

COLLECTORS

WASTE COLLECTION SYSTEMS ASSESSED AND GOOD PRACTICES IDENTIFIED

Webinar, 30 April 2020

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The costs of PPW collection system: A cross-analysis of five European cities

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1. Short introduction on COLLECTORS
2. Five PPW cases
3. CBA methodology and scope
4. Shift in costs
5. Costs and benefits
6. Conclusions on good financial practices



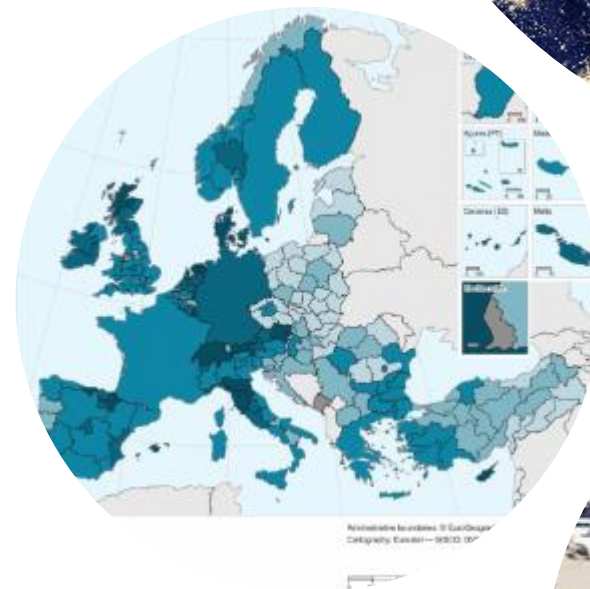
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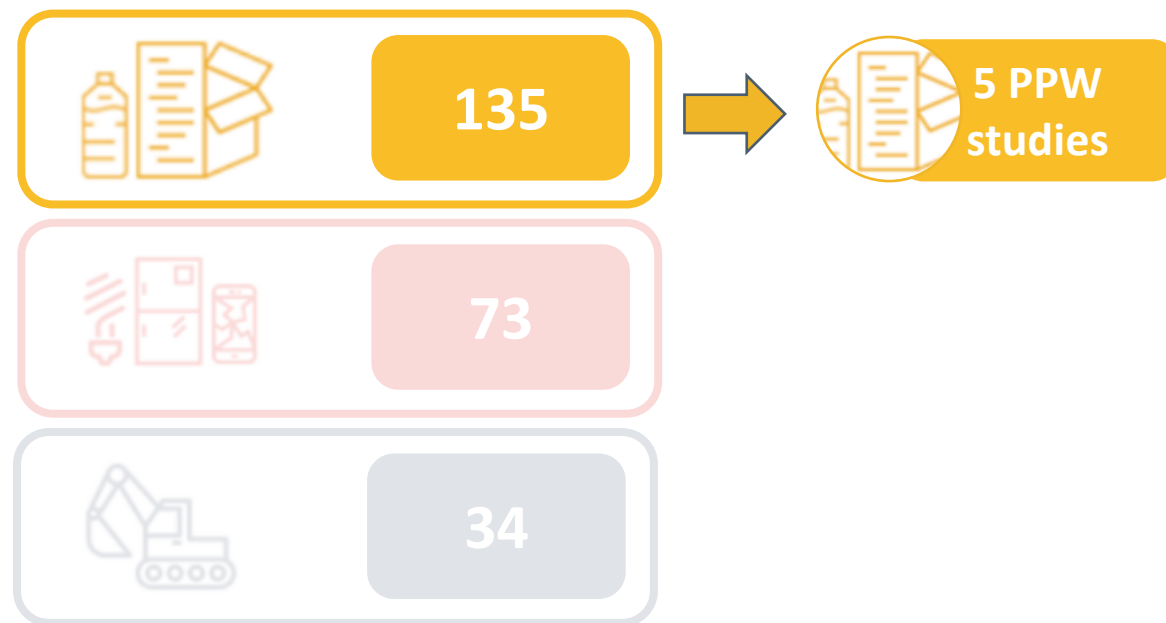
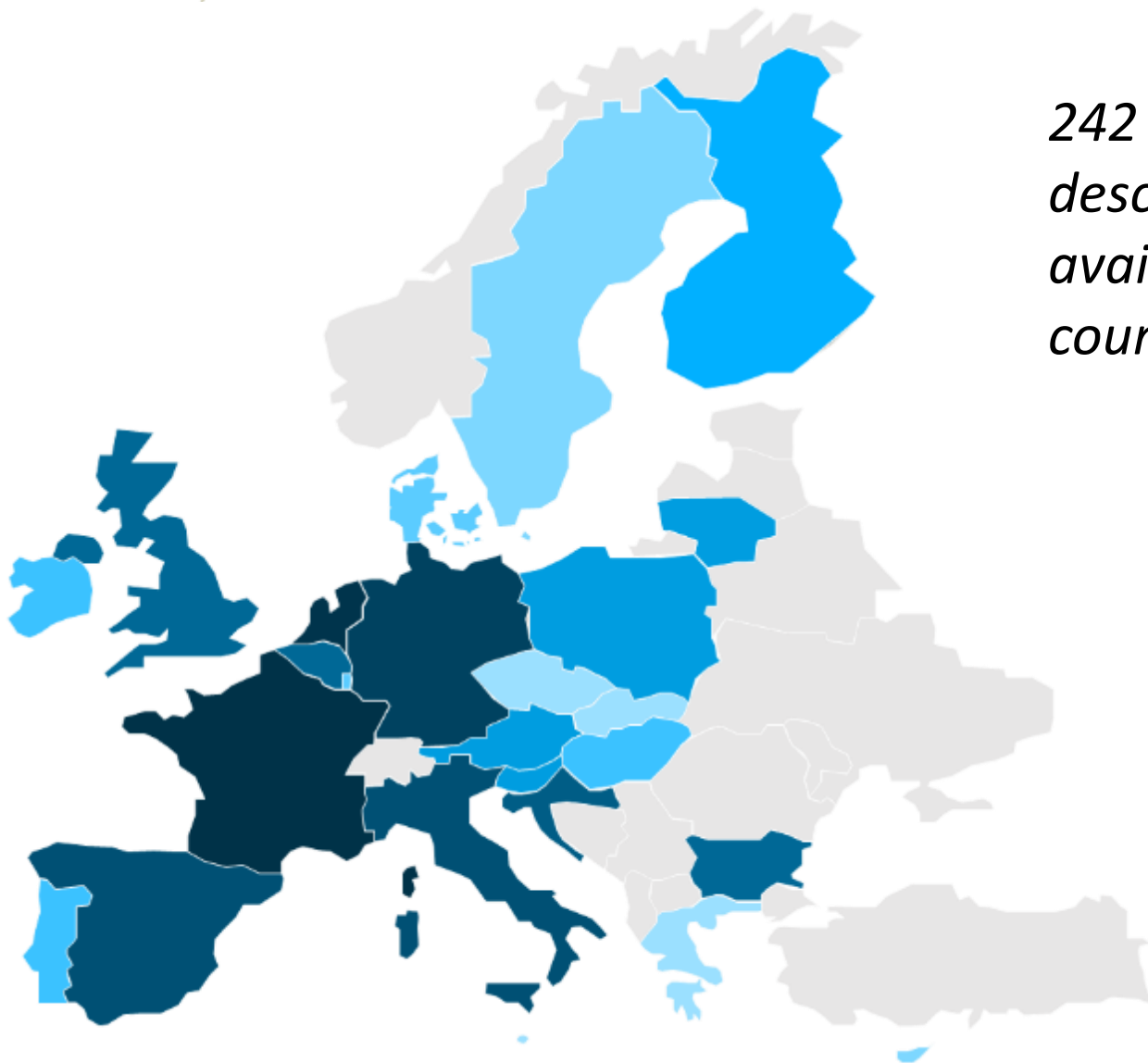


COLLECTORS objective

Identify good practices in waste collection and increase knowledge sharing; to ensure that good performing regions and cities can serve as examples for regions with similar local contexts



242 waste collection systems identified and described on ~30 parameters (depending on available information); covering 25 European countries



Cases	Population [inh]	Population density [inh/km ²]
1. Tubbergen (NL)	21,142	144
2. Gent (BE)	256,262	1,641
3. Rennes (FR)	438,865	617
4. Berlin (DE)	3,537,100	3,965
5. Parma (IT)	196,475	754



Household packaging waste

- Paper and cardboard
- Glass
- Plastics
- Metals
- Drinking cartons

€ Economic assessment

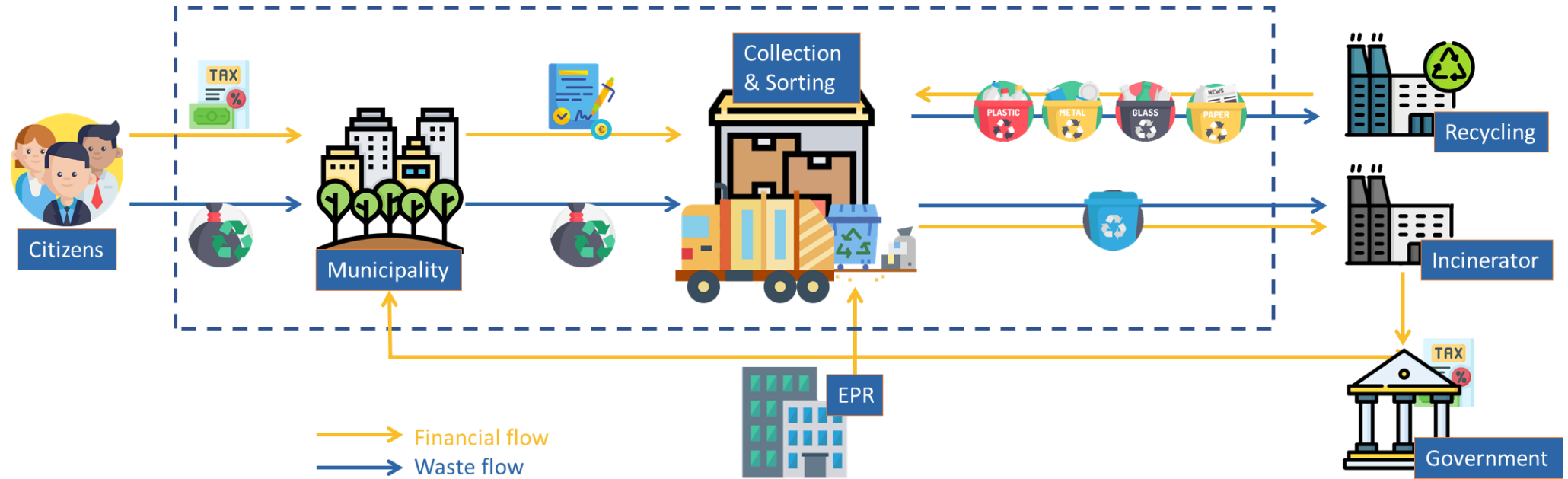
- *Identify relevant actors*
- *Identify financial and material flows*
- *Quantifying costs and benefits (CBA)*
- *Mapping financial incentives and levers*
- *From the municipality point of view*



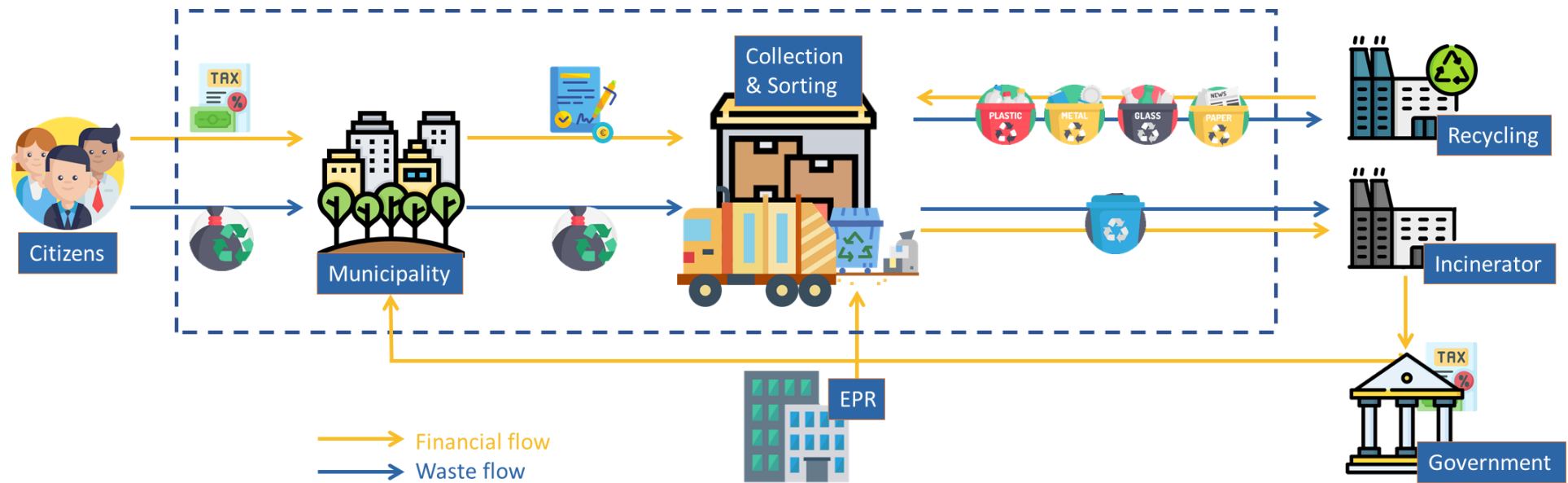
Scope



Scope



Scope



Parameters

- Investment costs (infrastructure, bins, chips,..)
- Operational costs (collection, sorting, street cleaning, taxes)
- Revenues (sold materials, incineration revenues, EPR fees, tax savings, citizens waste fees)

Rationale

Assessment to see if good practices can be achieved by maintaining acceptable fees for citizens.

Achievements PPW

Mapped in detail the effect of shifting from comingled collection to separate collection

Findings:

1. With **dropping volumes**, *residual waste*

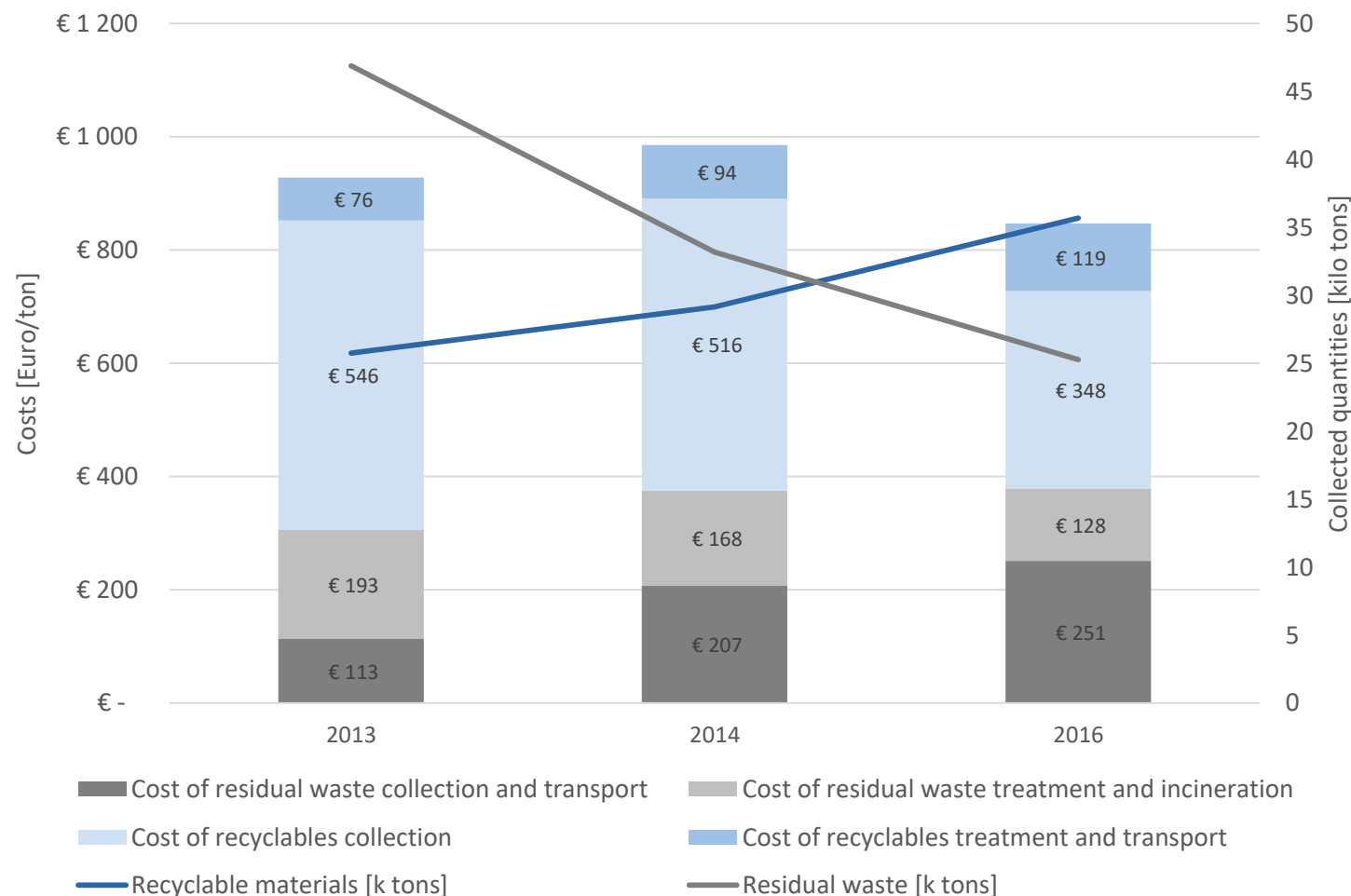
1. collection cost increases
2. treatment cost decreases

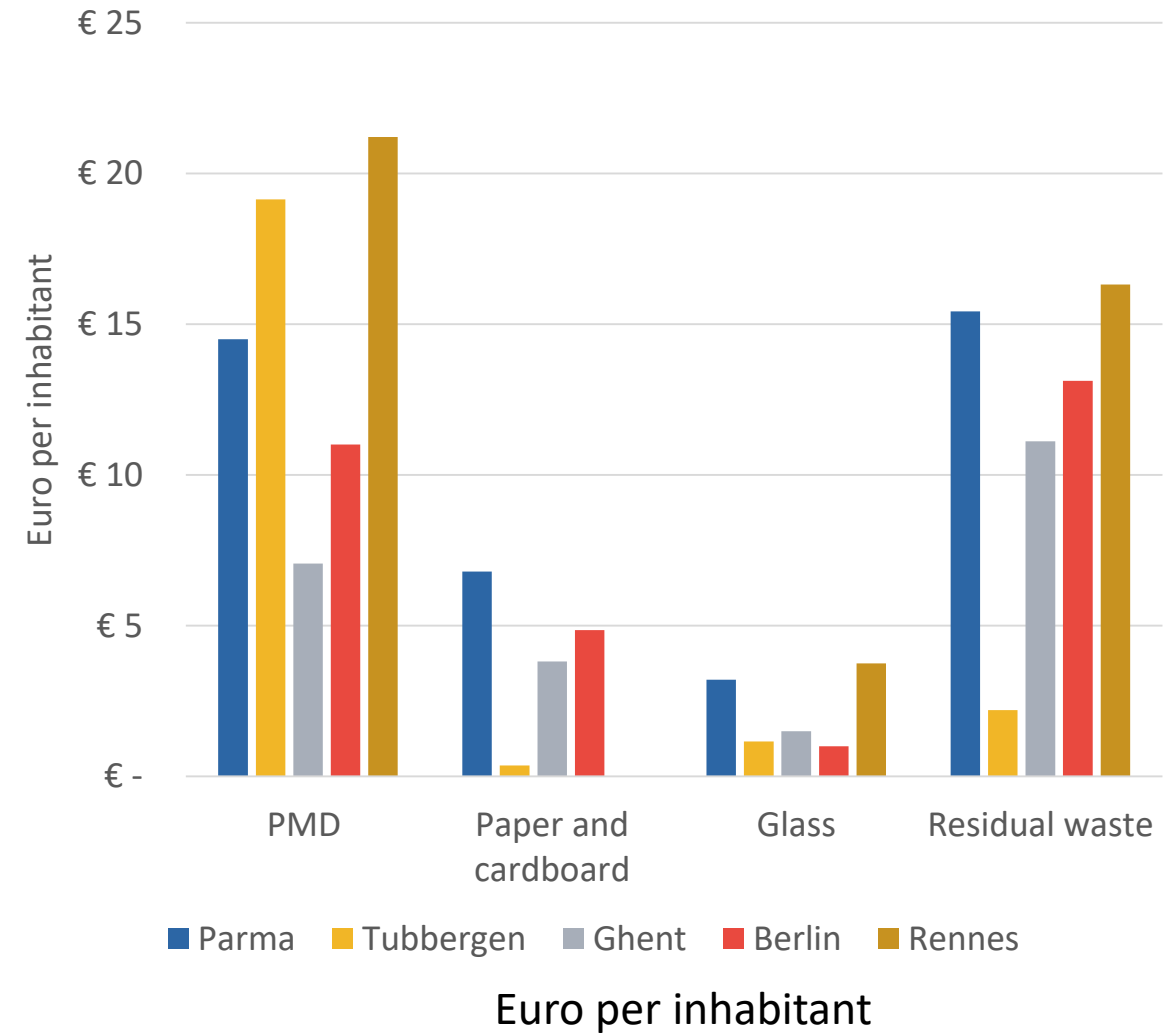
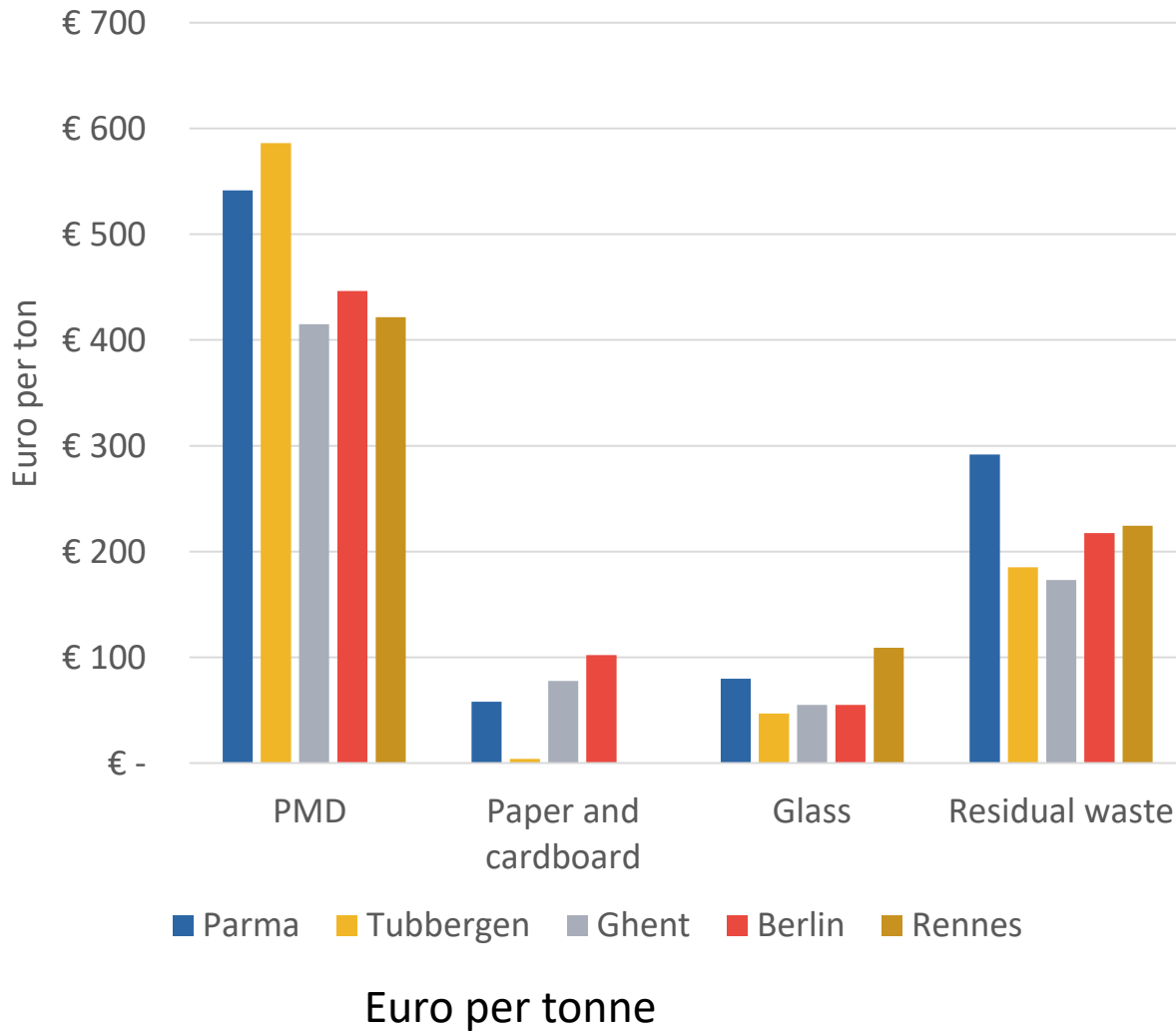
2. With **increasing volumes**, *recyclables*

1. collection cost decreases
2. treatment cost increases

(in EUR/tonne)

Overview of financial shifts in the Parma case





Achievements:

Mapped in detail the relevant costs of the PPW collection system

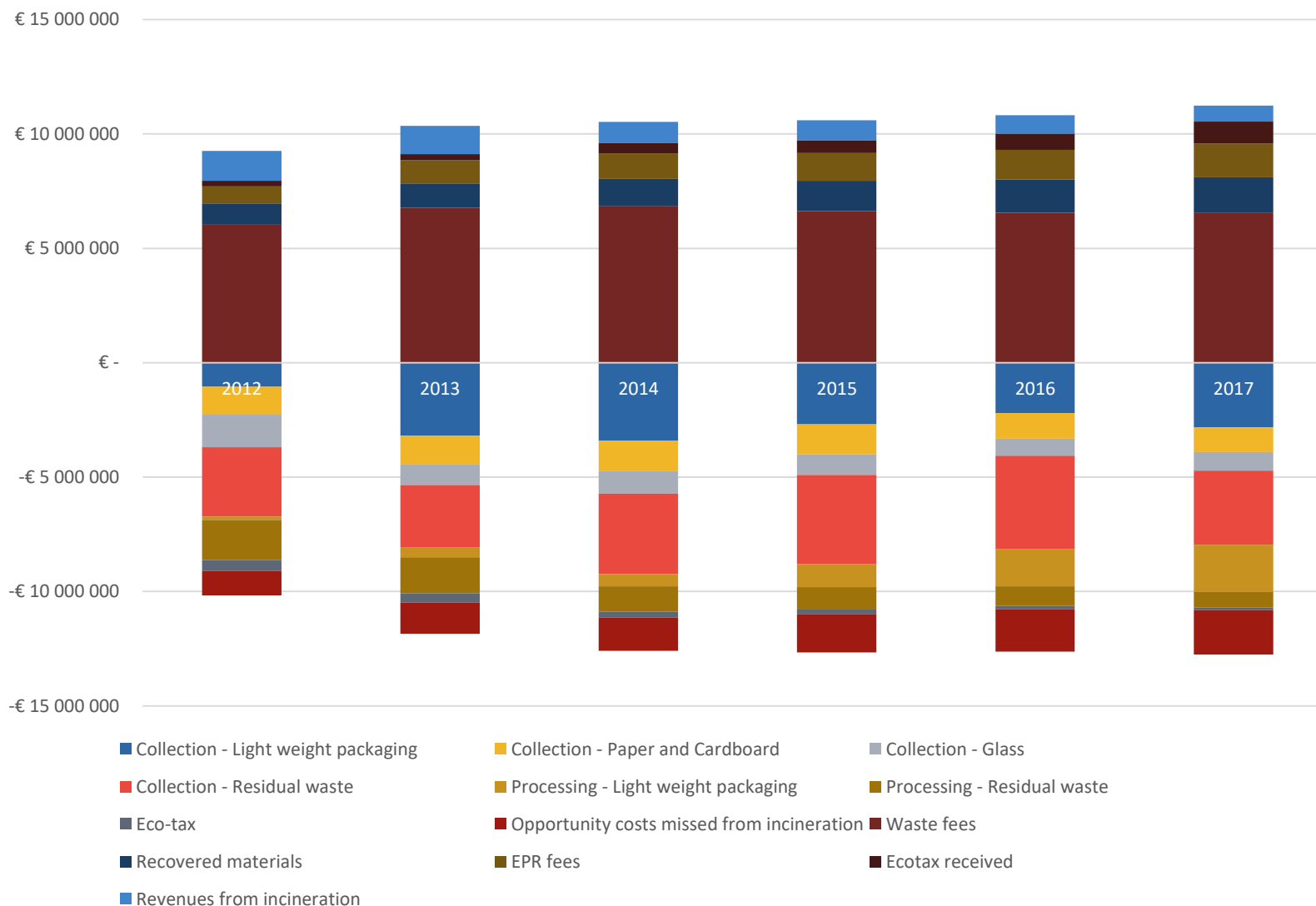
Findings:

- Highest cost: residual waste collection
- Highest revenue: waste fees
- Costs have stabilized despite increasing recycling
- Revenues have increased

➔ Better recycling can be done without net increasing costs!

➔ With acceptable fees for citizens!

Parma – overview of costs and benefits 2012 - 2017

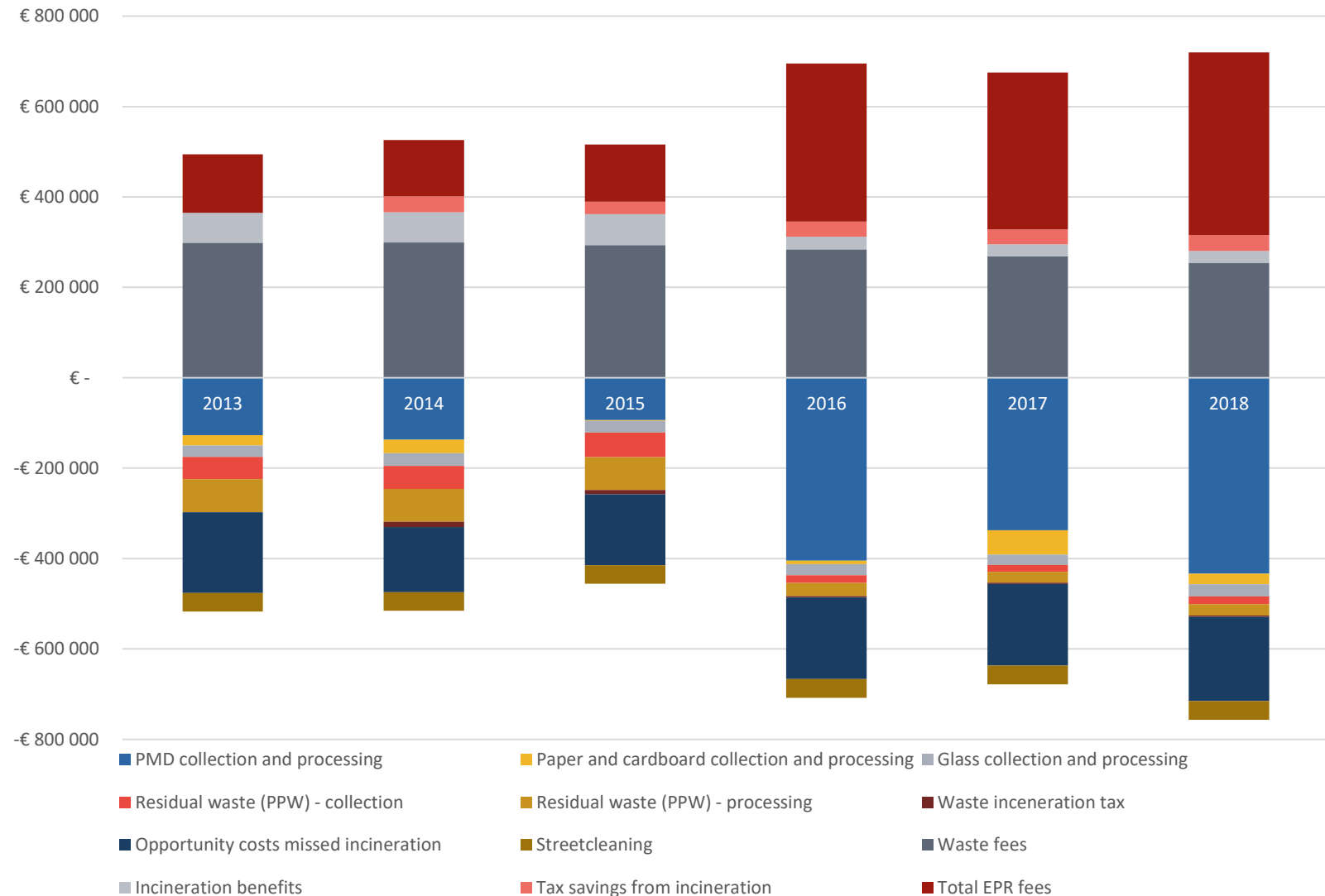


Findings:

- Highest cost: PMD collection
- Highest revenue: waste fees/EPR fee
- Both cost and revenues increase

Similar conclusions for all cases:
Better recycling can be done without net increasing costs and with maintaining acceptable fees for citizens.

Tubbergen - overview of costs and benefits 2013 - 2018



Case	Average waste fee [€/hh]	Waste fee part of total revenues [%]	Trend
Parma	243	54%	Steady
Ghent	61	23%	Steady
Berlin	126	38%	No data
Tubbergen	140	42%	Dropping
Rennes	133	57%	Dropping

Case	EPR fee/ of total revenues [%]
Parma	10 %
Ghent	22 %
Berlin	52 %
Tubbergen	40 %
Rennes	23 %

- Collected quantities and qualities
- Different responsibilities per EPR scheme

Case	Waste fee [%]	Recovered materials [%]	EPR fees [%]	Incineration revenues [%]
Parma	56 → 49	18 → 26	8 → 12	16 → 6
Ghent	26 → 21	30 → 24	15 → 30	26 → 21
Berlin	-	-	47 → 52	14 → 10
Tubbergen	60 → 32	-	26 → 53	13 → 3
Rennes	58 → 55	19 → 18	19 → 25	-

% of total revenues

	Parma	Ghent	Berlin	Tubbergen	Rennes
Landfill ban	X	✓	✓	✓	✓
Landfill tax	✓	✓	X	✓	✓
Incineration tax	✓	✓	X	✓	✓
EPR scheme	✓	✓	✓	✓	✓

1. Would you assume that improving selective collection performances means increasing the cost borne by the municipality and the citizens?

With good practices in place, NO. An increasing share is covered by EPR fees, therefore paid by producers (and indirectly by consumers).

2. Are waste collection systems using PAYT more expensive than waste collection system not using it?

Based on the case studies, the overall operational cost seem to increase, however, the revenues increase accordingly.



OUR CONSORTIUM



Thank you!

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