

SORTING OF PACKAGING WASTE

Challenges and opportunities



MISSION



“ To develop, implement and manage an integrated system for the treatment of municipal solid waste, serving 19 municipalities in the areas of Lisbon and West Portugal which is technically advanced, environmentally and financially sustainable. ”

SHAREHOLDERS



56,17%



17,85%



11,51%

ASSOCIAÇÃO

AMO+

5,25%



4,61%



4,61%

When did Valorsul began?

Company's start up:

16 September 1994

Merger:

15 June 2010

Concession:

25 years

FIGURES 2011



Municipal solid waste produced= 516 kg/person.year

19 Municipalities

3378 km²

1.6 million inhabitants

950 thousand tons of MSW /year

16% of Portuguese waste

CONCESSION AREA



TECHNICAL MODEL



2 sorting centers

8 Eco-centers

1 Waste to Energy Plant

1 Bottom-Ash Processing and Recovering Plant

1 Anaerobic Digestion Plant*

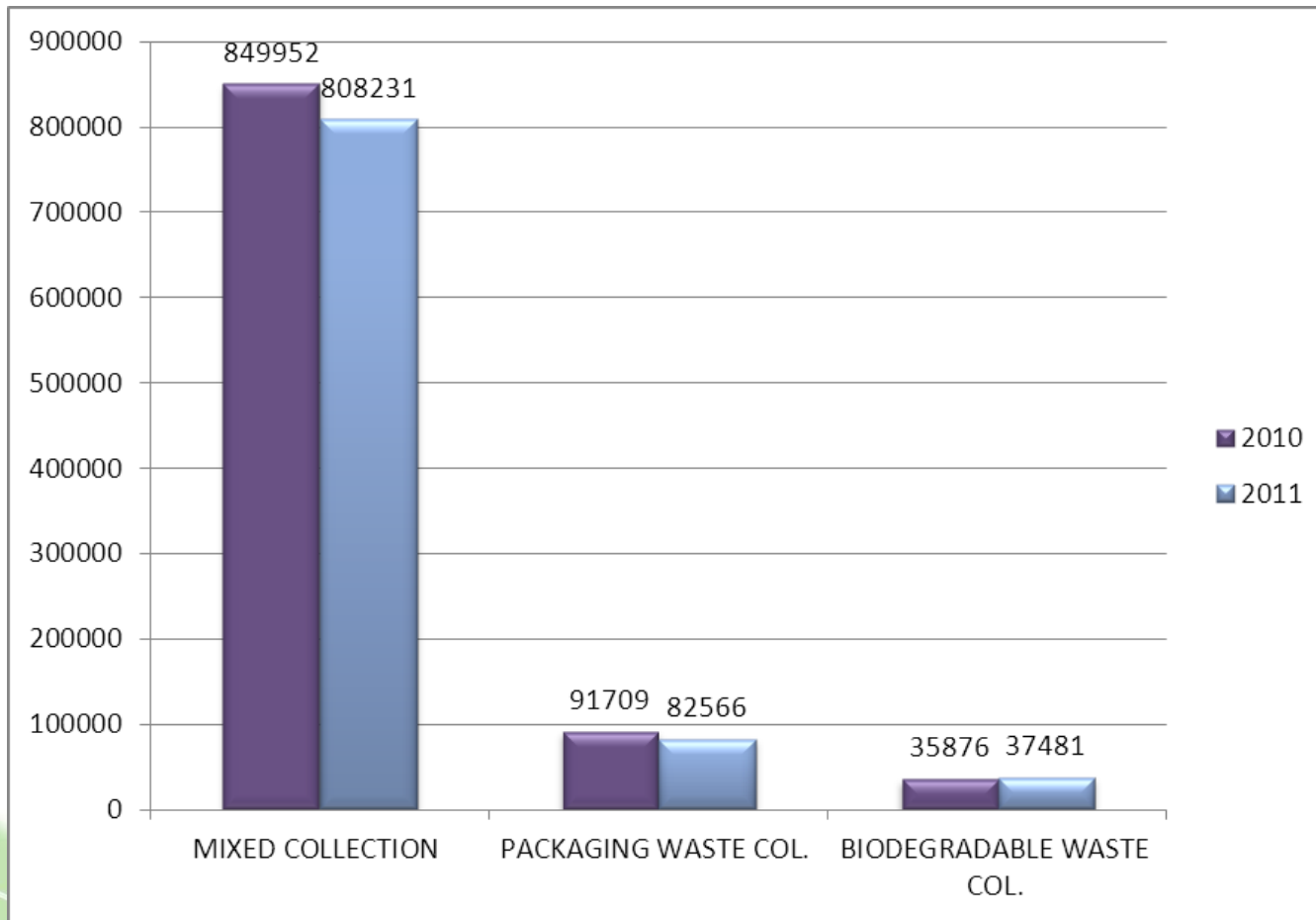
2 Sanitary Landfills

6 Transfer stations

* Valorsul is using 50% of the Anaerobic Digestion Plant of Valorlis, since 2011

MSW RECEPTION

2011 figures



COLLECTION MODEL



COLLECTION MODEL



Valorsul collection

Packaging and paper waste

Municipal collection

Mixed waste collection

Packaging and paper waste

Collection of biodegradable waste

CONTAINERS RATIO



Green containers (glass)

6988 equipments  141 inhab./equip.

Blue containers (paper and cardboard)

6167 equipments  162 inhab./equip.

Yellow containers (plastics, metals)

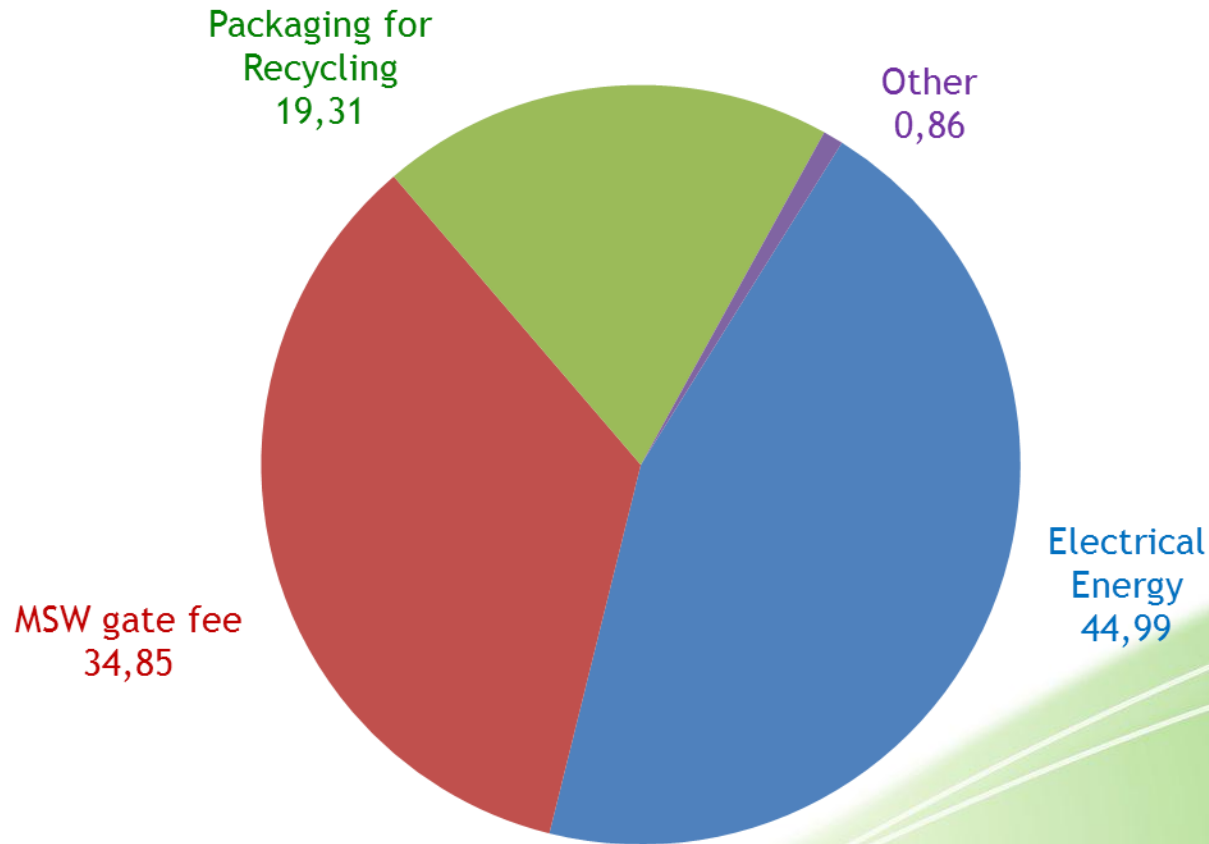
5958 equipments  167 inhab./equip.

Containers: (Surface, underground, duplicate, isolated and eco-islands)

ANNUAL TURNOVER



Average values (2007-2011) %



GATE FEE EVOLUTION



Year	Euros/ t /MSW
1998*	23,59 €
1998	23,36 €
1999	23,06 €
2000	22,08 €
2001	22,60 €
2002	23,04 €
2003	23,83 €
2004	24,51 €
2005	20,59 €
2006	22,07 €
2007	21,97 €
2008	22,86 €
2009	22,86 €
2010	22,86 €
2011	20,97 €
2012	19,89 €

Gate fee charged to municipal clients for the reception of mixed Waste.

No Gate fee in the sorting centers

SORTING CENTER

Lumiar | Lisboa



SORTING CENTER

Lumiar | Lisboa



Technological process: Combination of manual and mechanical sorting processes

MSW source: Selective waste collection

Capacity:

Paper/Cardboard

14 t/hour

Plastic/Metal

4,5 t/hour

SORTING CENTER

Pêro Moniz | Cadaval



SORTING CENTER

Cadaval



Technological process: Combination of manual and mechanical sorting processes

MSW source: Selective waste collection

Capacity:

Paper/Cardboard

14 t/hour

Plastic/Metal

4 t/hour

RECEPTION AREA

PLASTIC/METAL/TETRA PAK



RECOVERED MATERIALS

PET



RECOVERED MATERIALS

HDPE



RECOVERED MATERIALS

FOOD AND BEVERAGE CARDBOARD



RECOVERED MATERIALS

PLASTIC FILM (LDPE)



RECOVERED MATERIALS

MIXED PLASTIC



RECOVERED MATERIALS

FERROUS AND NON-FERROUS METALS



RECOVERED MATERIALS

PAPER/CARDBOARD

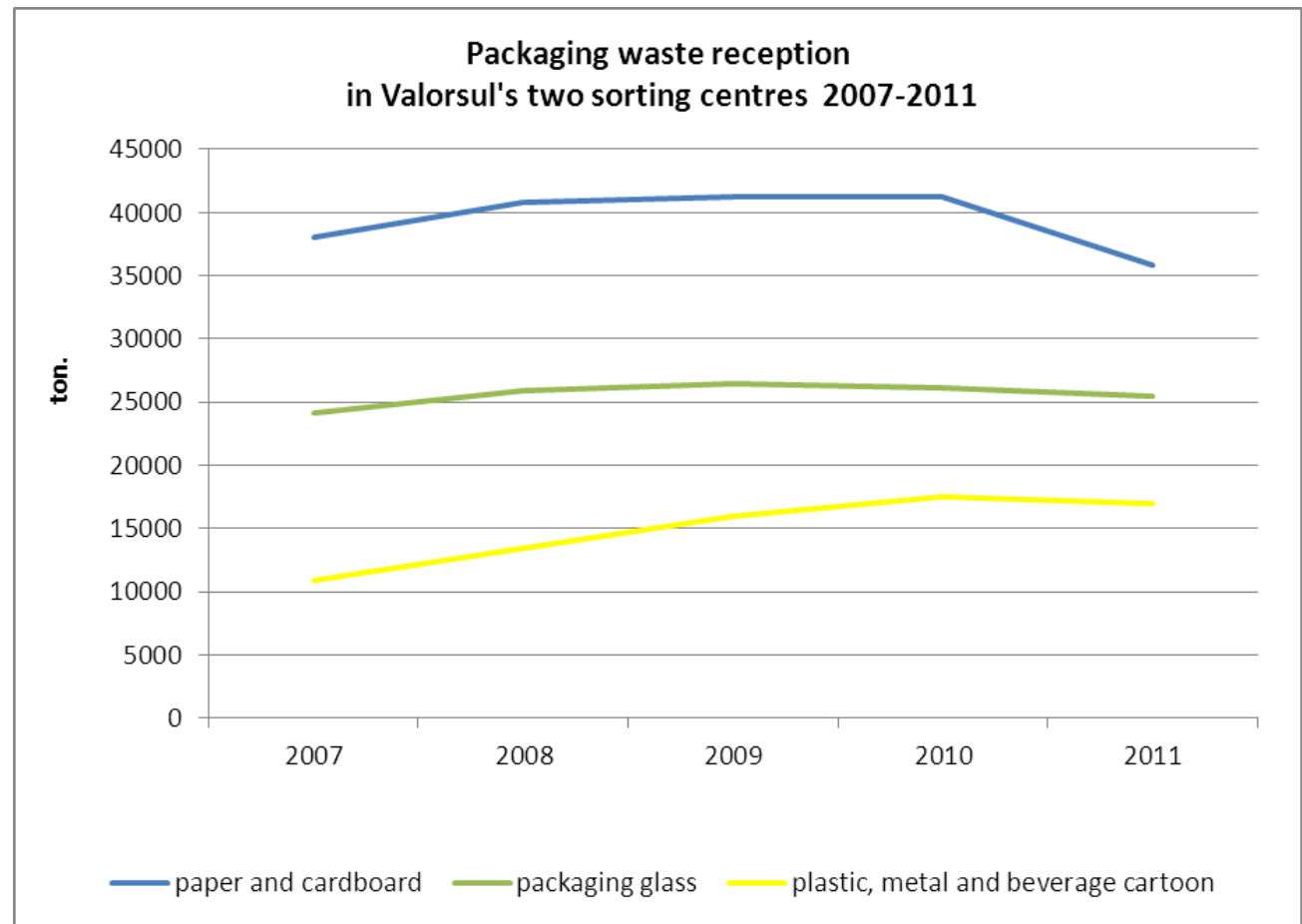


RECOVERED MATERIALS

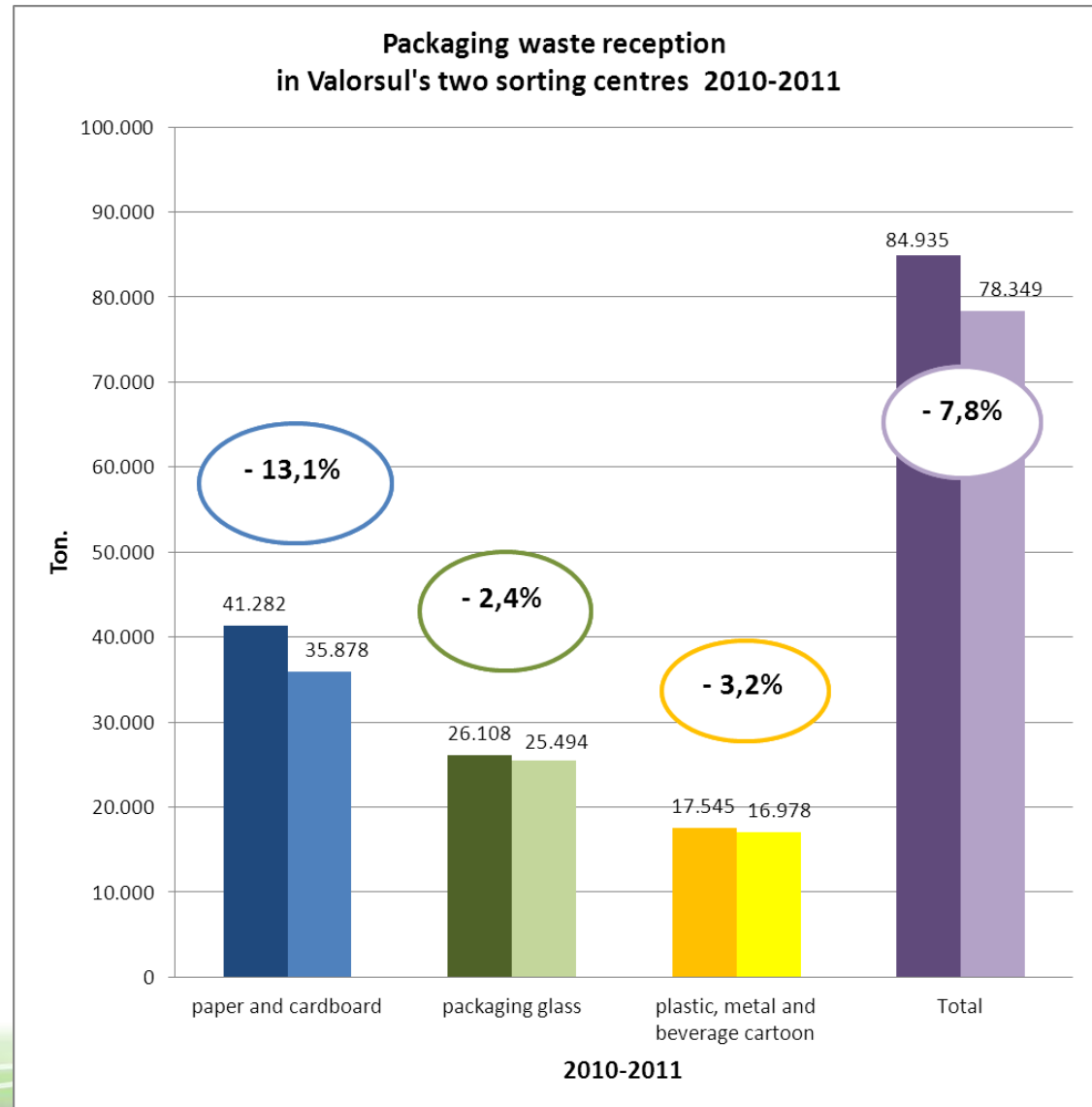
GLASS



RECEPTION DATA



RECEPTION DATA



OPTIMIZATION MEASURES

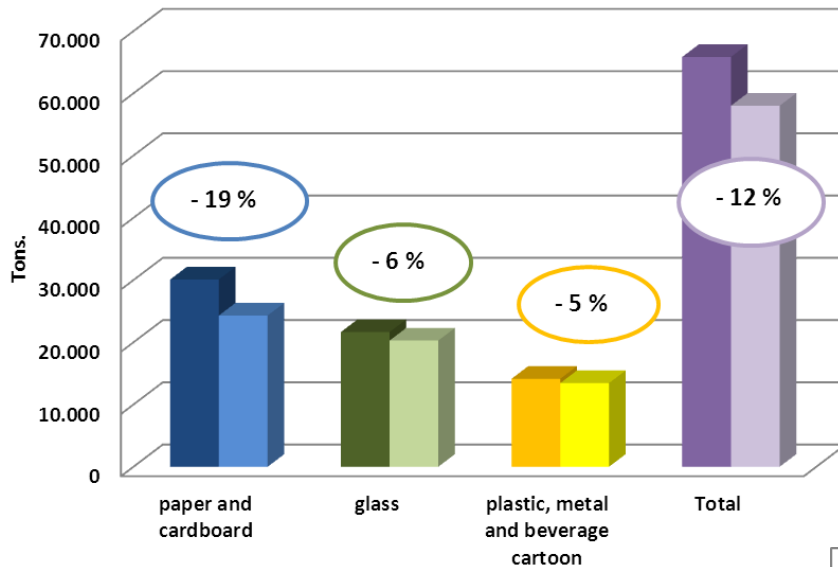
1. Combined management of the two sorting centres capacities and efficiencies.

2. Internal optimization measures:

- Ballistic sorter
- Optic sorters
- sorting of plastic film (LDPE)
- Setting up of new transporters
- Setting up new manual sorting places and reprocessing the refuse

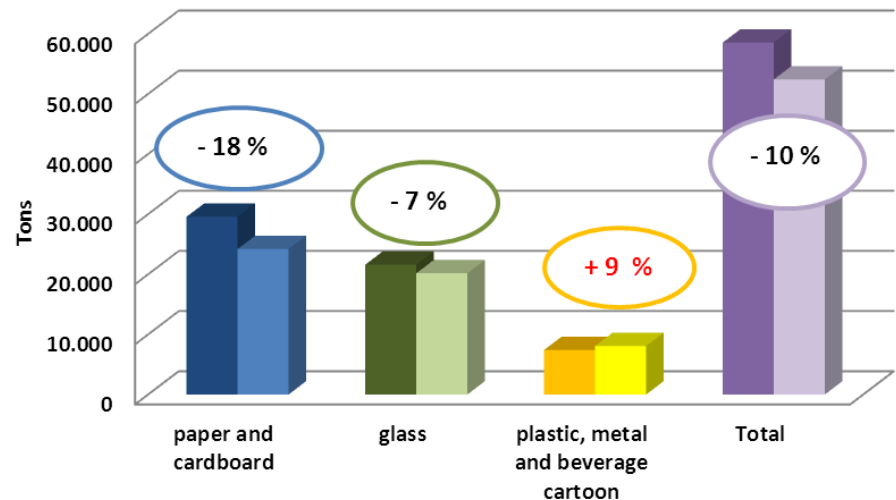
3. The making of mass balances - good tool

Packaging waste reception
in Valorsul's two sorting centres Jan - Octo 2011-2012



Despite the fall of 5% in the reception of plastic, metal and beverage cartons, we have managed to increase the output of these materials in 9%.

Output of packaging waste
in Valorsul's two sorting centres Jan - Octo 2011-2012



SOCIAL INITIATIVES



Recycling Code



Campaign to promote the separation of domestic waste, according to the Recycling Code.

SOCIAL INITIATIVES



Ecovalor Programme

The poster for the Ecovalor Programme is set against a light blue background. At the top left, it features the valorsul logo and the European Union flag with the text "PROJECTO CO-FINANCIADO PELA UNIÃO EUROPIEA" and "PROG. REGIONAL DO CENTRO - AÇÃO SUB-PROGRAMA 1 - EDUCAÇÃO AMBIENTAL". A central purple circle contains the text "Quer dinamizar as SUAS aulas?". To the left, a green circle contains the "ecovalor" logo and "programa de educação e sensibilização ambiental". Below this, a speech bubble icon is next to the text "ações de sensibilização". At the bottom left, an icon of three people is labeled "ecovisitas". At the bottom center, an information icon is labeled "materiais informativos". At the bottom right, a map of Portugal is labeled "projectos municipais". In the bottom left corner, a hand holds three cards labeled "PREVENÇÃO", "3 R's", and "VALORIZAÇÃO". In the bottom right corner, a group of people in white hard hats are gathered around a table, looking at a map or document. A tablet in the top right corner shows a 3D city model.

Educational programme fully dedicated exclusively schools.

Municipality co-financing program for environmental education activities

SOCIAL INITIATIVES



Public presentations, fairs and exhibitions





valorsul

Cuidamos do ambiente.



ESTE PROJECTO CONTRIBUI PARA A REDUÇÃO DAS DISPARIDADES
SOCIAIS E ECONÓMICAS ENTRE OS CIDADÃOS DA UNIÃO