



POWER4BIO
REGIONS FOR
BIOECONOMY



Junta de Andalucía
Consejería de Agricultura, Ganadería,
Pesca y Desarrollo Sostenible



[Cross-visit Andalusia] | [Seville-online], [20th October 2020]

[CICAP] – [CAGPDS]

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LOCATION



PARTNERS



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AGENCIA DE INNOVACIÓN Y DESARROLLO
DE ANDALUCÍA (IDEA)
Consejería de Economía,
Conocimiento, Empresas y Universidad



AGENCIA DE GESTIÓN AGRARIA
Y PESQUERA DE ANDALUCÍA
Consejería de Agricultura, Ganadería,
Pesca y Desarrollo Sostenible



WE HAVE A MISSION



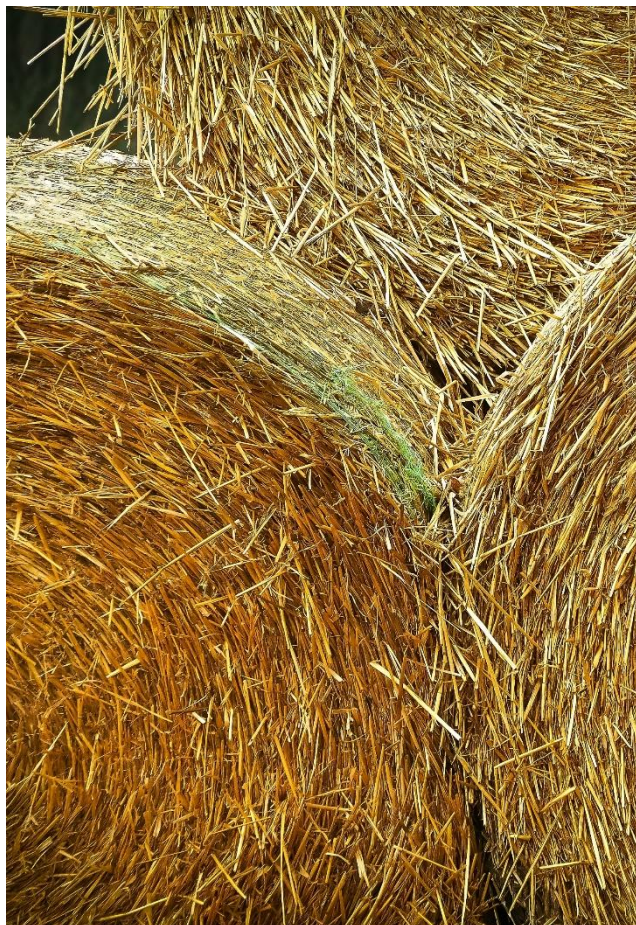
"Increasing the competitiveness of our customers in the agri-food sector through innovation"



CIRCULAR BIOECONOMY CHALLENGES AND OPPORTUNITIES IN DAIRY FARMS IN ANDALUSIA.

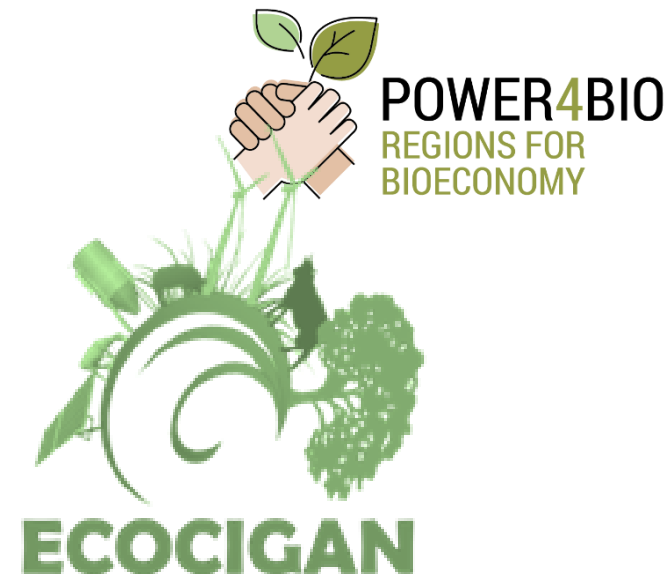


START THIS PROJECT



GO supraautonomico 2018

Objective: To promote the development of the Circular Economy in the agri-food sector, in line with the real needs and economic, technological and human capacities of the industry and farms in the project area.



Differences between intensive and extensive livestock



- EXTENSIVE FARMS



- INTENSIVE FARMS-. Dairy farms



General thoughts

DAIRY COW FARMS

CHALLENGES

- WASTE
- RESOURCES
- CLIMATE CHANGE
- SUSTAINABILITY

OPPORTUNITIES

- WATER
- ENERGY
- CIRCULARITY



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Factors to consider



✓ WATER FOOTPRINT

✓ USES OF RENEWABLE ENERGY

✓ Generate synergies in the material and human resources of dairy cattle farms



WATER FOOTPRINT

WATER FOOTPRINT: CONSUMPTION + CONTAMINATED WATER



Green water footprint is water from precipitation that is stored in the root zone of the soil and evaporated, transpired or incorporated by plants. It is particularly relevant for agricultural, horticultural and forestry products.



Blue water footprint is water that has been sourced from surface or groundwater resources and is either evaporated, incorporated into a product or taken from one body of water and returned to another, or returned at a different time. Irrigated agriculture, industry and domestic water use can each have a blue water footprint



Grey water footprint is the amount of fresh water required to assimilate pollutants to meet specific water quality standards. The grey water footprint considers point-source pollution discharged to a freshwater resource directly through a pipe or indirectly through runoff or leaching from the soil, impervious surfaces, or other diffuse sources

WATER FOOTPRINT: GREEN



- Rainfall Rainwater Collection Control.
- Covered surfaces, Great collected
- Design of tanks suitable for maintaining drinking water



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WATER FOOTPRINT: BLUE



- Groundwater control. Year-on-year index.
- Chronic drought causes year-on-year levels to decrease.

WATER FOOTPRINT: GREY



- Differentiate milk cleaning water circuits from water with slurry.
- With milk cleaning water
 - Action in recircular cleanings and renew
- Water with WASTE: Separation of slurry in solids and liquids
 - Solids destination cold bed, compost, compost or combustion.
 - LIQUIDS IS US PROBLEM



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WATER FOOTPRINT: GREY /LIQUIDS

• SOLUTIONS AND OPPORTUNITES

BIOLOGICAL WATER TREATMENT:

- CONTINUOUS RAFTS EXTRACTION OF SLUDGE
- CROPS SAPROPHYTES AND ALGAE

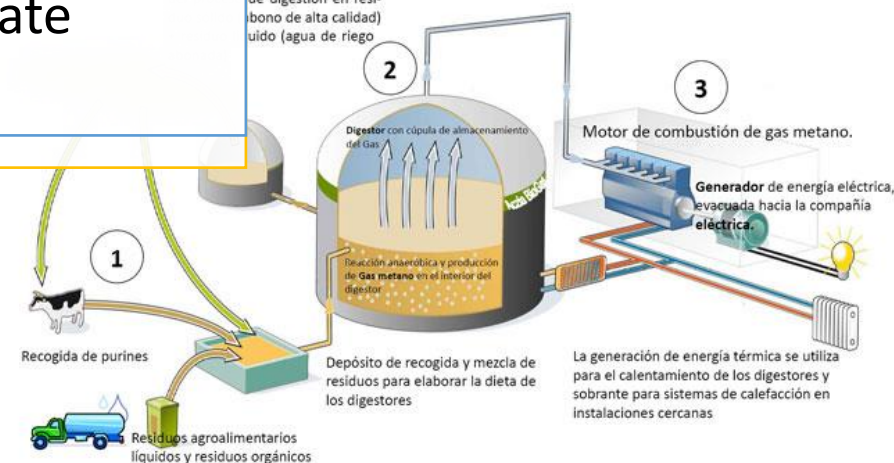


GENERATE BIOGAS

- GAS METH
- Grey WATER digestate



Parador de residuos de digestión en resbano de alta calidad (agua de riego)



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Conclusions



- The importance for the livestock of Milk of Andalusia.
- Environmental and Economic Sustainability
- Resource Efficiency
- The Circular Economy as an effective tool
- Currently in search of partners for REWATER new water efficiency project in dairy cattle farms.

POWER4BIO website and social media



www.power4bio.eu



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Thank you for your attention!

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