

Building E-waste Management Systems

Developing and Implementing E-waste Policy and Regulation for a Circular Economy

Date: Monday 6th July 2026

Time: 14:00 – 16:45 (CEST)

Venue: Room H2, ITU Montbrillant Building



WSIS
FORUM 2026

Programme

Objective: A call to action for policymakers and industry to work together to develop e-waste policy and regulation for a circular economy.

Session	Duration
Opening	14:00 – 14:30
Saudi Perspective Rwandan Perspective	14:30 – 15:05
Refreshment Break Panel Discussion	15:05 – 15:15 15:15 – 15:55
Paraguyan Perspective Zambian Perspective	15:55 – 16:35
Closing Call to Action	16:35 – 16:45



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Facilitator



Ms. Vanessa Gray

Head, Climate Change and Emergency
Telecommunications Division
Telecommunication Development Bureau
International Telecommunication Union



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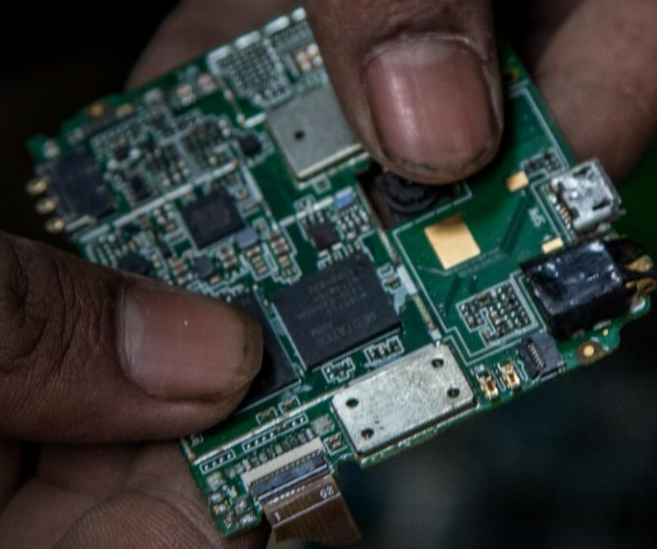
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Opening Remarks



Eng. Abdulaziz Altamra

Acting Deputy Governor for Strategy and
Digitalization
Communications, Space & Technology
Commission
Kingdom of Saudi Arabia



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Opening Remarks by BDT Director

Delivered by



Dr. Archana Gulati

Deputy to the Director

Telecommunication Development Bureau

International Telecommunication Union



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KSA initiative

Recycle Your Device

cst.gov.sa





The Kingdom of Saudi Arabia, in partnership with ITU is working to advance sustainable development through various initiatives, including the E-waste Management Initiatives

Launched the “Recycle Your Device” initiative to encourage the public sector, businesses and individuals to recycle electronic devices to advance e-waste management in support of the KSA’s Sustainable Development Goals.

This also builds on CST’s partnership with ITU, including the **launch of the E-waste Policy and Regulation Toolkit** during GSR, supporting countries in developing effective e-waste management policies.

CST aims to reduce e-waste, promote social responsibility, and support a circular economy through responsible device recycling.

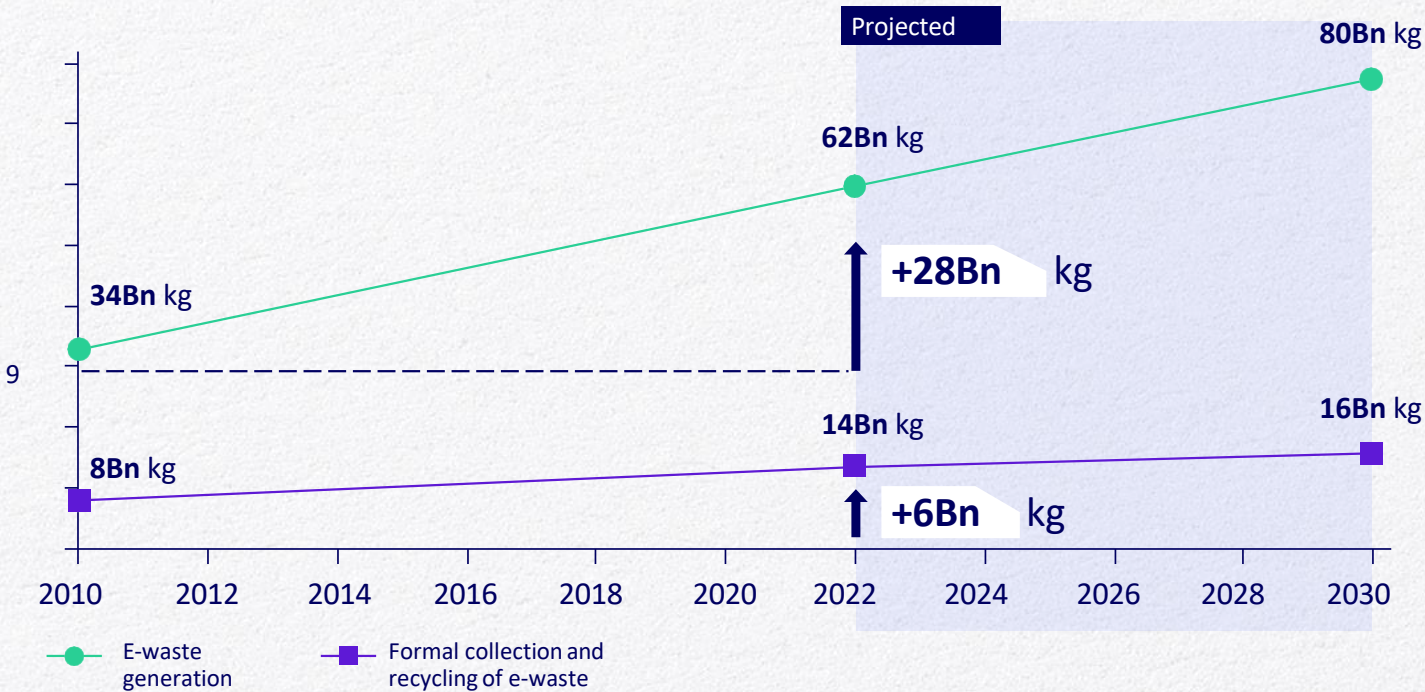




E-waste is both a challenge and an opportunity: growing volumes strain collection systems, yet vast economic value remains untapped

E-Waste Growth and Environmental Impact

VOLUMES OF GLOBAL E-WASTE GENERATION, COLLECTION AND RECYCLING [2010-2030]



E-Waste generation has grown by an average of 2.3 billion kilograms since 2010.



E-Waste generation is growing five times faster than formal recycling.



Only **22%** of e-waste is recycled each year, leaving a **\$91 billion** opportunity untapped.



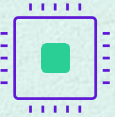
Challenges in E-Waste Management



Lack of e-waste specific legislation and/ or challenges with **enforcement**.



Limited e-waste collection, treatment and recycling **infrastructure**.



Limited availability of e-waste **data**, and lack of e-waste **tracking system**.



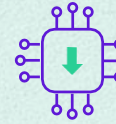
Commercial viability of operating high quality recycling **infrastructure**.



Low Consumer Awareness.



Fragmented Value Chain, with unregulated **informal sector involvement**.



Illegal import of e-waste.

1
0

strengthening e-waste management requires assessing current systems and empowering both the private and social sectors.

What is Recycle Your Device ?

“**Recycle Your Device**” is a national initiative led by the Communications, Space and Technology Commission (**CST**) in cooperation with **MCIT**, **MWAN**, and **private sector partners** to promote responsible recycling of electronic devices and support the Kingdom’s circular economy efforts.

Building on this national experience, **CST is strengthening its partnership with ITU** to advance e-waste policy and regulation, including the launch of the **E-waste Policy and Regulation Toolkit during GSR**, which supports countries in developing effective and scalable e-waste management frameworks.

The initiative has two core objectives:

- 1 **1** Raise awareness among individuals, institutions, and governments about the importance of recycling electronic devices and advancing sustainability.
- 2 **2** Expand partnerships with private sector stakeholders and public authorities to build a broad national and cross-border recycling movement.

ميوان MWAN
المركز الوطني لإدارة النفايات
National Center for Waste Management



وزارة الاتصالات
وتقنية المعلومات
MINISTRY OF COMMUNICATIONS
AND INFORMATION TECHNOLOGY



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What is Recycle Your Device ?

Promoting
Progress on the SDGs



Economic

Harnessing e-waste economic value by recovering usable materials to support the production of new devices

Reducing financial waste through efficient recycling and raw material utilization



Environment

Lowering carbon emissions.

Limiting electronic waste to protect the environment.



Social

Empowering low-income families with access to digital devices.

Creating employment opportunities that support digital inclusion and bridge the digital divide.

Recycle Your Device Initiative: Achievements and Impact



First national initiative

In recycling electronic devices



+400K

Collected devices



+120M SAR

Market value of the devices



+800 tons

Recycled or repaired

1
3



+150

Charities and schools were supported



+40K

Individual contribution



40

Visited entities to encourage and rise awareness



100

Entities have made donation of their devices

Pillars of the 'Recycle Your Device' Initiative

1
4



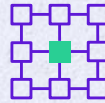
01



Assessment

- 1.1** Mapping the E-Waste Landscape
- 1.2** Methodology and type of devices

02



Planning and governance

- 2.1** Design the process
- 2.2** Roles and responsibility
- 2.3** Develop the guide line

03



Implementation

- 3.1** National Portal and digital access
- 3.2** Logistics and collection model
- 3.3** Incentives mechanisms
- 3.4** Partnerships and agreements
- 3.5** Communication and awareness
- 3.6** Certification and reporting

04



Monitoring and refining

- 4.1** Key Performance Indicator
- 4.2** Refinement Cycles

Future outlook

The Recycle Your Device initiative is more than a campaign, it is a foundation for sustainable digital future.

As we look ahead, the goal is to **move from isolated efforts to a unified global movement** that embeds e-waste recycling into national culture, digital policies and economic planning.

Perspective of Rwanda

Developing and Implementing E-waste Policy and Regulation for a Circular Economy

Ms Janet Umutesi

**Division Manager Competition - ICT Department and ITU
Designated Focal Point for Rwanda**

Rwanda Utilities Regulatory Authority (RURA)



E-waste Management Status

Rwanda has made great steps forward in addressing e-waste management with new regulations specific to e-waste and EPR supported through the project:

- Draft (Revised) Regulation governing E-waste Management in Rwanda (RURA)
- Draft Regulation governing Electrical and Electronic Products (RICA)

Once updated, these regulations will equip Rwanda with strengthened processes for EPR.

Key Data ([Global E-waste Monitor 2024](#)):

10 000 tonnes of e-waste generated.

20 per cent e-waste reported as formally collected and recycled.



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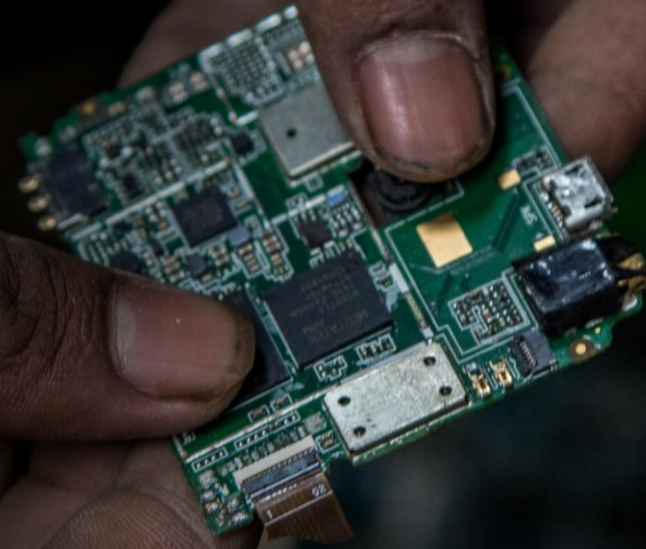


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Project Focus

Strengthening of existing regulations through stakeholder consultation and development of a national PRO covering e-waste by producers from all sector.

- Update and **inputs to RURA and RICA regulations**, including new articles specifically on the producer, PRO, retailer and bulk consumer and registration requirements for companies seeking permits to sell electronics.
- Extensive **stakeholder consultation** and validation of two draft regulations
- Production of **PRO governance** documents including statutes, contracting templates, workplan, membership fee budgeting tool
- Identification of **producer champions** amongst electronics producers
- National EPR guidelines developed for the electronics sector

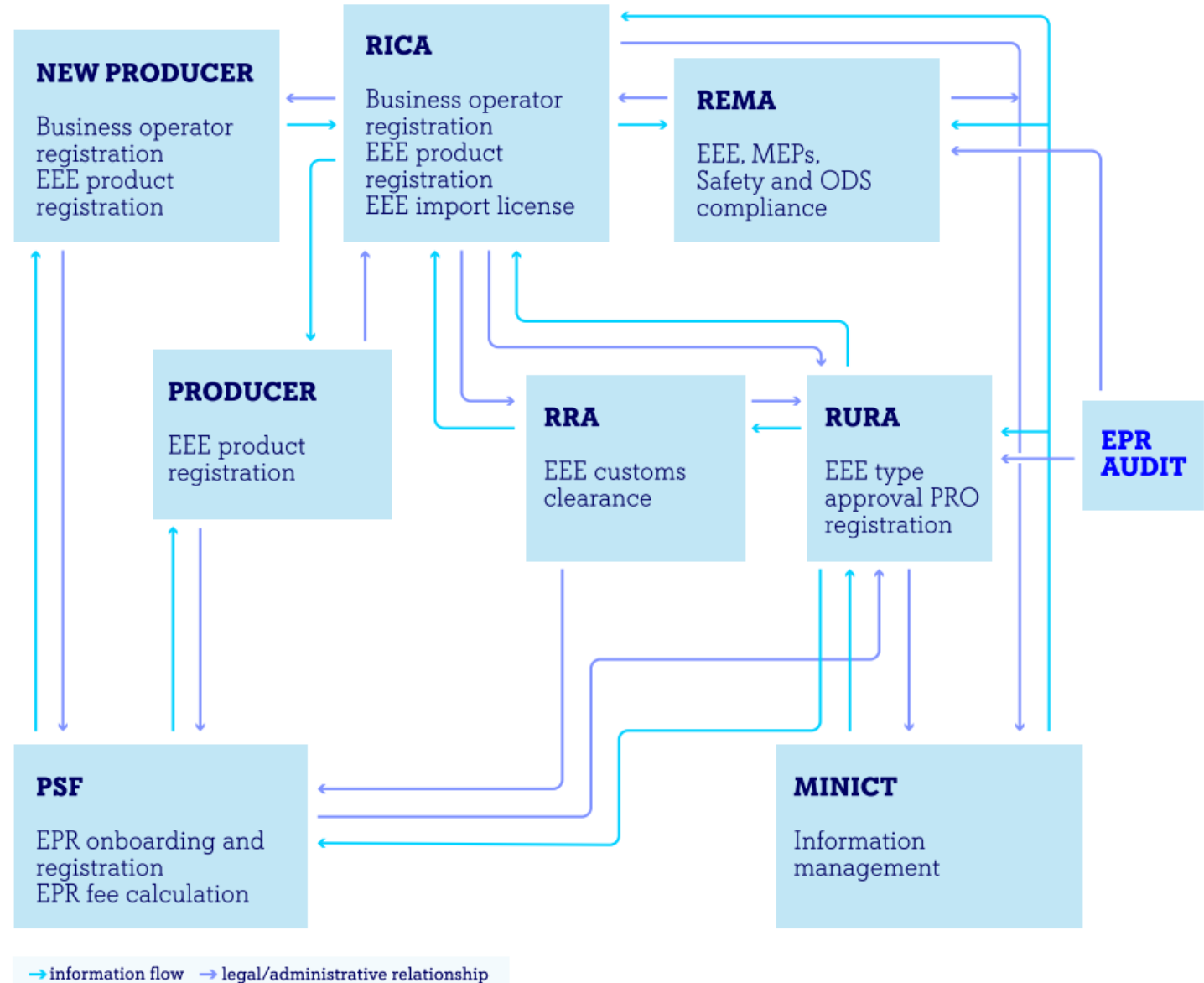


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Proposed System





— Mobilizing the private sector

- A PRO "REPRO"* was established as a mechanism for the private sector to collectively manage end-of-life electronics.
- Housed by the Business Research Council under the Private Sector Federation (PSF), the PRO aims to mobilize the 2,500 producers of electronics in Rwanda.
- Throughout the project, consultations were held to discuss the terms of PRO membership, the first decision-making framework and digital services to monitor EPR compliance.
- The PRO will lead capacity-building initiatives and propose essential tools for the full implementation of the EPR system.

*Rwanda E-waste Producer Responsibility Organization

Engagement and Capacity Building

A key component of the project included bringing together public stakeholders and industry representatives for sustained engagement on EPR:

- **October 2024:** first producer engagement meeting with short information blocks
- **November 2024:** second producer engagement session with updates from regulators on policy development
- **March 2025:** third producer engagement meeting to onboard champion producers and discuss the PRO and validation workshop of RICA regulations
- **October 2025:** harmonization workshops of regulations, EPR system design and project sustainability discussions
- Bi-weekly meetings with core group of stakeholders throughout the project



Engagement of 161 stakeholders from 104 entities

35 unique stakeholders from 15 unique entities within the public sector

126 unique stakeholders from 89 unique entities within the private sector



Uniqueness

3-in-1 service through digital government *Irembo* platform

- Rwanda aims to combine three EPR processes into one digital tool through the Irembo digital government services platform
 - Business permits to deal in the EEE sector
 - Product registration for certain EEE
 - Automatic PRO membership
- This is expected to bring about:
 - Reduced administrative costs to EEE producers
 - Reduction in transaction time for EEE producers
 - Increased collaboration among regulators
 - Improved enforcement to curtail free-riders

Taking Project Lessons Forward

The project **created of a wide network of stakeholders** (public, private, academia, NGOs) through consultation.

Active engagement of the private sector will be essential for a self-functioning PRO. The right tools will be critical to ensure that EEE producers' EPR fees are calculated correctly and efficiently.

EEE producers

- Assume the costs of collecting and managing e-waste
- Register with the PRO for EEE products
- Meet established targets
- Provide information to waste managers

PRO (single)

- Register with RURA
- Comply with collection and recycling targets for each identified regulated waste stream
- Develop and maintain a system to collect the EPR fee from producers
- Develop and maintain a register of its members
- Contract for the collection and transportation, dismantling and refurbishment and treatment with licensed service providers through a fair and transparent process
- Conduct communications and awareness raising activities to increase awareness about e-waste and to boost e-waste collection rates
- Produce quarterly and annual reports to RURA and PRO governance board

Government

Rwanda Inspectorate, Competition and Consumer Protection Authority

- Issue business operator license to EEE producers
- Register EEE products placed on market in Rwanda
- Issue EEE import permit
- Oversee compliance of EEE with standards and safety requirements

Rwanda Environmental Management Authority

- Oversee compliance of EEE products with minimum environment performance standards (MEPs), safety and presence of ozone depleting substances (ODS) in products.

Rwanda Utilities Regulatory Authority

- Be responsible for type approval procedures for EEE
- Oversee PRO registration

Rwanda Revenue Authority

- Perform EEE customs clearance

— Thank You



Project Webpage

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Programme Webpage

Creating a Circular
Economy for Electronics

Panel Discussion



Moderator
Ms. Noémie Pralat
Circular Economy
Associate

**International
Telecommunication
Union**



Ms. Jean Cox-Kearns
Product End of Life
Management Engineer

Lenovo



**Ms. Carolien van
Brunschot**
Director Purchaser and
Supplier Engagement

**Global Electronics
Council**



Ms. Francesca Cenni
Programme Officer
**Basel Convention
Secretariat**



Ms. Yaxuan Chen
Sustainability Services
Expert
**Universal Postal
Union**



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Perspective of Paraguay

Developing and Implementing E-waste Policy and Regulation for a Circular Economy

Ángel González Mongelós

Head of International Department

Comisión Nacional de Telecomunicaciones (CONATEL)



E-waste Management Status

Primary legislation classifies e-waste as solid waste requiring special handling:

- Law No. 3956/2009 on Integrated Solid Waste Management;
- Regulatory Decree 7.391/2017;
- Resolutions 355 and 356.

A dedicated legal framework is being developed to establish a post-consumer management system for EEE and apply extended producer responsibility (EPR).

Key Data ([Global E-waste Monitor 2024](#)):

57 000 tonnes of e-waste generated.

8.4kg of e-waste generated per capita.



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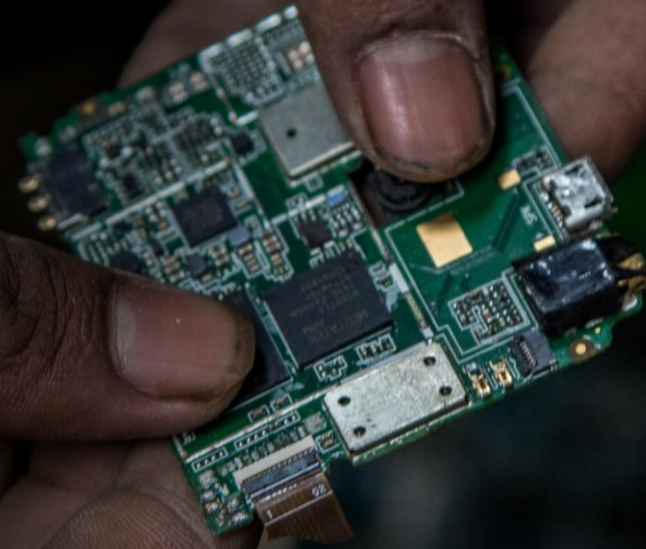


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Project Focus

The project team prepared a new *normativa* for e-waste management based on the EPR principle.

- Drafting a *normativa to regulate e-waste management* under the EPR principle.
- Developing *national EPR guidelines* to support the implementation of the *normativa*.
- *Consulting and validating* the proposed EPR system with government and industry stakeholders.
- Preparing a *financing study* on e-waste management costs and estimated EPR fees for e-waste management.
- Building the *capacity and engagement* of public and private sector stakeholders to understand new roles.

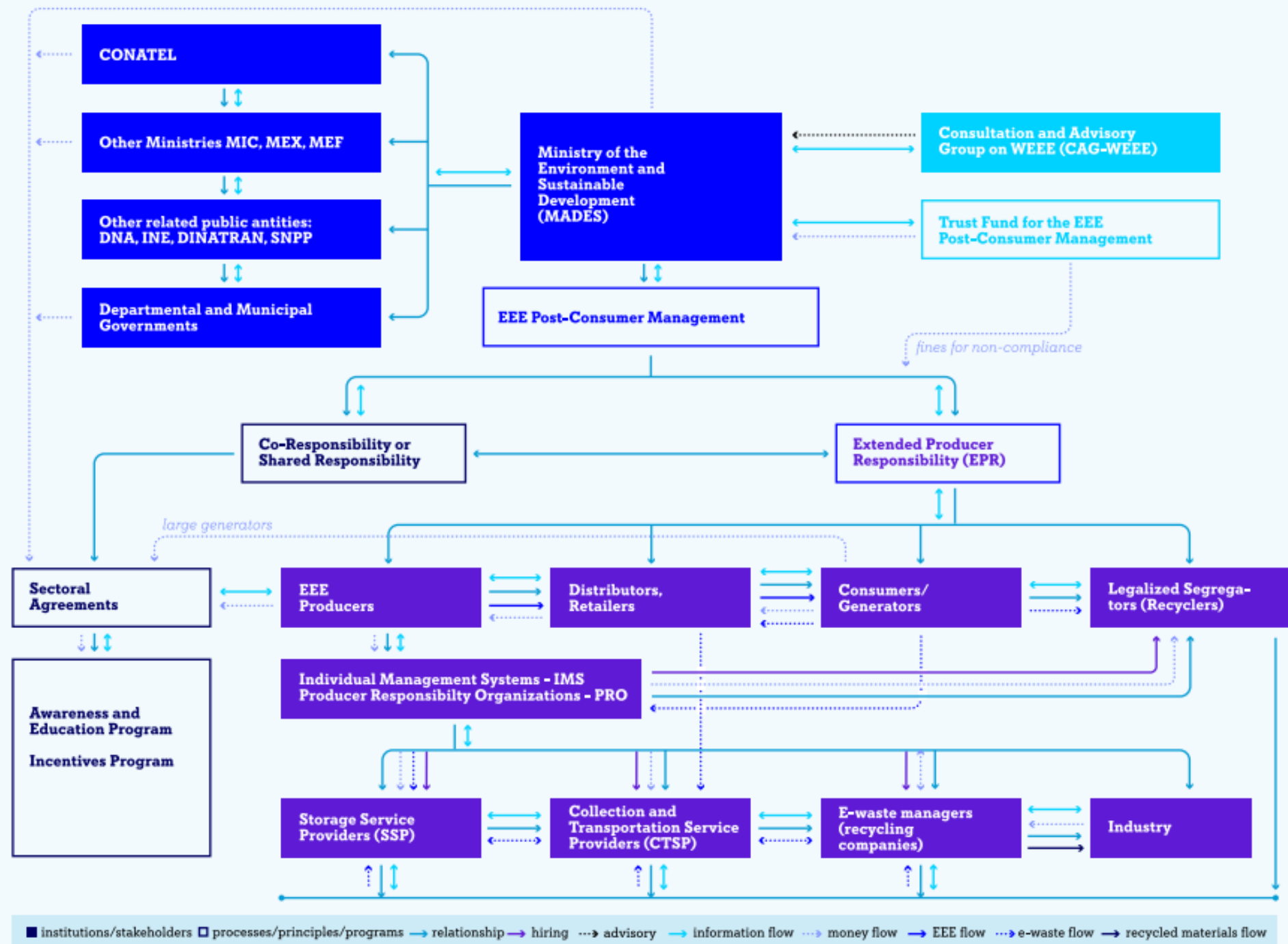


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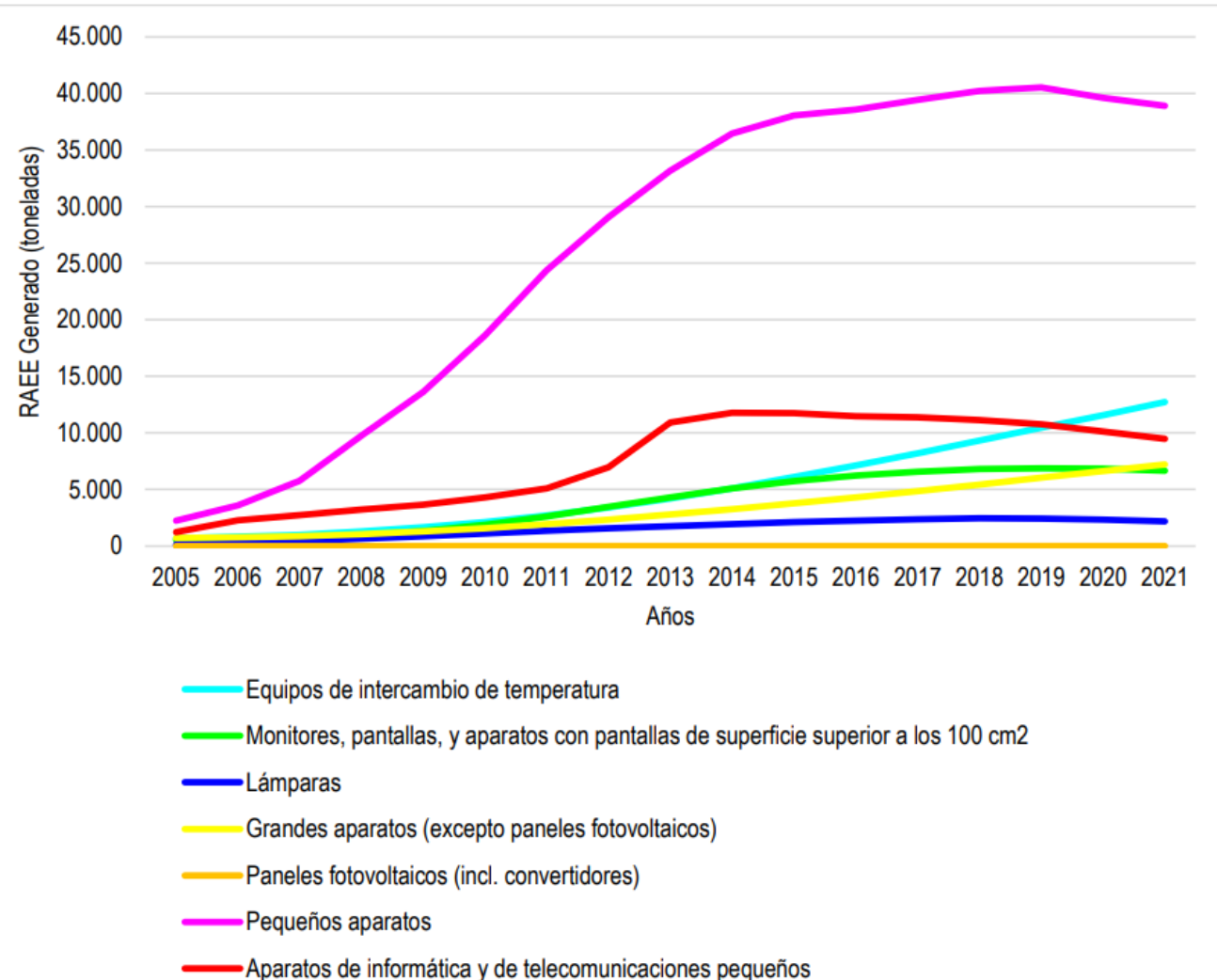
Proposed System



E-waste Management Costs

- Financing study on technical costs (collection, transportation, storage and treatment).
- Results presented to industry associations, e-waste managers and the government.
- Templates and methodology made available for future use to calculate EPR fees.
- E-waste from **small equipment** has increased from slightly over 2'200 tonnes (2005) to over 38,000 tonnes (2024).
- E-waste generated per capita is projected to reach **15kg in 2033**.
- Total net cost of e-waste management in 2025 was calculated to be 215,415.51 USD, which corresponds to **14.26 USD per tonne**.

Gráfica 6. Residuos de Aparatos Eléctricos y Electrónicos (RAEE) Generados (2005-2021)



Engagement and Capacity Building

A key component of the project included building capacity of government officials and capacitating electronics producers about the anticipated new regulations and their envisaged roles in implementation.

EPR and e-waste management can be complex, and it was essential to make sure that the principles were correctly presented.

- **October 2024:** consultation workshops with public and private sector/engagement session with industry
- **May 2025:** validation workshop and industry engagement session
- **April 2026:** capacity-building webinars with public and private sector



Engagement of 137 stakeholders from 62 entities

92 unique stakeholders from 42 unique entities within the public sector

45 unique stakeholders from 20 unique entities within the private sector



Uniqueness

Co-responsibility for e-waste management

- Paraguay aims to implement co-responsibility for e-waste management.
- A generator of e-waste is responsible, along with the relevant authorities, for the costs of preventive or corrective actions to restore the environment.
- Each stakeholder is expected to assume responsibility for a specific stage of e-waste management.
- Implementation is conducted through sectoral agreements which establish shared but differentiated responsibilities.

— Taking Project Lessons Forward

The project **created of an initial network of stakeholders** (public, private, academia, NGOs) through consultation. Together they will continue to shape the system.

Continued engagement of producers will be key. It must be coordinated at a high-level especially. Producers are key to implementing any legal framework where EPR is central.

Towards formal endorsement of the legal framework:

- Further socialization of the draft *normativa* with producers and industry associations.
- Putting into reality a structured financing model based on the requirements in the *normativa* and the study's findings.
- Continued capacity building on roles and responsibilities that are defined in the *normativa* and explained in the guidelines.



— Thank You



Project Webpage

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Programme Webpage

Creating a Circular
Economy for Electronics

Perspective of Zambia

*Developing and Implementing E-waste Policy
and Regulation for a Circular Economy*

Mr. Kawana Mutti

Executive Assistant

Zambia Information and Communications Technology Authority



— E-waste Management Status

Zambia has several overarching instruments applying to e-waste:

- Act No. 12 of 2011 *Environmental Management Act*
- Statutory Instrument No. 65 of 2018 *Environmental Management (EPR) Regulations*

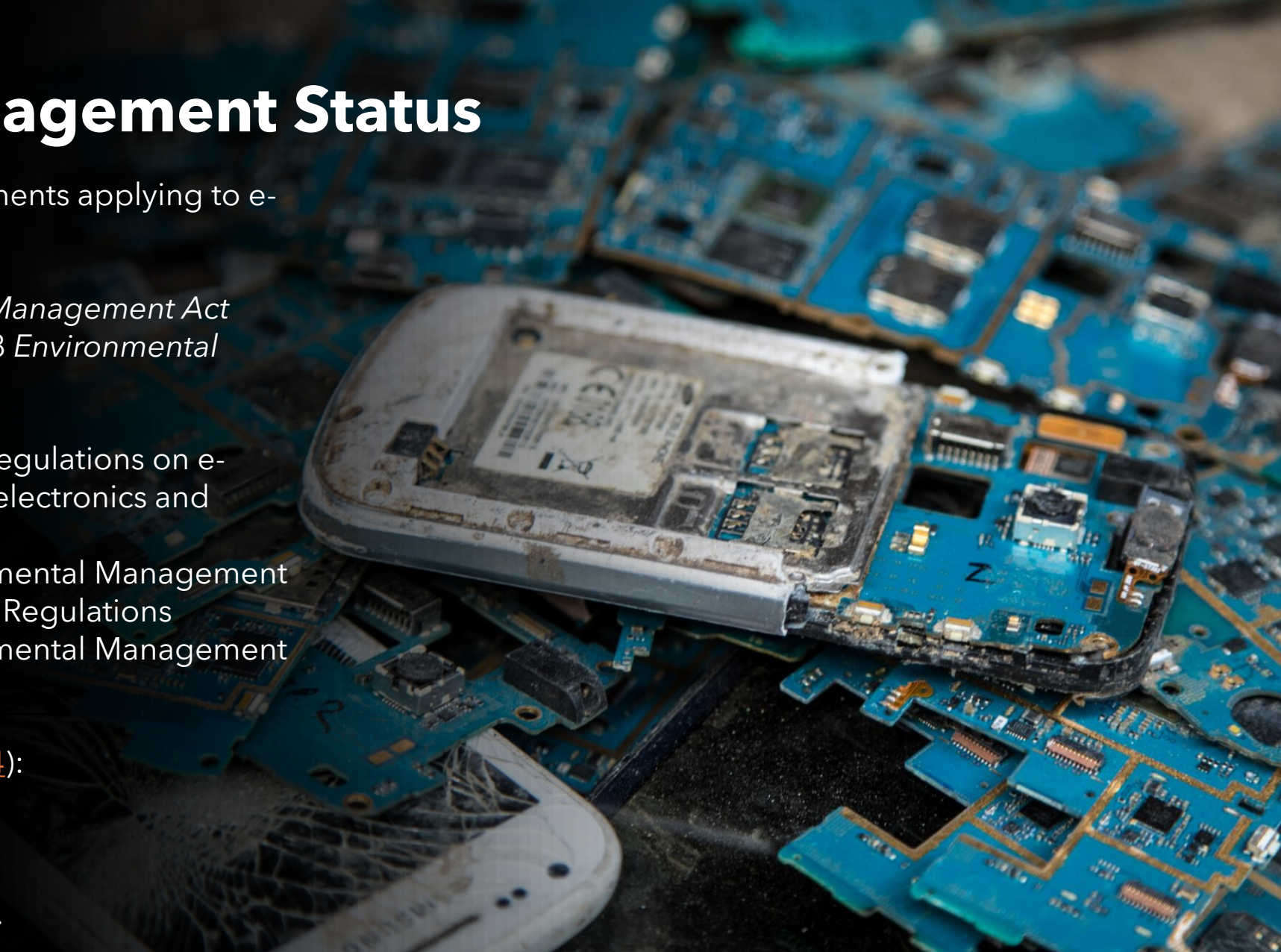
The government is preparing specific regulations on e-waste management and EPR covering electronics and packaging:

- Draft Statutory Instrument: Environmental Management (Extended Producer Responsibility) Regulations
- Draft Statutory Instrument: Environmental Management (E-waste Management) Regulations

Key Data ([Global E-waste Monitor 2024](#)):

23 000 tonnes of e-waste generated.

1.1 kg of e-waste generated per capita.



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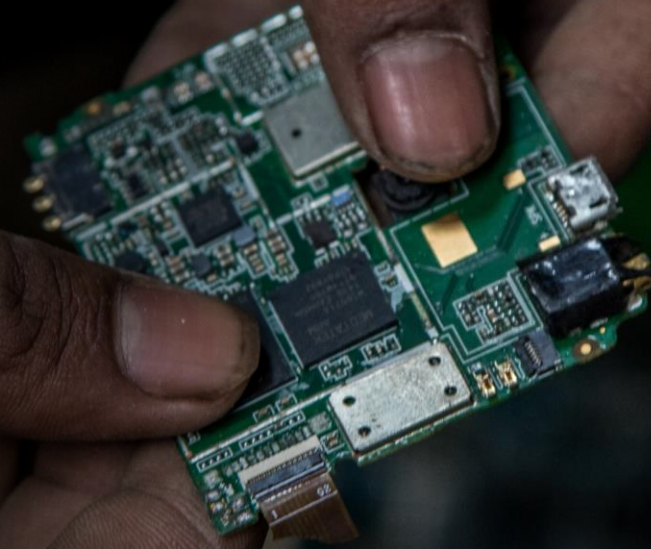


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Project Focus

The project supported new e-waste and EPR regulations with research on the financing aspects, complemented by the design of an ICT sector-specific EPR scheme.

- Inputs into the **draft regulations** on e-waste management and extended producer responsibility.
- Financing **study into the costs of e-waste management** and the estimations of potential EPR fees for e-waste management.
- Extensive **stakeholder consultation** on the flows of money, information and material and the roles and responsibilities within the EPR system.
- Implementation **manual for the identified PRO**, covering the creation of a voluntary industry-led ICT sector EPR scheme.
- Implementation **guidelines for the ICT sector** in developing and implementing a system of EPR in the ICT sector.
- Identification and initial consensus on the entity to operate the **EPR scheme in the ICT sector**.

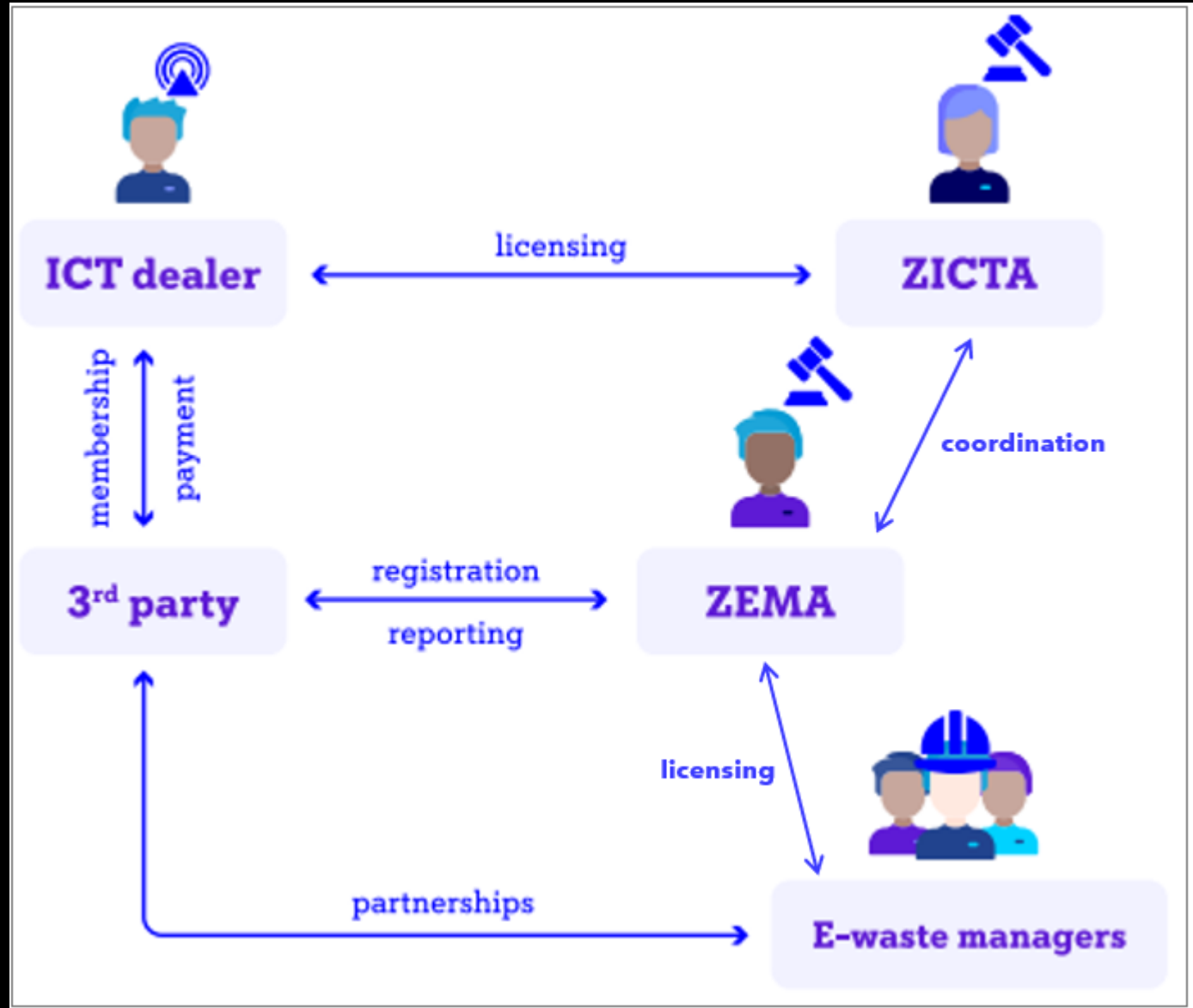


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Proposed System



E-waste Management Costs

- Most equipment available in Zambia is imported by agents or distributors.
- These importers are to assume the role of “producer” under the EPR framework to ensure compliance.
- Under new regulations, each EEE producer will be responsible to finance the collection, transport and treatment of household e-waste.
- This will involve certain costs such as e-waste access, transport and treatment.

E-waste management costs per year		2025	2026	2027	2028	2029	2030	2031	2032
Temperature exchange equipment	USD	-	504.480	658.449	830.548	1.013.723	1.160.065	1.291.096	1.430.201
	ZMW	-	13.275.802	17.327.597	21.856.533	26.676.923	30.528.016	33.976.201	37.636.863
Screens and monitors	USD	-	504.480	658.449	830.548	1.013.723	1.160.065	1.291.096	1.430.201
	ZMW	-	1.803.570	2.781.882	3.845.707	4.675.876	5.466.644	6.303.653	7.195.170
Large equipment	USD	-	70.042	98.310	158.196	221.306	268.520	306.051	330.994
	ZMW	-	1.843.198	2.587.102	4.163.041	5.823.834	7.066.306	8.053.970	8.710.369
Small equipment	USD	-	95.995	120.778	149.279	180.405	210.504	245.287	283.443
	ZMW	-	2.526.175	3.178.360	3.928.408	4.747.491	5.539.591	6.454.931	7.459.032
Small IT and telecommunication equipment	USD	-	185.082	202.429	259.111	283.541	304.615	330.853	359.711
	ZMW	-	4.870.588	5.327.077	6.818.717	7.461.600	8.016.171	8.706.659	9.466.074
Total	USD	-	924.135	1.185.677	1.543.271	1.876.658	2.151.436	2.412.826	2.677.765
	ZMW	-	24.319.333	31.202.016	40.612.406	49.385.724	56.616.728	63.495.415	70.467.507

Reference: GreenForest Solutions GmbH

Engagement and Capacity Building

A key component of the project included building capacity of government officials and capacitating electronics producers about the anticipated new regulations and their envisaged roles in implementation.

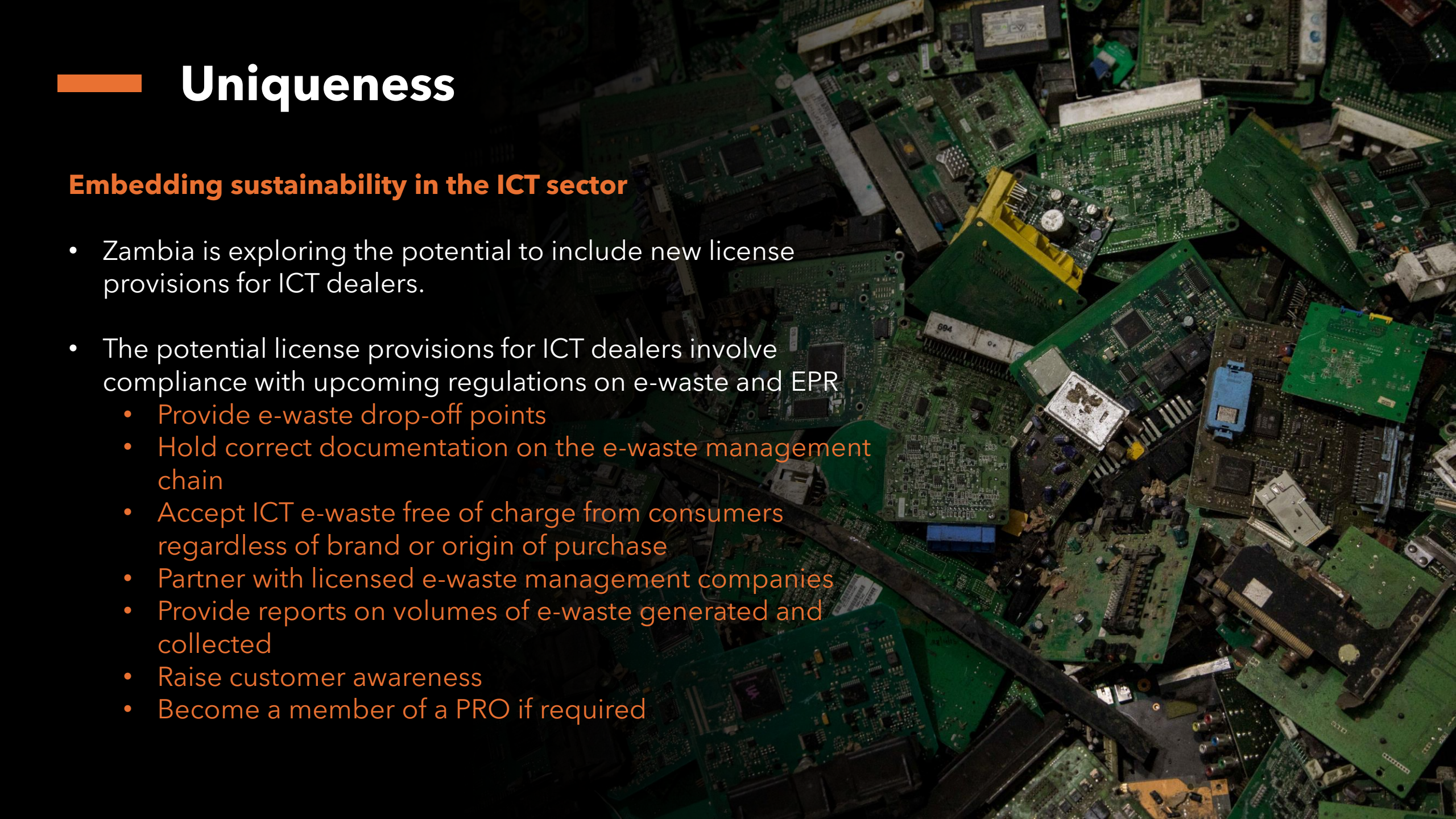
- **October 2023:** Government stakeholder consultations
- **March 2024:** Private sector stakeholder consultations
- **June 2024:** High-level breakfast meeting on the EPR implementation roadmap and financing workshop
- **February 2025:** High-level breakfast meeting and EPR framework deep dives and producer training
- **October 2025:** Validation workshop of EPR guidelines for the ICT sector
- **February 2026:** Board approval of ICTAZ to act as voluntary PRO for the ICT sector
- **June 2026:** consultations on ICT sector-led EPR scheme and EPR guidelines



Engagement of 186 stakeholders from 112 entities

65 unique stakeholders from 28 unique entities within the public sector

121 unique stakeholders from 84 unique entities within the private sector



Uniqueness

Embedding sustainability in the ICT sector

- Zambia is exploring the potential to include new license provisions for ICT dealers.
- The potential license provisions for ICT dealers involve compliance with upcoming regulations on e-waste and EPR
 - Provide e-waste drop-off points
 - Hold correct documentation on the e-waste management chain
 - Accept ICT e-waste free of charge from consumers regardless of brand or origin of purchase
 - Partner with licensed e-waste management companies
 - Provide reports on volumes of e-waste generated and collected
 - Raise customer awareness
 - Become a member of a PRO if required

— Taking Project Lessons Forward

The project **created of an initial network of stakeholders** (public, private, academia, NGOs) through consultation. With a focus on preparing the ICT sector for compliance to EPR requirements.

Producers are key to implementing any legal framework where EPR is central. Any voluntary initiative is likely to bear results.

Towards formal endorsement of the legal framework:

- Further socialization of the draft regulations through consultations is in progress.
- Champions producers would be identified amongst ICT dealers and mobile network operators.
- Continued capacity building and socialization of flows of information and financing within the system.



— Thank You



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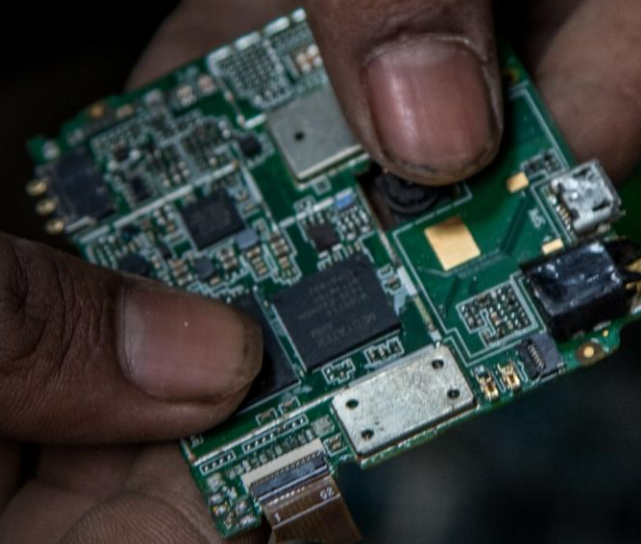
Programme Webpage

Creating a Circular
Economy for Electronics

Closing



Eng. Rakan Alsulaim
Sustainability Director
Communications, Space & Technology Commission
Kingdom of Saudi Arabia



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