources through introducing multiple product life cycles as opposed to the traditional linear model of a 'take, make and dispose' way of thinking.



<sup>1</sup> Hunting and fishing

<sup>2</sup> Can take both post-harvest and post-consumer waste as an input

Source: [https://www.researchgate.net/figure/The-circular-economy-Ellen-MacArthur-Foundation-2012-p24-Reproduced-with-permission\\_fig3\\_303664384](https://www.researchgate.net/figure/The-circular-economy-Ellen-MacArthur-Foundation-2012-p24-Reproduced-with-permission_fig3_303664384)



# Circular economy business models

## Circular sourcing

Sourcing recycled or renewable materials that can be returned to either the technical or biological cycle.

## Co-product recovery

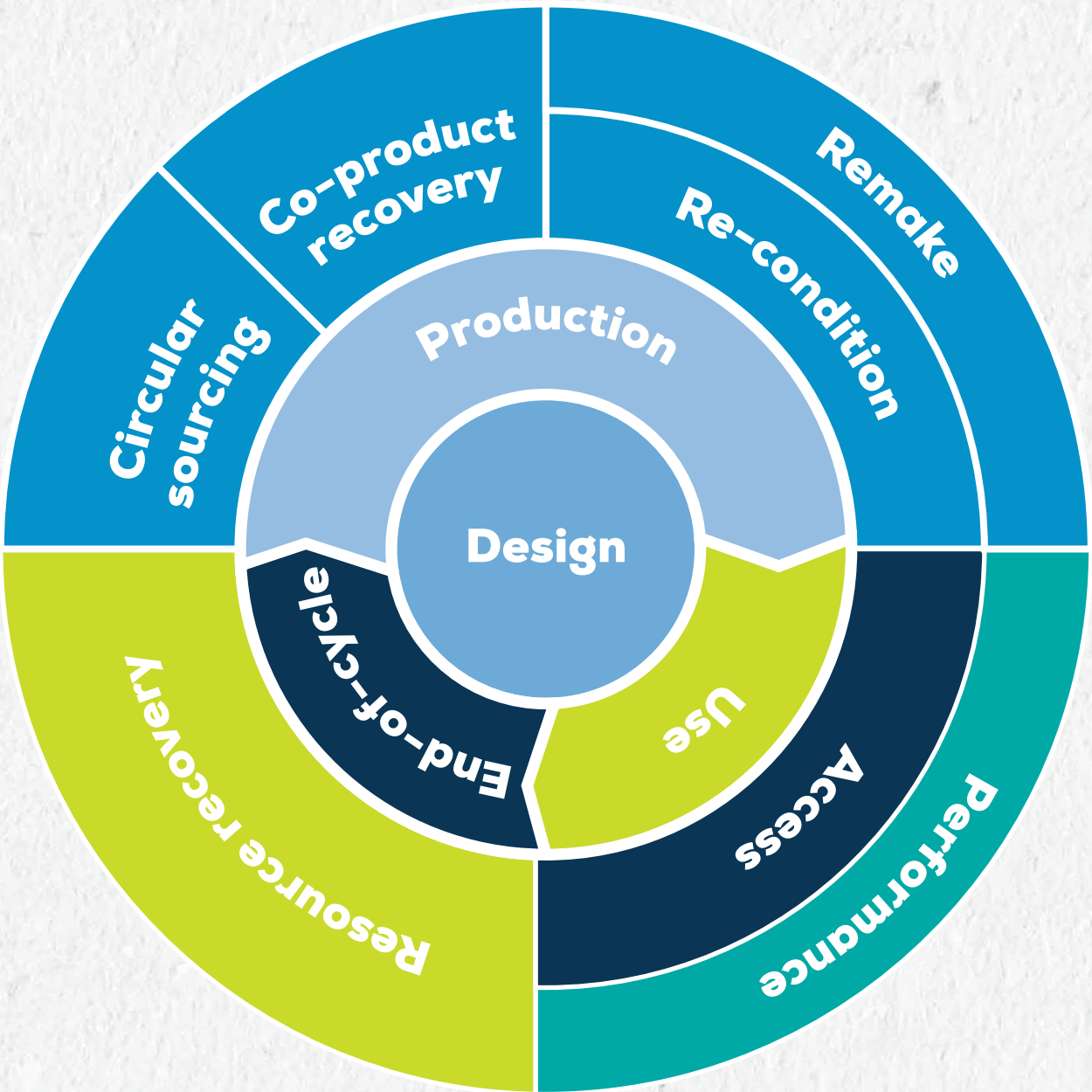
Residual/Secondary outputs from one process (or value chain) become inputs for another process (or value chain).

## Re-make

Manufacturing steps acting on an end-of-life cycle part or product to return it to like-new or better performance, with warranty to match.

## Re-condition

Fixing of a fault/aesthetic improvement of a product, but with no new/additional warranty on the product. Includes repair and refurbishment.



## Performance

Focus on guaranteed performance level or outcome based on the functionality of a product/asset. Typically provided as a product-service bundle.

## Access

Providing end-users with access to the functionality of products/assets instead of ownership.

## Resource recovery

Materials or products at end-of-cycle are incorporated into different products or used as feedstock/inputs for another process (or value chain).



# Circular economy business models

## Linear Economy

Resource extraction → Production → Distribution → Consumption → Waste

## Circular Economy



Yet circular economy is not only a key concept regarding the preservation of our environment, this is also an economic opportunity. According to the World Business Council for Sustainable Development, “transitioning to a circular economy can unlock global GDP growth of \$4.5 trillion by 2030 and will enhance the resilience of global economies” by reducing operating costs, improving competitiveness, strengthening relationships among the different stakeholders (customers, employees, providers...). (WBCSD, 2017).



# Sustainable development goals involved

Circular economy in Mauritius has a key role to play on one Sustainable Development Goal as defined by the United Nations: Responsible consumption and production (SDG 12).



**Responsible consumption & production**

**GOAL 12** – Ensure sustainable consumption and production patterns

## Specific goals

- By 2030, achieve the sustainable management and efficient use of natural resources.
- By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.
- By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.
- By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.



# Mauritius – Factsheet

The vision of the Ministry of Environment, Solid Waste Management and Climate Change is to achieve a “cleaner, greener and safer Mauritius” in a sustainable manner through protection and management of our environmental assets. Along this line, Government aims to implement a plastic waste management mechanism to ensure the collection, sorting and recycling of plastic wastes, thus, shifting from a linear approach to a circular economy, whereby, resource recovery and recycling are maximised.

Source : Les assises de l’environnement, Ministère de l’Environnement, de la Gestion des Déchets et du changement climatique. Contrôle des plastiques : <http://environment.govmu.org/English/Documents/Assises/Final%20PLASTIC%20AMENDED%20VERSION.%201012.pdf>

**1,488**

tonnes of waste daily.

**Rs 1,4 billion**

Amount that the government spend annually on waste management.

**543,196**

tonnes of waste disposed at Mare Chicose Landfill in 2018.

**2,000 to 3,000**

tonnes of plastic wastes recycled yearly either locally or through export.

**14%**

of total waste landfilled annually that is plastic.

**179 million**

Approximative number of biodegradable/ compostable bags that have been imported and manufactured since 2016.

**May 2020**

Date of Mare Chicose landfill saturation.

**60%**

of waste entering Mare Chicose are organic and compostable but are insufficiently recovered.

**5%**

Total solid wastes generated are currently recycled.

**36**

registered recyclers/exporters in Mauritius contributing to recycling and resource recovery.



# Categories of business actions

The objective of this guideline implemented by Business Mauritius is to help businesses to be more involved in circular economy and sustainable development. It also focusses on the need to demonstrate the impact of actions and suggests several indicators to facilitate impact assessment. The actions have been set out to guide businesses in their effort to bring clear responses for business regarding each part of the circular economy process (production, use, end-of-life). Each category comes with a definition of its objective, assessment criteria, examples of actions that could be taken. The idea is to guide businesses in a very pragmatic manner.

There are 6 sub-categories:

CATEGORY 1

**Eco-design**

CATEGORY 2

**Waste valorization**

CATEGORY 3

**Reuse**

CATEGORY 4

**Economy of functionality**

CATEGORY 5

**Collaborative economy**

CATEGORY 6

**Industrial symbiosis**



# Category 1

## Eco-design

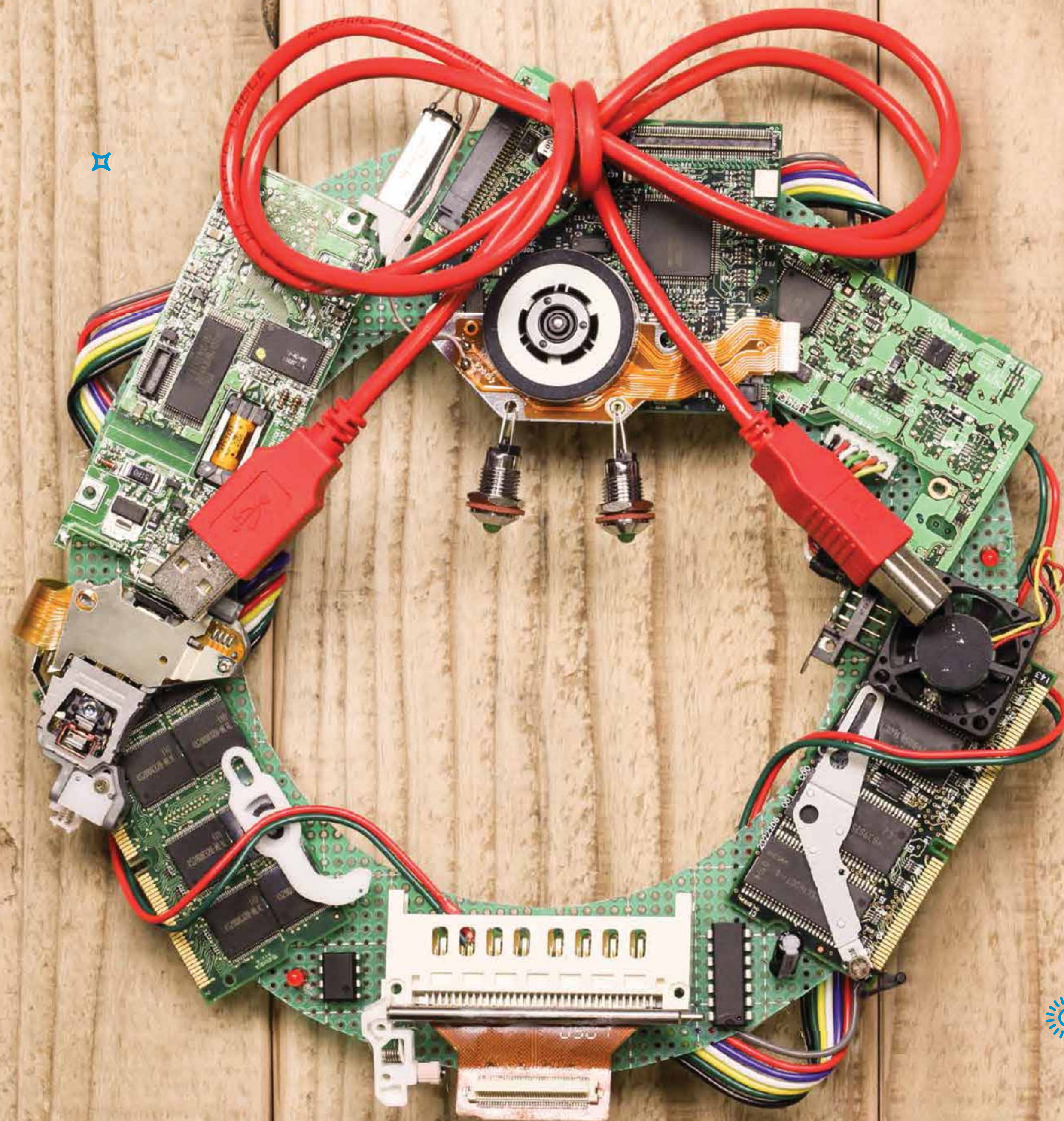


**Eco-design means the integration of environmental aspects at all stages of a product's life cycle (from manufacturing, distribution, use, final recovery).**

- ☞ Deploy a research & development team working on eco-design.
- ☞ Search and allocate funding for research & development on eco-design.
- ☞ Chose with your suppliers the most ecological raw materials.
- ☞ Involve all the employee in the "eco-design" philosophy and spread a corporate culture.
- ☞ Avoid greenwashing: that means avoid labelling a product as "environmental-friendly" if it is not.







## Category 2 Reuse

- Sign partnerships with NGO's to give another life to the materials you do not need anymore (like computers...) or to the product in a good shape that you cannot sell (like food...).
- Extend product life by repairing materials.
- Encourage customers to repair the product by providing repair services or repairment workshops.





## Category 3

# Waste valorization



- Transform food waste into compost.
- Segregate and collect materials to help the recycling.
- Use renewable energy and bio-based or fully recyclable inputs.
- Resource recovery: Recover useful resources out of materials, by-products, or waste.
- Use bioenergy, bio-based materials, biocatalysts, hydroponics and aeroponics resources.







## Category 4

# Economy of functionality



**Selling the use of a product and associated services rather than selling the product itself.**

- 🔄 Dedicate a team to work on potential partnerships to create new services.
- 🔄 Sign with private and public actors that also intend to contribute to a social or environmental stake in the territory to find ways to work together.
- 🔄 Improve the quality of life of your employees (work from home, team building...).
- 🔄 Rent resources instead of buying them.





## Category 5

# Collaborative economy

**Collaborative economy means connecting product users to one another and encourage shared use, access, or ownership to increase product use.**

- 🔄 Carry on a van to pick and drop employees.
- 🔄 Create an online or offline roadmap (platform) of the employees within the company and/or nearby companies to connect people that use the same path to work or need a punctual transportation.
- 🔄 Rewarding employees that use public transportation or car sharing.
- 🔄 Use of coworking space.





## Category 6

# Industrial symbiosis

**Industrial symbiosis is a lever to mobilize actors on the field to favor ecological transition. It takes the form of voluntary pooling of resources by economic players in a territory, for saving or to improve productivity.**

- 🔄 Identify your issues regarding stocks and flows.
- 🔄 Meet with other companies and work to see how you can work together to improve industrial symbiosis.





## 1. Buy sustainable act

### Action:

- To encourage companies to shift towards locally manufactured products and support the "Made in Moris" label, or more widely, regional products.

### Indicators:

- Percentage of products purchased that are marked with the "Made in Moris" label (%).
- Percentage of products purchased from registered members of the "SigneNatir" network.

## 2. Waste valorization

### Action:

- To encourage companies promote waste valorisation and support local recycling streams.

### Indicators:

- Total waste generated (tonnes).
- Total waste generated by type (tonnes).
- Percentage of waste recycled or reused (%).
- Percentage of waste generated in your site (segregation and collection) that falls under the extended producer responsibility mechanism (%).



## 3. Eco design

### Action:

- To involve the company on eco-design by allocating resources (for example a working group) to work on the integration of environmental-friendly manufacturing, distribution, and consumption.

### Indicators:

- Number of new project(s)/action(s) being implemented in your company to improve the environmental impact of products in the supply chain.
- Number of products specifically designed with the goal of being recycled, reused or which can be disposed of without negatively impacting the environment.



# Actions & indicators

SigneNatir offers companies the opportunity to commit to circular economy by focusing on the 6 actions and its corresponding indicators. Companies can choose one or more actions to demonstrate their commitment.



## 4. Single-use plastics

### Action:

- To reduce the importation of finished products packaged in single use plastics. Internationally, markets are shifting towards eco-packaging. It would therefore be good to have local importers prioritise sourcing of their products from these virtuous markets.

### Indicator:

- Number of products ceased to be imported because of single-use plastic content or packaging.

## 5. Smart Agriculture Practices

### Action:

- To encourage companies limit/reduce the use of pesticides through education and training about alternative methods such as smart agriculture and the development of new tools and product.

### Indicators:

- Volume of pesticides used (litres).
- Percentage decrease in the volume of pesticides used compared to last year (%).



## 6. Food waste

### Action:

- To encourage companies avoid food waste by aligning demand and supply, donation to associations/homeless persons, etc...

### Indicator:

- Percentage reduction in the amount of food that is thrown away (%).





**Let's build together a sustainable and  
inclusive future for Mauritius**

**Join SigneNatir business community**

Get to know more and  
subscribe digitally on

**[www.signenatir.mu](http://www.signenatir.mu)**



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