



eco-innovation
WHEN BUSINESS MEETS THE ENVIRONMENT

**CIP Eco-innovation
Pilot and market replication projects
Call 2011**

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Wavalue

Contract ECO/11/304435

Deliverable 6.1: “Project Information Sheet_Month 10 Update”

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Project website: <http://www.wavalueproject.eu/>





Project Information Sheet

High Added Value Ecofertilizers from Anaerobic Digestion Effluent Wastes (WAVALE)

Programme area:	Main area, main key action
Coordinator:	Aritz Lekuona, EKONEK Innovación en Valorización de Subproductos, SL, Spain aritz@ekonek.eu Tel:+34 943 572 899
Partners:	NEIKER Instituto Vasco de Investigación y Desarrollo Agrario, SA, Spain Blue Agro Bioscience, SL, Spain Colsen International B.V., The Netherlands
Website:	www.wavalueproject.eu
Benefits	This project will transform digestate from biogas plants into high added value granular organomineral fertilizers, making biogas plants more viable
Keywords:	Digestate, Spouted Bed, Fertilizer
Sector:	Green Business
Type of solution	Process and product
Duration:	01/07/2012 – 30/12/2014
Budget:	€ 1.842.666 (EU contribution: 50%)
Contract number:	ECO/11/304435

Summary

Digestate from biogas plants will be transformed into dry granular fertilizers, using an innovative process that combines the mixing of digestate with mineral fertilizers, and the granulation of the mixture in a Spouted Bed dryer. The new plant will produce, near Vitoria (Basque Country, Spain) different commercial organomineral fertilizers based on digestate, that will be tested agronomically and commercially. Different viability studies and business models will be conducted, in order to combine the agrobiogas production with the production of those fertilizers, creating as many synergies as possible and a sustainable fertilizer production model.

Management of digestate is an important issue for every agrobiogas project, but rarely creates economic value for the biogas plant manager, and sometimes is a serious limiting fact. This plant will be the first of its kind in Europe and will create high added value products from digestate. That way, biogas plants will become more profitable and digestate management easier. Those new fertilizers will be more ecologically friendly, as they will replace mineral fertilizers with nutrients that come from organic waste.

Expected and/or achieved results

This project will produce a pre-industrial digestate granulation plant, that will produce 8 commercially successful new fertilizer products.

There are about 6.000 biogas plants in Europe today, which makes a potential market of about 500 granulation plants. This quantity can be multiplied several times in the next decades.

Each industrial size plant (about 3 MW drying capacity) is energetically 30% more efficient than conventional processes and can produce about 9.000 tonnes/year of product.

Extended to potential market, this would save about 784.000 tonnes/year of CO₂ and produce 4,5 million tonnes fertilizer product/year, that would suppose about 1,800 million €/year income.