

# 7th EACO Regional Awareness Conference on Sustainable E-waste Management

Insights from emerging Extended Producer Responsibility







# DELIVERING EPR SOLUTIONS SINCE 2020.



#### **One-stop** EPR compliance solution

- ✓ **Up-to-date** with national regulations
- ✓ Digital waste tracking and reporting
- ✓ Financial transparency and accountability
- ✓ Cost-efficient waste management
- ✓ Socially inclusive and responsible









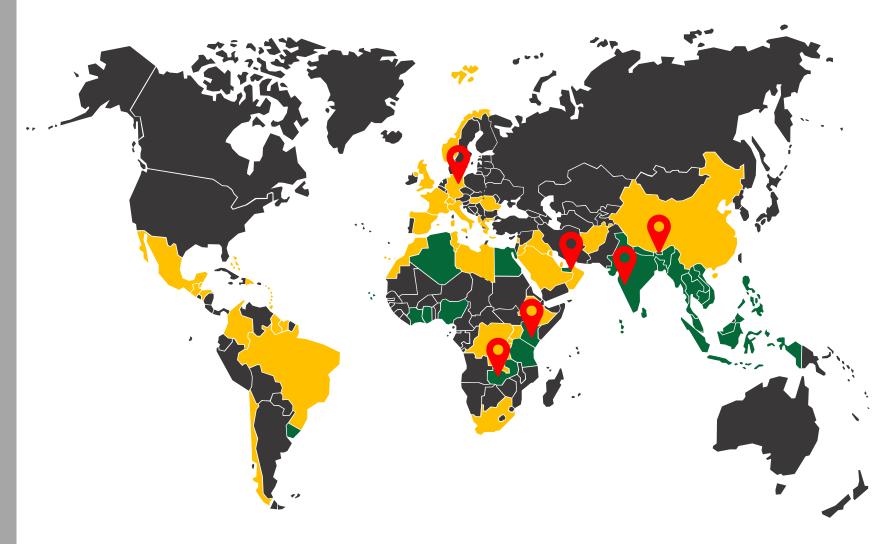












#### Inappropriate E-waste Management





Loss of valuable materials



Environmental degradation



Health risks of toxic substances

#### Problematic E-waste Management in the EU



E-waste in **the European Union** is mostly processed **mechanically**, but material recovery is inefficient:

- Shredding destroys high-value components, making fine material separation difficult
- Magnetic and eddy current separation recover only bulk metals, while valuable fractions (e.g., rare earths, precious metals) remain mixed in residues
- Chemical and thermal recovery are energy-intensive and still lose critical materials

→ This results in **significant resource losses** and limits Circularity potential

#### African E-waste Management – A True Powerhouse



In contrast, manual e-waste handling in Africa achieves higher recovery rates through:

- Selective dismantling by skilled workers before further treatment
- Manual sorting retains higher-quality fractions than shredding-based methods
- Low-tech, cost-effective approaches with minimal energy input

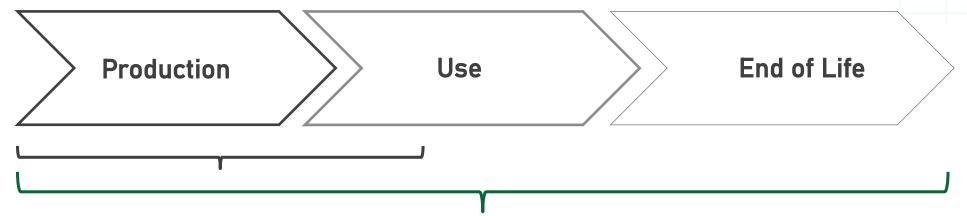
→ maximising material value and supporting local livelihoods

♠ but often lacks safe handling standards...





A regulation which extends the responsibility of manufacturers, importers, and brand owners for the products they place on the market to the post-consumer phase.



"Traditional" producer responsibility":

- Design
- Production
- After sales
- Product Safety

Extended producer responsibility:

- Design for environment
- Responsible production
- Sustainability and repairability
- Reuse
- Recycling
- Product safety



## Example definition of "Producer"

A producer of Electrical and Electronic Equipment (EEE) is who first professionally places on the national market a new or used regulated product, whether as manufacturer, importer, brand owner or distant seller established outside of Zambia and selling directly to an end user in Zambia against payment or free of charge

#### This includes:

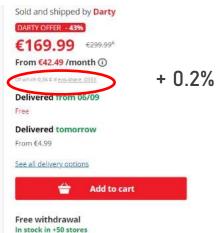
- Manufacturers: Entities that manufacture EEE under their own name or trademark.
- Importers: Entities that import EEE into the national market.
- Brand Owners: Entities that market EEE under their own brand, even if produced by a third party.



### The "cost" of EPR

#### EPR is a low cost in relation to product price





Apple MacBook MACBOOK PRO 13"" 512GB SSD 16GB RAM M2 CHIP CPU 8 COURSE GPU 10 COURSE SIDERAL GREY NEW



Proline bottom freezer refrigerator PLC163WH

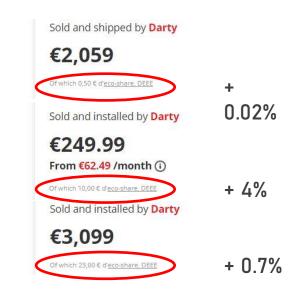




Samsung Multi-door Refrigerator RF65A967FSR

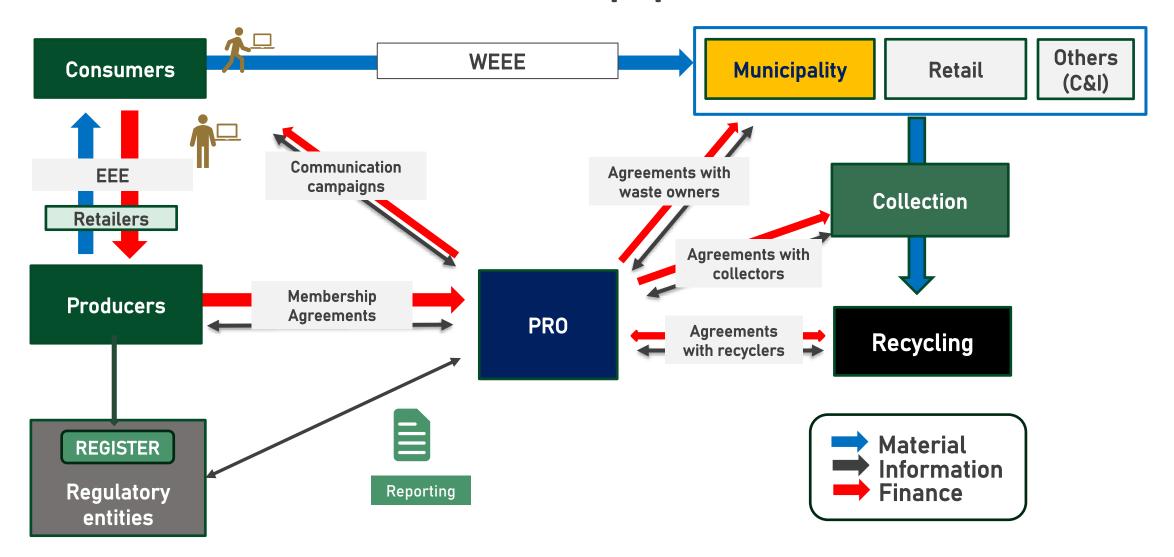








#### **EPR for Electrical and Electronic Equipment**



#### PRO Business Model



#### PRO Income:

Producer fees

Recycling profits

#### **Costs of PRO structure:**

- Staff
- Rents
- External services
- Depreciation & Amortization
- Financial costs
- Taxes
- Others

#### Register

Awareness campaigns

R&D

#### **Waste Management Costs:**

- Access to Waste
- Containers
- Primary collection
- Intermediary storage/sorting
- Long Haul
- Recycling







# THE CHALLENGES

OF E-WASTE EPR IN AFRICA.



Few service providers for the rising regulations



Access to waste = 50% informal



No "one-stop" solution for manufacturers and importers

#### THE SOLUTION.

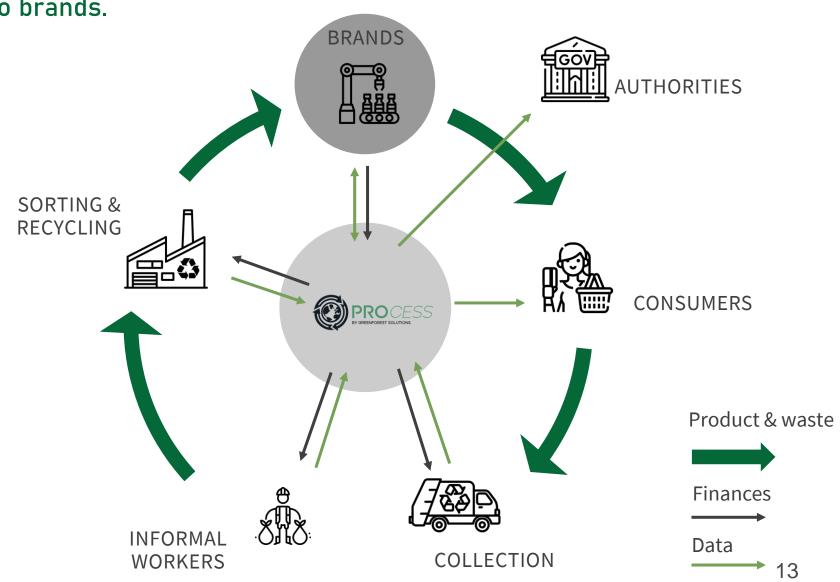


Our E-waste EPR compliance platform provides simple product stewardship to brands.

One-stop solution, integrating

- traceability
- monitoring
- financial transactions

in a seamless, scalable system.



#### It's about truly understanding the situation

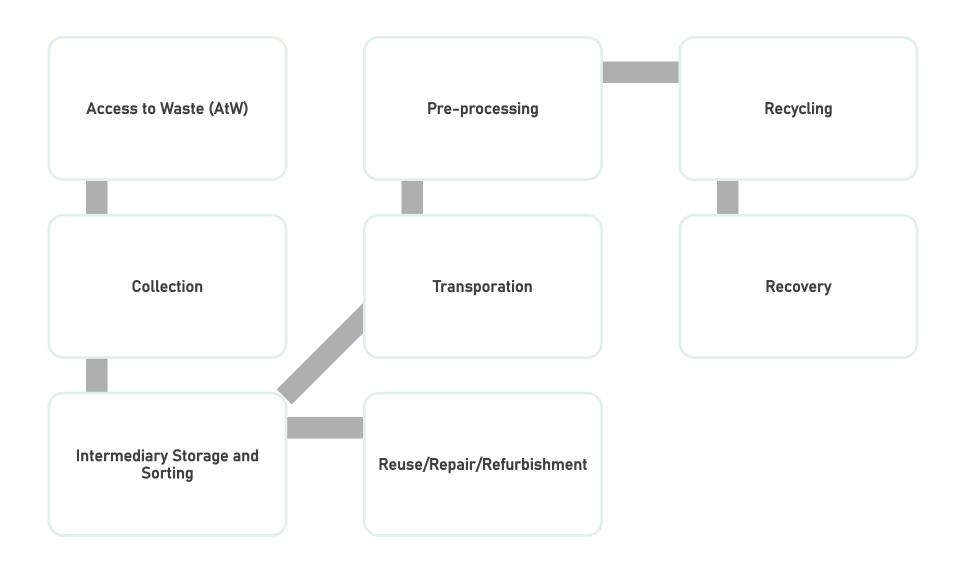


| Completeness of regulation  Alignment between State Laws and Federal Laws  Status of EPR registry implementation  Waste Management Operations  Waste Recycling Recovery |
|---|
| Status of EPR registry implementation  Waste Management Operations  Waste Recycling   |
| Waste Management Operations  Waste Collection  Waste Recycling  |
| Management Operations Waste Recycling   |
| Operations Waste Recycling  |
| Recovery  |
|   |
| Landfilling / final disposal  |
| Producer & Producer market  |
| Other Aspects Access to capital   |
| Pre-existing PRO initiatives  |
| General awareness and willingness to implement EPR  |
| Availability of data  |
| Macro- Country Governance Indicators  |
| economic GDP, Purchasing Power Parity, Gini Coefficient   |
| Indices Human Development Index   |
| ICT Development Index   |
| Environmental Performance Index   |
|   |



#### Full digital traceability, inventory, and accounting









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# In need of support with anything EPR? Speak to our experts via solutions@gfs.earth

THANK YOU