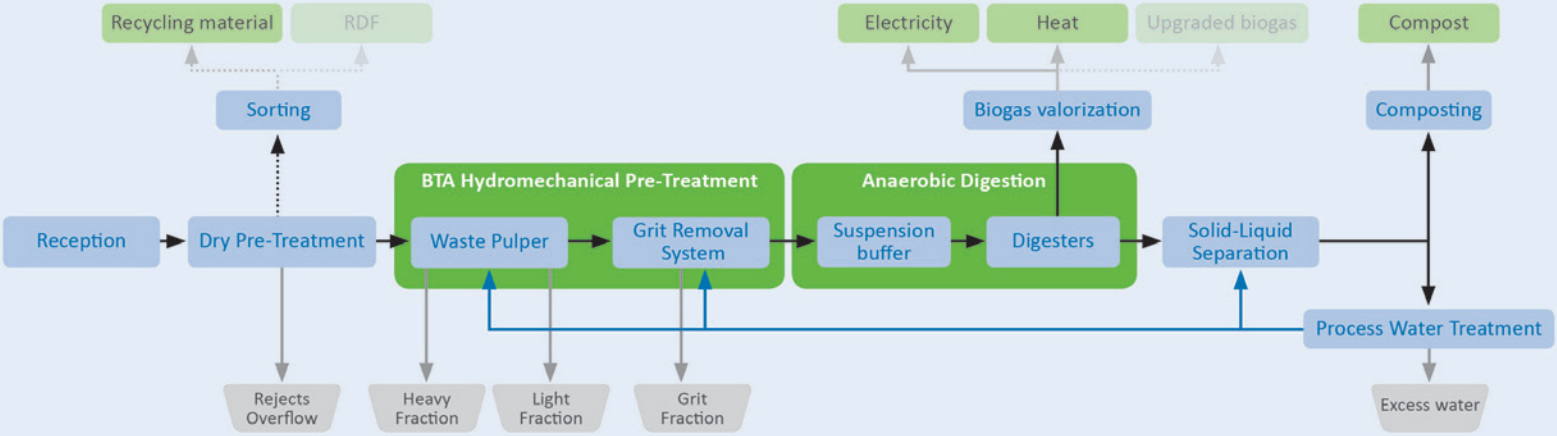
VALORLIS - Portugal

Selected BTA References

Final Client:	• VALORLIS – Valorização e Tratamento de Resíduos Sólidos, S.A.
Consortial Partners from BTA:	• EFACEC Engenharia, S.A. • EFACEC Ambiente, S.A. • MONTEADRIANO – Engenharia e Construção
Type of Waste:	• Municipal Solid Waste
Capacity:	• 50.000 tons/year input to the plant • 30.000 tons/year into hydromechanical pre-treatment
Start up:	• 2010
Plant sections:	• Waste reception • Mechanical pre-treatment and sorting • BTA® Hydromechanical Pre-treatment • One-stage wet anaerobic digestion • Solid-liquid separation • Composting • Internal process water management • Effluent treatment plant

The BTA Process



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Description

The MBT Valorlis is designed and constructed according to the BTA® Process. The MSW is separated in two fractions in a sieve drum with 80 mm mesh size. By a magnetic separator and a manual sorting line **recyclable materials** are recovered from the sieve overflow. The sieve underflow is led to the **BTA® Hydromechanical Pre-treatment** to remove the impurities from the organic fraction prior digestion. The anaerobic digestion is executed in mesophilic **wet stage** in two fully agitated digesters (compressed gas) of 2.000 m³ each.

The digested substrate is dewatered, and the remaining solid phase is stabilized in two-stage **composting:** in the first step it is mixed with structure material and treated in a closed hall with boxes equipped with forced aeration to achieve the sanitation of the material. The further stabilization occurs in piles with forced aeration in a covered, but not closed. After 12 weeks in total the remaining structure material is sieved out to obtain the final compost.

The liquid phase is largely recycled back into the BTA® Process as process water. Only the remaining amount is treated in a proprietary **effluent treatment plant** before its discharge into the canalisation.

In the frame of the consortium, BTA International overtook the **technological leadership and process responsibility** for the complete MBT. Further to the **engineering services** during the design, procurement, installation and start-up phase BTA supplied the **key components** from the hydromechanical pre-treatment, the gas mixing system, the composting and effluent treatment as well as the **control system** for the complete installation.