



WASTE COLLECTION SYSTEMS ASSESSED AND GOOD PRACTICES IDENTIFIED

INTRODUCTION

Malta, 26 September 2018

Tjerk Wardenaar, PhD PNO Consultants



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 776745





• OUR HOST





OUR PROGRAMME

PART I: Experts' points of view (EU projects experiences) *Contributions by Sven Grieger (EARN) & Michele Giavini (A.R.S. Ambiente)*

PART II: Round table

Waste management on islands and remote areas – challenges, solutions? *Contributions by Wasteserv Malta, Ballaeric Islands, Epirus Region*

PART III: Round table

Re-shaping waste management systems to boost performances Contributions by Zagreb, Warsaw, Stavanger, Vilnius

Moderator: Jean-Benoît Bel (ACR+)

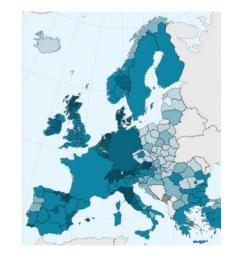




"The COLLECTORS-consortium is convinced that good performing regions and cities have the potential to serve as good practice examples for **regions with similar local contexts**"







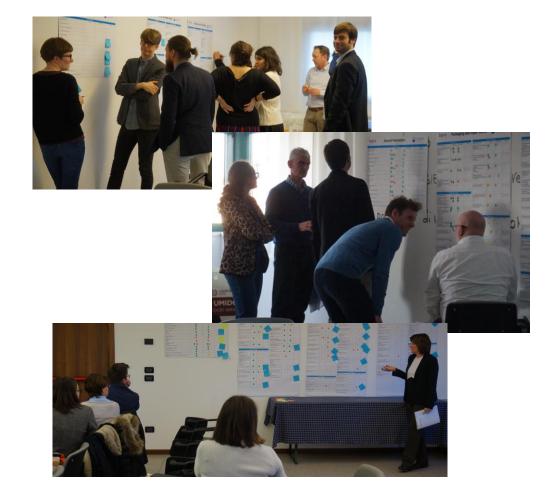




PHASE ONE: INVENTORY OF WASTE COLLECTION SYSTEMS DECEMBER 2017 – OCTOBER 2018







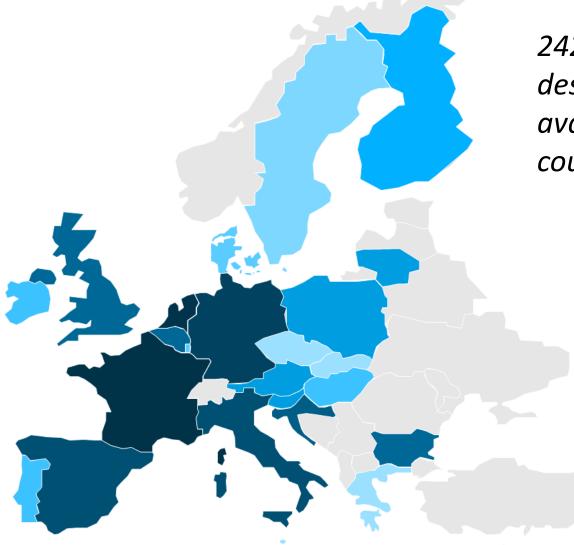
Use the filter option to find sources with specific characteristics: specific language / country / waste stream / author / ...



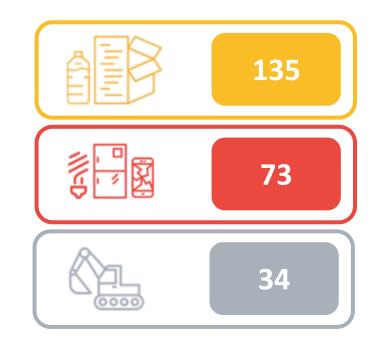
overview of collected sources







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







COLLECTORS webportal making available inventory results with factsheets on individual systems and a document library

4	WASTE CO	LLECTORS JLLCTION SYSTEMS ASSESSED D PRACTICES IDENTIFIED	The Project	Results	Tools	Get Involve	d! News & Events	Library Contac	t Q 🖞
	RISTICS OF	OWN REGION							
Population	100		1.000.000					A CARA	
Density Remote area	1	Waste stream	5.000		Ċ)		Location: Eur, Rome, Italy Facts: population 2.869.0 Type of territory:		4 ab./km²
select	-	select	•				Ver Rer Mo	ry dense city (>5,000 inh/k mote area ountain area astal area	m²)
🕸 PERFORMA	NCE PREFE	RENCES					Available WCS:	istal area	
Cost	0	• •	100				PPW <25%	25-50% above 50	% no data
Environmental	0	••	100			- Shi	Collected qu WEEE National gen	uantities nerated quantities	1.250 tons 10.050 tons
System flexibility	0	• •	100				1	sorted fractions	500
Socio-economic	0	• •	100				ODW Collection of	f asbestos available	2.350 tons
Material recovery	0	• •	100						IORE INFO

EUR, ROME, ITALY					
Population	2.869.322			2-3-3-3-	
Density	2.228,84 ab./km²				
			0	and the second	
Remote area	2.869.322			THE -	
Waste stream	2.228,84 ab./km²				in fr
		ALC: NO			- 5 Z W.S.
DESCRIPTION OF THE WCS					^
	F PAPER ANI	D PACKAGING WASTE			
SCOPE OF MUNICIPAL WASTE:		Su-waste stream	Door to door	Bring bank	Other
Household only Hhld+similar Unclear A	dditional remark	Glass	1		
1		Paper and cardboard		1	
		Composite		1	
RESPONSIBILITY OF COLLECTION:		Plastic			1
Lorem ipsum dolor sit amet, consectetur adipisio tempor incididunt ut labore et dolore magna aliqu	ing elit, sed do eiusmod Ja.	Metal	1		
ADDITIONAL REMARKS REGARDING DESCRIPTI					
Lorem ipsum dolor sit amet, consectetur adipisio tempor incididunt ut labore et dolore magna aliqu					
EXISTENCE OF DEPOSIT:	ana.				
Lorem ipsum dolor sit amet, consectetur adipisio	ing elit, sed do eiusmod				
tempor incididunt ut labore et dolore magna aliqu	J8.				
WASTE FEE: Lorem ipsum dolor sit amet, consectetur adipisio	ing elit, sed do eiusmod				
tempor incididunt ut labore et dolore magna aliqu	Ja.				
	WASTE ELECTRICAL	AND ELECTRONIC EQUIPMEN	٩T		
LOREM IPSUM		Item	Item	Item	Item
	item	Item	nem ✓	item	item
item item item	Rent	Item	•	4	
item item item		Item		4	
					1
		Item			
LOREM IPSUM Lorem ipsum dolor sit amet, consectetur adipisic	ing elit, sed do eiusmod	Item	4		
✓ LOREM IPSUM	ing elit, sed do eiusmod Ja.		4		

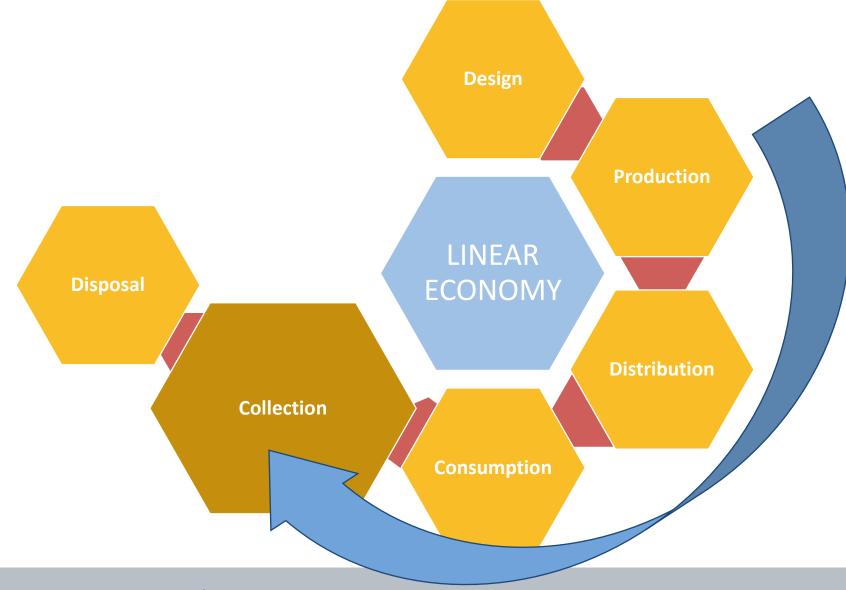




PHASE TWO: ASSESSMENT OF WASTE COLLECTION SYSTEMS OCTOBER 2018 – SEPTEMBER 2019

Waste collection in a linear economy

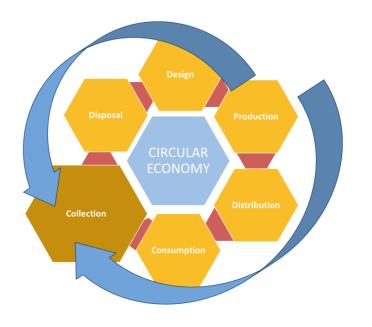




Waste push dominates the waste collection process, thus focus on quantities and efficiency.



Waste collection in a circular economy is Collectors



Assessment of performances on:

- Material quality for recycling
- Societal acceptance (citizens)
- Economic performance (CBA)
- Environmental performance (LCA)

Identification of complementarities, trade-offs, and opportunities.





PHASE THREE: IMPLEMENTATION SUPPORT OF WASTE COLLECTION SYSTEMS SEPTEMBER 2019 – JUNE 2020





"The amount of materials recovered by theoretical waste collection systems is rather low"

- Development of generalized criteria to support authorities and PROs
- Formulation of guidelines and recommendations for successful implementation of better-performing systems
- Webinars and capacity building on technical and operational aspects





Thank you!

Tjerk Wardenaar PNO Consultants tjerk.wardenaar@pnoconsultants.com

For more info about the project visit the COLLECTORS website at www.collectors2020.eu

The sole responsibility of this publication lies with the author. The European Union is not responsible for any use that may be made of the information contained therein.