



model²bio

waste-to-feedstock

A pioneering decision support tool, based on mathematical models, to predict agri-food residual streams and to identify best routes for valorising them

There are numerous commercial programmes for modelling, evaluation and optimisation of industrial processes, but **Model2Bio will be the only one to simulate the entire value chain and the whole process.**

Model2Bio Tool

Simulation Module + Optimisation Algorithm + LCA Support Tool



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PROBLEMS

At different recycling rates per country, the EU as a whole landfilled or incinerated 1010 M tones of waste without energy recovery*

*Eurostat, 2016

Uncontrolled disintegration of waste in landfills with high amounts of greenhouse gas emissions

One-third of food produced for human consumption is lost or wasted globally (1.3 billion tons per year)*

*FAO 2011

Expensive residual streams management, especially during peak harvest

Conventional ways of managing agri-food waste do not consider it a resource or feedstock for other sectors

POTENTIAL SOLUTIONS

To decrease by 10% agri-food waste landfilled or incinerated without energy recovery*

*2028

To reduce by 20% the carbon footprint, giving a valorisation for up to 20% of the agri-food waste

To transform 30% of residual streams in resources for other bio-industries

To reduce by 20% logistic and residual stream management costs, by improving storage, transport and management

To increase income and business opportunities to agri-food and waste management companies

Model2Bio is formed by research centres, technology development entities, universities, industries (mainly small and medium-sized enterprises), and clusters from Spain, Belgium, Netherlands, Greece and Germany.



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