

## 34th Annual ! Organics Recycling Conference



# Organic waste recycling in Italy: key elements and results

October -2024, CCC, Niagara Falls (Ontario, Canada)

Dr. Marco Ricci – Jürgensen  
Altereko sas, Italy



MR – 10.24

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## About myself



**Altereko sas – consulting for circular economy**  
MD  
[www.altereko.it](http://www.altereko.it)



**CIC Italian Composting and Biogas Association**  
Senior Expert  
[www.compost.it](http://www.compost.it)

ISWA Working Group  
Biological Treatment  
of Waste



**ISWA International Solid Waste Association**  
Vice-Chair of the Working Group on Biological Treatment of Waste  
[www.iswa.org](http://www.iswa.org)



**ECN European Compost Network**  
Chair of the Task Group on Compostable Bioplastics  
[www.compostnetwork.info](http://www.compostnetwork.info)



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**About myself**  
**O sebe**

The slide features a world map with various regions highlighted in different colors. A central green box lists project locations: Milan, Parma, Bozen; Bratislava, Prague; Paris, Madrid, Barcellona; and San Paolo (BR). Lines connect these locations to labels on the map: UK, Portugal, Spain, Brazil, Chile, Argentina, Poland, Bulgaria, Czech Republic, Slovak Republic, Tunisia/Sweep-Net, and Cambodia. The altereko sas logo is present at the top and bottom of the slide.

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Poland  
Bulgaria  
Czech Republic  
Slovak Republic  
Tunisia/Sweep-Net  
Cambodia

Milan, Parma, Bozen  
Bratislava, Prague  
Paris, Madrid, Barcellona,  
San Paolo (BR)

UK  
Portugal  
Spain  
Brazil  
Chile  
Argentina

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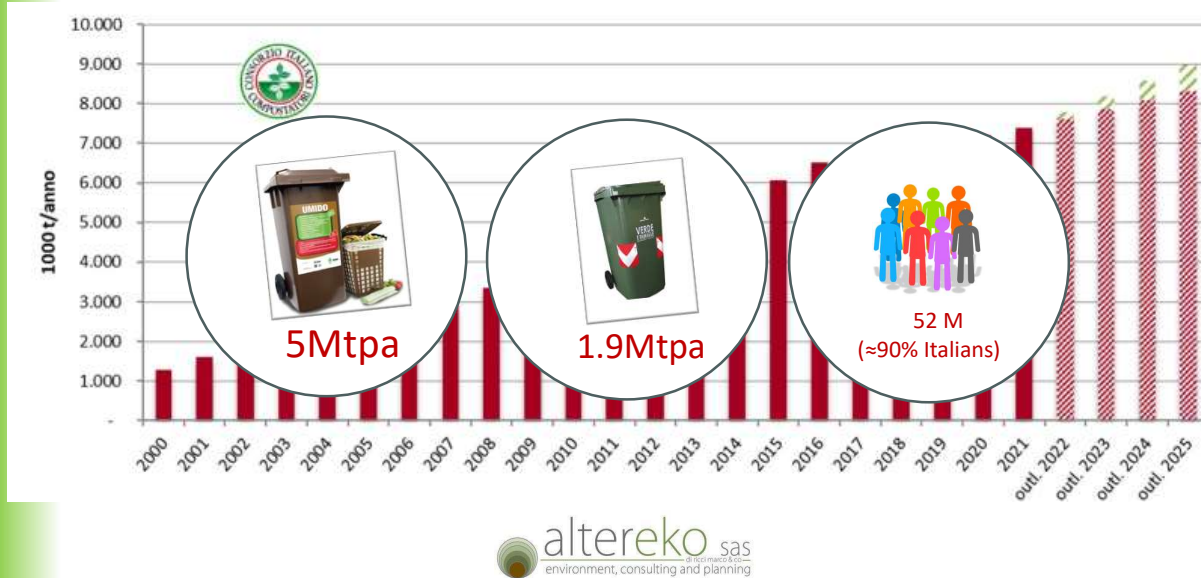
**FOODWASTE RECYCLING IN ITALY**

A brown food waste recycling bin with a lid and a smaller basket next to it. The bin has a label that says 'UMIDO' and contains some food waste. The basket is also filled with food waste.

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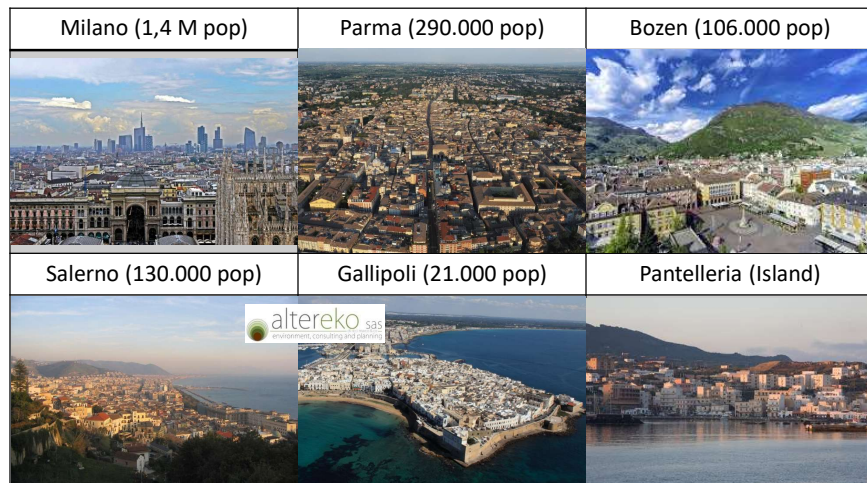
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**A focus on Italy: a successful management begins from separate collection**



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**Separate collectoin of foodwaste in a range of different urban dwellings**



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## Convenient tools to sort food waste

### Sorting at home

- Vented kitchen caddies
- Compostable bioplastic
- For each household



### Plastic free collection

- Yearly distribution of compostable bags
- Bioplastic and Paper complying with EN-13432 standard
- Compostable shopping bags available in all shops



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## The City of Parma



- 190.000 Population
- 108.000 families
- 15% Foreigners
- University (22.500 students)



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## Collection of food waste in Parma



### Households

- 23-30 Liter
- Easy to handle
- Manual emptying
- Stockable

### Ho.Re.Ca

- 120/240 Liter
- Standard wheel bin
- Mechanical tipping

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## Collection frequencies



| Zone              | Collection of food waste | Collection residual waste |
|-------------------|--------------------------|---------------------------|
| Old town          | 3/w                      | 2/w                       |
| Historical center | 2/w                      | 2/w                       |
| Modern City       | 2/w                      | 1/w                       |
| Boroughs          | 2/w                      | 1/w                       |
| Ecostation        | 24h                      | 24h                       |

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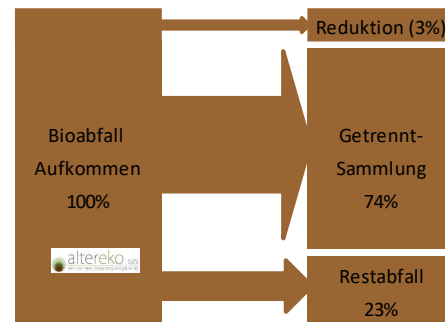
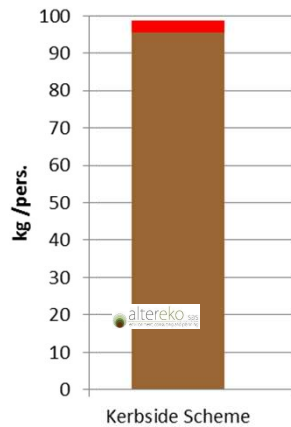


## Food waste collection in pictures....



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## Separate collection of foodwaste in Parma



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## Collection of yard waste in Sommacampagna



### At municipal collection center

- Access is free
- Delivery by households directly
- Amounts dropped and transferred to composting

### Door to door service

- 120/240 Liter
- On demand
- Annual fee (PAYT....)



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## Collection of residual waste



- 1 x 40 liter per family
- TAG RFID
- Collection services are traced
- Collection frequencies are reduced to 1/2weeks



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Picture CIC, IT

## COMPOSTING AND AD IN ITALY



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## Circular economy with organic waste in Italy



**Material recycling:** facilities produce **compost** used in agriculture and for potting and horticulture

**Energy & Material recovery:** facilities produce **biogas and compost**; gas for electricity and heat

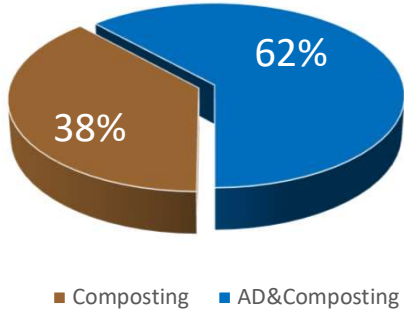


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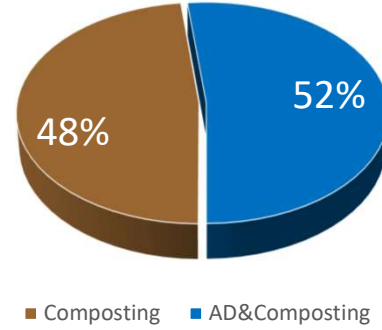


## Circular economy with organic waste in Italy

**Food waste**  
Food waste recycling, IT - 2021



**All organic waste (FW, GW, Sludges...)**  
Organic waste recycling, IT - 2021



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## Organic waste recycling and Compost production, Italy 2021



**Composting**  
**4 million ton**

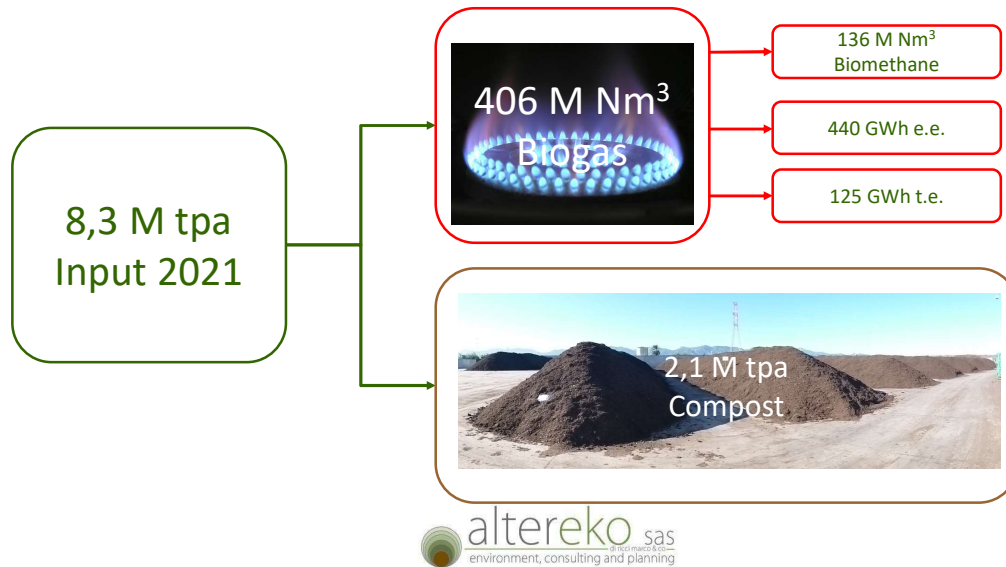


**Anaerobic Digestion & Composting**  
**4.3 million ton**



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## Products from the recycling of organic waste - 2021



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## CIC's initiatives on quality in organic waste recycling

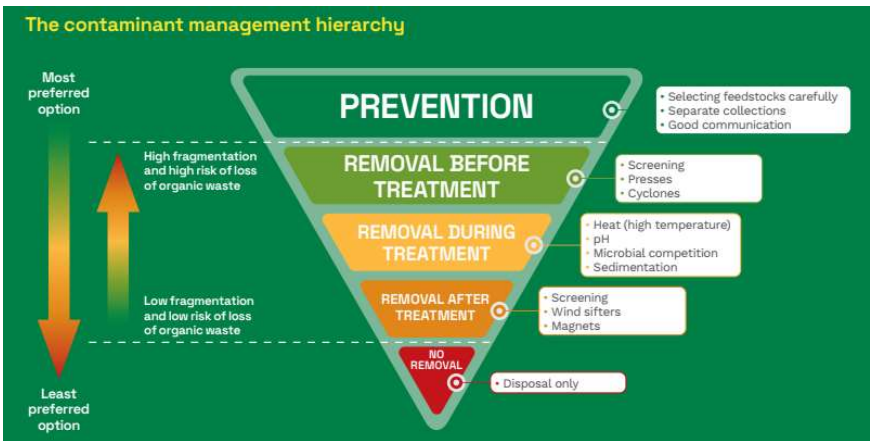
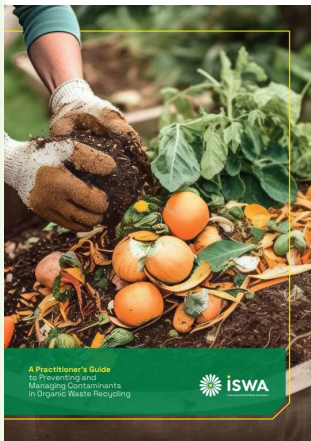


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### Contamination hierarchy



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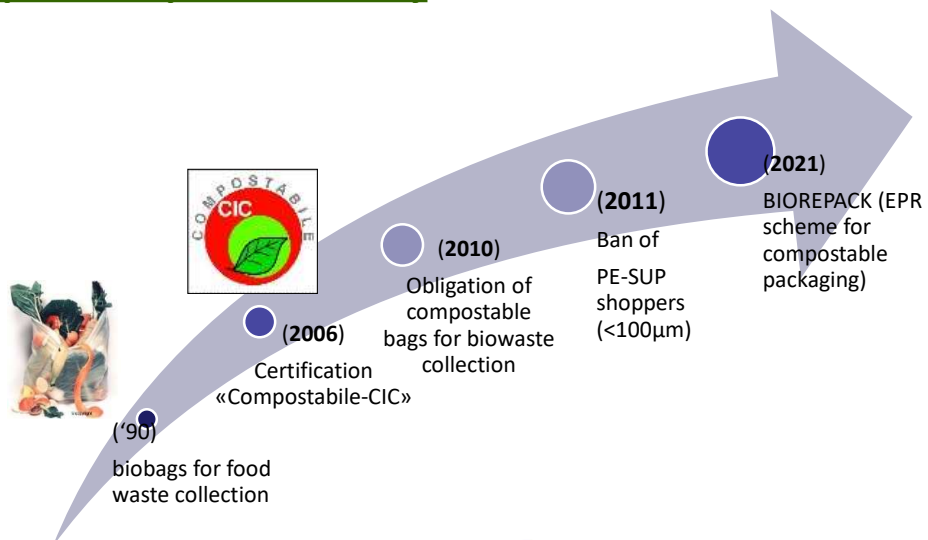
## COMPOSTABLE ITEMS IN ORGANIC WASTE RECYCLING IN ITALY



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## Compostable plastics in Italy

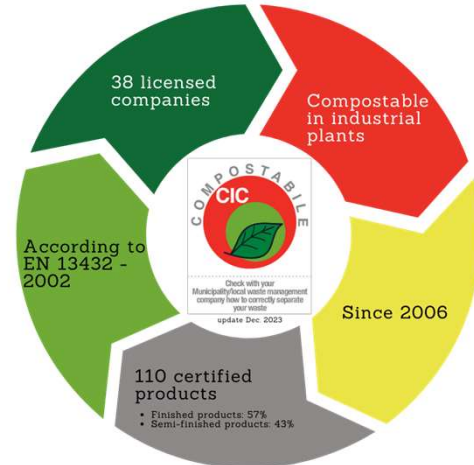


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## The «Compostabile CIC» scheme

- Managed by CIC since 2006 in coop with certifying body.
- For better protection of the organic recycling sector,
- the procedures of Compostabile CIC, comply with the requirements of the UNI EN 13432:2002 standard,
- **Additional requirements:**
  - Sampling of the item carried out by third party (cert. body)
  - **Full-scale testing of disintegrability** (in a composting plant)
  - Additional obligations on labelling



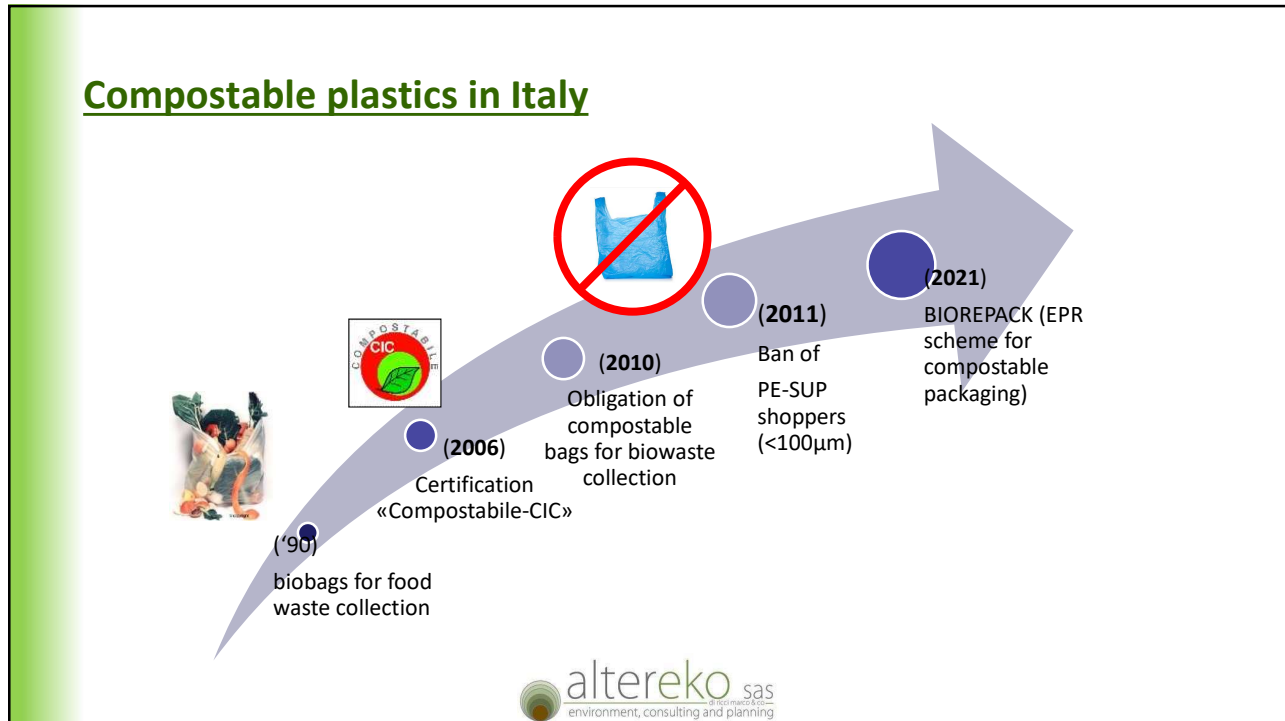
## CIC's field test for assessing disintegration - EN 13432



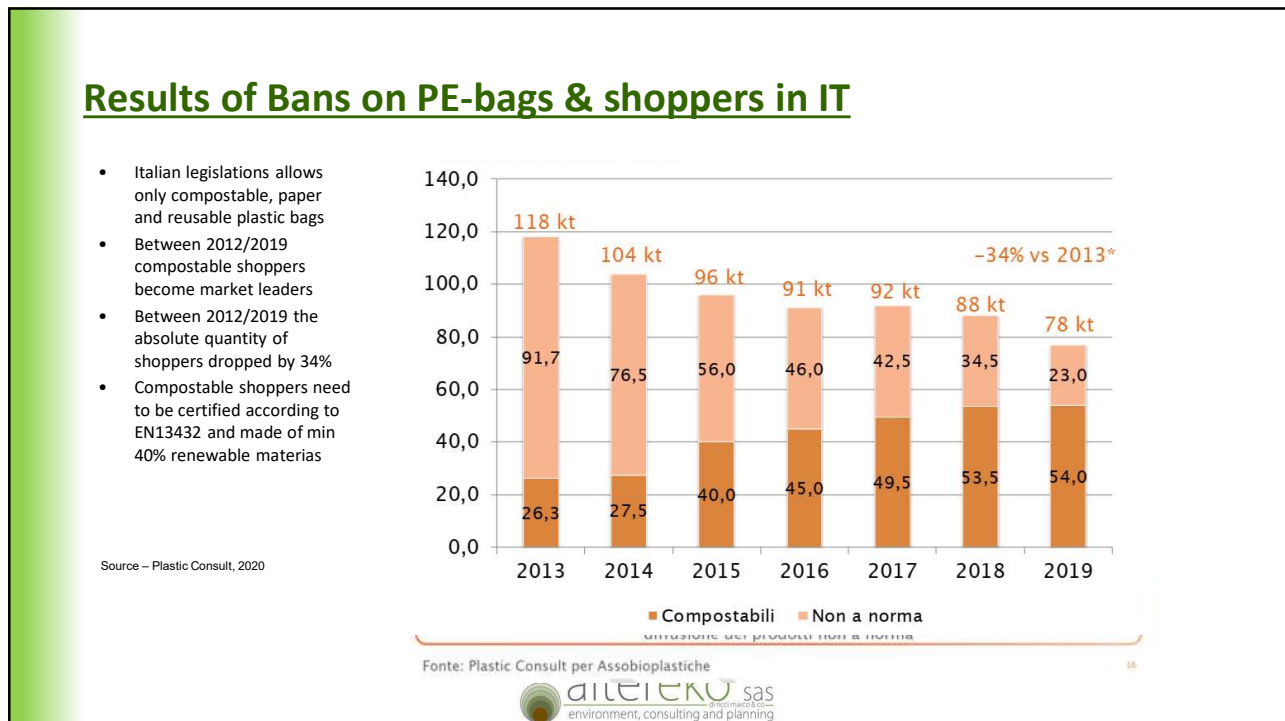
1. Analysis on composition and potential contaminants of the packaging
2. Assess biodegradation compared to reference material
3. **Assesses disintegration in a real composting process**
4. Assesses Ecotoxicity of compost obtained





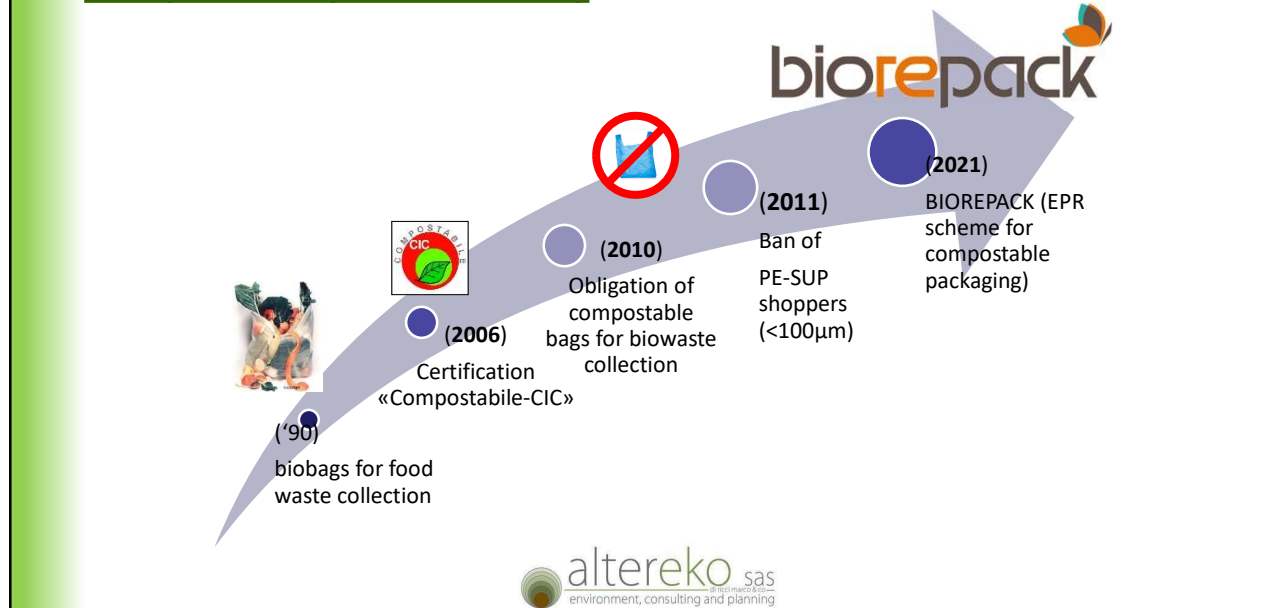


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## Compostable plastics in Italy



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## Biorepack (update 2022)



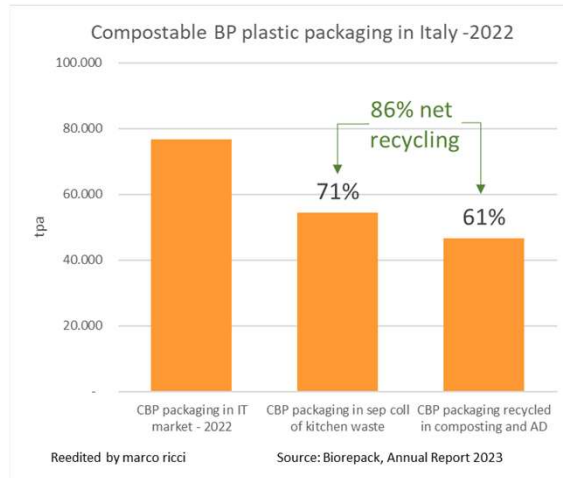
- **Established in Nov-2018**, first European EPR scheme for biodegradable and compostable plastic packaging
- **responsible for the end-of-life management** of EN 13432-certified compostable bioplastic packaging (and other similar items)
- Recycling through separate collection and recycling **together with** the organic fraction of municipal solid waste
- **Recycling targets**      50% by 31.12.2025 >>>      55% by 31.12.2030
- **Achievements:**      61% by 31.12.2022
- EPR levy (for packaging producers): 129€/t
- EPR payment (to municipalities): collection < 140€/t & recycling ~ 91€/t

| Fascia Qualitativa | Frazione Estranea        | Corrispettivo 2022 |
|--------------------|--------------------------|--------------------|
|                    | % in peso                | euro/t             |
| A                  | fino al 5%               | 129,41             |
| B                  | oltre il 5% fino al 10%  | 114,13             |
| C                  | oltre il 10% fino al 15% | 107,00             |
| D                  | oltre il 15% fino al 20% | 64,20              |



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## Compostable packaging and recycling in IT



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## Communication



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## Communication and awareness

SEAB SPA | Amministrazione Trasparente

Ambiente Reti Città

|  |  |
|--|--|
| <p><b>Il sistema di raccolta di Bolzano</b></p> <p>Breve descrizione del sistema di raccolta di Bolzano: le zone, i contenitori, i calendari di raccolta.</p>                      | <p><b>Nuove utenze, variazioni, cessazioni, riduzioni</b></p> <p>Ha cambiato casa? Deve richiedere una riduzione? Qui trova tutte le informazioni e i moduli da compilare.</p> |
| <p><b>Raccolta differenziata</b></p> <p>Quale rifiuto va in quale contenitore? Qui trova la risposta a questa domanda e molte altre informazioni sulla raccolta differenziata.</p> | <p><b>Centro di riciclaggio Bolzano</b></p> <p>Orari di apertura ed elenco dei rifiuti accettati al Centro riciclaggio di Bolzano</p>  |
| <p><b>Ritiro ingombranti</b></p> <p>Ha bisogno di prenotare il nostro servizio di ritiro ingombranti? Qui trova tutte le informazioni.</p>   | <p><b>Calendari di raccolta</b></p> <p>Quando passano a svuotare i bidoni del residuo e dell'organico nelle varie vie di Bolzano?</p>  |
| <p><b>Pulizia delle strade</b></p> <p>Informazioni dettagliate sulla pulizia delle strade di Bolzano.</p>  | <p><b>Tariffe, fatture e pagamenti</b></p> <p>Come viene calcolata la tariffa rifiuti? Cosa contiene la tariffa? Quando arriva la fattura?</p>                                 |

### Biomüll: 100 gute Gründe

1. – „Ich trenne Biomüll, weil meine Kinder noch grün sehen sollen.“

Merica, Paul, Sonia e Lina, Bolzano

Mach mit bei „100 gute Gründe“ und werde Biomüll-Bereitschafter! Du wirst lernen, die richtige Mülltrennung und das richtige Grundverhaltens zu und unsere Umwelt dabei zu schützen. Du wirst auch erfahren, wie du deinen Beitrag leisten kannst. Du wirst auch erfahren, wie du deinen Beitrag leisten kannst. Du wirst auch erfahren, wie du deinen Beitrag leisten kannst.

Info und Anmeldung: [www.altereko.it](http://www.altereko.it) | Tel. 0471 800 013 066



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## Communication and awareness

Servizio gestito da

**Amsa**  
GRUPPO a2a

### CONSIGLI PER UNA RACCOLTA DIFFERENZIATA CORRETTA

CONSEILS POUR UNE COLLECTE SÉLECTIVE CORRECTE

نصائح للجمع المنفصل الصحيح

නිවැරදි කිරීම සඳහා උපදෙස් වෙනම එකතුව

**ORGANICO**  
DÉCHETS ORGANIQUES - المرفقات العضوية - කෘතමය ඉහරණ

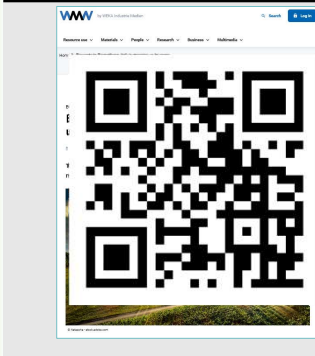
|   |  |  |  |
|---|--|--|--|
| <p><b>SI</b></p> <p><b>Avanzi di cibo senza conservazione</b></p> <p>Resteri alimentari senza conservazione</p> <p>අහිමි කළ ආහාර ආදායම්</p> | <p><b>Fondi di caffè e filtri del té</b></p> <p>Residui di caffè e filtri del té</p> <p>කහ පිඬු සහ තේ පිඬු</p> | <p><b>Fiori e foglie</b></p> <p>Fiori e foglie</p> <p>පූ සහ පත්ල</p>             | <p><b>Tovaglioli di carta usati</b></p> <p>Tovaglioli di carta usati</p> <p>භාවිත කළ පිටුපත්</p>   |
| <p><b>NO</b></p> <p><b>Parmenite e assorbenti</b></p> <p>Candele, tamponi, assorbenti</p> <p>කැන්දා, පැමිණිලි, අවශෝෂක</p>                   | <p><b>Mozzoni</b></p> <p>Mostrini</p> <p>කැන්දා</p>  | <p><b>Deiezioni di animali</b></p> <p>Deiezioni di animali</p> <p>කෘතමය ඉහරණ</p> | <p><b>Sacchetti di plastica non compostabili</b></p> <p>Sacchetti di plastica non compostabili</p> <p>කැප්පුණු කළු පැහැති ප්ලාස්ටික්</p> |



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## Further readings and events

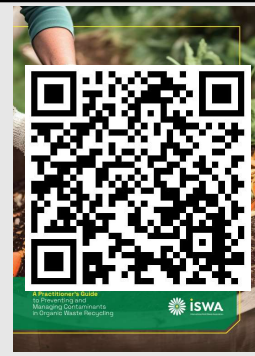
**About SSO and recycling**



**About Italy's recycling sector**



**About Contaminants**



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**THANK YOU**  
**GRAZIE**

**RICCI@ALTEREKO.IT**



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