

SEPARATE

“Enabling market uptake of innovative separation and cleaning solutions for material recycling of all product groups contained in bio-wastes and MSW”

D.5.7

Key messages

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Summary

Communication and dissemination activities are a core part of the SEPARATE project, and are meant to ensure that all project activities and results are communicated to a variety of audiences and stakeholders in a clear and consistent manner.

The main aim of Work Package 5 “Dissemination and Exploitation”, is to raise awareness and visibility of the project and its consortium composed of four organisations from three European countries (three SMEs and one charity organisation) as well as to increase the potential impact of the project by laying the groundwork for the use of results and their replication after the project has ended.

This report presents the work that Greenovate! sprl has carried out as a leader of WP5 during the first two months of the project. The complete visual identity with logos and templates in Word format has been developed (Deliverable 5.6) in line with the CIP Eco-innovation visual guidelines highlighting the financial support from the Eco-innovation Initiative of the European Union. In addition, key messages have been developed to promote the project and its results to the main target audiences at conferences, workshops, exhibitions and replication seminars.



1. Key messages

As part of its output, the SEPARATE project has developed key messages on the following themes:

- **Innovation and optimisation** - i.e. principle of improving separation of municipal solid waste through innovation;
- **Resource efficiency and environment** - i.e. principle of using valuable materials contained in bio-waste and MSW while minimising impacts on the environment;
- **Economic aspects** – i.e. principle of creating economic benefits through production of high quality products (biogas, compost, recyclables, RDF).

These messages should provide targeted information to different types of audience.

1.1. Innovation and optimisation

Key messages:

“SEPARATE WASTE SYSTEMS HIGH-QUALITY PRODUCTS FROM WASTE

SEPARATE 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 SEPARATE 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 digesters. The cell structures of this organic material 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
- (<0.5% plastic and inert material remain in organic fraction)

- More gas yield per input unit due to broken cell structures of organic matter”
- Lower investment costs through shorter retention times

1.2. Resource efficiency and environment

The SEPARATE consortium joins efforts to move waste management at the European level up the waste hierarchy pyramid.¹ Knowledge and expertise are shared amongst SEPARATE partners, to identify the most efficient separate waste systems that can help economic operators, local and regional authorities to prevent waste generation and optimise the recycling process.

Key messages:

“ENABLING HIGH-QUALITY RECYCLING OF BIO-WASTE

Bio-waste can be valorised twice: through capture and use of the biogas emanating from anaerobic digestion and through the preparation of the organic matter into high-quality compost and fertiliser. 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 88 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 / 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 fractions 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 fertiliser production. ”

1.3. Economic aspects

Through cross border and international cooperation, SEPARATE will strengthen local capacities for investment and technological development in the waste sector. It will help introduce innovation to the market in this sector and as a consequence support economic growth and local development.

¹ [Waste hierarchy pyramid](#)

The proposed innovative waste pre-treatment (press and cleaning system) technologies are part of a holistic waste treatment system based on recycling, biogas production, use of rest waste as high-quality Refuse-derived Fuel (RDF) and, if standards for fertiliser are met, production of fertiliser. The economic viability will be further assessed for the whole system, comparing annual costs and annual expenses, including capital expenses.

SEPARATE will design and produce a mobile unit to test, analyse and assess different waste streams in 2 European countries, carry out in-depth market analyses to shape replication and exploitation actions in five European markets, and divert 20.000t of mixed bio-waste from landfill.

Key messages:

“The European eco-innovation project ‘SEPARATE’ supports the market entry of an innovative separation and cleaning 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 analyse 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 analysis will be certified by renowned institutes and laboratories in the test countries.”

“HIGH-QUALITY PRODUCTS

- BIOGAS
- COMPOST
- RECYCLABLES
- HIGH QUALITY RDF”