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## GRANOLLERS - Spain

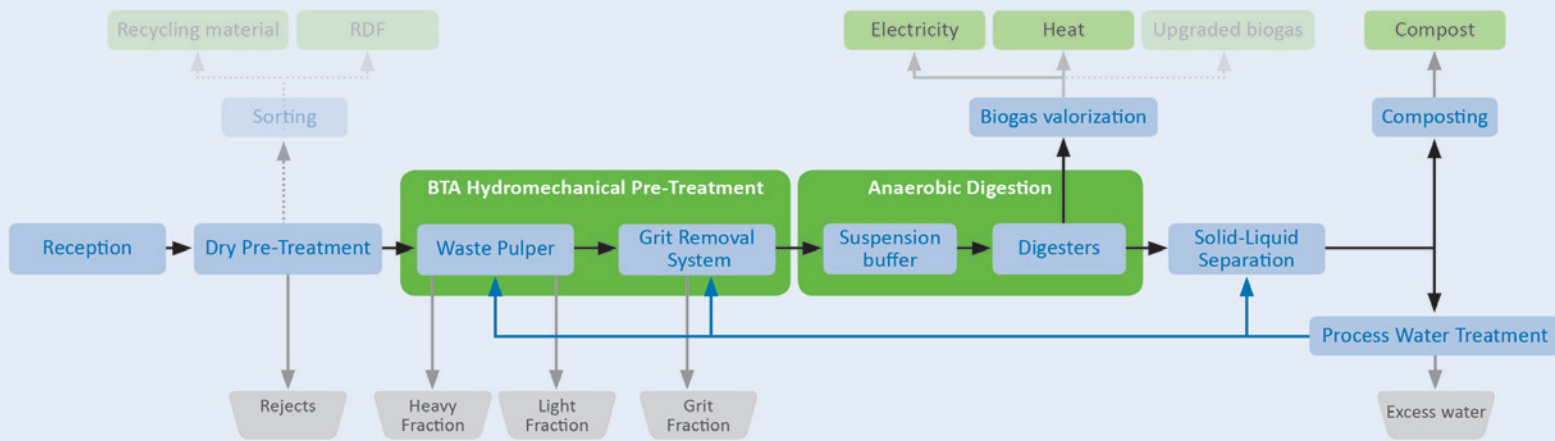


### Selected BTA References

- Final Client:**
- Consorci per a la Gestió dels Residus del Vallès Oriental
- Partners:**
- UTE Valloro (SUFI & HERA AMASA)
- Type of Waste:**
- FORM (Spanish biowaste with a high content of impurities)
- Capacity:**
- 45.000 tons/year into to the plant
  - 35.000 tons/year into hydromechanical pre-treatment
- Start up:**
- 2010
- Plant sections:**
- Waste reception
  - Mechanical pre-treatment
  - BTA® Hydromechanical Pre-treatment
  - One-stage wet anaerobic digestion
  - Solid-liquid separation
  - Composting of dewatered digestate and green waste
  - Internal process water management
  - Effluent treatment plant



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### Description

The MBT Plant Vallès Oriental (Granollers) was the first of a series of plants in the Iberian Peninsula to be built according to the BTA® Process.

The organic waste fraction obtained after a dry pre-treatment step is further cleaned in the **BTA® Hydromechanical Pre-treatment** by two BTA® Waste Pulpers and two BTA® Grit Removal Systems before it is processed in two digester tanks with 3.000 m<sup>3</sup> each in a **wet, mesophilic one-stage anaerobic digestion**. The produced biogas is valorized in CHP units for the production of electricity and heat.

The digestate is dewatered with screw presses. The solid phase is further stabilized in an enclosed tunnel composting plant. The liquid phase is widely recycled to the process for mixing and rinsing purposes to **minimize the demand of fresh water and the production of effluent**. The latter is biologically treated in an internal effluent treatment plant (nitrification/denitrification and sedimentation).

BTA acted as **technology provider**, being responsible for the processes within the AD Plant except for the mechanical pre-treatment and the composting. Beside **engineering services** including the planning and supervision of the start-up, **key components for the BTA® Hydromechanical Pre-treatment** (in co-operation with our partner Biotec Sistemi S.r.l.) as well as the **control unit for the BTA® Process** were supplied by BTA International.