

# The Italian Plastic Packaging Recycling System

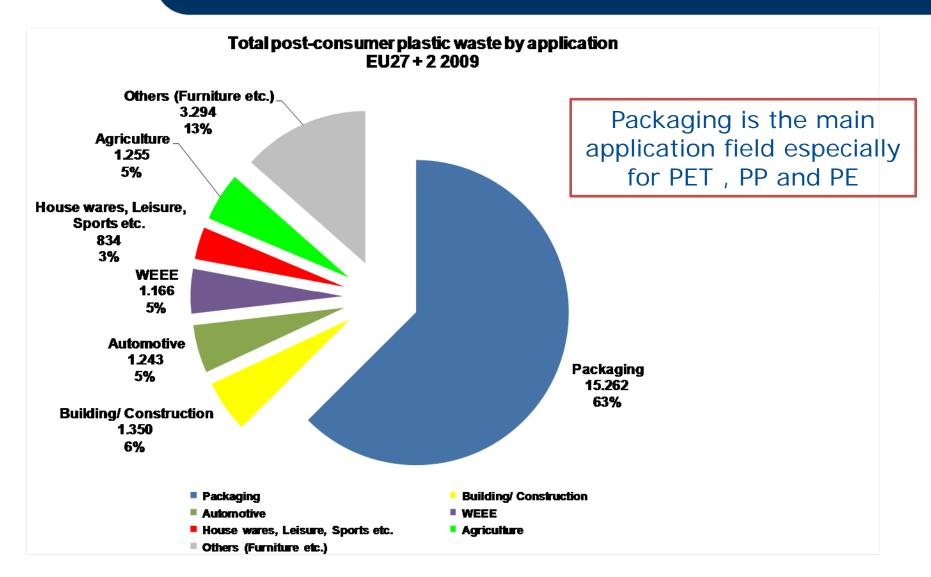
Giuseppe Rossi

#### Plastic production by application – EU 27+2 2009



Source: PlasticsEurope - 2009

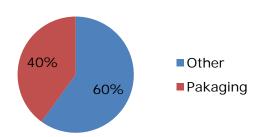
# COREPLA Plastic Industry – EU waste production 3

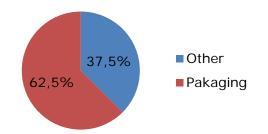


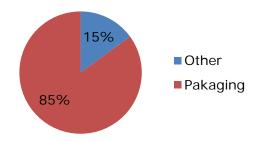
Source: PlasticsEurope - 2009

#### **Key Figures of Plastic Packaging**

- Packaging is 40% of plastic end use
- Packaging is 62,5% of plastic waste
- Packaging is 85% of all plastics recycled







#### **European Legislation on packaging waste**

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste:

- Recycling: min. 25% max. 45%
- Recovery: min. 50% max. 65%
- Recycling per material: min. 15%

Directive 2004/12/EC of the Parliament and of the Council of 11 February 2004:

- Recycling: min. 55% max. 80%
- Recovery: min. 60% no max.
- Recycling per material: min. % varying from 15 to 60% according to material
- Plastic target at 2008 22,5%

Directive 2008/98/EC of the Parliament and of the Council of 19 November 2008:

- Waste hierarchy
- Recycle target 50% for all material by 2020

✓Companies: 5.598

**√**Employees: 141.900

√Turnover: € 28,1 mld

**Producers** (PlasticsEurope)

Converters (Federazione Gomma Plastica)

Machines (Assocomaplast)

Recyclers (Unionplast e Assorimap)









Companies: 48

Companies: 5.000

Companies: 250

Employees: 8.900

**Employees:** 120,000

**Employees:** 11.000

Turnover: €8,1 mld

Turnover: €16 mld ¶ Turnover: €3,3

mld

Companies: 300

**Employees: 2.000** 

■ Turnover: €0,7

mld

#### PRODUCERS and USERS

if they don't provide to take back their packaging...

...in addition the **Producers** 

can set up (with CONAI's agreement) an own collection and recovery system for their packaging waste...







to meet <u>total recovery</u> targets (all materials)





**Materials Consortia** 

Aluminium-Glass-Paper-Plastics-Steel-Wood ...or other



to meet <u>their</u> <u>specific target</u>

# COSEPLA

- Concerns all packaging consumed in Italy:
  - primary, secondary and tertiary packaging waste
  - household, commerce and industry streams
- Activities of the system are focused on:
  - Prevention
  - Re-use
  - Recycling
  - Recovery
- © Financed through an environmental fee on sales of packaging different by material and sales of sorted products.

#### **A Consortium of Companies**

Implementing policies of recycle and recovery of plastics is a GROWING FACTOR

An opportunity not a threat for plastic industrial sector.

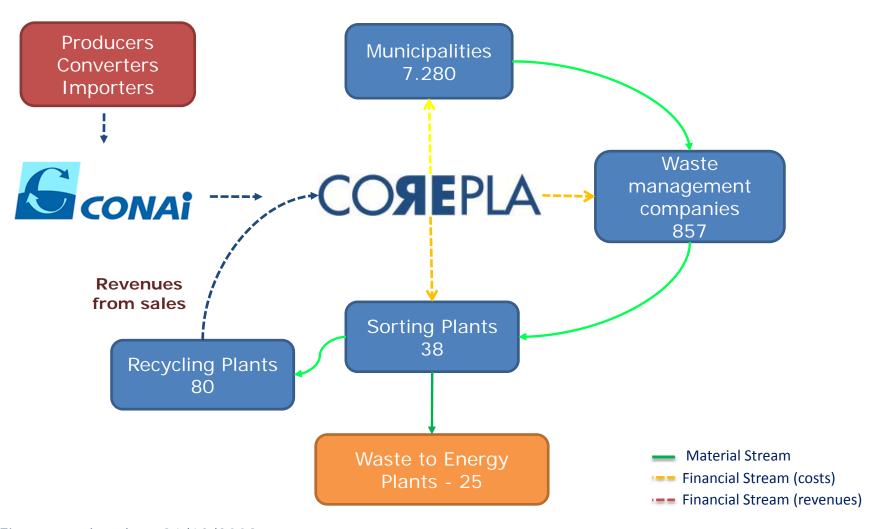
Recycle and Recovery schemes are guarantors for
Targets fixed by EU legislation and
Push COMPANIES TO IMPROVE THEIR PERFORMANCES
in both social and environmental field.



2.704

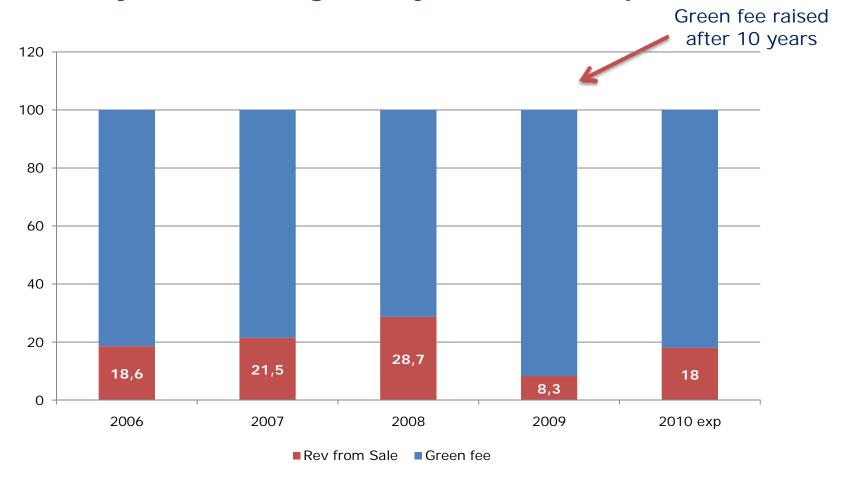
ARE THE COMPANIES IN ITALY THAT PRODUCE, USE, CONVERT AND RECYCLE PLASTIC PACKAGING

#### **Material and Financial Scheme**



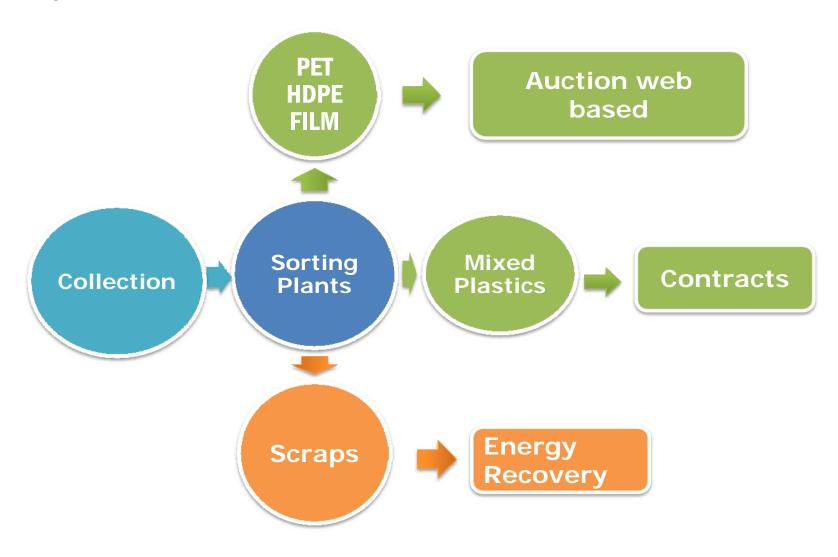
Figures updated at 31/12/2009

#### A flexible system working side by side with companies

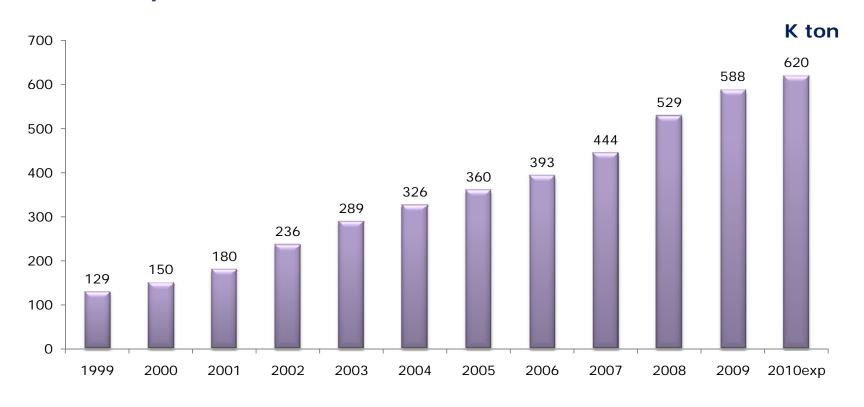


Percentage of revenues from sale compared with revenue from green fee.

### A complex value chain market oriented



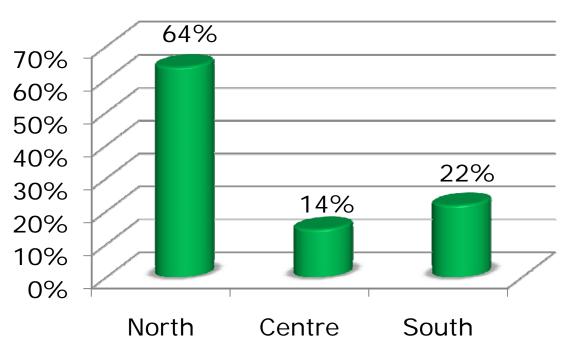
# Separate Collection of Plastic Packaging Waste as support to local development



2001	2002	2003	2004	2005	2006	2007	2008	2009	2010exp
40.446	51.000	67.150	75.156	91.450	99.144	117.292	133.622	141.054	147.910

## A country with different growing rates





Collection pro capita (kg/inhabitant/y)

North: 14,0

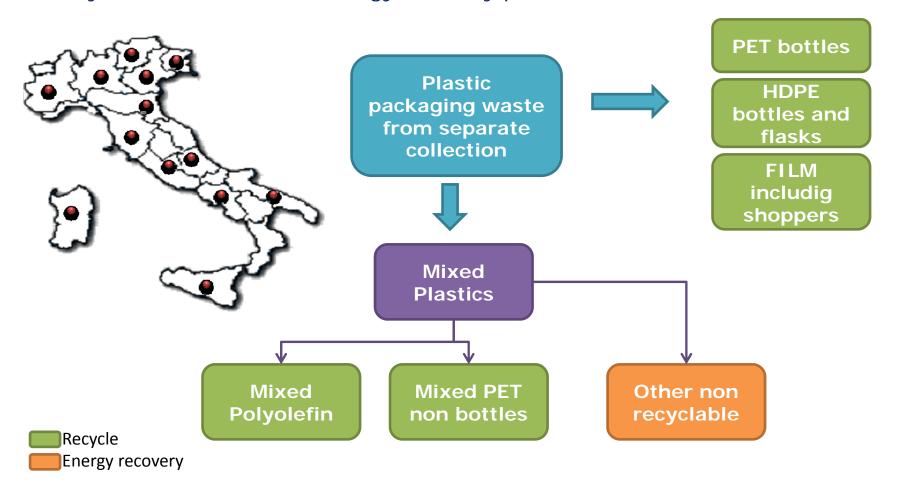
Centre: 7,5

South: 6,2

Average Italy: 10,0

figures at 31/12/2009

- Corepla operates through 40 sorting plants all over the country
- Material from separate collection are sorted into fractions that can be recycled or recovered in energy recovery plants.



A standard recycling process for secondary raw material production.



## RECOVERY

#### **RECYCLE**

Mechanical Recycling



Feedstock recycling

#### **ENERGY RECOVERY**



**Energy Recovery** 



**RDF** 

Corepla promotes production of specific RDF from non recyclable fractions with high calorific power in order to feed cement kilns and blast furnaces.



#### Prevention as opportunity

COREPLA is a reference and a benchmark for plastics industrial sector also on implementation of <u>PREVENTION POLICIES</u> based on followings guide lines:

- a) involve shareholders on an agreed common platform
- b) develop projects in agreement with users and retailers
- c) provide technical support for improvement of plastic packaging in accordance with industrial processes of recycle and recovery.





## Shape & Function: the temporary nature of packaging



SMART EVOLUTION OF PACKAGING

Sustainable use of raw materials



Cooperation between users and retailers

and social issues

#### **Communication initiatives**

#### School campaign:

Tools for students and teachers, interactive and funny



#### Audiovisual:

Short video with cartoons and images of a real sorting and recycling process

LA SECONDA VITA

DEGLI IMBALLAGGI IN PLASTICA

#### Corepla and citizens:

"The recycling castle" a guided tour through a castle to promote the culture of recycling



#### Tools for transparent management

- Transparent management following criteria defined in Dlgs 231/2001 regarding responsibility of companies.
- Code of Ethics for all employees
- Audited Balance sheet
- Quality management certified (UNI-EN-ISO 9001: 2008, 14001: 2004 and EMAS, BS OHSAS 18001: 2007)
- Traceability of all processes

# Trend of Recycle and Recovery

	2008	2009	2010 exp
Consumption	2.205	2.092	2.030
Recycle COREPLA	306	341	354
Recycle C&I	366	350	355
Total Recycle	672	691	709
% Recycle	30,5%	33,1%	35%
Energy Recovery	664	800	733
% En. Rec.	30,1%	38,3%	36,1%
Recovery	1.336	1.492	1.443
% RECOVERY	60,6%	71,3%	71,1%

#### Plastic recycling has a positive impact on climate change



Cut more than 10% of energy needs for industrial process

Cut more than 10% of total CO<sub>2</sub> Emissions in Italy

Create of new opportunity of employment

Reduce use of raw materials

Recycle and Recovery Activities are an advantage for the environment, contribute to reduction of energy consumption, reduce the consumption of raw materials and cooperate in fighting climate changes.

Cooperation between all players involved in the schema is fundamental to reach the EU targets.

Corepla, in the CONAI system, reached the EU targets with costs that are among lowest in all European Countries: is an effective tool that is ready to face all challenges proceeding from technological progress and new legislation.

It's important to think in a way that take into consideration sustainable production processes.

# THANK YOU

www.corepla.it