

Waste Management in Lisbon: Policies, Good Practices and Achievements

Genova Smart Week
26th of May 2016



1 INTRODUCTION

Lisbon's Main Figures

Lisbon's
area: **86**
km²

Resident population
552 700 inhab.

Total population =
2x Resident population
≈ 100.000 companies

Workforce of the
Urban Waste
Department:
1050 workers

1

INTRODUCTION

Lisbon's Main Figures

Equipments:

219 Collection trucks

183.404 Bins

(**50.000 m³** of installed capacity)

134 Collection routes /day

85 Door-to-door collection routes / day

100 km/day per route

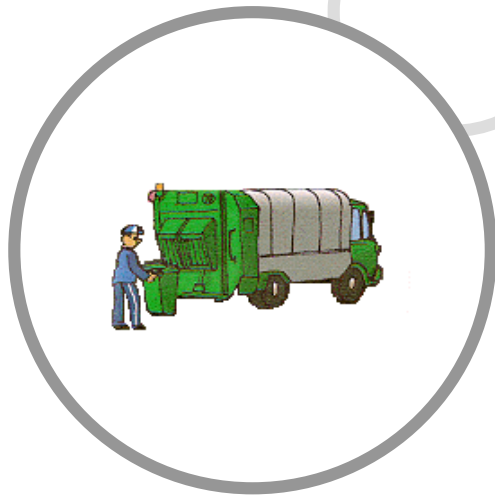
800 t/day urban waste

1

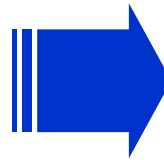
INTRODUCTION

Integrated Management System

LISBON

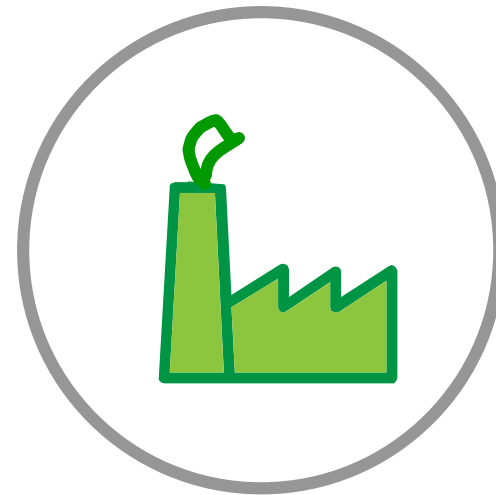


Waste Collection and
Transport to Valorsul's
facilities



VALORSUL

Is the company responsible for the waste treatment and recovery in the Northern Metropolitan Area of Lisbon and Western region of Portugal (19 municipalities)



Treatment and Recovery

1

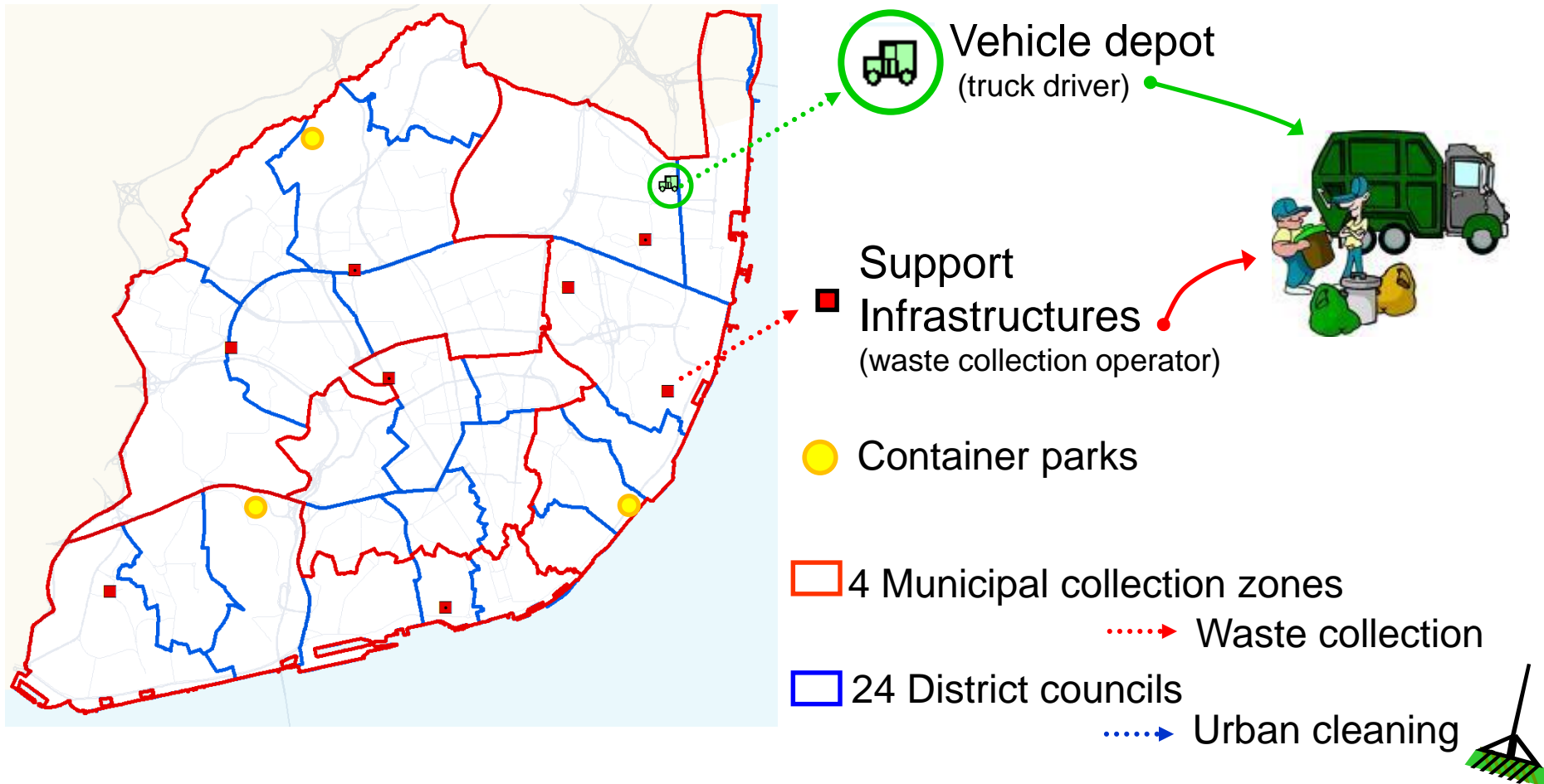
INTRODUCTION

Lisbon Geographic Context



WASTE COLLECTION

Services organization

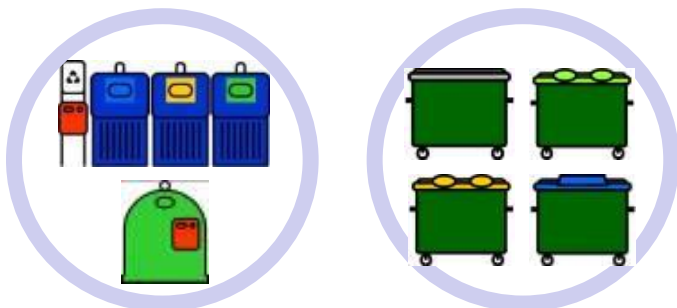


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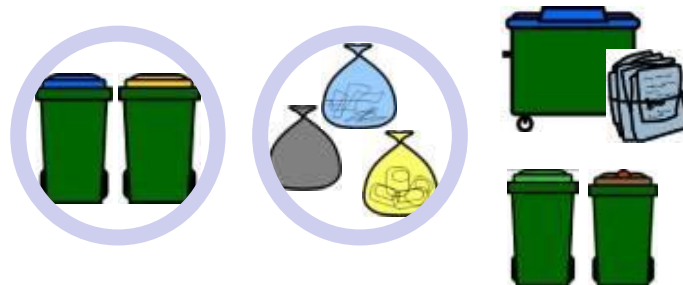
WASTE COLLECTION

Waste Selective Collection Systems

Big public bins (bring banks)



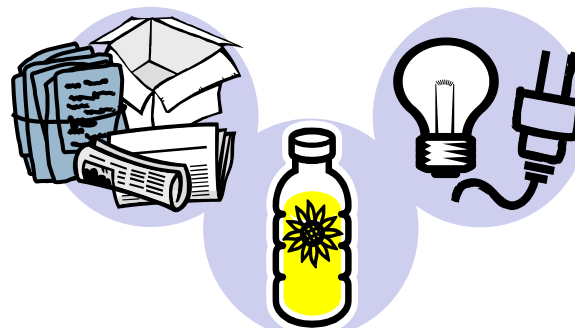
Door-to-door collection



By request



Reception centres

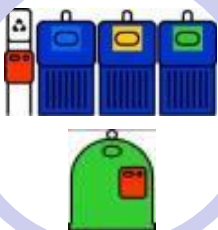


2

WASTE COLLECTION

Waste Selective Collection Systems

Bring banks



Street bins
(1,0/1,1 m³)



Big public bins (street bring banks)



2,5 m³



Sub.: 3 m³



1,5 m³



1,1 m³

2

WASTE COLLECTION

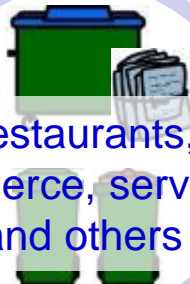
Waste Selective Collection Systems



Residential buildings
and houses



Historic
neighbourhoods



Restaurants,
commerce, services
and others

Door-to-door collection



90-240 litres



Municipal plastic bags 30 litres



cardboard bales



- Downtown / historic zones
- Big waste producers

2

WASTE COLLECTION

Waste Selective Collection Systems



By request



Collection by request / on demand

**Bulky waste****Furniture****Green waste****Construction and
demolition waste****Waste Electrical and
Electronic Equipment**

There are also
specific routes

(For free if
 $\leq 1\text{m}^3$)

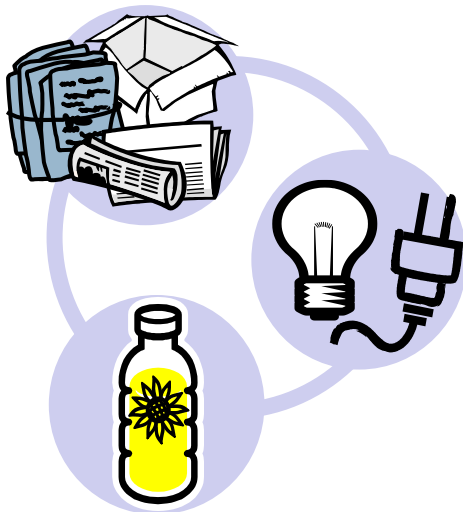
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WASTE COLLECTION

Waste Selective Collection Systems



Reception centres



Reception centres



Municipal reception centres



Cardboard
Cooking oils
WEEE



Valorsul's Amenity Site

2

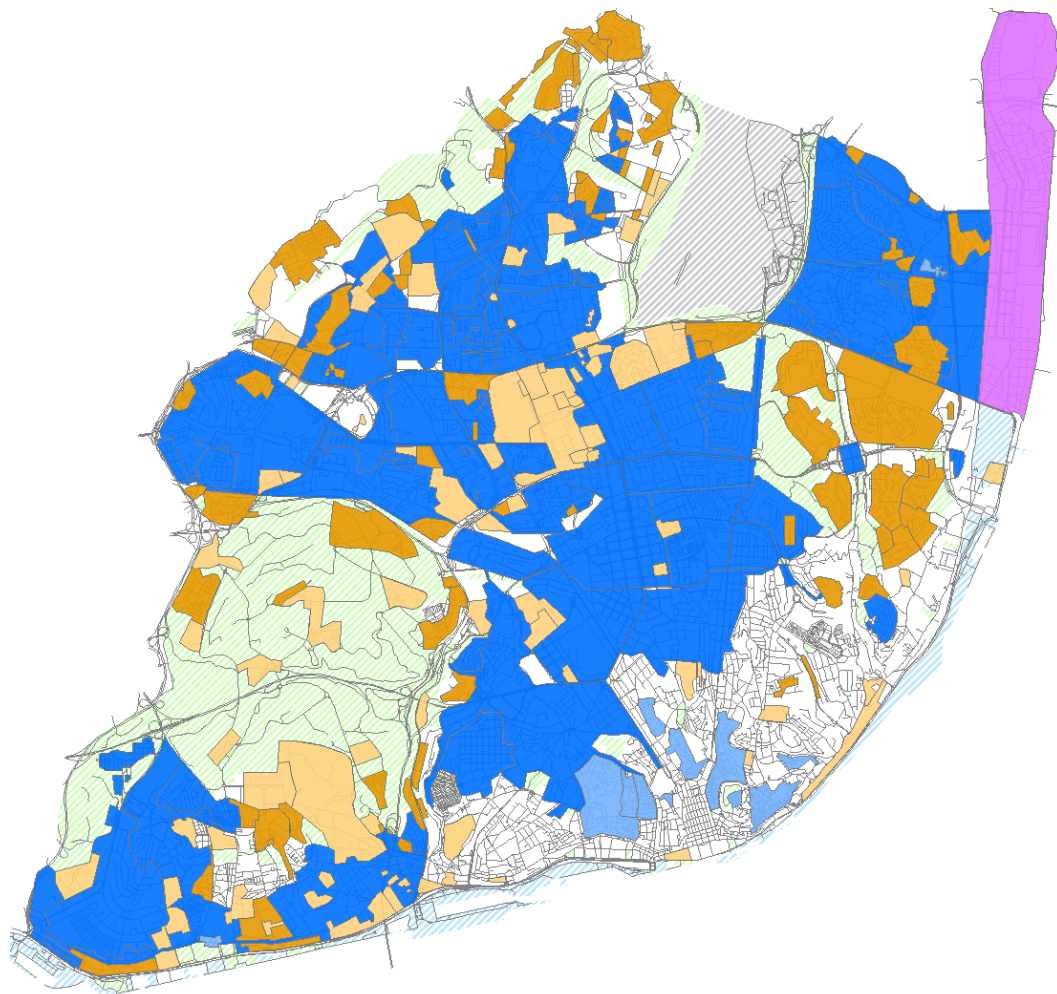
WASTE COLLECTION

Selective collection evolution

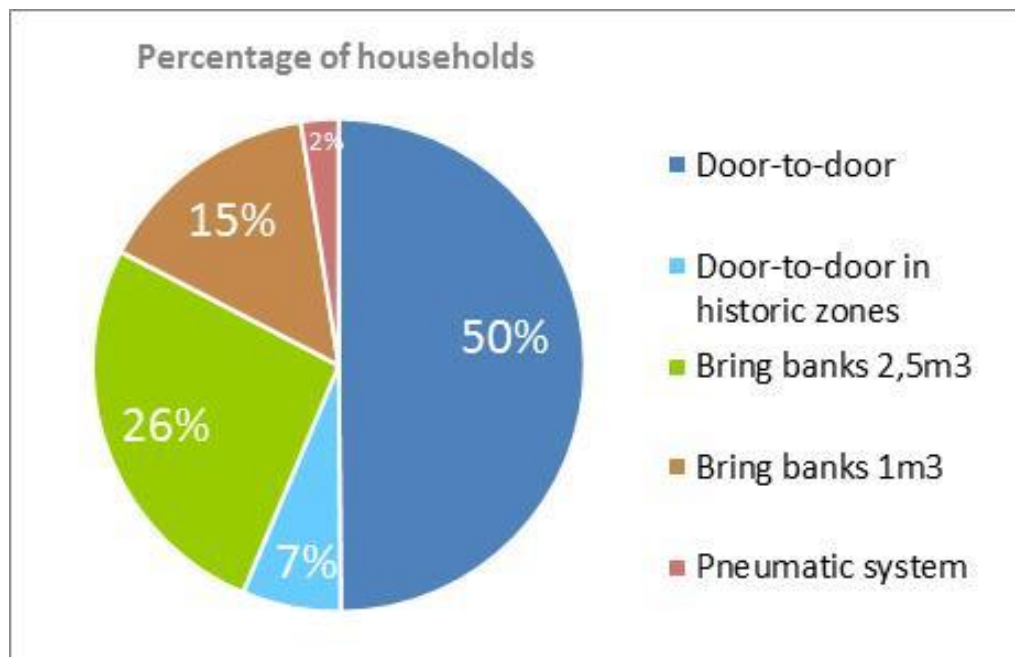
2015



- Ecoilhas
- Ecoilhas_entidades
- PaP
- PaP Bairros Históricos
- Pneumática
- Aeroporto
- Zonas Verdes
- APL



Selective collection schemes



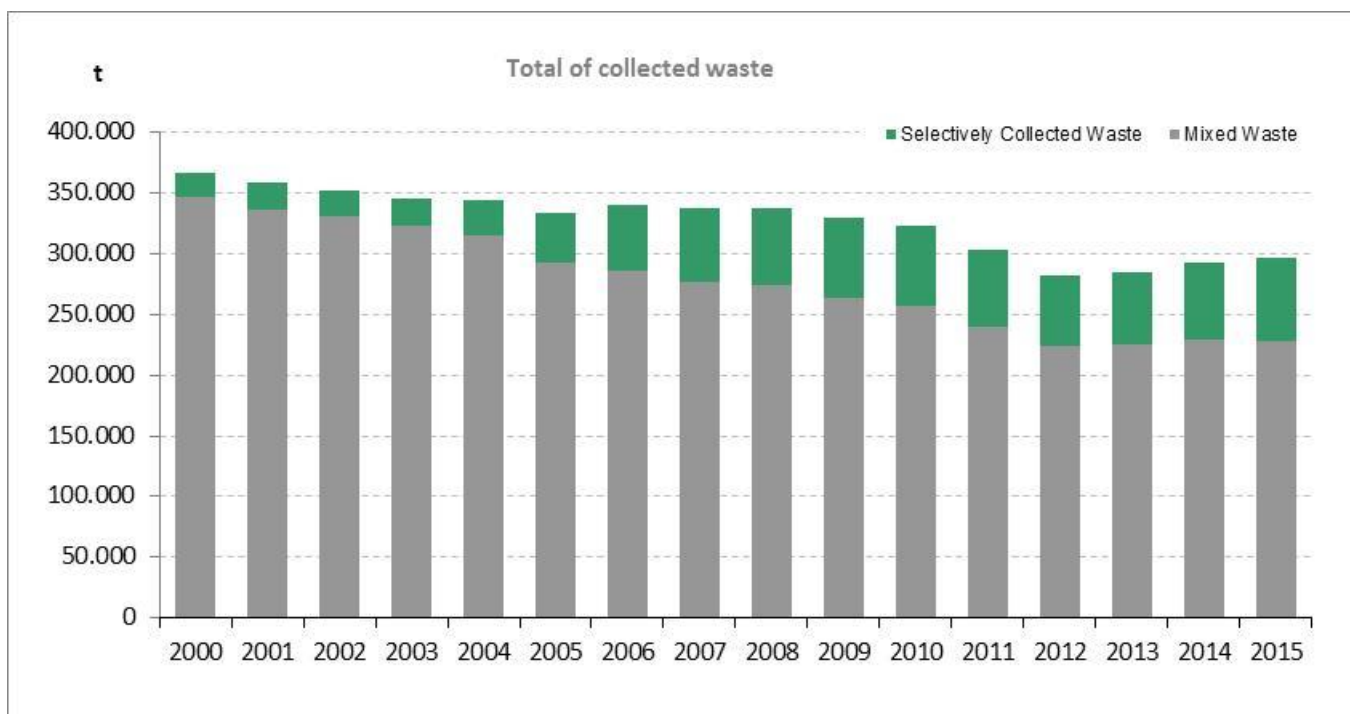
Critical aspects

Lisbon has unique characteristics:

- Weather conditions (high temperatures)
- Different topography areas and diverse urban morphology (huge slopes and narrow streets neighbourhoods)
- Tourism and floating population
- Historical heritage
- Economic crisis affected the consumption patterns

Evolution of collected waste

Collected waste



Evolution of collected waste

Recycling Rate

32% =

(2015)

Selectively collected recyclable waste (t):
paper/cardboard, packages of metal, plastic, glass and *tetrapak*, biowaste

Production estimation of recyclable waste (t):
paper/cardboard, packages of metal, plastic, glass and *tetrapak*, biowaste

Selectively collected recyclable waste

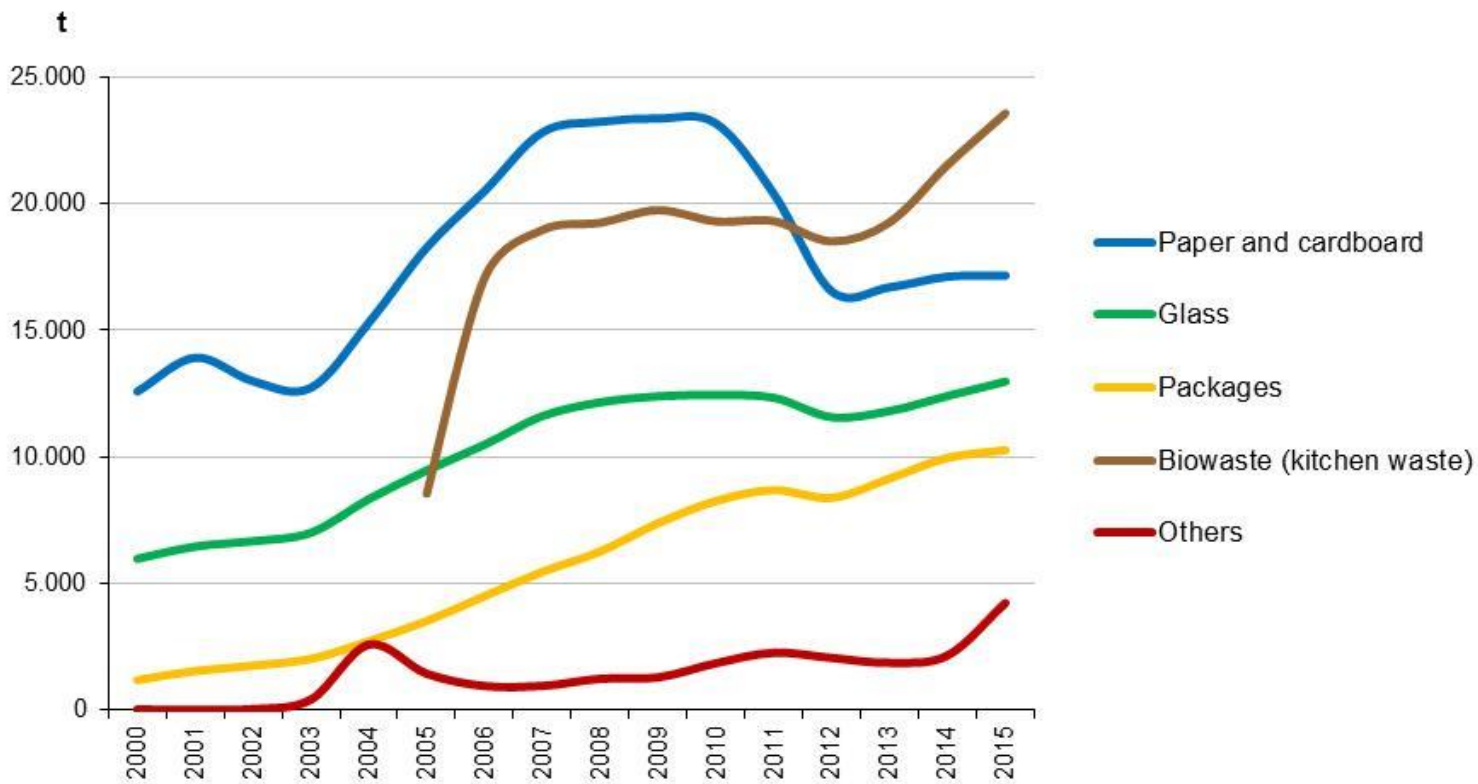
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Estimated amounts in the mixed flow (unsorted waste)

Physical characterization

Evolution of collected waste

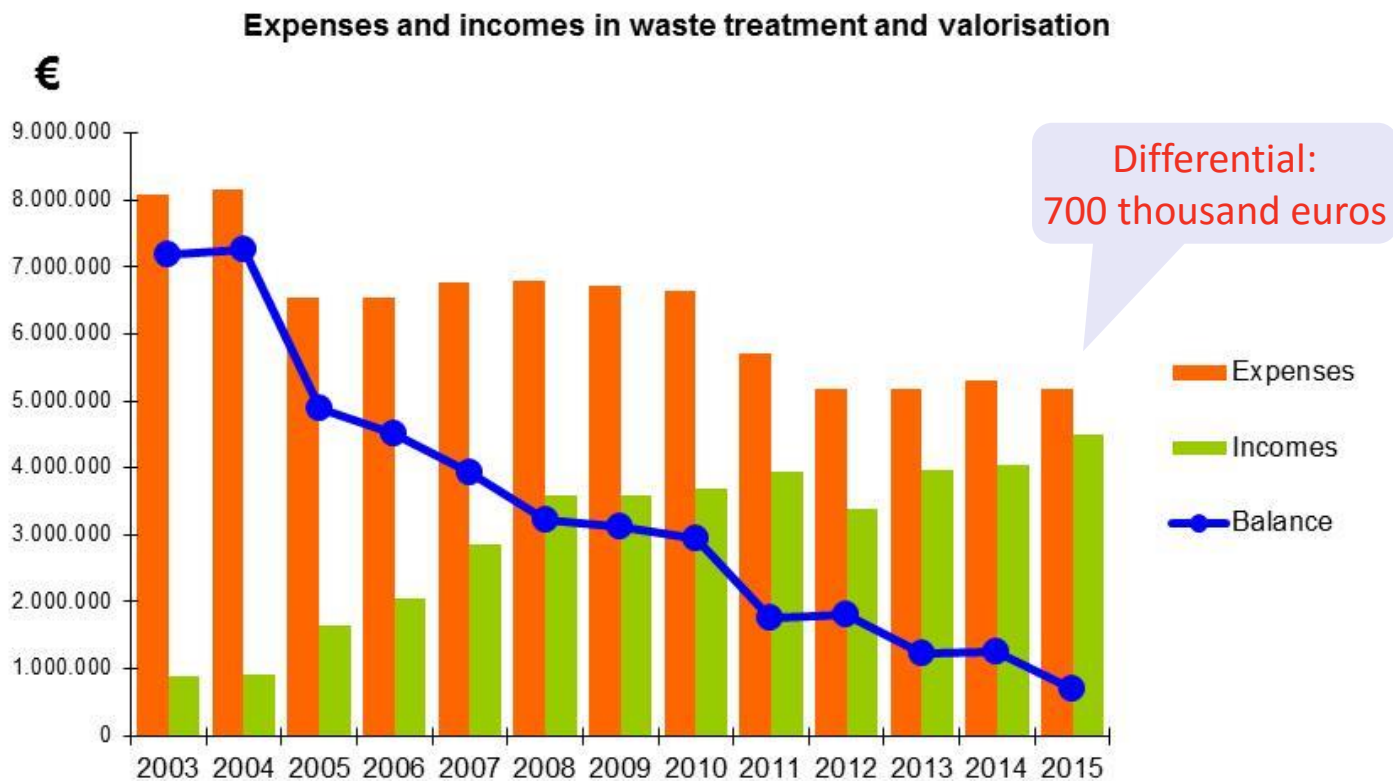
Recyclable waste collection evolution



3

ACHIEVEMENTS

Economic balance



Strategic vision

Waste
= Resource
= €

Circular Economy |
Waste Re-insertion
in Life Cycle |
Reuse & Recycling



Minimising
waste
generation
and its
harmfulness

Lisbon:
Sustainable and
clean city

Municipal Waste Management Plan

1st plan | 2016-2020

Strategic Goals (SG)

1

Net
enlargement
of the waste
reception
points

2

To increase
the recycling
amounts and
to improve
material
quality

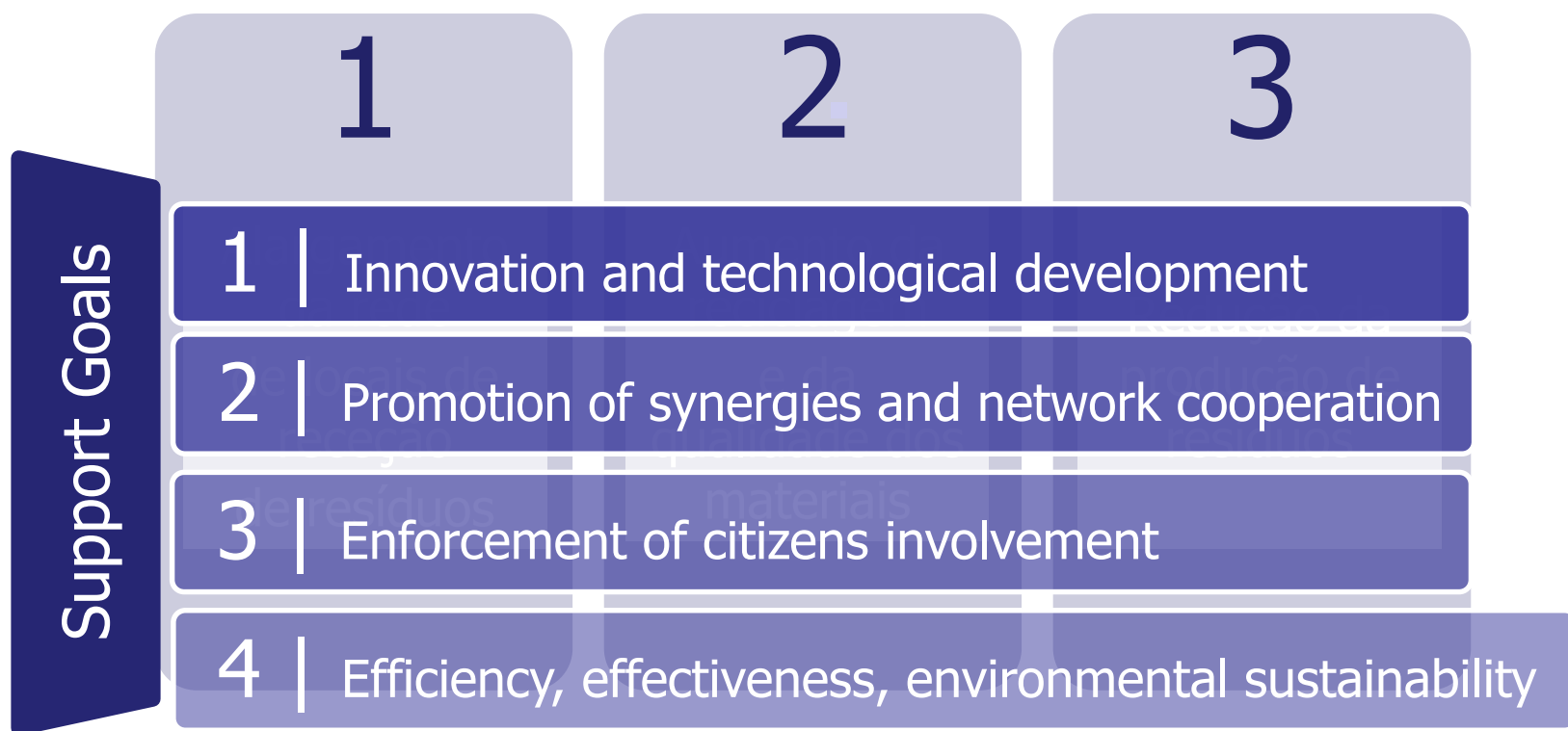
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To improve
waste
prevention

4 POLICY

Municipal Waste Management Plan

Strategic Goals (SG)





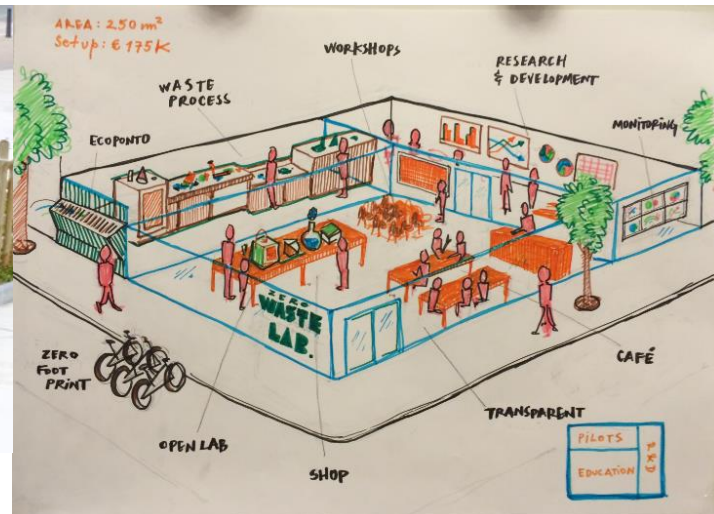
Evolution in the last 5 years:

- From 1 to 4.000 volunteers
- From 34 to 2.500 beneficiaries
- From 1.000 to 46.000 meals/month

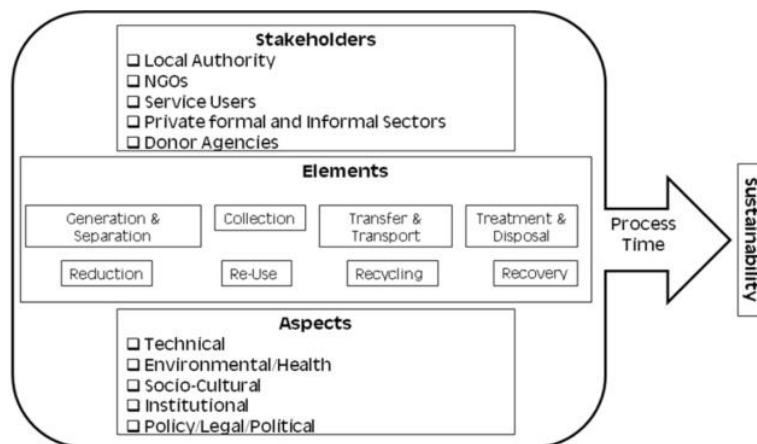




Neighbourhood Compostage Units



Education: Interpretation Waste Management Center (WasteLab)



Waste Consultive Board

Grazie!



Municipality of Lisbon Waste Department

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