Sidestream of the month

April 2018

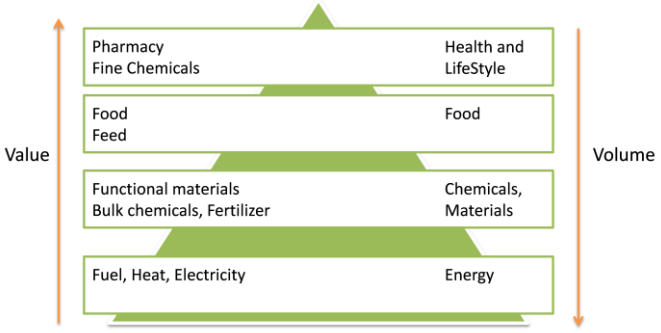
(Examples for high potential waste, by-products and residues from primary and secondary biomass resources)

“Whey”

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 696394.

Whey

Instead of sending to landfill, composting or burning the sidestream directly after harvesting/ processing there are higher added values to be achieved applying a cascading and circular approach:



A) Highest added value

Food, Feed

Due to its high content of organic load and moisture it can be used for feeding livestock. The project has demonstrated the technical, economic, health and market viability of its application of combined technologies involving concentration, drying and anaerobic digestion which enable the management and comprehensive use of whey both in animal and human food.

AZTI-TECNALIA

B) Middle added value

Functional material

Packaging material

After the separation of the protein and other processes packaging material can be made (eg. flow pack, tube forming, thermoforming, etc.), which is biodegradable. This eads to reduced environmental impact of packaging through resource efficiency and better recyclability of obtained multilayer materials an alternative to fossil bases solutions.

EMBALNOR and CENTRAL QUESERA MONTESINOS

WHEYLAYER

C) Lowest added value

Energy

Through fermentation and distillation processes, whey can be used to obtain Ethanol that can give electricity, heat and/ or fuel which again replace fossil bases energy in manufacturing processes, e.g. in the same circle of dairy production through reuse for cheese pasteurization.

Carbery

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