SEPARETE WASTE SYSTEMS
HIGH-QUALITY PRODUCTS FROM WASTE

SEPARETE Waste Systems enable the efficient separation of MSW, separately collected bio-waste and mono-streams into a very clean organic fraction and a non-organic rest fraction.

At the heart of the SEPARETE waste system is an innovative hydraulic press that achieves highest separation efficiency (98%). Under the high pressure, the soluble organic matter behaves like a liquid and is separated from the dry fraction. The organic fraction is further cleaned to limit the remaining impurities such as plastics and inert materials to less than 0.5% of the total organic matter.

The result is a homogenous paste that is perfectly suitable for anaerobic digestion and ensures low maintenance costs of the digester. The cell structures of the organic matter are broken up whereby a high gas yield with shorter retention times can be achieved. Short retention times are of economic importance as they reduce the investment costs for the digestors.

KEY ADVANTAGES
- Optimal use of organic matter due to high separation efficiency (98%)
- Lower maintenance costs and improved digester performance
- Minor gas yield per input unit due to broken cell structures of organic matter
- Lower investment costs through shorter retention times

HIGH-QUALITY PRODUCTS
- BIOGAS
- COMPOST
- RECYCLABLES
- HIGH QUALITY RDF

A EUROPEAN PROJECT TEAM

www.separate-wastesystems.eu

SEPARETE stands for "Enabling market uptake of innovative separation and cleaning solutions for material recycling of all product groups contained in bio-waste and MSW." The SEPARETE project carries out the cost less of different waste streams and analyses the quality and characteristics of the waste streams that have been separated with the new technology. The results of the analyses are certified by renowned institutes and laboratories in the test countries.

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Bio waste can be obtained from gardens and used as the basis for anaerobic digestion through the preparation of the organic matter into high-quality compost and biogas. However, despite the great potential for more bio waste recycling, the recycling rates of bio waste fall behind the steadily growing rates of material recycling. Today, the majority of the eight million tonnes of bio waste that Europe produces each year is still lost through landfilling (40%) and incineration (20%).

On the policy side, this low performance can be attributed to the absence of an EU-wide obligation to recycle bio waste and the lack of common quality standards for compost and digestate. On the practical side, the main obstacle for bio waste recycling appears to be the difficulty of effectively separating bio waste from other waste streams and the impurity of the organic matter, even from separate collection, which causes problems for anaerobic digestion.

Efficient separation and purification of bio-waste is thus a key enabler for high-quality recycling of organic material perfectly suitable for anaerobic digestion and fertilizer production.

The European eco-innovation project ‘SEPARATE’ supports the market entry of an innovative separation and clearing technology that separates organics from non-organic waste with an efficiency of more than 98%. With the help of a mobile testing unit, the ‘SEPARATE’ project will carry out on-the-spot tests of different waste streams (MSW, separately collected bio waste and mono streams) in five European countries.

‘SEPARATE’ will analyze the quality and characteristics of the waste streams that have been separated with the new technology with regard to quality of the organic feedstock, substances contained and eventual suitability for composting. The results of the analyses will be carried by renowned institutes and laboratories in the test countries.

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