



# Business models in the recycling sector

Experiences from GIZ projects

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Coordinate • Collaborate • Co-create











Supported by









## Content





- Introduction and service offer GIZ
- Quantification tools
- Circular solutions
- Experienced Business models
- Additional information

# Service offer GIZ





- regulatory, financial and trade policy frameworks
- Funds to promote CE innovations
- Integration CE measures into their NDČ
- Strategic planning, management and logistical systems
- Circular public procurement

Advising public partners • Innovative, resource-conserving and circular technologies and processes

- Development new CE business models
- Accelerate knowledge transfer and ecological innovations
- Inclusion of sector informal

Advising private sector stakeholders

Establishing cooperation systems and transparency mechanism

Raising public awareness and behaviour change

- •Incentive schemes for commerce and users
- Mainstream sustainable consumption patterns
- •Information campaigns and educational offers

Cooperation models

- · Support dialogues between governmental, social and private actors to increase acceptance
- Transparency in supply chains and enable product tracking

# Quantification tools





Waste Flow Diagramm (WFD)

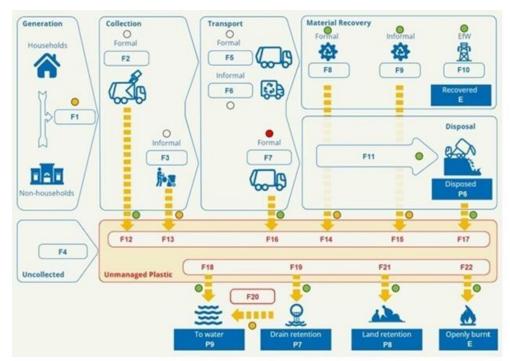


Figure: WFD System Map for Municipal Solid Waste and Plastic Flows

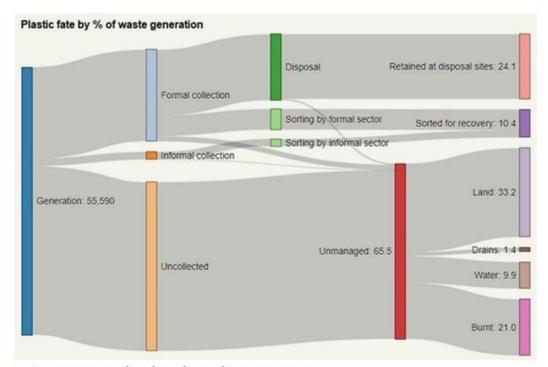


Figure: Standardised Sankey Diagram

# Quantification tools – Environmental impacts





# **SWM-GHG Calculator (2023)** – Life Cycle Assessment approach

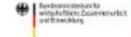






Tool for calculating Greenhouse Gases (GHG) in Solid Waste Management (SWM)

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### **SUP – LCA Calculator**



#### **Environmental Impact Categories:**

- Climate change (GHG)
- Energy demand
- Water related impacts

# Circular Solution Finder





	Solutions Finder				Select your topic
		PLASTICS/PACKAGING	E-WASTE	ORGANICS	GENERAL
	Funding Gap	→ EPR/Global Action Partnership for EPR  → Iransition Financing: Plastic Credits	→ <u>Iransition Financing:</u> E-Waste Compensation		→ <u>Study: Financing the</u> <u>Circular Economy</u>
Data Gap	Data Gap	Waste Flow Diagram     Corporate Plastic Waste Disclosure     Life Cycle Assessments of Single-Use Plastic Alternatives		→ <u>GHG Calculator</u>	
Behaviour Gap	Capacity/ Awareness Gap	Behaviour-Centred Design      Learnings from Awareness     Raising Projects      Building Capacities at the Organisational     and Business Level	→ Behaviour-Centred Design     → E-Waste Academy for Managers     → Irainings on E-Waste Plastics and Battery Recycling	→ <u>Behaviour-Centred Design</u>	→ <u>Building Capacities at the</u> <u>Academic Level</u>
Techn. Gap Upstream	Technical Gap: Upstream Solutions	Circular and Sustainable     Packaging Design      Promoting Reuse Models and     Alternative Materials	→ Reuse, Repair and Refurbishment of Electrical and Electronic Equipment	→ Circular Economy & Climate: CE-smart NDCs	
Techn. Gap Downstream	Technical Gap: Downstream Solutions	Plastic Waste Collection     Strengthening Informal Waste Workers     Reducing Marine Litter     Waste-to-Energy Options and     Co-Processing	→ Treatment Solutions and Innovative Finance Models for Problematic E-Waste Fractions → Improving the PIC Procedure for Transboundary E-Waste Movement	→ <u>Guideline for Organic Waste</u> <u>Treatment in East Africa</u>	→ <u>Digital Tools to Support</u> <u>Circular Solutions</u>
Colaboration Gap	Collaboration Gap	→ <u>Plastics Working Group</u>	→ E-Waste Working Group (with StEP)	→ <u>Organic Waste Working Group</u>	→ PREVENT Waste Alliance as a Multi-Stakeholder-Partnership





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Experienced business models



## Categories





Plastic and packaging

**E-Waste** 

**Organic** 

General

**Less Plastic Guide – tourism** 













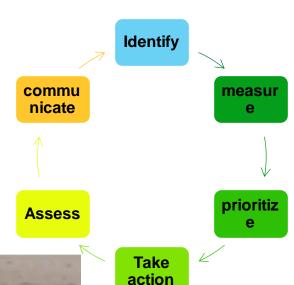
## Plastic and packaging





#### **Less Plastic Guide – tourism**









### Vytal – reusable system

- Online platform based reverse logistic system to reduce plastic waste in public and enterprises Col and DR.
- Multi use containers for food and beverages for free (in registered shops).











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#### E-Waste



- Refurbishment electric vehicle batteries in converting in stationary energy back up in Colombia.
- Include reverse logistic programs to 15/32 states.
- Dx batteries: second life or recovery.
- Implementation of battery management systems to decentralized solar energy systems.





- Remanufacture "pre-loved" IT equipment.
- E-waste collection and evaluation:
  - Adaptation and integration in robotic building kits for kids
  - Repair of IT equipment and sold to Brand
- New jobs creation.
- Access to technology through an affordable warranted option.

**Business Plan Calculation Tool** 

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#### General



- connect global corporate finance with ambitious and scalable local projects to support and accelerate circular waste management action.
- better access to a variety of flexible financial solution.
- facilitate partnerships and intersectoral cooperation.
- provide more data about informal regional WM and recycling potential.



- world's first multi-material global waste management app.
- free app brings together solid waste producers, collectors and recyclers.
- download for free and start trading recyclable materials today.
- enabled for all countries
- offered languages: Arabic, Bahasa, English, Portuguese, Spanish & Vietnamese.



## **Contact Details**

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