DISCUSSION BRIEFING · ISWA WORLD CONGRESS 2026

From EPR legislation to working e-waste systems

Practical design choices and support needs in low- and middle-income countries

The case for e-waste EPR

Electronic waste is one of the fastest-growing waste streams in the world. As electronic products become more widely used and replaced more frequently, the volume of discarded equipment continues to rise.

62 million t
of e-waste generated worldwide in 2022

22.3%
documented as formally collected and recycled

Source: Global E-waste Monitor 2024

When e-waste is poorly managed, hazardous substances can contaminate the environment and expose workers and surrounding communities to serious health risks. At the same time, valuable materials are lost. Electronic equipment contains metals and other resources that are increasingly important to manufacturing and the energy transition. Some are critical raw materials with limited or geographically concentrated supplies. Recovering these materials can reduce demand for virgin resources and help strengthen material security.

Countries therefore have strong environmental, economic and public health reasons to improve e-waste management.

EPR Extended Producer Responsibility (EPR) offers a way to finance and organise this improvement by making those who place electrical and electronic equipment on the market responsible for its management at the end of its useful life.

But passing an EPR law is not the same as establishing a functioning EPR system.

In many countries, practical arrangements are left until after legislation has been adopted.

PRODUCERS
are expected to meet obligations they may have had little involvement in shaping.

GOVERNMENTS
may lack the systems needed to oversee compliance.

EXISTING BUSINESSES
in collection and repair remain outside formal arrangements.

The challenge is to design EPR systems that reflect how electronics markets and waste services actually operate. This requires meaningful participation from the outset, realistic financing and clear responsibilities. The system needs to be workable before the regulations take effect, rather than leaving the difficult decisions until afterwards.

ABOUT THIS BRIEFING

This briefing explores the decisions involved in moving from EPR legislation to implementation, drawing on practical experience from different countries. It invites discussion on what works, where countries encounter difficulties, and what support could help them establish strong, fair and effective systems.

Five interconnected stages of EPR development

1

Participation and capacity building

Governments, producers and existing waste service providers need to be involved from the outset. Effective participation also requires capacity building so that stakeholders can understand their responsibilities and contribute to system design.

This may involve strengthening four areas of capacity: institutional arrangements, technical expertise, monitoring and data, and collaboration between organisations.

2

System design and regulatory drafting

The operating model should be developed alongside the legislation. Market studies and cost assessments can help establish what is financially and operationally realistic. Producers and other stakeholders should be involved before decisions about their responsibilities are finalised.

3

System set-up

Once the framework is agreed, attention turns to establishing the producer responsibility organisation (PRO) or other compliance arrangements. This includes governance, producer membership, financial contributions and partnerships with service providers.

4

Implementation

The system needs practical arrangements for producer registration, collection, treatment, reporting and enforcement.

> Implementation need not happen all at once. Countries with limited institutional or technical capacity may benefit from a phased approach, beginning with a functioning producer and importer registration system before introducing further requirements.

5

Continual improvement

Performance data and practical experience should inform improvements to the system. Reporting, oversight and appropriate targets can help strengthen services and accountability over time.

These stages are interconnected rather than strictly sequential. In particular, stakeholder participation, system design and regulatory drafting should progress together.

Different contexts call for different approaches

There is no single model of e-waste EPR that will work everywhere. Existing institutions, market conditions and infrastructure all influence how systems can be designed and implemented. Experience from different countries illustrates some of these considerations:

Rwanda

The consumer protection authority already handles business permits for electronics businesses, providing a route for incorporating producer registration into existing administrative processes.

Zambia

The ICT and telecommunications regulator already licenses electronics suppliers and dealers, creating an opportunity to incorporate producer registration into existing licensing procedures.

South Africa

EPR arrangements include requirements concerning integration of workers and businesses operating in the informal waste sector.

Indonesia

Complex geography creates high collection costs in some areas, prompting consideration of decentralised arrangements. There is also a policy interest in protecting smaller domestic manufacturers from disproportionate obligations.

These examples illustrate different approaches and design considerations. They do not necessarily represent fully implemented or operational systems.

Regional cooperation

Regional cooperation may also offer opportunities. In Southern Africa, for example, closer alignment of EPR legislation could help countries cooperate on collection and treatment, including where national markets are too small to sustain specialised facilities independently. Such arrangements would need to account for differences in national legislation and the requirements governing cross-border waste movements.

The challenge is not to replicate a particular model, but to establish arrangements that reflect local conditions, make compliance practical and provide a sustainable basis for financing and delivering e-waste management services.

What support is needed?

Different stages of EPR development call for different types of support.

DEVELOPING SYSTEMS
Stakeholder engagement, cost assessments and regulatory design

NEWLY ESTABLISHED PROS
Practical guidance on governance and financial management

OPERATING SYSTEMS
Improving performance, compliance and reporting

There may also be opportunities for countries to learn from one another. Exchanges between regulators and PROs could help governments understand how different arrangements operate in practice, while peer support from experienced PROs could assist organisations at an earlier stage. Shared tools and templates might reduce the burden of developing every system from scratch. Regional cooperation could be particularly valuable where markets, material flows and treatment infrastructure extend beyond national borders.

International support should respond to locally identified needs and strengthen domestic capacity, rather than create unnecessary dependence on external organisations.

Join the discussion

ISWA World Congress · Tue 10 Nov · 14:15–15:00

This briefing is intended to start a conversation, not provide definitive answers. At the ISWA World Congress 2026, we will bring together stakeholders for an interactive 45-minute session exploring three questions:

01 **Where are the biggest gaps between EPR legislation, system design and practical implementation?**

02 **What design choices and country experiences can help address these gaps?**

03 **What practical support is needed, at which stage, and from whom?**

We welcome examples of what has worked, what has proved difficult and which questions remain unresolved.

Have an example or perspective to contribute?

Please send Zoë Lenkiewicz a direct message on LinkedIn ahead of the congress. We particularly welcome perspectives from people involved in designing, regulating, financing or delivering e-waste EPR systems in Africa, Asia and Latin America.

Your experience could help shape future e-waste EPR support. The insights gathered before and during ISWA will help the WEEE Forum, ITU and Global Waste Lab identify where countries need practical assistance, what that support could look like, and how international expertise can be put to better use. Whether you are developing regulations, establishing a PRO or working to make an existing system more effective, this is an opportunity to influence the guidance, resources and partnerships available to countries building their e-waste EPR systems.

Further reading: ITU, Policy and Regulatory Toolkit for E-waste Management, second edition. itu.int/en/ITU-D/Environment/Pages/Publications/WEEE-Saudi-Arabia-Toolkit.aspx