

Integrated management of municipal wastewater with source collected biowaste

Historically, the management of municipal solid waste and that of wastewater have evolved as two independent streams, defined by the main phase in each case; solid and liquid, respectively. Of course, liquid effluents contain substantial amounts of solid matter in suspension, while municipal solid wastes, especially food waste, have a very high moisture content (typically 70-80% by weight). An alternative much more sustainable approach, based on the chemical composition, is presented. Source-sorted food waste is dried and shredded, generating a homogeneous, odor-free biomass that may be stored without deterioration for prolonged periods of time and used in alternative ways for the production of biofuels and/or compost. In parallel, the liquid fraction generated from the drying process may be combined with the municipal wastewater stream opening interesting and novel treatment and valorization possibilities