Research Summary Sheet

Deliverable n°: 5.2 (Task 5.2)

"Methodologies for identification and evaluation of innovation strategies opportunities"

Context and Challenges

Converting agricultural side streams and other by-products generated along the agro-food chain into eco-efficient bio-based products is considered an important pillar for a circular economy, with direct benefits for the environment, the economy as well as the EU consumer. Many agro-waste valorisation initiatives, however, have failed because of inadequate business models and/or market orientation. Thus, adequate innovation strategies, including market orientation and adequate business models are considered essential for successful implementation of agro-waste-to-biobased initiatives.

Results and Applications

In order to increase the success rate of such initiatives, NoAW Work Package 5 is aimed at business models and market orientation. As a first step, an inventory of existing initiatives (on bio-waste and sidestream valorisation and related domains) was made (reported in Deliverable D5.1). This deliverable, D5.2, describes the chosen methodologies for identification and evaluation of innovation strategies opportunities.

The formulation of the methodologies is founded on:

- Inventory of industrial ecology and agro-waste valorisation examples world-wide, including business strategy and learnings on success and failure factors (NoAW Deliverable D5.1).
- Logistic and supply chain simulation software tool
- Process design and analysis software, enriched with (practical) economic data for cost-benefit analysis.

Main results are:

- Methodology for cost-benefit analysis of new valorisation processes for agro-residues. This methodology generates a cost model for an intended processing chain, including scale-size effects.
- Methodology for logistic analysis, specifically focussing on questions of sourcing, seasonality and decentralized vs. centralized processing,
- Approach for business strategy formulation.

The project leading to this application has funding from European Union's Horizon 2020 research and innovation programme under grant agreement No 688338.

Breakthroughs, benefits and added value

The combination of these methods will be used to assess practical feasibility of NoAW technology options through scenario analysis.

Further information on NoAW project: *http://noaw2020.eu*

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