The City of Milan has signed a service agreement by which it gives the mandate to a private company for the management of environmental hygiene service throughout the city. The main services covered by the contract are: kerbside collection, household waste recycling, streets and public green areas cleaning and washing, emptying baskets and abandoned waste collection. The separately collected waste, such as paper, plastic and glass, is then delivered to specialized installations that provide their proper recycling, while residual waste is forwarded to a waste incinerator.

The collection of kitchen waste began in 2012 and since 2014 100% of the city is covered by collection of food and organic waste, after the final phase of implementation took place. The waste is collected in degradable bags inside 10 l ventilated containers, previously given to citizens, and then deposited in the relevant brown condominium container.

For aerobic to anaerobic digestion and additional benefits

Montello anaerobic digestion plant
Montello started to process organic waste back in the 1990s, with the initial aim of obtaining a simple “sanitation solution” for biowaste diverted from landfills. In 1997, an aerobic composting treatment was developed for the production of “composted mixed soil improver”.

The results achieved have led to new technologies and, consequently, investing in pre-treatment and anaerobic digestion phases that would considerably improve the existing intensive aerobic treatment.

Anaerobic digestion, which is also well-known in Italy for a long time for stabilisation of biological sludge, is not very popular in the treatment of waste of organic origin, on contrary to what is happening in the rest of Europe. Yet, the success story in Montello proves the opposite.

Digesters: 45,200 m³
Installed power: 12.8 MWel
Capacity: 342,000 t/y
Project under construction: biomethane plant
Organic fertiliser: 45,000 t/y
Employees: 98

Benefits from anaerobic digestion
The company has identified several advantages and benefits, such as energy production - maximum recovery of both electric and thermal energy, thanks to the high yield of the multi-phase process; wide field of application and flexibility, as the same plant can process different types of organic waste. Plant operation is entirely automatic, including the separation of unwanted components unsuitable for anaerobic digestion and composting. After all, organic material is converted into energy, contributing to a reduction of CO₂ emissions and consequently to a reduction of the greenhouse effect. The plant allows an annual saving of approximately 90,000 tonnes of CO₂ eq.