Governance models promoting this integration with citizens and local areas as well with the downstream and consumers

AGRI Innovation summit 2019

H2020 Multiactor Project

AgroCycle - Sustainable Techno-Economic Solutions For The Agricultural Value Chain

AgroCycle – Sustainable Techno-Economic Solutions For The Agricultural Value Chain

Practical problem

Sustainable waste valorisation pathways for addressing the European policy target of reducing food waste by 50% by 2030

Calendar

Start: 01/06/2016
End: 31/01/2019

Budget

Total amount: €6,978,894

Partners

UCD/RTD; UGENT/RTD; HAU/RTD; FRAU/RTD; CERTH/RTD; IRIS/SME; TOMSA/SME; EXE/SME; EUBIA/IAG; CEMA/IAG; CIBE/IAG; CAU/RTD; NJ/RTD; AXEB/SME; & 12 OTHERS

Objectives of the project

Map Agricultural Waste Co-products and By-products (AWCB); Demonstrate technical feasibility of production of biofuel; Evaluate effectiveness of existing and new biofertiliser from crop residues, livestock/bioenergy effluents; Valorise agro-industrial wastewaters & animal effluents; Demonstrate bioremediation process for pig slurry; Demonstrate multi-feedstock extraction of proteins, fibres & secondary plant metabolites (SPM) from horticultural waste streams; Perform environmental and economic sustainability assessments through LCA/LCC; Extract biocompounds for nutraceuticals, active packaging, & coating; Joint stakeholder platform; Define sustainable value chains & business models.

Main activities

Map Agricultural Waste Co-products and By-products (AWCB); Demonstrate technical feasibility of production of biofuel; Evaluate effectiveness of existing and new biofertiliser from crop residues, livestock/bioenergy effluents; Valorise agro-industrial wastewaters & animal effluents; Demonstrate bioremediation process for pig slurry; Demonstrate multi-feedstock extraction of proteins, fibres & secondary plant metabolites (SPM) from horticultural waste streams; Perform environmental and economic sustainability assessments through LCA/LCC; Extract biocompounds for nutraceuticals, active packaging & coating; Joint stakeholder platform; Define sustainable value chains & business models.

Expected results

Advancements in energy valorisation of agricultural waste: through enhanced on-farm AD and Butanol production. Advancements in fertiliser use and biofertiliser production: delivering solutions for dealing with effluent from intensive animal production systems, and the production of bio-fertilisers from selected waste streams. Advances in agro-industrial wastewater valorisation, reuse and recycling. Advances in bioremediation of pig slurry. Progress beyond the state of the art in biowaste valorisation into high value products. Advancement of knowledge as a result of agricultural supply chain analysis.

Results so far/first lessons

Increased awareness across sectors on availability, needs and options for smart use of agricultural waste, by-and co-products through creation of joint stakeholders platform and other joint structures. Circular Economy lesson plans for primary school teachers and students. Improved resource efficiency through reduction of waste and improved waste management in primary production. Increased opportunities for valorisation of waste, by-and co-products resulting in environmental and economic benefits for the farming sector, e.g. biocomposite containers, rice bran bread. Enhanced competitiveness through more varied sources for bio-products and bioenergy in the agro-food and bioeconomy sectors.

Who will benefit

Farmers, food processors, biogas operators, biotechnology industry, AWCB trading stakeholders, retailers, policy makers, teachers, students.

Supported by:

UNION EUROPÉENNE

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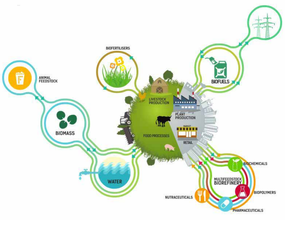

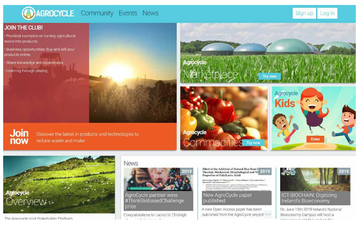

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