

# Zero Waste Live!

17 March 2020 - 02.00 p.m. CET



## DECENTRALISED MANAGEMENT OF ORGANIC WASTE



**Pierre Condamine**

Waste Policy Officer at Zero Waste Europe



#ZeroWasteCities  
#ZeroWaste

[www.zerowasteurope.eu](http://www.zerowasteurope.eu)

# Zero Waste and decentralised composting

An overview of best practices across Europe

March 17h 2020 – Pierre Condamine – Zero Waste Live! - Decentralised management of organic waste

# The Zero Waste Cities approach

A continuous effort to phase out waste  
– not by burning or landfilling it – but instead  
by creating and implementing systems that do  
not generate waste in the first place.

↓  
**TRADITIONAL  
WASTE MANAGEMENT**



**Centralised**



**Capital-intensive**



**Burns or landfills waste**



**Locks in waste generation**

**VS.**

**ZERO WASTE**



**Decentralised**



**Creates jobs**



**Identifies and reduces waste**



**Enables waste reduction policies**

# The key role of biowaste in a zero waste strategy

- Essential to reach the recycling targets (30-40% of generated municipal solid waste)
- Positive impacts on the waste collection system
  - Less collection rounds
  - Cost-optimisation
  - Increase quality of source separation for other waste stream

**An efficient biowaste management will improve the whole system**

# Decentralised composting is now recycling

- “The amount of municipal bio-waste separated and recycled at source determined pursuant to paragraph 3 shall be included both in the amount of municipal waste recycled and in the total amount of municipal waste generated.” (COMMISSION IMPLEMENTING DECISION (EU) 2019/1004)
- Specific calculation method. Simplified in case biowaste recycled at source accounts for less than 5% nationally.

# Benefits for cities



Less litter  
Less waste to manage  
Less residuals



Reduced expenses for the city  
Reduced fees for citizens  
Less environmental impact

More social integration  
More social innovation  
Compliance with EU law  
More local jobs  
Money stays in the community



# Overview of three good practices in Europe

- Provincia de Pontevedra, Spain:
  - *Revitaliza* project started 4 years ago
  - Public project led by the regional council
  - Around 600,000 inhabitants



# Overview of three good practices in Europe

- Brussels region, Belgium:
  - Community composting network led by citizens
  - Monitored by the NGO “Worms” created in 2008
  - 1,2 millions inhabitants

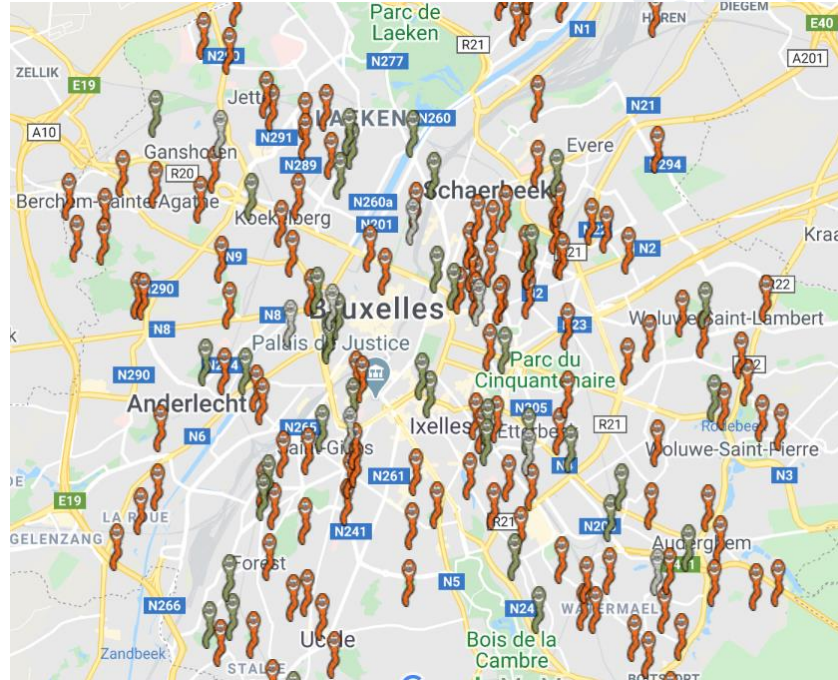
# Overview of three good practices in Europe

- Besançon, France:
  - Decision in 2008 not to rebuild to old incinerator
  - Led by SYBERT, local waste management union
  - Covers 225,000 inhabitants

# Decentralised?

- Brussels region:

More than 160  
community  
compost sites in  
Brussels in 2018



# Decentralised?

- Pontevedra:

Type of area	Scattered	Less than 100 people	Between 100 and 1000 people	More than 1000 people	Total
Number of inhabitants living in that type of area	209 918	69 175	197 732	484.179	961.004
% of the global population living in that type of area	21.80	7.20	20.60	50.40	100
Number of inhabitants per area	12,00	47,30	252.90	7.226,60	7.538,80
Number of areas	17.493	1.462	782	67	19.804

Type of composting option	Quantity	Number of Inhabitants	%
<u>Individual composting</u>	<b><u>92.012</u></b>	363.524	<b><u>37.83</u></b>
<u>Community composting</u>	<b><u>2.896</u></b>	367.852	<b><u>38.28</u></b>
Composting plant	6	172.402	23.14
Other		7.251	0.75
<b>Total</b>		<b>911.029</b>	<b>100.00</b>

# Decentralised?

- Besançon:

In 2016, **70% of the population** had access to a composting option

	Inhabitants	Inhabitants with access to local composting service		Inhabitants using the service	
Garden composting	118 900	118 900	100 %	97 498	82 %
Worm composting	106 100	557	34%	557	29 %
Composting sites		22 180		8 672	
Composting sheds		13 200		1 500	
Drum composting		500		75	
<b>TOTAL</b>	<b>225 000</b>	<b>155 337</b>	<b>69 %</b>	<b>108 302</b>	<b>70 %</b>

# Decentralised?

## 4 different composting tools for different areas:

1. Composting sheds for **densely populated areas:**



2. Rotary drum composting machine for **hostel:**



3. Local composting facility for **apartment blocks:**



4. Individual compost bins or worms composter for **individual houses:**



# Community-based?

- **Pontevedra:**

- 20 master composters trained each year
- Went from 2 employees in 2015 to 44 in 2019

- **Brussels:**

- Community composting sites are managed by citizens
- Master composter training every year. Part of a network of 220 master composters available in Brussels.

# Positive impacts on waste management?

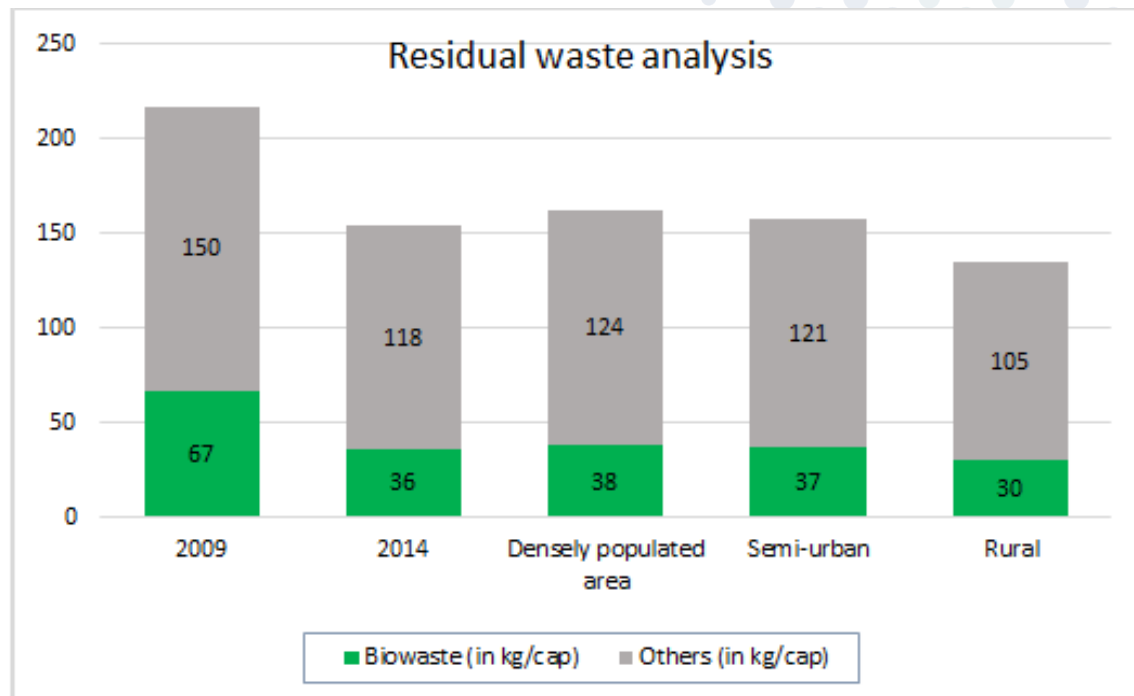
- **Besançon:**

From (2008):

- Total waste: **531 kg/cap**
- Recycling rate: **39.5%**

To (2017):

- Total waste: **464 kg/cap**
- Recycling rate: **58%**





# Positive impacts on waste management?

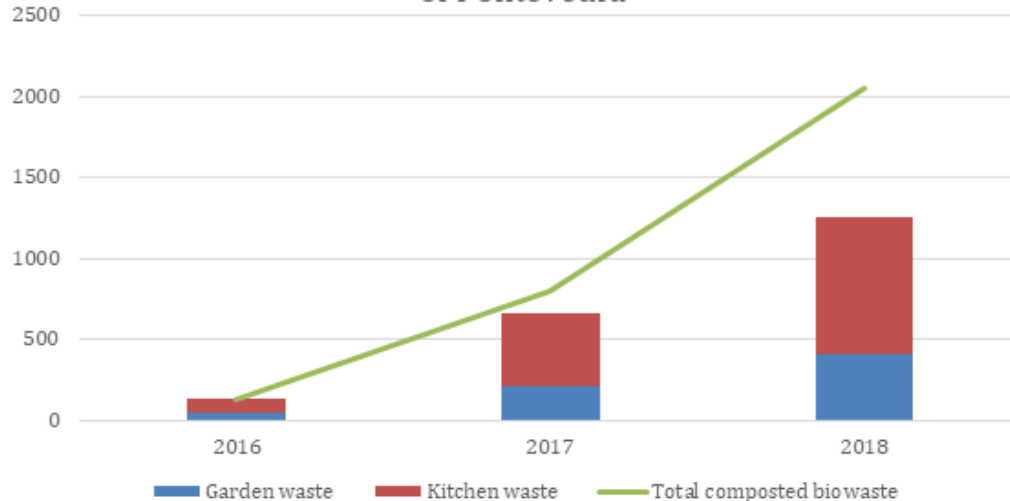
- Pontevedra:

*La Voz de Galicia*

PONTEVEDRA

Pontevedra ha mejorado en un 37 % el reciclaje con el plan de compostaje

Composted biowaste per year, in tonnes for the province of Pontevedra



# Cost-optimisation?

- Besançon:

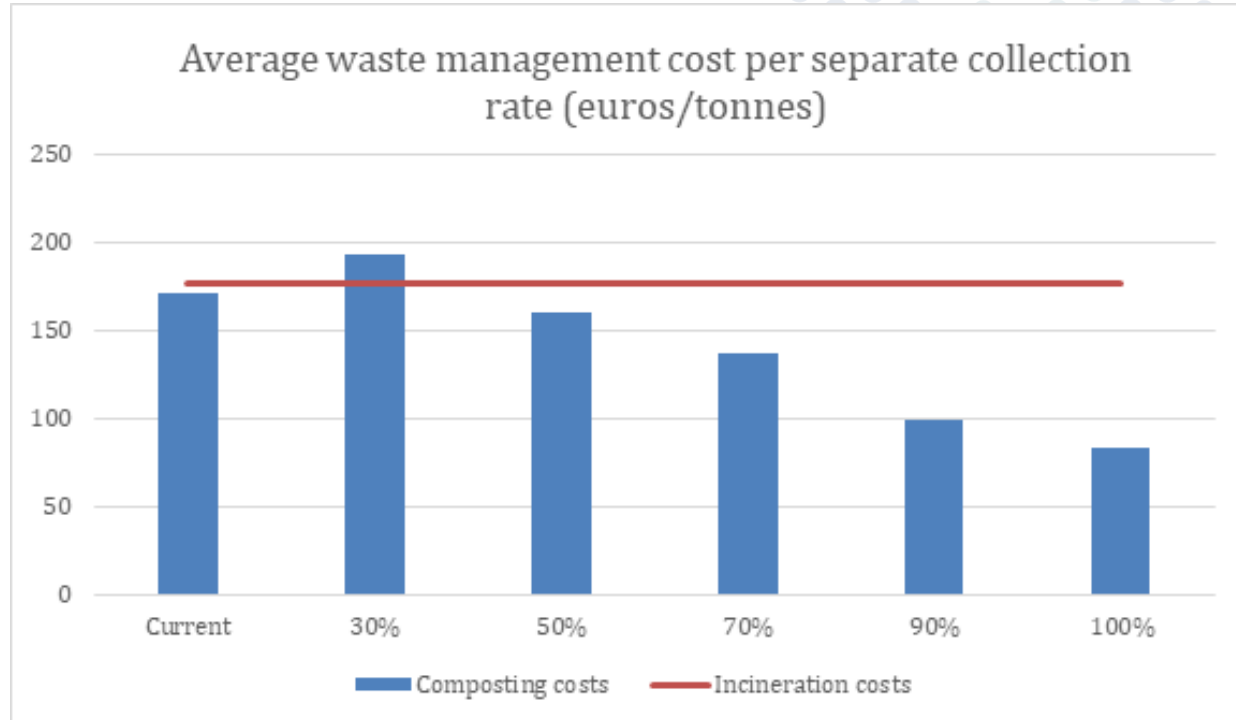
In 2016, 7436  
tonnes  
composted =  
792,900€ saved

	Diverted biowaste (estimated or mesured)
Garden composting	7 000 t
Worm composting	22 t
Composting sites	346 t
Composting sheds	45 t
Drum composting	16,7 t (3 t household)
TOTAL	7 430 t

# Cost-optimisation?

- Pontevedra:

**In the long run, the cost per ton of treated waste should be 4 to 5 times lower than the centralised system**



# Decentralised composting is a key element of a zero waste strategy

## It is:

- Community-based
- Cost-efficient
- Positively impacts the whole waste collection system
- Environmentally-logic

# “Think globally, Act locally”



VS





#ZeroWasteCities  
#ZeroWaste

[www.zerowasteurope.eu](http://www.zerowasteurope.eu)

Thank you for your attention!

[pierre@zerowasteurope.eu](mailto:pierre@zerowasteurope.eu)

March 16th 2020 – Pierre Condamine – Zero Waste Live! - Decentralised management of organic waste