



high-value products from agricultural residues through sustainable chains



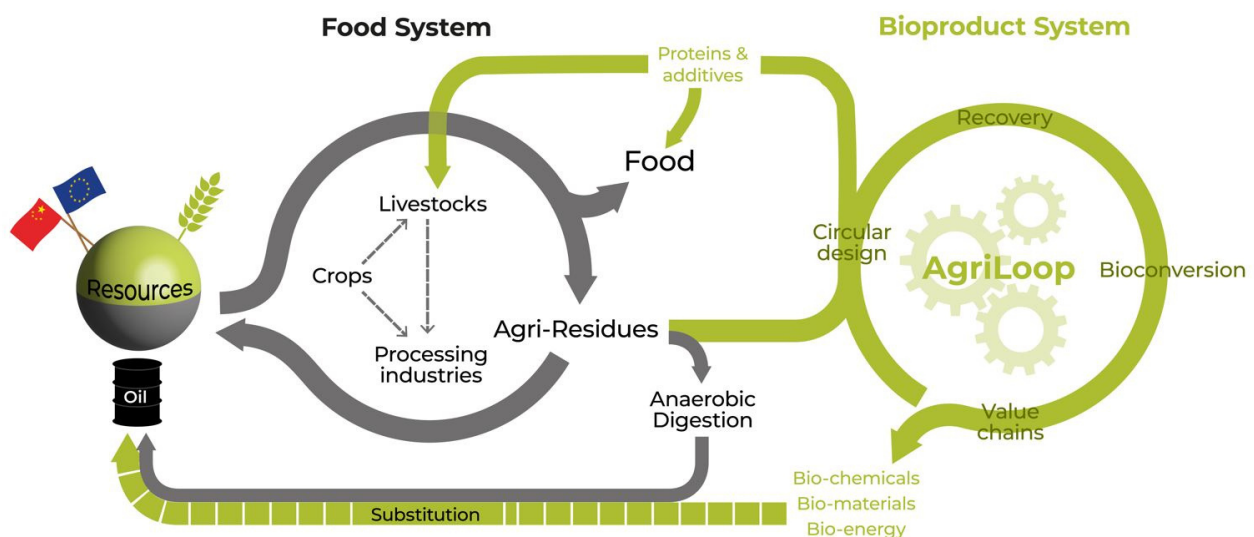
Tackling agricultural waste

Agricultural-food residues are an underexploited resource for the European Union and China. Making better use of these will bring significant economic, environmental and societal benefits.

AgriLoop is a major European Union, UK Research and Innovation and Chinese-funded project finding new ways to convert agricultural-food residues into high-value, eco-friendly products, such as food and feed ingredients and bio-based materials. 35 partners across Europe and China, are joining forces to increase agricultural sustainability, grow the bioeconomy and tackle climate change and plastic pollution and increase European / Chinese cooperation.

AgriLoop will...

- **Strengthen** the relationship between China and the European Union, by working together on common tasks and objectives.
- **Convert** agricultural residues into plant and microbial proteins, polyesters and bio-based chemicals using residues such as tomato, soybean, peanut, apple, straw, potato, brewery grains, oil, grapes and manure.
- **Develop** new products and processes for the food, health and agricultural sectors.
- **Apply** a 'safe-and-sustainable-by-design' method that avoids or minimises harmful impacts. These methods include: green extraction, microbial conversion and material compounding and extrusion. The processes will produce a range of products in a cascading biorefinery approach, with any remaining biomass used to generate biogas.
- **Demonstrate** innovative and sustainable value chains.
- **Achieve** several environmental, societal and economic impacts from its innovative approach.





Developing a range of innovative bio-based products

The functionality and value of these frugally designed bio-based products will be tested by end users including farmers and bio-processors. There is an emphasis on products for agriculture and food, creating a fully circular solution.

Products include...

- Food and feed ingredients (plant proteins, carotenoids).
- Highly functional biochemicals (antioxidants, antimicrobials).
- Microbial proteins.
- Bio-based materials: plant polyesters (cutin, suberin) and microbial polyesters (PHA) based materials.
- Fertilisers.

Creating environmental, societal and economic impacts

AgriLoop will provide a range of environmental, societal and economic benefits for Europe and China.

Impacts include...

- Using residues and wastes as a feedstock to increase resource efficiency and reduce dependence on fossil fuels.
- Products aim to be greener in production, compostable and biodegradable.
- New value chains, helping to open up new markets, create new jobs and increase economic competitiveness.
- Connect and create new partnerships between organisations and sectors across Europe and China.



www.agriloop-project.eu



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