

BIOWASTE MANAGEMENT IN MILAN: AN OVERVIEW

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Amsa S.p.A. (A2A Group)

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A2A. LIFE COMPANY



WE CARE ABOUT LIFE. AND PEOPLE.

We at A2A are a **Life Company**, because **life** and its quality are at the heart of everything we do in the spheres of our work with **energy, water** and the **environment**.

We support **families** and **businesses**, driving the **sustainable growth** of the country. Our idea of growth is based on respect for the environment, social equality and inclusive development.

Because we look far ahead, thinking of **everyone's future**.

A person wearing a white lab coat is holding a blue silhouette of a plastic bottle. The person is standing in front of a recycling bin with a purple liner. The background is a blurred indoor setting with a wooden floor and a white wall. The text "Waste management in Milan" is overlaid on the right side of the image.

Waste management in Milan

CITY OF MILAN: WASTE COLLECTION

Key figures

1.4 million
inhabitants



800.000
Commuters/day

7,625
Inh./km²

10,86 millions
Tourists in 2019 (Statista)



632.490
T of Municipal
Waste (2022)



62.0%
Separate
collection in
2022



55.000
waste collection
points (door to
door)



1.400
vehicles for
waste collection
and cleaning
service
CNG: **33%**



23,000
Bins in
streets and
parks



5
civic amenity
sites and **2**
mobile Eco
centers



14
Smart
containers
for WEEE



13
T-recycle
e-bikes

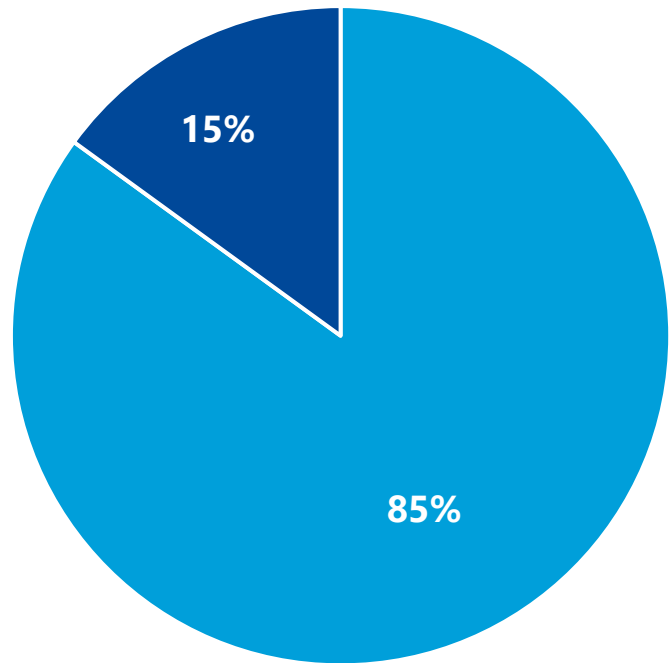
THE INTEGRATED WASTE CYCLE IN MILAN

Circular economy of waste

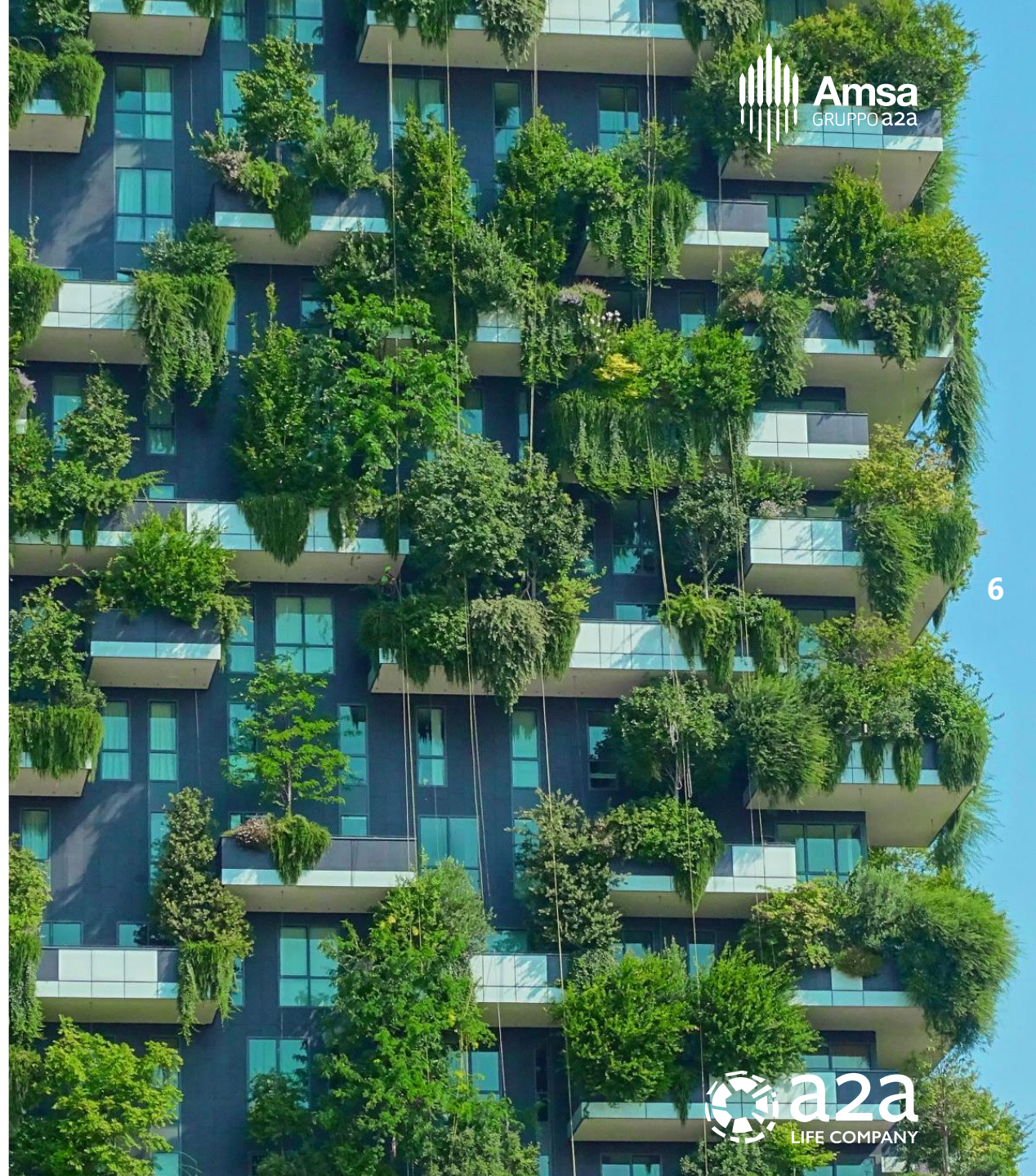


HIGH-RISE BUILDINGS IN MILAN

Housing units' composition in the city of Milan:



■ High-rise buildings ■ Single homes



WASTE ROOMS

Requirements

- Designation of a **responsible** for the waste management of the building;
- **Bin-washing** system;
- **Water** collection system;
- **Tiled area** easily accessible for everyone;
- Area: at least **0,18 m²** per inhabitant and/or theoretical user.



COMPOSTABLES AWARENESS CAMPAIGN



- The market for bio-based and/or biodegradable plastics is expected to grow significantly during the coming years
- **Certified compostable bioplastics** and **paper packaging** are suitable for the biowaste bin



EDUCATION AND COMMUNICATIONS (1)

- **Households organic waste collection start-up (2012);**
- **Awareness campaign for street markets** = focused on compostable bags;
- **RECUP project** = recovery of unsold food in markets and redistribution to the needy;
- **“Really Eth(n)ic”** = engagement project with 200 ethnic restaurants in Milan (mostly Chinese, Latin American, Middle eastern) aimed to raise awareness about the **European Single Use Products Directive**, the best management practices of food waste and the use of certified compostable single use items.



EDUCATION AND COMMUNICATIONS (2)

- **“Is it compostable?” campaign** = focused on compostable materials (how to recognize them and how to recycle them properly);
- **“Progetto Scuola”** = schoolchildren project centered on waste separation;
- **Guided tours of organic waste treatment plants;**
- **Dedicated projects for companies and institutions** (McDonald’s, Deliveroo, Lombardia’s Regional Council);
- **E-Label Project with Kyoto Club association** = trial of a multi-label certification system - with a focus on food waste - to promote separate collection in the Ho.Re.Ca. (*haute cuisine, hôtellerie, fast foods*) and the correct use of certified compostable food service ware and packaging.



Servizio gestito da
Amsa
GRUPPO a2a

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LIFE COMPANY

FACCIAMO UN REGALO ALL'AMBIENTE

Contribuisci alla raccolta differenziata e separa correttamente i contenitori vuoti della tua consegna a domicilio.

SEGUI ALCUNI SEMPLICI CONSIGLI
Rimuovi i residui di cibo dai contenitori vuoti e schiacciai per ridurre l'ingombro.

SEPARA I RIFIUTI COSÌ:

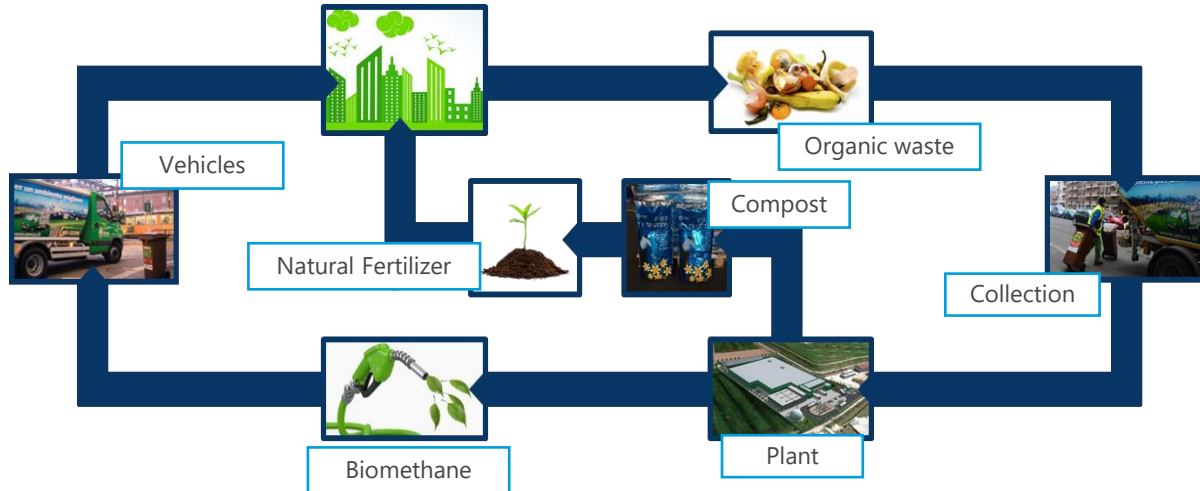
Cartoni della pizza senza residui di cibo	CARTA E CARTONE	Bottiglie di vetro	VETRO
Residui di cibo	ORGANICO	Bacchette di legno	ORGANICO
Bottiglie e vaschette di plastica	PLASTICA E METALLO	Posate di plastica	INDIFFERENZIATO
Lattine e vaschette di alluminio	PLASTICA E METALLO	Posate compostabili (servizi a cui è richiesto il numero di telefono)	ORGANICO

Scopri come: [amsa.it](https://www.amsa.it)

Quando facciamo la differenziata la vita è più azzurra

RECUPERO DELL'ORGANICO: L'IMPIANTO DI LACCHIARELLA

Il biometano come combustibile verde per il settore dei trasporti



100 kt/y of organic waste will be treated in the plant in Lacchiarella. The best technologies include combined processes of anaerobic digestion and composting for the production of:

- **over 8 M m³/y** of advanced biomethane in gaseous form into the network or for transportation;
- **over 20,000 t/y** of compost, a natural fertilizer certified for use in agriculture.



SUSTAINABILITY

- **The advanced biomethane** can be **used in transport**, returning a significant sustainable energy to the city and will be able to fuel the collection vehicles for a virtuous circular economy.
- **The compost** produced through the process allows the soil to be kept at the **levels of organic carbon** typical of **natural soil**.
- **Pretreatment residues** are **aerobically stabilized** along with collected **certified compostable items** and turned into **compost**.



RESULTS

TOTAL MUNICIPAL WASTE COLLECTION 2023

636.932 t



ORGANICS
135.904 t



PAPER AND CARDBOARD
79.217 t



GLASS
68.080 t

SEPARATE WASTE COLLECTION 2022

89.491 t

61,4%



PLASTIC AND METALS
46.251 t



RESIDUAL WASTE
247.441 t

CONCLUSION



The organic waste collection can also be carried out in a big city like Milan, achieving good results, and this year we celebrate 10 years since the introduction of organic waste collection in Milan.

For the successful collection of organic waste, certain factors are fundamental:

- Efficient **collection system**
- Provision of a kitchen basket with a special **aerated structure**
- **Twice-weekly** collection frequency
- Use of **compostable bags**
- **Awareness campaigns**



**THANK YOU FOR YOUR
ATTENTION!**