

# ENLARGEMENT OF AN EXISTING COMPOSTING PLANT IN AGRIGENTO

The proposed plant layout has the main objective to develop a new and larger configuration of an existing composting plant for organic waste treatment and high-quality compost production. The project also provides the technology improvement for the process.

The enlargement of the existing plant consists in the construction of a new building in which the composting process will start inside no. 12 closed tunnels (process period 4 weeks).

After the intense composting phase, the material will be moved to the final maturation section (after screening operation). This phase will occur in dynamic windrows subjected to forced ventilation inside a closed concrete building. A further final maturation phase is also provided through static windrows, so that the composting process can be completed, obtaining a high-quality compost for sales.

The project provides an increase of the composting treatment capacity equal to 30.000 t/year, which increases, together with the existing authorized capacity 26.000 t/year (AIA authorization released by D.D.S. n. 1897 del 12/11/2014 for R3, R13 operation), the plant capacity up to 56.000 t/year.

## DESIGN DATA

**Private client** GIGLIONE SERVIZI ECOLOGICI s.r.l.  
**Typology** composting process in bio-tunnel and final maturation by air-forced and dynamic/static windrows.  
**Project cost** € 11.528.753,90  
**Location** Manica Lunga district – JOPPOLO GIANCAXIO (AG)  
**UTM Coord. (Zone 33S)** 374.370 E - 4.135.751 N  
**Site area** 72.000 m<sup>2</sup>  
**Existing plant surface** 2.100 m<sup>2</sup>  
**New plant surface** 17.138.31 m<sup>2</sup>  
**Task assigned and carried out** Preliminary and Final design  
**Enlargement designing period** March 2017

## TECHNICAL DATA

**Operations according to Encl. B and C referring to Part IV of Law Decree No. 152/06 (D.Lgs. 152/06) and further amendments D9, R3, R13**  
**New treatment capacity** 56.000 t/year  
**No. 1 building for composting tunnel** dimensions 38 x 90 m  
**No. 12 composting tunnels (ACT phase)** dimensions 6 x 32 m each  
**No. 9 air-forced and dynamic windrows** dimensions 5 x 2.7 x 49 each  
**No. 3 static windrows** 1.600 m<sup>3</sup> each  
**Average process period** 90 days

