



#ZeroWasteCities  
@ZeroWasteEurope  
@Jack\_McQuibban

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

# Zero Waste Cities in Europe

The what, who and how

Jack McQuibban, Cities Programme Coordinator, [jack@zerowasteurope.eu](mailto:jack@zerowasteurope.eu)

# Zero Waste Europe



**NGOs, local groups and  
communities**



**Change European policies**



**Mentor Cities towards a Zero  
Waste transition**



# How do we define zero waste?

# Zero Waste Hierarchy



😊 BEST USE

Refuse/Rethink/Redesign

- Refuse what we don't need and change the way we produce and consume by redesigning business models, goods and packaging in order to reduce resource-use and waste

Reduce and reuse

- Minimise the quantity, toxicity and ecological footprint of consumption. Use products or components, that are not waste, for the same purpose for which they were conceived or repurpose them for another use that doesn't reduce their value

Preparation for reuse

- Check, clean or repair products or components of products that have become waste so that they can be re-used without any other pre-processing

Recycling/composting/anaerobic digestion

- High quality material recovery from separately collected waste streams

Material and chemical recovery

- Technologies to recover materials from mixed waste and discards from sorting processes into new building blocks for high quality applications

Residuals management

- What cannot be recovered from mixed waste is biologically stabilised prior to landfilling

Unacceptable

- Options that don't allow for material recovery, have high environmental impact and create lock in effects that threaten the transition to Zero Waste: waste to energy incineration, co-incineration, plastic to fuel, landfilling of non-stabilised waste, gasification, pyrolysis, illegal dumping, open burning and littering

😞 WORST USE





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# The Zero Waste Cities programme

Jack McQuibban - [jack@zerowasteurope.eu](mailto:jack@zerowasteurope.eu)  
[@ZeroWasteEurope](https://www.instagram.com/ZeroWasteEurope)      [@Jack\\_McQuibban](https://www.instagram.com/Jack_McQuibban)

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

# Our approach with cities & communities:

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.

# Zero Waste Europe's Cities Programme

- Nearly 400 municipalities engaged & supported to develop Zero Waste Strategies in Europe
- A network of local and national coordinators via the Zero Waste Europe Members
- Model front-runners and best practices
- Expertise hub online via the Zero Waste Europe Academy



# The Zero Waste Masterplan

Providing a blueprint for Zero Waste Cities



- Introduction of what zero waste is and how it differs from traditional waste management
- Overview of current EU waste & CE legislation
- Why adopt a zero waste approach - the benefits
- Where to begin - different starting points
- What the next steps are for those interested

# The Zero Waste Masterplan

Turning the vision of circular economy into a reality for Europe





# Questions to get you started

Questions to pose at the start of your journey as the answers will help you develop your strategy...

 How much waste is generated in your city? 

 What is the separate collection rate? What happens to waste that is not separately collected? 

 What is the waste management costs per person per year? 

 What competencies regarding waste & recycling does your municipality have responsibility for? 

 Do you have a long term contract with a waste treatment facility/operator? 

 Do you have a waste prevention plan? 

 What fees do you pay for current incineration or landfilling of waste? 

 Do you collect organic waste separately? If so, what % of waste is organics? 

# Starting point for Zero Waste Cities

- 6 different scenarios to identify which best describes your city
- Each scenario is followed by an overview of what a typical roadmap to zero waste looks like for each scenario
- Best practice example related to each scenario also provided so you can see how policies can be successfully implemented

## Scenario 1: "My city is starting from scratch"

- We do not have separate collection in place yet
- Citizens and businesses do not have any economic incentives to generate less waste or to separate materials
- We do not have any infrastructure in place for materials collection and processing.

## Scenario 5: "We are a holiday or tourist destination"

- Our city is in one of the previous scenarios but our challenge is the fluctuation of population because it is a seasonal destination
- Our city is in one of the previous scenarios but our challenge is the influx of tourists.

# Basic framework of a Zero Waste City

- Kerbside collection of separate waste streams (ZW cities in Italy regularly achieve above 90% sep collection rates)
- Residual waste assessment to analyse the most problematic items/packaging
  - ◆ Ability to redesign collection rounds for cost & impact optimisation
  - ◆ Data to feedback to producers to address non-recyclable materials
- Implementation of a Pay-As-You-Throw system to incentive waste reduction further
  - ◆ Continuous seeking of improvements. Can be high or low-tech, several options available
- Open and engaging partnership with the local community
  - ◆ Advisory boards, zero waste family challenges, zero waste label for businesses/schools
- Waste prevention measures adopted or encouraged by the municipality
  - ◆ Packaging free shops; reusable nappy systems; Reuse & Repair Centres; supporting businesses implement Deposit Return Schemes
- Looking inwards to identify further waste reduction measures & incentives
  - ◆ Public events & spaces, public procurement

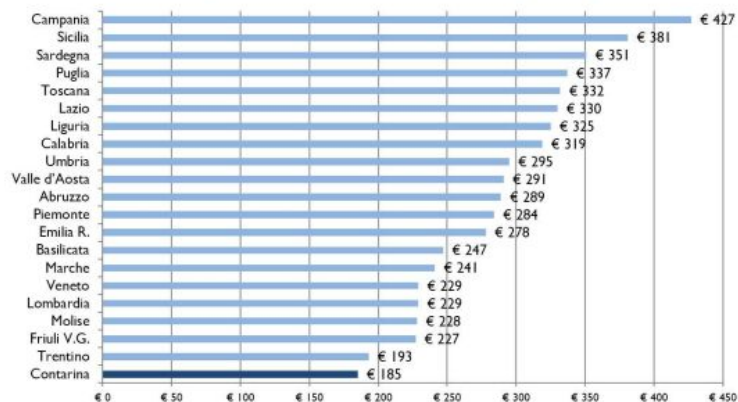


# The Zero Waste Cities Model

Successful examples from across Europe

# Contarina, Treviso region, Italy

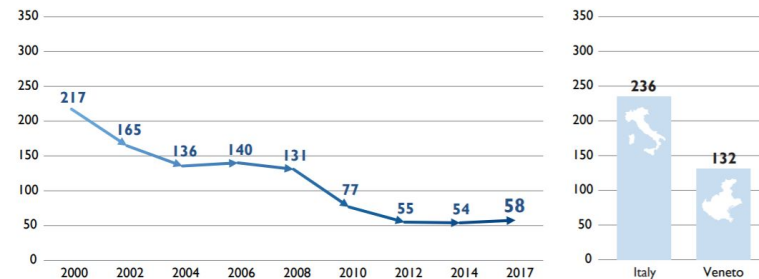
## The average household's fee\* Comparison of national data (2016)



\*Average household composition: 3 person

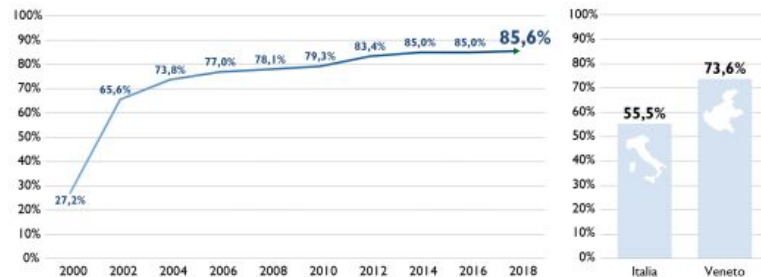
**SOURCE**  
Dati Contarina 2017 Cittadinanzattiva - Osservatorio prezzi e tariffe 2016 (Importi comprensivi di IVA e tributo provinciale)

Residual waste production, managed by Contarina



SOURCE: Contarina 2017, Rapporto Rifiuti ISPRA 2017

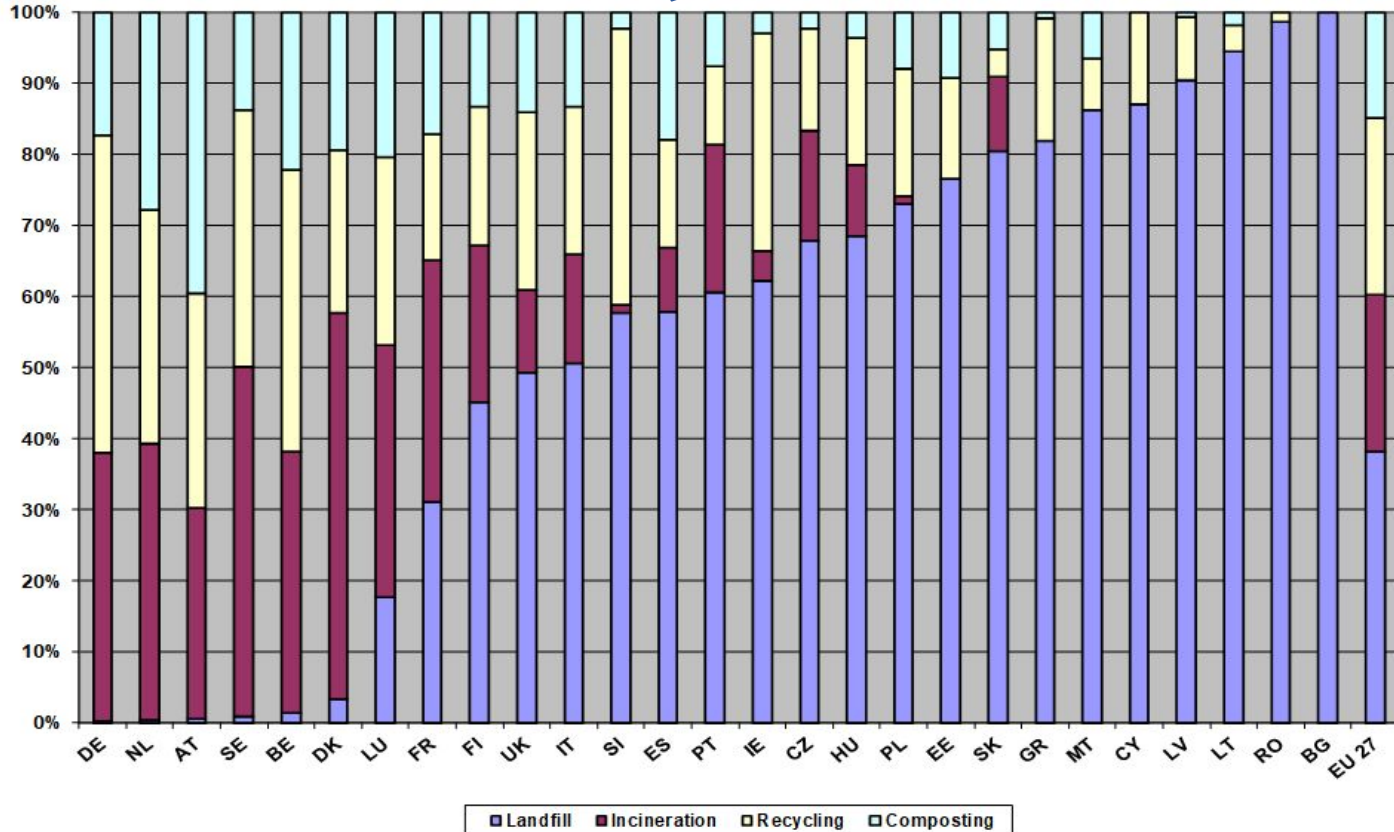
## Recycling Rate of the municipalities managed by Contarina



**SOURCE**  
Contarina 2018  
Rapporto Rifiuti ISPRA 2018 (dati 2017)

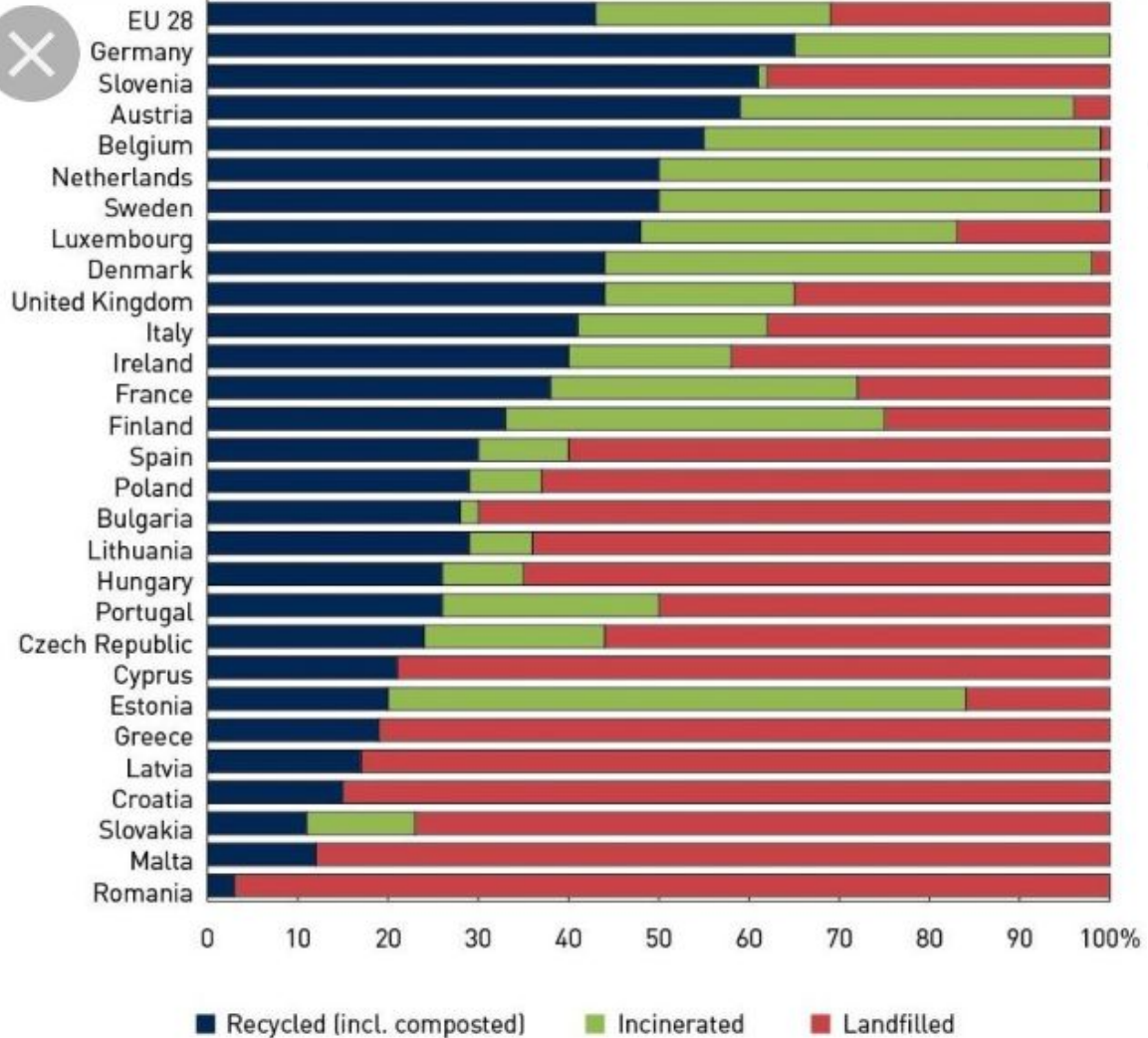
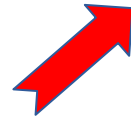


# Slovenia (2008)



# Slovenia (2018)

From mid-table to the second best performing in the EU



# Slovenian Zero Waste Cities

Municipality	Separate Collection % (2018)	Future target	Total amount of waste per capita (2018)	Future target
Vrhnika, Borovnica, Log-Dragomer	83%	N/A	384kgs	300kg by 2020
Gorje	75%	80% by 2025	266kg	200kg by 2020
Slovenske Konjice	74%	77% by 2025	315kgs	283kg by 2025
City of Ljubljana	68%	78% by 2025	358kg	280kg by 2025
Žalec	62%	80% by 2027	356kg	300kg by 2027
Radovljica	65%	70% by 2026	358kg	300kg by 2026
Bled	67%	80% by 2025	544kg	300kg by 2020
EU Average	47% (recycling rate)	65% recycling by 2035	489kg	Not set yet



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# Thank you!

Check out [www.zerowastecities.eu](http://www.zerowastecities.eu) for further information

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