

**Successful PPPs in the recycling sector in low-
and middle-income countries:
10 things you need to know about recycling
before beginning.**

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based in part on the author's PhD defence presentation "Value Added"

Recycling: puzzle or promise?

Why are PPPs in recycling considered to be:

- ❖ **a strong example of environmental progress in Australia, Japan, Europe, North America, but**
- ❖ **a source of global conflict, competition for recyclable resources, and economic struggle with informal recyclers in low- and middle-income countries?**

The challenge of sustainable recycling:

Can we identify a PPP framework to organise *valorisation* in , that:

- ❖ gives better results for people, the environment, and the economy?
- ❖ Enables cities to divert 50% of waste from landfill to value chains?
- ❖ Provides jobs and resources for the (circular) economy?

Structure of this Presentation

- 1. 10 things you need to know for PPPs**
- 2. Understanding the system: the power of a *recycling framework***
- 3. Discussion on the questions in the programme**
(and a small commercial announcement)

10 things to know/do to build a PPP (1 of 2)

1. There is always *a system*. It may not look like yours, but it is there and the basis for your PPP.
2. Use a baseline *process* to see the system through the eyes of key stakeholders.
3. Most if not all valuable materials in the local waste stream are already claimed and valorised.
4. Informal or MSE enterprises have a robust earning model or they wouldn't stay in business.
5. If your revenues don't cover your operating costs, you have the wrong technology & PPP partners.

10 things to know/do to build a PPP (2 of 2)

6. The service chain and the value chain are different.
 - a. PPPs in the service chain involve removing waste.
 - b. PPPs in the value chain involve trading valuables.
7. 2% of household income is the max collection price.
8. Collection is *always* profitable BUT won't cover trans-fer or disposal costs.
9. Value chains are private, secret, difficult to enter.
10. Informal recyclers know how to sell recyclables. City officials do not.

Questions about the 10 things?.

If no questions, we go on to Part 2.

Part 2 is about recycling or *valorisation* frameworks.

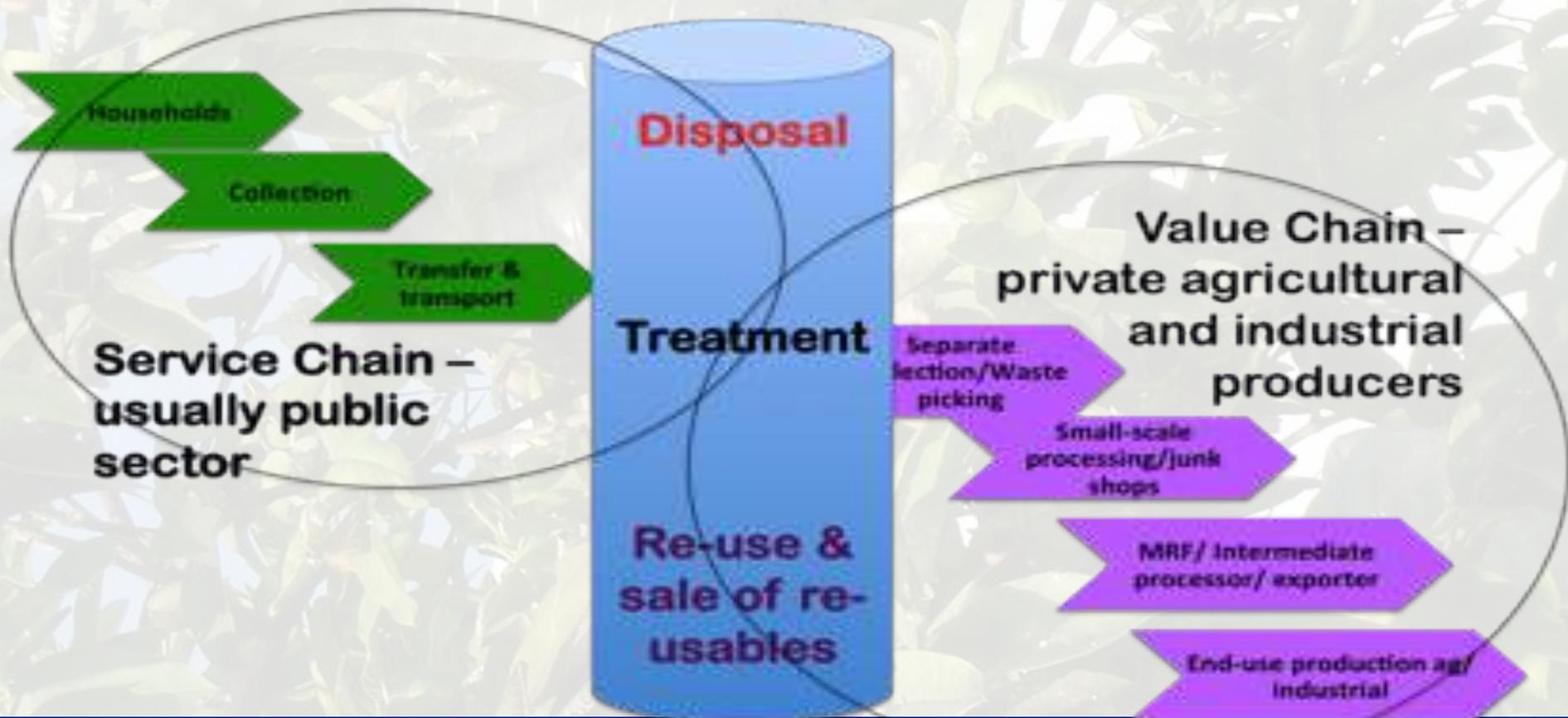
They give you a way of understanding the system as it is, as the basis for your PPP

The power of a valorisation *framework*

1. Organised around a primary driver for removal.
2. Is a visual description of the institutional relations between stakeholders
3. Defines the institutional home, or centre of gravity, for recyclables and organic waste
4. Predicts reactions of stakeholders with roles & relationships essential to the PPP
5. Suggests gaps /potential points of intervention

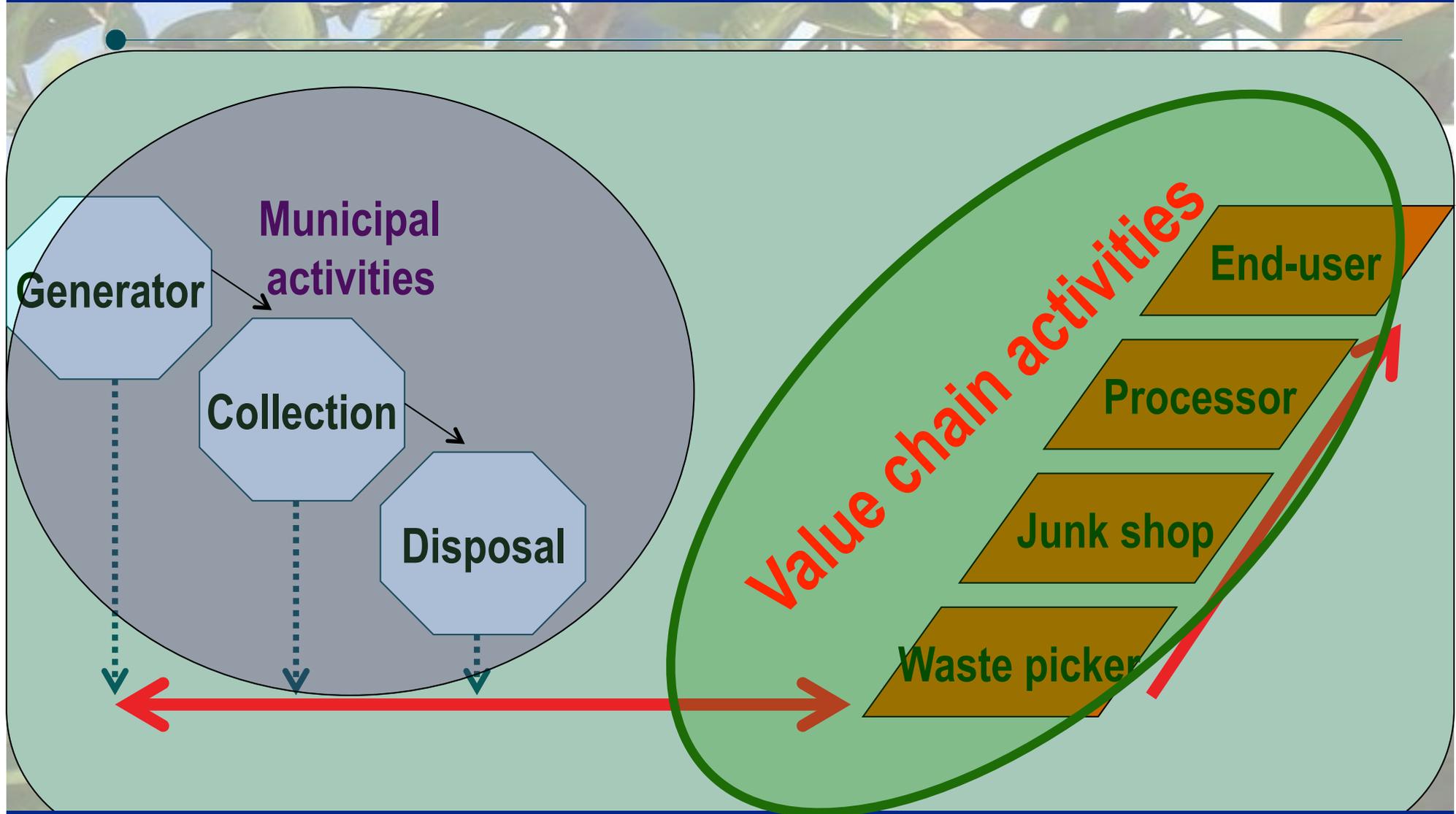
Short Side-Trip: Service chain & value chain

Service Chain and Value Chain Separate but connected



Note: the municipal solid waste and private value chain recycling systems are separate.

Value chain recycling – the default framework

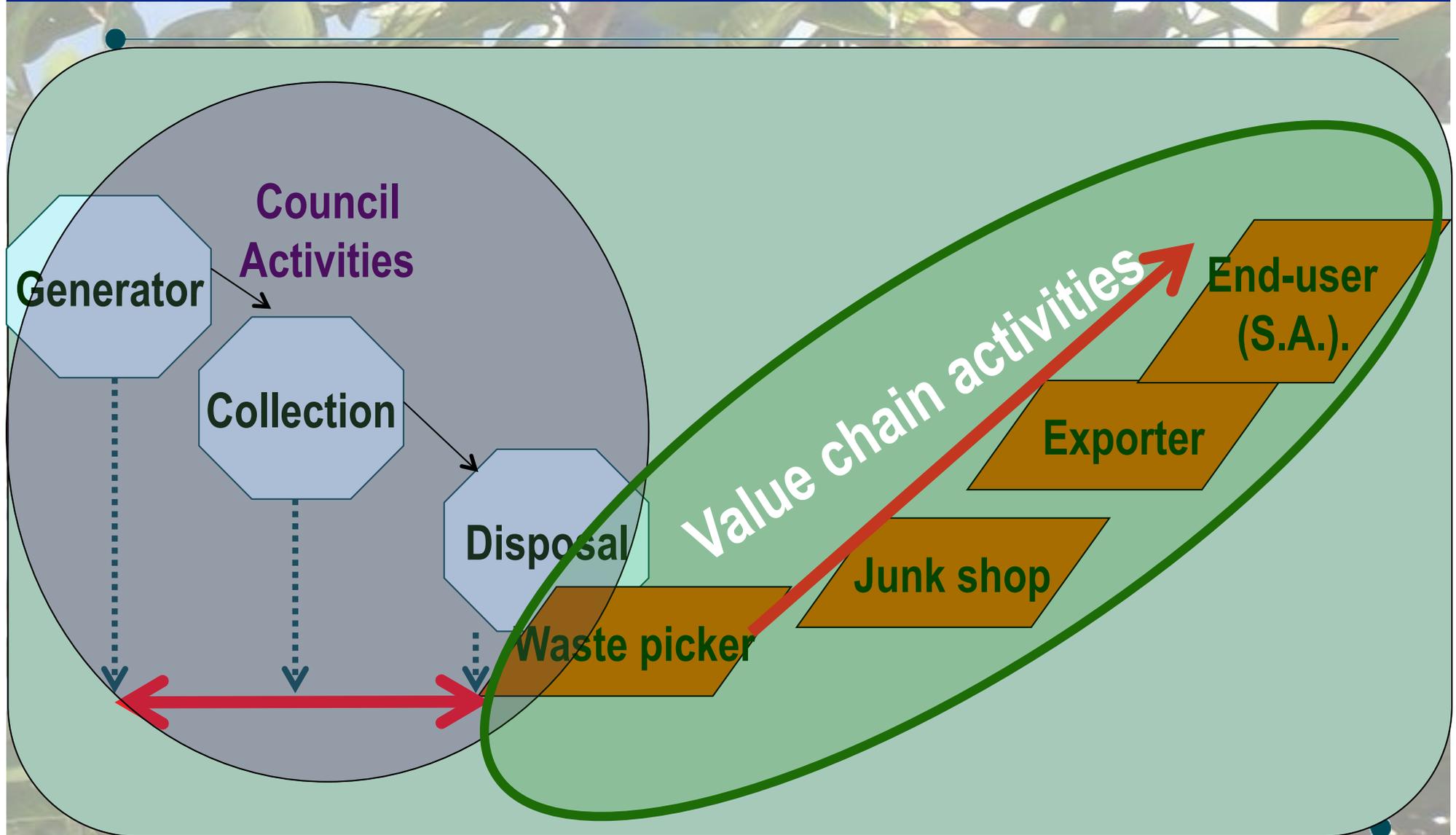


Note: the municipal solid waste and private value chain recycling systems are separate.

What is going on here?

1. The value chain “pulls” the materials for which there is real economic demand.
2. Waste pickers, junk shops, and intermediate processors pass materials along the value chain to the *end-users*.
3. The local authority benefits by having to dispose of fewer materials, but they often don't know it.
4. This is a case of private commercial activities generating *positive environmental externalities*.
5. The tonnages diverted are seldom counted by the local authority and are therefore invisible.

Value chain recycling in Botswana anno 2012



Waste pickers on the landfill sell to authorised, registered, private value chain businesses, who export to SA producers.

What is going on in Botswana?

1. The South African value chain “pulls” the materials for which there is real economic demand.
2. There is a healthy private sector that wants materials.
3. The Councils authorise companies to “place” up to 5 pickers on one of the 14 regional landfills
4. The companies would like more pickers, but trust between public and private sector is underdeveloped.
5. There is clear space for more PPP activity around recycling and diversion of organic waste
6. The tipping fees are too low to drive these, but the markets provide a potential revenue stream.

Framework: Municipal Recycling:

1. Regionalised disposal is necessary, but expensive
2. Public and private landfills charge tipping fees – also to local authorities and for their own waste.
3. Priced disposal creates need for *diversion from disposal*
4. Cities invest in separate collection and marketing expertise.
5. Investment in recycling = environmental/economic benefits
6. Tons diverted *avoid disposal costs* and save City money
7. Recycling revenues partly offset operating costs.
8. Value chains invest over the long term in new end-use
9. capacity to take advantage of larger supply of materials
10. This is the *municipal recycling* virtuous circle

Framework: EPR Recycling in the Netherlands

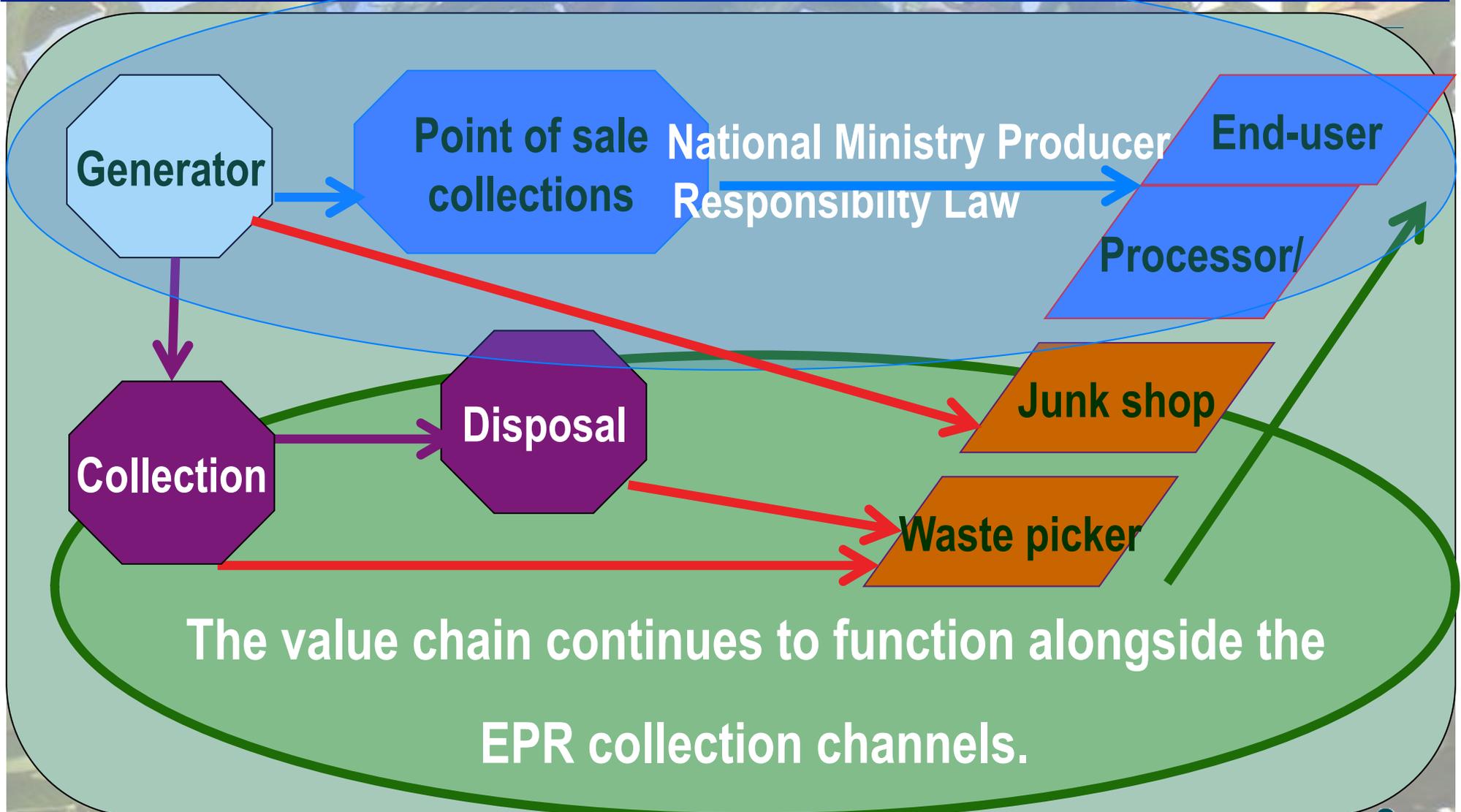


The producer responsibility “covenants” with the national government mediate and absorb value chain relationships.

Framework: EPR Recycling in the Netherlands

1. The national government makes all the decisions.
2. Municipalities charge one integral fee that covers the cost of all activities – composting, recycling, sweeping, disposal.
3. Recyclables and compostables are banned from landfills.
4. The government makes arrangements with producers for end-of life management, recycling, marketing .
5. Local authorities are required by national law to offer source separation of organics and recyclables.
6. The recycling is paid for by EPR point-of-purchase fees.
7. Each tonne valorised saves the local authority money, by allowing more efficient collection and reducing risks.

Framework: EPR in Costa Rica for E-Waste



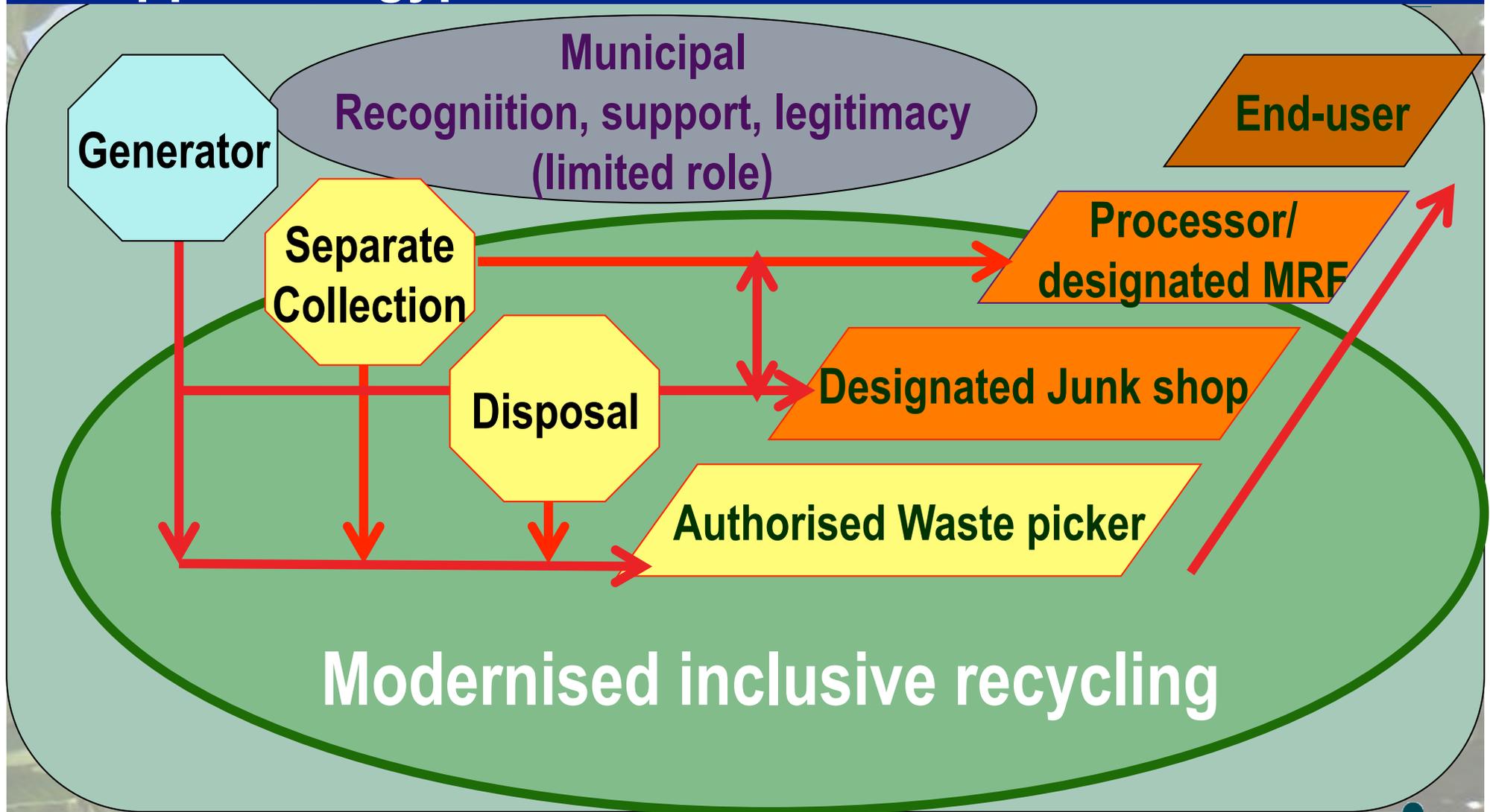
The producer responsibility system creates an entirely new collection system via points of sale, negotiates markets.

Framework: EPR E-Waste Recycling in Costa Rica

1. The EPR decisions are made by a multi-stakeholder “technical committee” with full participation of producers
2. The collection system is voluntary for households and local authorities are free to co-operate with it or not.
3. The E-waste system supports and co-operates with municipal and NGO recycling centres “centros de acopio.”
4. After a 6-year process, the stakeholders convinced the ministries to pass a law.
5. Unlike the Netherlands, value chain recycling and producer responsibility operate side by side .
6. The recycling is paid for by producers directly and through some type of point-of-purchase fees.

7. Each tonne valorised saves the environment

Framework: inclusive recycling – India, Brazil, Philippines, Egypt, other middle-income countries

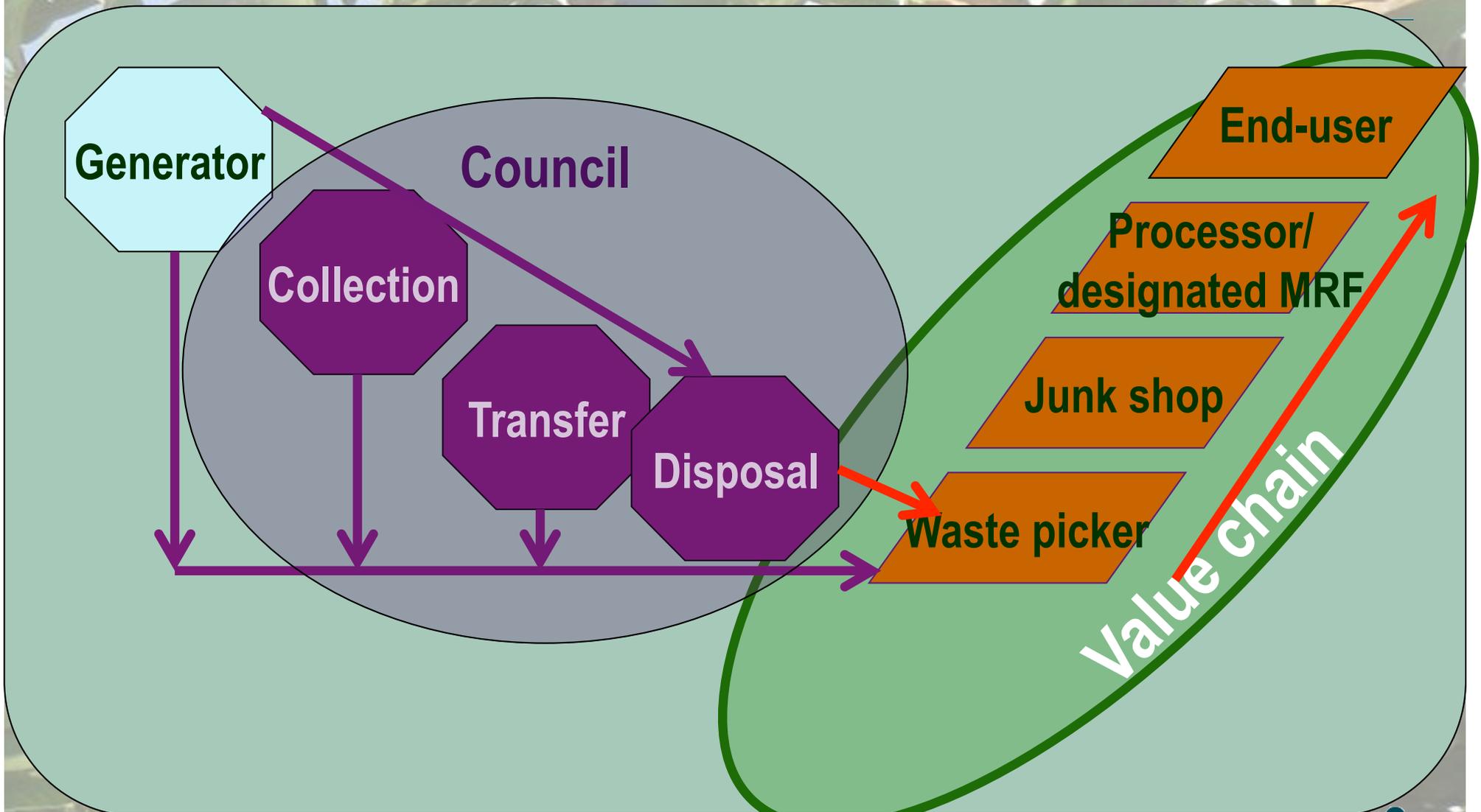


Quezon City, Philippines, achieves 39% diversion this way.

Framework: Inclusive Recycling:

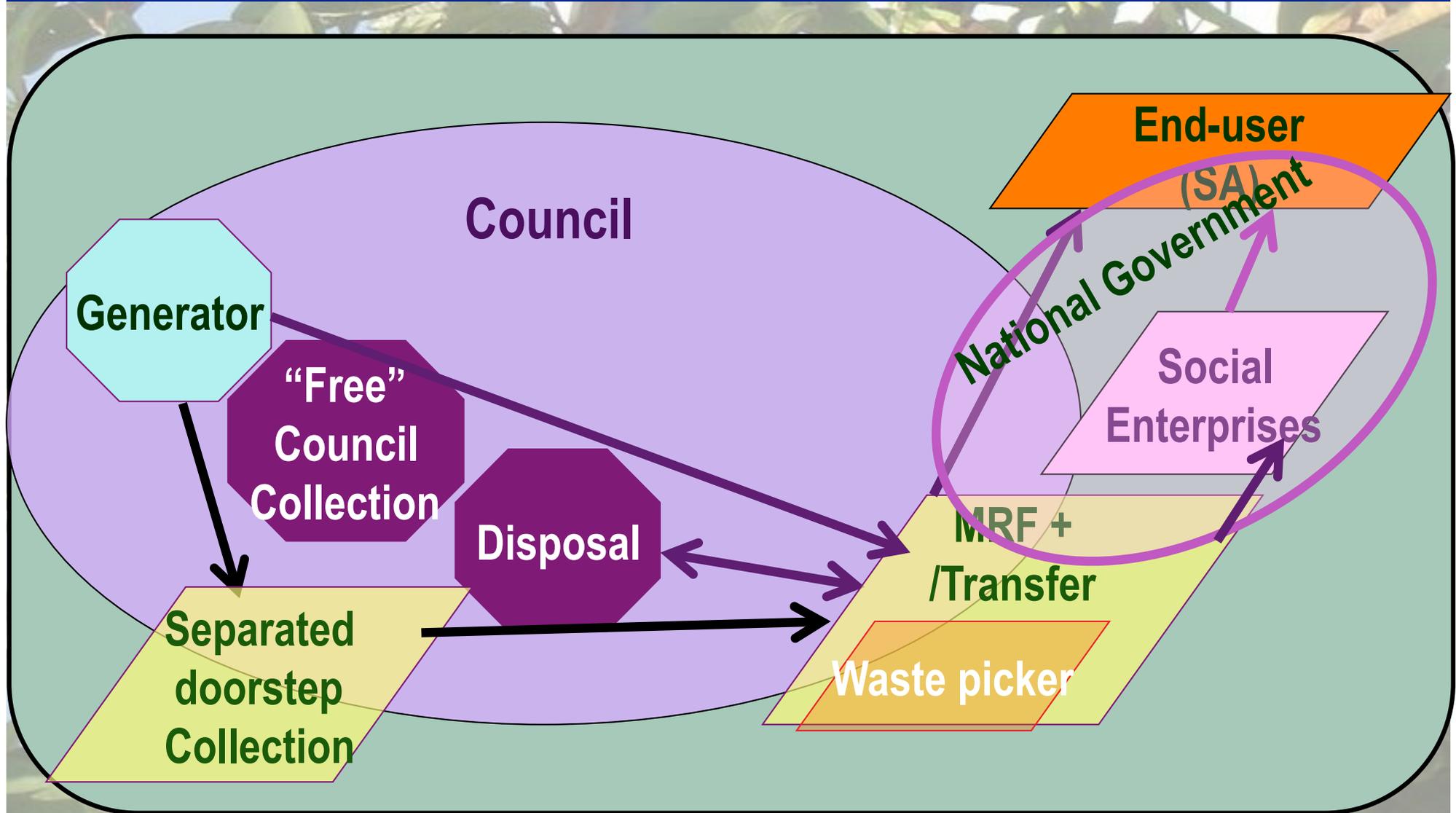
1. Priced disposal isn't (politically) possible
2. Valorisation "centre of gravity" is in the private value chain, without cost to municipalities or government
3. Each tonne valorised saves the *household* money, by avoiding *collection/transport*.
4. Authorities gain positive externalities, benefits in terms of jobs, *environment & governance*
5. Municipality shares responsibility through recognition, insurance, authorisation, support to the value chain.
6. Formal and informal recyclers invest in operations, keep materials revenues, secure livelihoods.
7. The vicious circle is avoided

PPP type 1: Inclusive Recycling



Council continues to manage the waste side, supports the value chain to manage all valorisation and recovery.

PPP type 2: ISWM Recycling



PPPs create MRF/Transfer in the city, staffed by former waste pickers. Private high-level paid separate collection.

A Small PPP Advertisement



In good company
Opportunities for Dutch and European businesses in the global waste sector

Half-day symposium
organized by WASTE and UNESCO-IHE

May 21, 2014, 14:00 – 19:00
Location: UNESCO-IHE,
Westvest 7, Delft

WASTE
Waste and Development

UNESCO-IHE
Institute for Water Education

www.waste.nl www.unesco-ihe.org

Are you looking to expand your business ?

UNESCO-IHE and WASTE can help to identify companies in the waste and recycling sector in low and middle income countries or cities and to help you get in touch with worthwhile businesses.

Registration fee:

Before May 15: €75 pp.

After May 15: € 100 pp.

Students (EU student ID): €25 pp.

Register via www.waste.nl/in-good-company or directly at <http://ingoodcompany.eventzilla.net/>

Or get more information from Ana Deveza: adeveza@waste.nl

We are putting these PPP Ideas into practice in a half-day workshop in the Netherland on May 21. If you will be in the Netherlands, feel invited. If you are a solid waste or recycling specialist from a low- or middle-income country, we invite you to make a 3-minute video message to the businesses assembled there. If either interests you, please see me after the session.

--Thanks

Discussion:

1. What do the private and business sector perceive as the key barriers vis-a-vis enabling conditions in realizing successful partnerships with developing municipalities?
2. Are there successful business models involving European private sector in developing municipalities?
What important lessons they can offer?

Thank-you!

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