



B-FERST PROJECT



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Bio-based fertilising products as the best practice for agricultural management sustainability

Project description

B-FERST aims to create and promote new ways of bio-waste valorisation by creating new circular and bio-based value chains. The main objective for Aqualia is to demonstrate viable valorisation strategies of resulting co-products from wastewater treatment plants to achieve the following points:

1. Produce new sustainable and competitive fertilisers, based on nutrients recycle.
2. Implement the pseudo-industrial production of large amounts of biofertilisers (up to 600 t / year) from secondary raw materials (approximately 115 t / year).
3. Substitute 15-40% raw materials utilization by bio-wastes.
4. Decentralise the fertiliser production and recycling networks through the supply of co-products, at local and

European level, using innovative logistics.

5. Reduce the environmental impact of the fertiliser value chain, optimising processes to reduce water and energy consumption, and the carbon footprint by 10%.
6. Elaborate guidelines and propose specifications for certification and quality standards for the new value chains in the EU.

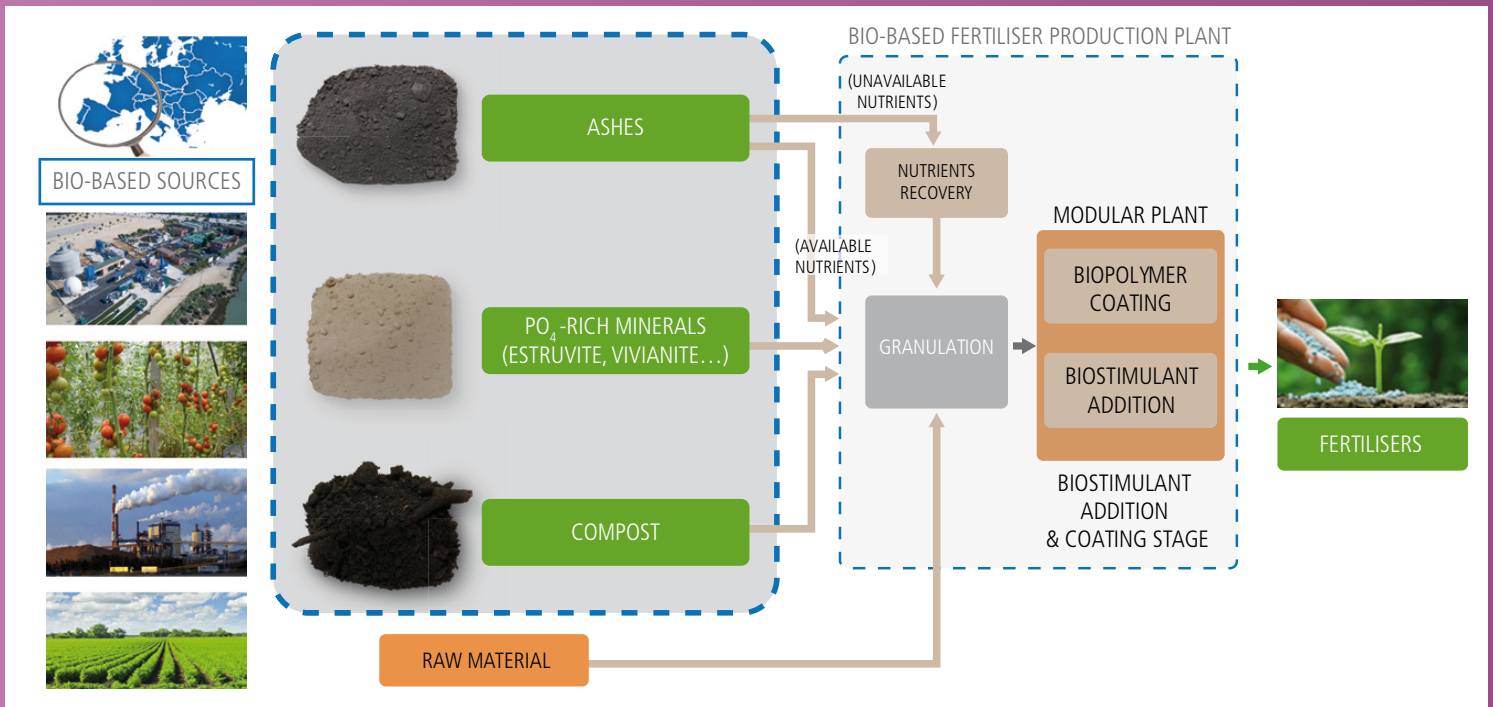
Aqualia will evaluate the use of biological wastes at pseudo-industrial scale, with special attention on struvite and vivianite production, ashes and compost from sewage sludge. The long-term study of the continuous supply of these materials will be a key point to minimize costs at national and European level. Challenges and opportunities will also be identified to promote the replicability of the B-Ferst solution.



Location: Guadalete WWTP (Jerez de la Frontera), Fertiberia fertiliser factory (Huelva)

Duration: 1st of May 2019 to the 30th of April 2024 (5 years)

Total Budget : 10,016,296 € **Aqualia:** 341,656 €



The composition of these resources and their adaptation to logistical requirements (sorting, transportation and storage) will be defined. These and other factors will be integrated in the decision-making tool that will promote eco-efficient initiatives.

The activities to be carried out at the wastewater treatment plant (WWTP) will allow the evaluation and testing

of nutrient recovery technologies, such as struvite and vivianite recovery. Biological hygienisation and drying technology of sludge will be implemented to guarantee a safe use in environmental applications, mainly in agricultural purposes.

The concept of sustainable WWTP requires the development of innovative strategies for a beneficial

use of co-products. The recovery and use of nutrients is a strategic option to guarantee the supply of biofertilisers. The technology for the reduction, drying and biological hygienisation of sewage sludge proposed in B-FERST represents an important advance to guarantee a safe and viable use of biosolids in circular economy initiatives.

PARTNERS

- FERTIBERIA (LEADER)
- ULE
- NOVAMONT
- AQUALIA
- FKUR
- AGRISAT
- VITO

- AGFUTURA
- ARCADIA INTERNATIONAL
- ICONS
- IUNG



DETAILS OF FUNDING

- Funding:** H2020-BBI-JTI-2018 / BBI-IA-DEMO.
- Organism:** Bio-based Industries Joint Undertaking.
- Project:** 37583 - B-FERST.
- Grant:** Subsidy of 65% of budget.

Funding received
Total: 6,787,076 €
Aqualia: 222,076 €

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