



model²bio

waste-to-feedstock

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

There are numerous commercial programs for modeling, 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 + Optimization Algorithm + LCA Support Tool



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PROBLEMS

At different recycling rates per country, the EU as a whole landfilled or incinerated 1 010 M tonnes 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 agrifood waste do not consider it a resource or feedstock for other sectors

POTENTIAL SOLUTIONS

To decrease by 10% agrifood waste landfilled or incinerated without energy recovery *

*2028

To reduce by 20% the carbon footprint, giving a valorisation for up to 20% of the agrifood 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 agrifood 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, Poland and Germany.



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