

COMPOST AND BIOMETHANE FROM FOOD WASTE

ORGANIC WASTE CAN PRODUCE BOTH ENERGY AND NATURAL FERTILIZERS. FOR 25 YEARS, THE ITALIAN COMPOSTING AND BIOGAS ASSOCIATION (CIC) HAS BEEN GATHERING COMPANIES AND PUBLIC AND PRIVATE ENTITIES TO SET UP A VIRTUOUS CIRCULAR ECONOMY SYSTEM TRANSFORMING AND ENHANCING ORGANIC WASTE.

New paper from paper, new glass from glass, new aluminium from aluminium and so on. But what can you get from properly sorted food waste? Organic waste is an extraordinary resource and an excellent example of circular economy, as it can generate fertilizer and even energy.

Correct disposal and use of organic waste is ensured by Cic, the Italian Composting and Biogas Association, a 25-year-old non-profit organization gathering over 130 members in Italy represented by companies and public and private entities operating in the composting industry. Compost is the main product resulting from organic waste processing and can bring many benefits to agriculture as a natural fertilizer. This type of manure helps maintaining long-term land fertility, improving land structure, increasing water absorption and release and retaining nutritional elements that can easily be absorbed by plants. Compost effectiveness is best ensured by top quality waste sorting and organic waste processing. This is why in 2003 the Cic label was designed, a voluntary programme of compost quality check identifying the products complying with pre-set quality requirements.

Cic has been working for 25 years to develop a virtuous organic waste collection, processing and recycling system in Italy. It has become a model for the rest of Europe in organic waste collection, processing and enhancement. In 2015, over 6 m tons of organic waste – i.e. 100.1 kg per person every year – came from separate waste collection in Italy (Ispra data).

Cic is very satisfied with this result showing that Italy is paying increasing attention to this topic and developing a virtuous system. The next step is to accelerate and improve separate collection in southern Italy to reach 8 m



PHOTO: ARCH. CIC

tons of organic waste on an annual basis (i.e. 140 kg per person).

The Association is also promoting biomethane, which is produced by processing agro-industrial biomasses and urban organic waste coming from separate collection. Annual organic waste collection is estimated to reach about 7-8 m tons by 2020, with 5.8 m tons consisting of urban organic solid waste. If all urban organic waste was recycled in dedicated plants, over 2 m tons of organic fertilizers and nearly 300 m kg of biomethane could be generated every year, which would be more than enough to supply all vehicle fleets collecting urban solid waste.

In the field of urban waste management biomethane would play a strategic

role in line with circular economy principles, which Europe is taking as a reference in reviewing its development policies. Moreover, biomethane plants could be innovative and transform into biorefineries, where agricultural fertilizers and biomethane could be produced and research made on new industrial organic waste-based products.

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