

Extensive Use of Compostable Shopping Bags in Italy: Synergy and Integration Between Retail Sector and Residential Organics Collection Programs

USCC 19th Annual Conference and Tradeshow
Hyatt Regency, Santa Clara/San Jose, CA
January 24 - 27, 2011

Christian Garaffa – Novamont S.p.A.



Living Chemistry for Quality of Life.

About Novamont and MaterBi resin

Renewable resources



Technologies with a low environmental impact



Sustainable tailor made applications



Solutions to specific issues in the end of life



Certified according to European and American Standards

Presentation Outline

- An overview of residential organics collection programs and composting in Italy
- Italy's national plastic bag ban and the exemption of compostable shopping bags
- The case study of the retail chain COOP
- Conclusions

Collecting organic waste in Europe: main legal drivers

1. The revised WFD¹ requires Member States to:
 - Take measures to encourage the separate collection of biowaste for composting and AD.
 - Recycle 50% of all waste from households by 2020
2. The Landfill Directive² requires Member States to:
 - Divert from landfill 65% of biowaste by 2016
 - Pretreat all waste before landfilling

¹Directive 2008/98/EC

²Directive 99/31/EC



Collecting organic waste in Italy: main legal drivers

1. The general environmental Act 152/2006¹ requires to source segregate 65% of all MSW by the end of 2012
2. The Act 205/10² requires waste authorities to:
 - Collect organics in compostable bags certified according EN13432
 - Take measures to encourage SSO within 180 days from the date of entry into force of this Act (dec 2010)
3. The Law 296/06³ mandates the ban of non compostable carrier bags and has come into force since 2011/1/1

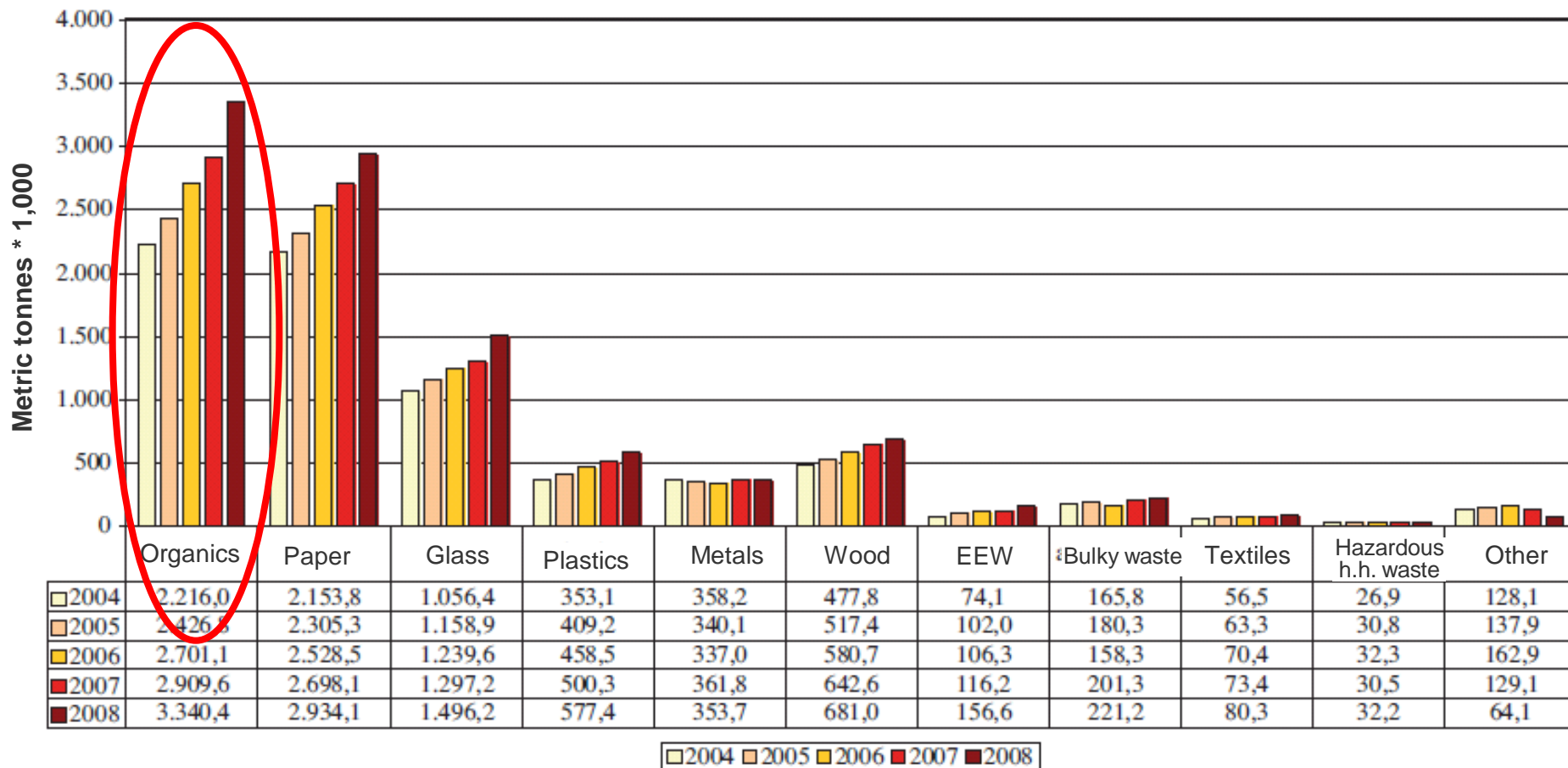
¹D.Lgs 152/2006

²D.Lgs 205/2010

³Legge 296/06

MSW source separation in Italy

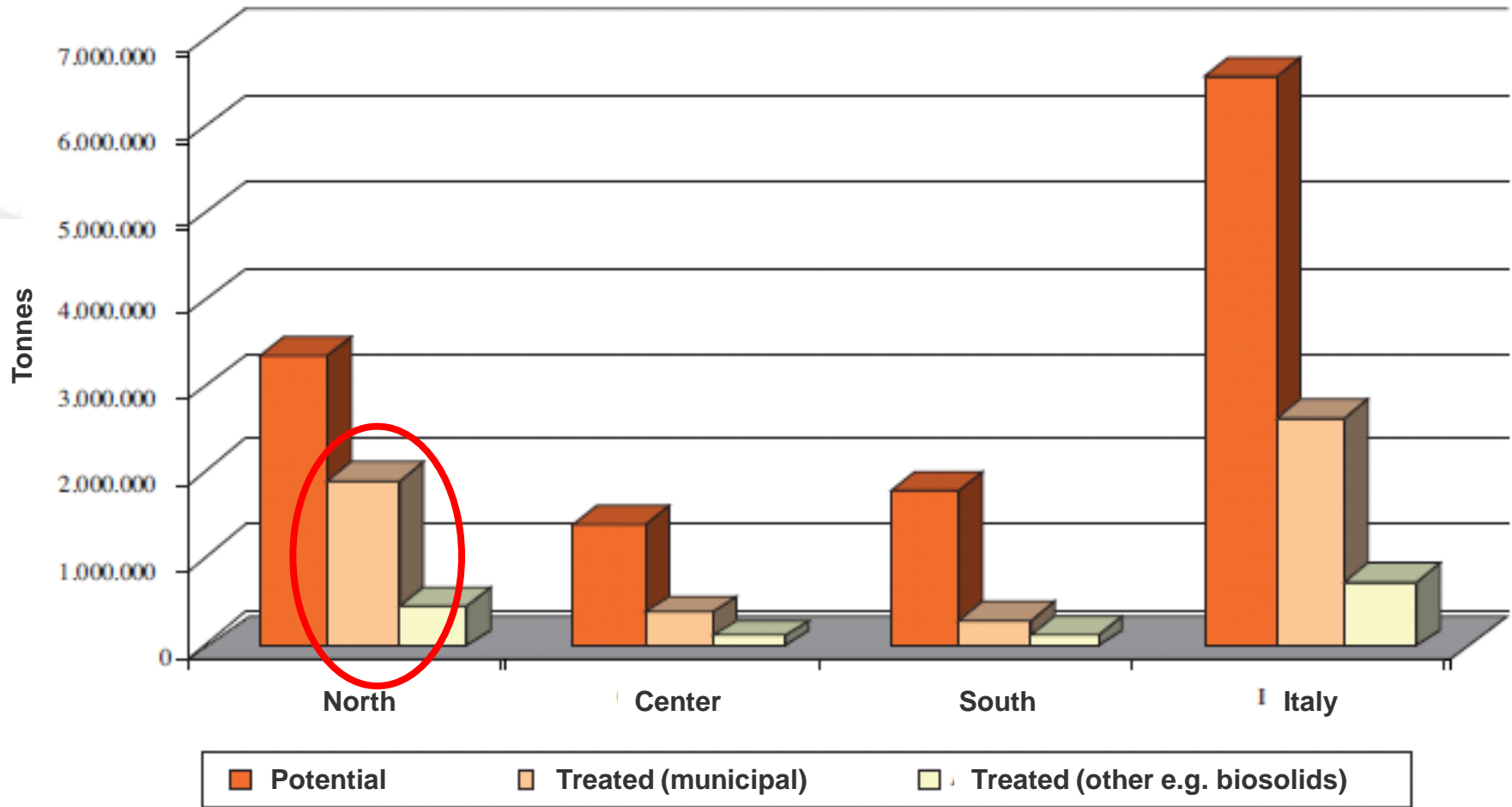
Separate collection: trend 2004 - 2008



Source: ISPRA – Waste report 2009

Composting in Italy

Composting of source separated feedstocks in 2008



Source: ISPRA – Waste report 2009

Composting in Italy

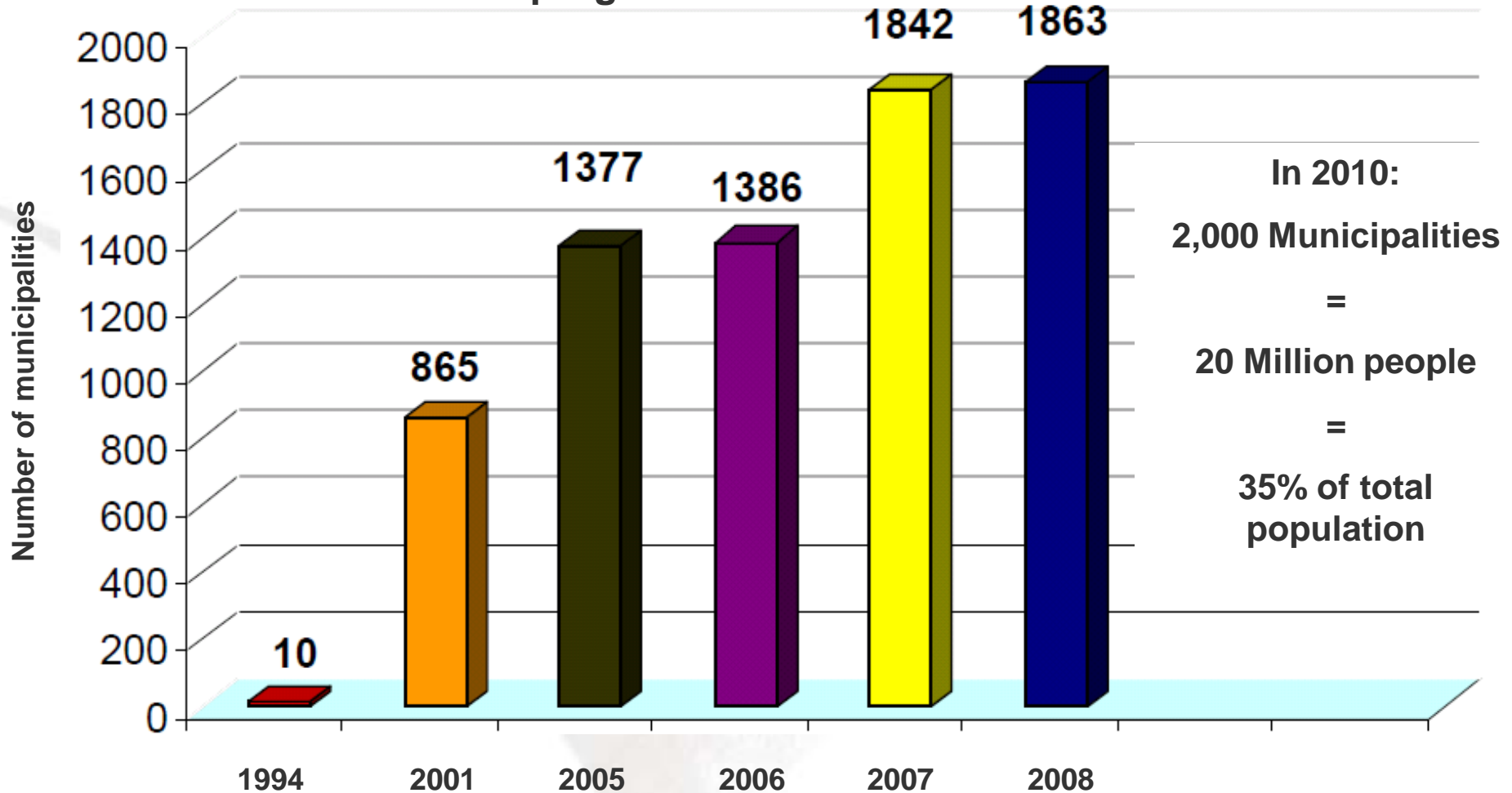
Type of feedstocks composted or digested in 2008



Source: ISPRA – Waste report 2009

SSO programs in italy

Evolution of SSO programs



Source: CIC 2010 (Italian Composting Council)

SSO programs in Italy

How does the collection system work?

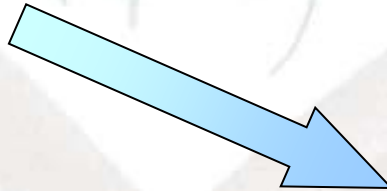
Kitchen bin



Outdoor bins



30 to 40 It (8 to 10 US gallon) for single households



120 to 240 It (30 to 65 US gallon) for multifamily buildings

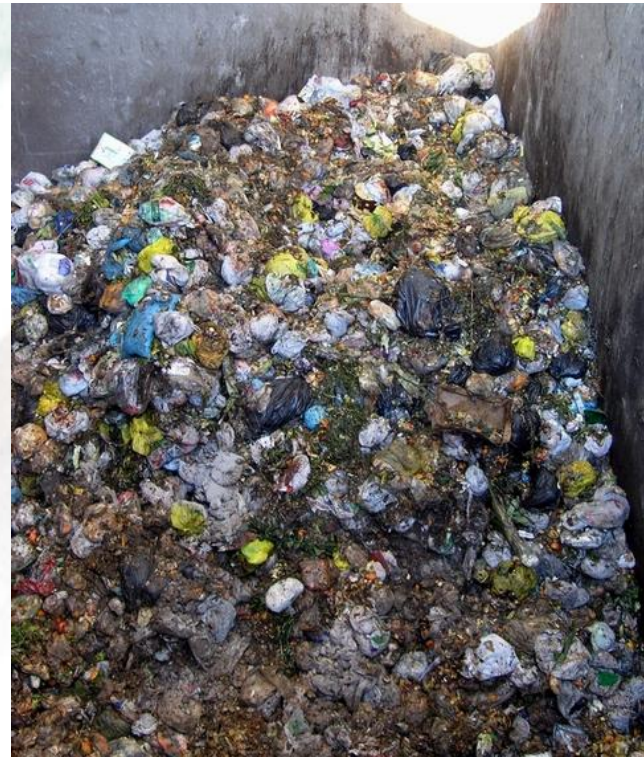




SSO programs in italy

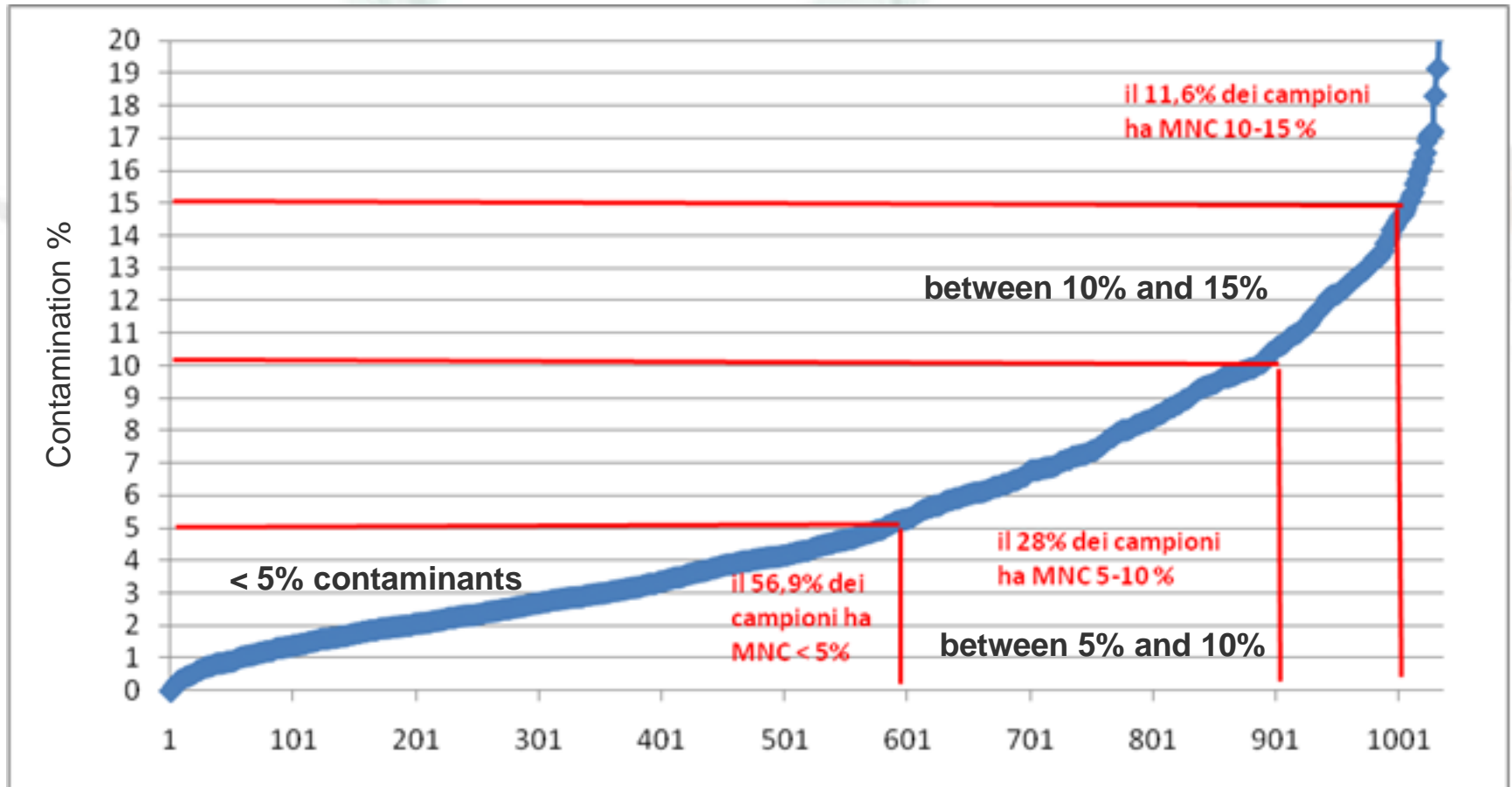
Quality of the collected food waste

Type of bags used: compostable Vs. non compostable



SSO programs in italy

Purity of the collected food waste



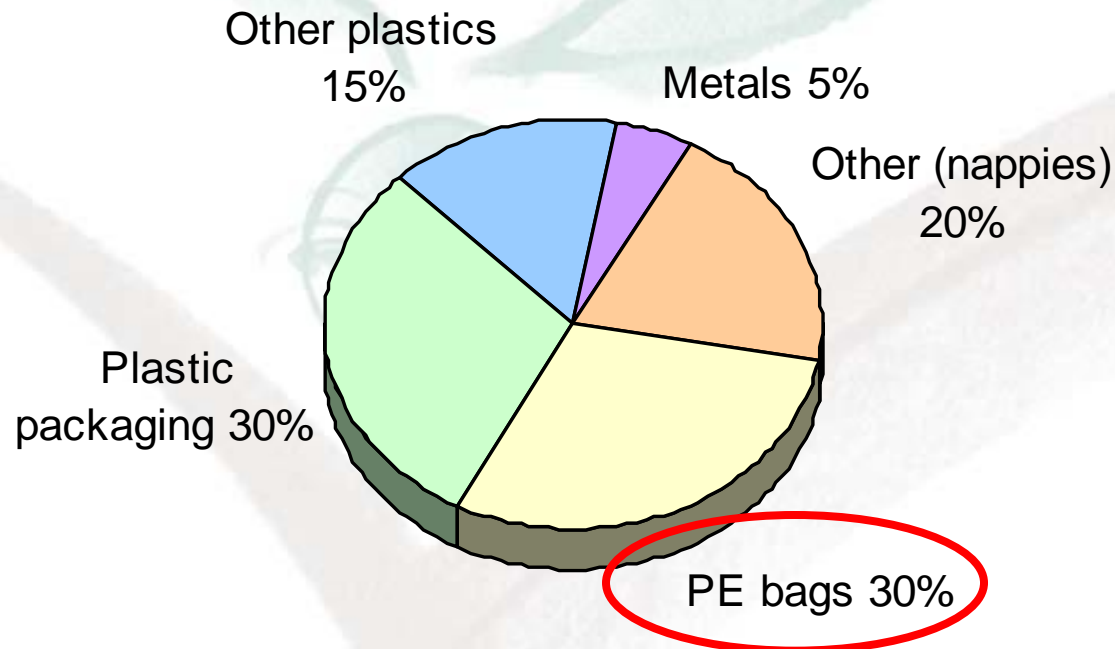
1036 analyses in 14 facilities and 42 provinces (december 2008 – july 2010)

Source: CIC, Italian Composting Council

SSO programs in italy

Purity of the collected food waste

Average composition of non compostable contaminants



1036 analyses in 14 facilities and 42 provinces (december 2008 – july 2010)

Source: CIC, Italian Composting Council

The national plastic bag ban

The Law 296/06 banning single use plastic bags has been enacted since **1st January 2011**

Main objectives:

- **Prevent plastic waste generation**
- **Promote reusable bags**
- **Reduce contamination of organics**



Novamont

Living Chemistry for Quality of Life.

Why were compostable bags exempted?

Main goals:

- back up option that allows for a smoother transition to reusable bags
- reduce contamination in SSO programs
- increase participation in SSO programs
- allow cost savings to local authorities
- allow cost savings to composting facilities

Players involved

Citizens

- Involvement
- Education
- Motivation

Retailers

- Communication
- Service
- Marketing

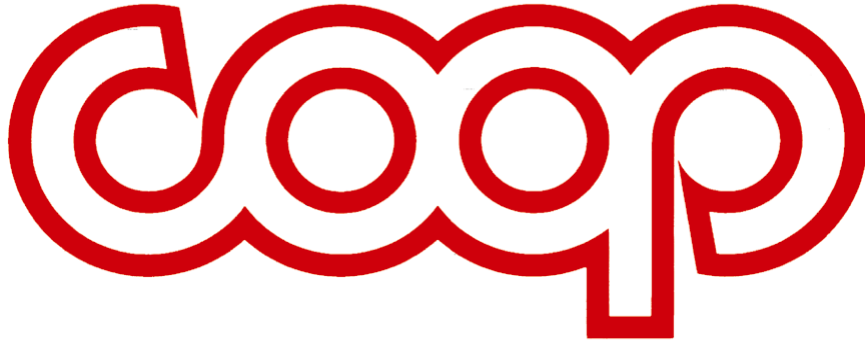
Public Authorities

- Education
- Quality of SSO
- Cost of SSO

W.M. companies

- Landfill diversion
- Disposal cost
- Compost quality

The retail sector: the experience of Coop



- Network of 9 large cooperatives
- 1,440+ stores in 2010
- About 60.000 jobs
- 12 Bln € in 2009
- 17.8% market share in 2009

The experience of UNICOOP Firenze



RIUSIAMO LE BORSE
USIAMO RISPETTO PER LA NATURA
FINO AL 30 GIUGNO
50%
SCONTO ALLA CASSA
SU TUTTO L'ASSORTIMENTO DI
BORSE RIUTILIZZABILI

IN FATTO DI AMBIENTE USIAMO LA TESTA

UNICOOP FIRENZE

This advertisement features a woman holding a reusable shopping bag with a sun and tree pattern. The background is a vibrant green and yellow gradient. The text promotes a 50% discount on reusable bags until June 30th.



UNICOOP FIRENZE:
PER PRIMI SOSTITUIAMO
LE BUSTE IN PLASTICA
CON QUELLE BIODEGRADABILI.

coop
UNICOOP FIRENZE

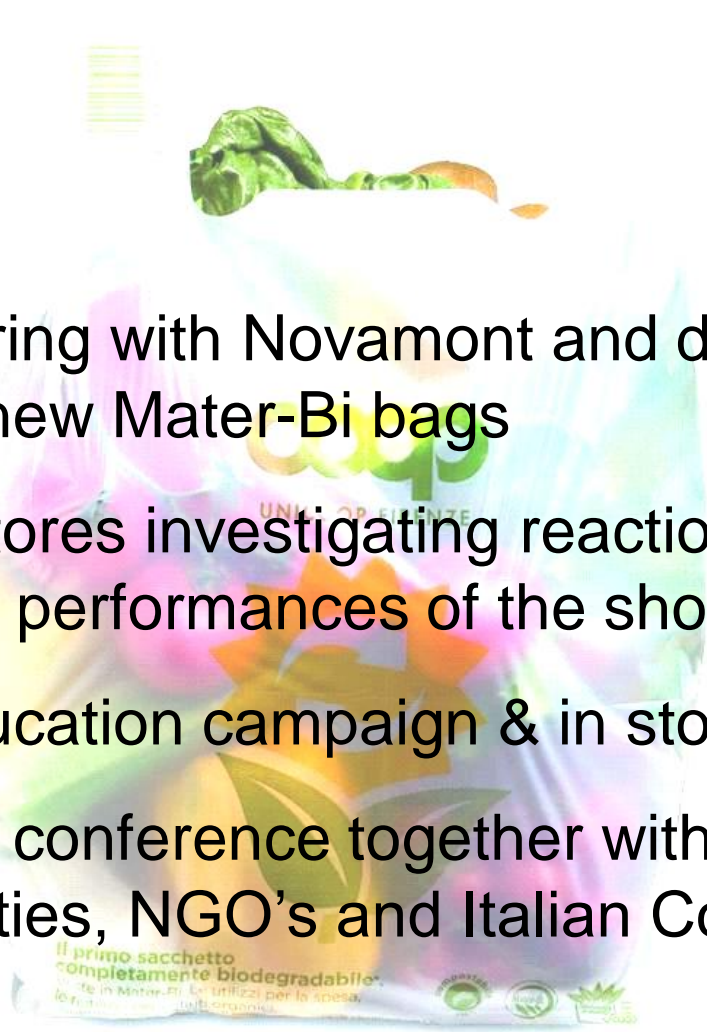
coop
UNICOOP FIRENZE

This advertisement shows a shopping bag made of green grass and flowers, symbolizing biodegradability. The text highlights UNICOOP FIRENZE's pioneering move to replace plastic bags with biodegradable ones.

- 100+ stores in Tuscany
- MKT share of 35% in Tuscany, 2 Bln €
- May 29 2009: complete phase out of PE bags and move to reusable bags + Mater-Bi bags
- After COOP Firenze the other cooperatives have followed suit

UNICOOP Firenze: the steps of the project

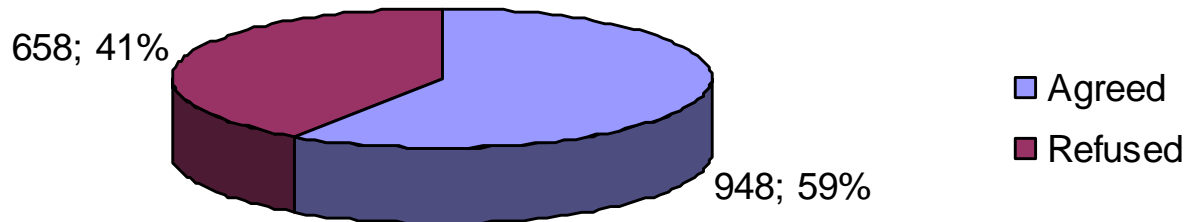
- Unicoop partnering with Novamont and defining the features of the new Mater-Bi bags
- Blind test in 2 stores investigating reactions of consumers and mechanical performances of the shopping bags
- Definition of education campaign & in store promotion
- Launch & press conference together with Novamont, regional authorities, NGO's and Italian Composting Council.



The retail sector: the experience of Coop

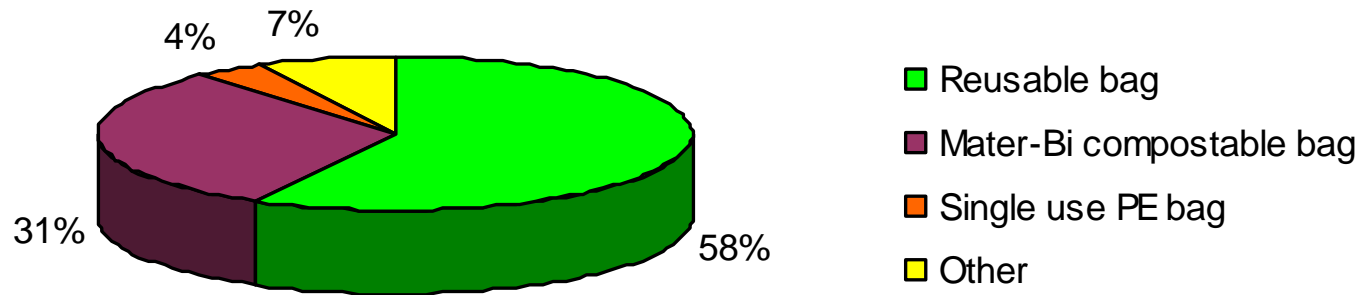
Survey on 1606 consumers in 14 stores of Coop, in the Veneto, Marche and Romagna regions (November 2010)

Who agreed to participate in the survey?



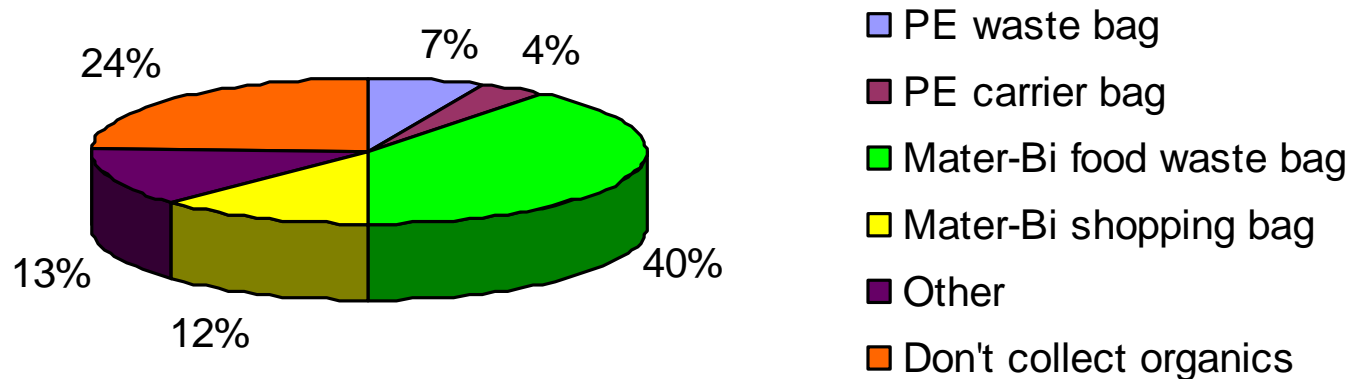
The retail sector: the experience of Coop

What kind of bag do you generally use to do shopping?



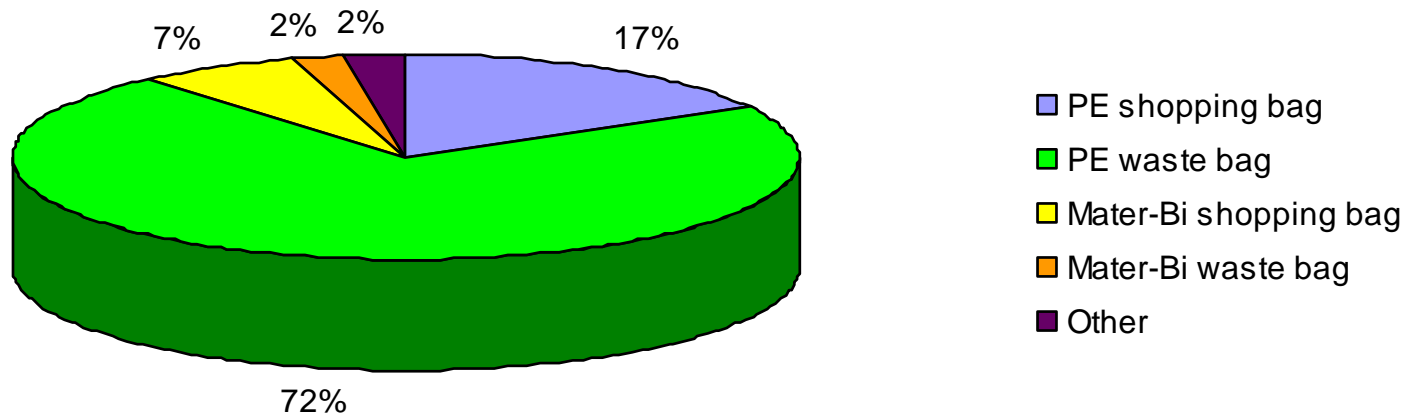
The retail sector: the experience of Coop

What kind of bag do you generally use to collect organics?



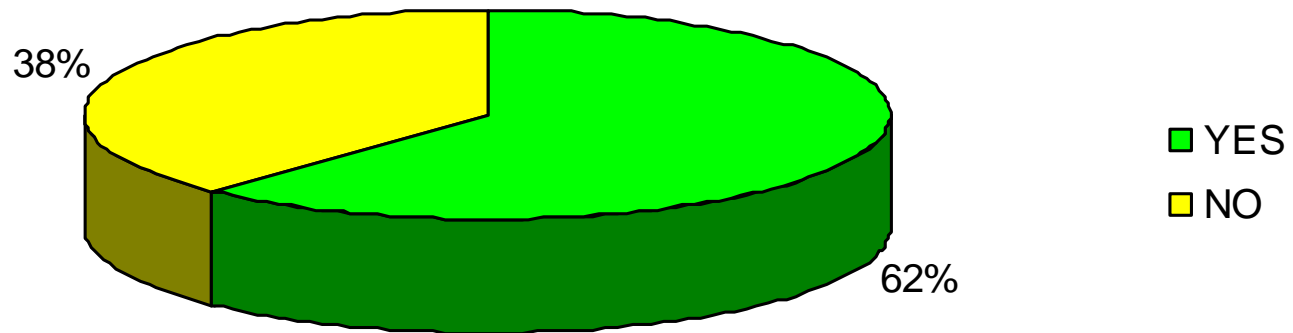
The retail sector: the experience of Coop

What kind of bag do you generally use to collect residual waste?



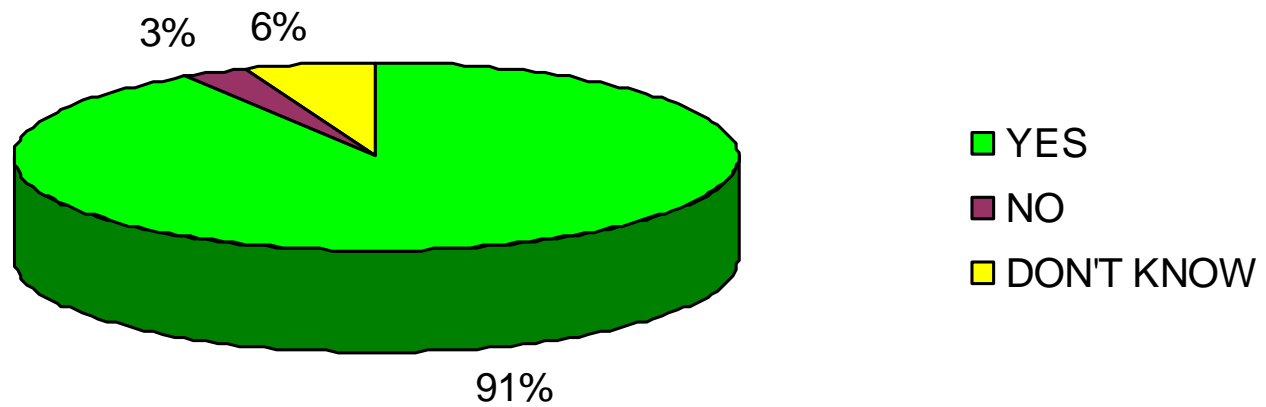
The retail sector: the experience of Coop

Are you aware of the plastic bag ban on 1st of Jan 2011?



The retail sector: the experience of Coop

Do you agree on the plastic bag ban?



Conclusions

1. Italy has well developed SSO programs at regional level
2. Some programs perform very good, others have strong contamination issues
3. PE bags are part of the problem
4. The recently enforced PE carrier bag ban shall bring benefits in terms of waste reduction
5. By exempting compostable bags it will provide a great opportunity to improve quality and captures of SSO programs



Thank You

Christian Garaffa
christian.garaffa@novamont.com
+39 0321 699 693