

The Voice of the Off-Grid Solar Energy Industry

# Swedfund



## Agenda

45 min



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- 5 min Introduction to Module 4
- 15 min Introduction to EPR schemes and compliance scheme options Federico Magalini (SOFIES).
  - Discussion with EACO and Karo Sambhav
  - EACO 5-year strategy
  - Does regulation help reduce costs?
- 20 min Audience Q&A
- 5 min Call to action and wrap-up

#### **Module 4: Policy and Regulation**



This module **aims** to provide a high-level introduction and reference guide to current e-waste regulation as well as provide an understanding of e-waste regulation typologies and their financing mechanisms.



## EPR legislations on E-waste

Federico Magalini

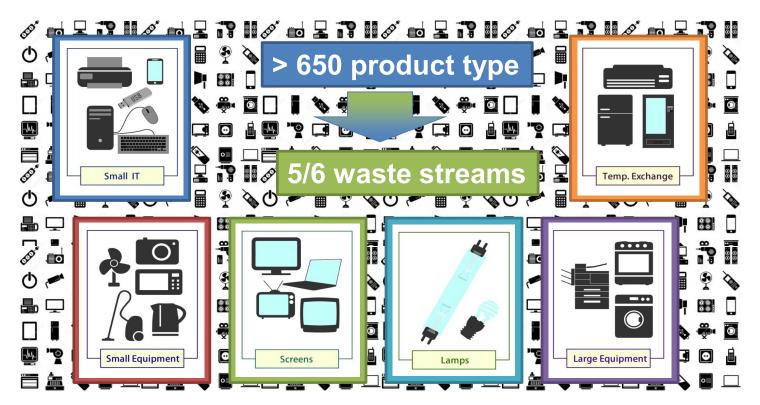
#### Overview legal developments

Country	E-waste legislation	Availability recycling infrastructure	Off-Grid Products specifically in scope	Batteries in scope	Main EEE in scope (connected SHS)	Focus Industry / Priority
BUR	First Draft	Fair/Poor	No	No	TV, Radio, Fans, water pumps,	3
KEN	Draft, pending final approval	Fair/Good	Potentially	Yes	TV, Radio, Fans, water pumps,	2
TAN	Expected draft in 2019	Fair/Poor	No	N.A.	N.A.	3
RWA	Published	Fair/Good	Under discussion (to be in)	Yes	TV, Radio, Fans, water pumps,	2
UGA	No Draft	Poor	No	No	TV, Radio, Fans, water pumps,	3
GHA	Published, not enforced	Fair/Good	Yes/Partially	Yes	TV, Radio, Fans, water pumps,	1
IND	Published, enforced	Fair/Good	Not in scope	Separate Batteries legislation for LABs	TV, Refrigerator, AC	2

- E-waste legislation:
- Expected publications in EAC countries in 2019 most probably (RWA + KEN in particular)
- Recycling Infrastructure (excl. collection)
- Fair means:
  - one/few e-waste recyclers available, decent operations (mainly manual disassembly) with no "red flags" Handling of lead-acid batteries fraction still a challenge in all countries
- Good means:
  Some dedicated technologies for de-pollution or treatment available (CRT cutter, Degassing for CFC, cable strippers,...)



## Types of electronics





## WEEE flows & priority setting





Policymakers / legislation focus Business focus

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Category	Weight / size	Environmental /health	Material value
1. Cooling & Freezing (CFCs)	High	High	Medium
2. Screen	High	High	Medium
3. Lamps (with mercury)	Low	High	Low
4. Large household appliances	High	Low	Medium / High
5. Small household appliances	Medium	Low	Medium
6. IT and Consumer Equipment	Medium	High	High
7. Solar (Grid/Off-Grid)	High/Low	Medium	Low



## Why E-waste Management policy?

- Market penetration of electronic products is increasing worldwide
- Products are not lasting forever: sooner or later become waste (e-waste)
- 3 pillars characterize e-waste management:

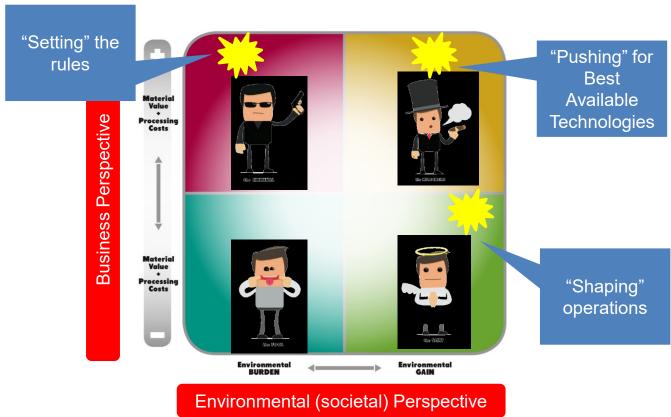
Massive use of key metals & scarce/critical materials Environmental & health concerns if not properly managed

Growing number of "employees" given profits in recycling sector

Self-regulation(s) & revenues from treatment not always lead to desired societal benefits



## Where & why standards, rules & financing?





## Type of responsibilities

#### Financial

- Pay for operations
   "first mile" collection, transport, treatment,...
- Pay for supporting activities
   e.g. enforcement, awareness, R&D, auditing,...

**Political decision** to define boundaries of activities to be financed

#### Organizational

- Organize & monitor operations Contract dedicated partners
- Carry out operations
   "own" recycling infrastructures: collection points, cages/bins/containers, recycling plant

Strategic decision/legal boundaries to define best strategy

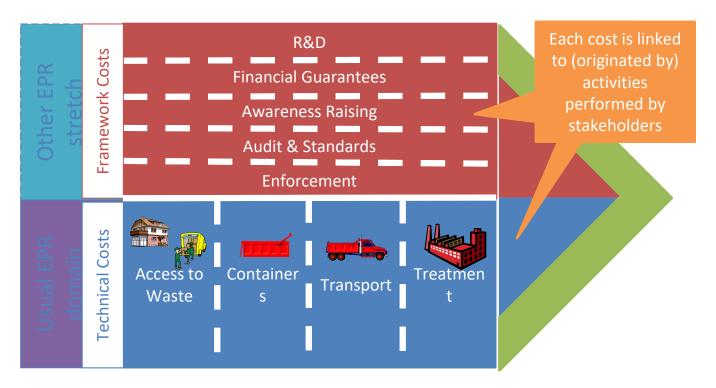


## WHO is really paying for "waste" management

- Three options existing:
  - 1 Tax-payers
  - 2 Consumers (or waste holders)
  - 3 Producers (EPR)
- No matter "who" is paying cost-effectiveness is a paramount:
  - ① Minimize taxes = Society happy (votes)
  - ② Low costs = consumers happy (growing economy)
  - ③ EPR = increase price (☺) or decrease margins (risk for SMEs & markets)



#### What does EPR means in practice?





## Is there an unique way for finance?

- Difference financing models exist:
- EU WEEE Directive (EPR: Financial + Organizational)
- California (consumers pay upon purchase
- Japan (consumers pay upon disposal)

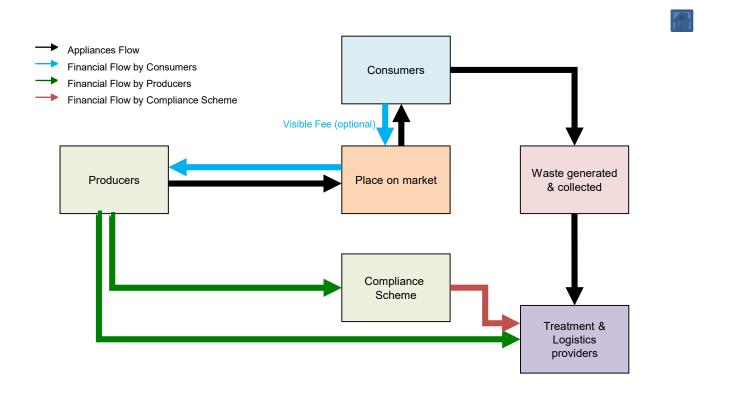
No matter the model, money raised should be 100% transferred to finance technical and framework costs

How much time do we need to kick-start a system? 2 to 3 years if we have strong commitment

**Optimization will NEVER stop** 

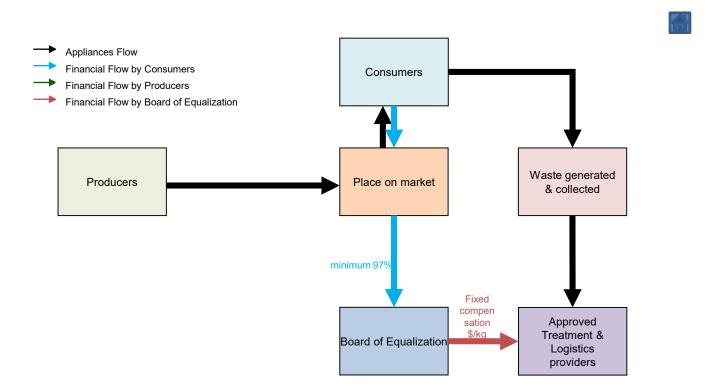


#### **EU WEEE Directive**



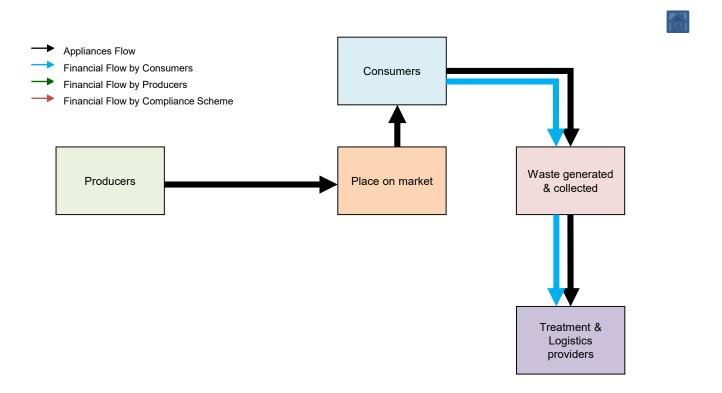


#### California



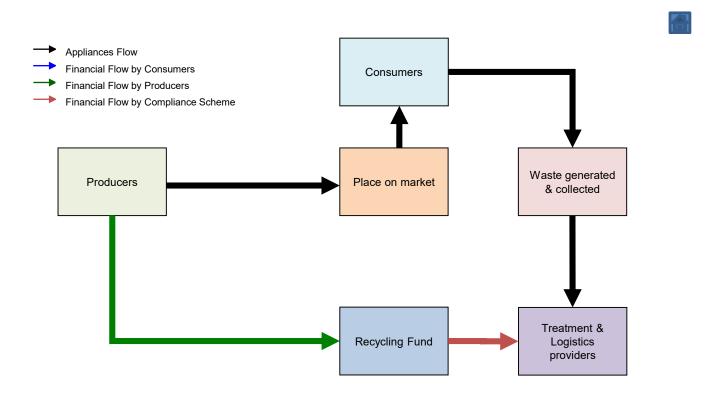


## Japan



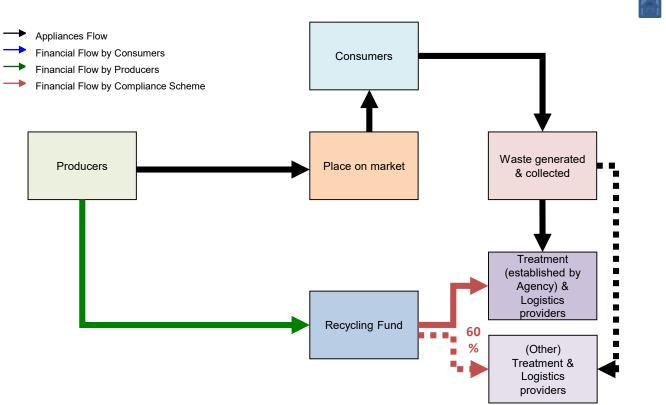


## China





#### Ghana





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#### **NEXT STEPS**



- Seminar recording and slides on the GOGLA website – next week
- Briefing Note Module 3 coming soon
- Briefing Note Module 4 materials or resources you'd like to share can be sent to j.martinez@gogla.org
- Module 5 seminar on take-back mechanisms is set to happen in September. Get in touch if you have a story to tell!



#### E-waste festival update





- Highlights: 55 participants across 3 days, 8
   projects will be funded by Global LEAP to carry
   out pilots for better e-waste management
   across seven countries and tons of
   collaboration.
- Summary report: out next week (if you attended the festival and haven't provided feedback, you can still do it).
- Materials from the festival (presentations) are available on the GOGLA website:

https://www.gogla.org/e-waste/e-waste-festival



E-WAIST AN EXPANDING OF THE WAISTLINE DUE TO PROLONGED PERIODS SITTING IN FRONT OF A COMPUTER MONITOR.

