

MONITORING SYSTEM FOR BIO-WASTE TREATMENT



Impurities (non-biodegradable materials) **hinder the recycling of biowaste** and affect the quality of the obtained end-product.



“This system helps optimising the treatment of the biowaste, thus improving our circular economy value-chains.”

Ioannis Kakogiannos,
Project and Innovation Manager at IRIS

HOW TO MONITOR THE LEVEL OF PURITY OF BIOWASTE, IN ORDER TO PROVIDE BIOREFINERIES WITH A SATISFYING CONSTANT FEEDSTOCK ?

➤ WHAT?

IRIS developed an automatic monitoring system able to characterise the different kinds of waste, between organic and inorganic.

➤ WHEN?

This system is operational and installed in the conveyor belt of FCC's treatment plant, in Las Dehesas. IRIS is planning to commercially exploit this newly developed monitoring system and adapt it to other treatment plants.

The technique has been already applied by IRIS to different kinds of waste. Such a monitoring system is for instance used to differentiate and detect several types of plastic.

➤ HOW?

This biowaste monitoring system is based on state-of-the-art optic and spectroscopic techniques for the detection of contaminants inside the organic waste.

This innovative approach to the pre-treatment of biowaste helps maximising the quality of the biowaste and find the most suitable treatment for the biowaste. By helping to reduce the amount of impurity, it maximises the amounts of sugars and other organic compounds that can be obtained after treatments such as hydrolysis or anaerobic digestion.

Also, the data collected will help focus awareness-raising efforts on getting citizens to recycle in the right way!

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