

Sidestream of the month

May 2018

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

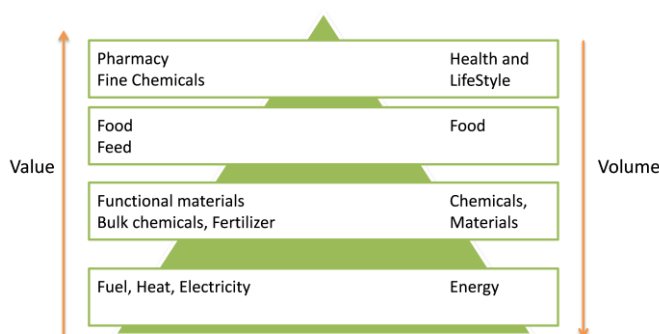
“ Manures ”



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

Manures

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

Fertilizer

Up to 10,000 tonnes of compost can be produced per year. This is already sold and exists on commercial basis. Fertilizer can be even the remaining ash from the heating process for heating production of manure such as from poultry farms, since P and K are valued plant nutrients.

[GIESA Agroenergia: Campillos Biogas Plant](#)

[BHSL: Bioenergy and Nutrients from Chicken Manure](#)

B) Lowest added value

Energy

Biogas for the production of heat and electricity (fuel). Through a pre-treatment which includes grinding of solid wastes and homogenization of input materials, it is possible to convert through anaerobic digestion 65.000 tons of waste into 2,200,000m³ of biogas per year. The supply of biogas for heat production represents the major source of incomes of the plant.

[GIESA Agroenergia: Campillos Biogas Plant](#)

[BHSL: Bioenergy and Nutrients from Chicken Manure](#)

[Azucarera Española: Anaerobic digestion of residues from beet and co digestion with livestock manure](#)

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