

## Mechanical biological treatment

### The course's concept

Mechanical biological training courses will enhance managers' comprehension to the technical aspects pertained into the management of mechanical biological plant. Details of the process are introduced, as well as the potential markets of the MTB outputs.

Anaerobic digestion Training Courses will provide Solid Waste Managers the necessary qualifications for the improvement the plant performance and enable them to contribute more to improvements in optimising waste division and plant profitability.

The course is designed and addressed to managers who are and/or will be responsible for the management of plant of mechanical biological treatment.

Upon Completion of the training course, trainees will be able to:

- control waste input and output
- verify the mechanical conditions necessary to guarantee high performances
- identify the best solution for the emplacement of treated waste

### The structure and contents of the training course

<b>Course Unit 1:</b>	<b>1. Introduction</b>
<b>Sub-units</b>	How the mechanical biological treatment plant works <ul style="list-style-type: none"><li>- Characterization of MBT</li><li>- Pre - treatment of waste</li><li>- Separation</li><li>- Stabilisation</li><li>- Conversion into a combustible biogas for energy recovery</li><li>- Integration of MBT into municipal waste management schemes</li><li>- Climatic factors in biological phase</li></ul>
<b>Course description</b>	Mechanical biological training courses will enhance managers' comprehension to the technical aspects pertained into the management of mechanical biological plant. Details of the process are introduced
<b>Course material</b>	<a href="#">Trattamento Meccanico Biologico dei rifiuti residui da R.D. : tecnologie, evoluzione del contesto e caso pratico</a> <a href="#">Mechanical Biological Treatment &amp; Mechanical Heat Treatment of Municipal Solid Waste</a>

<b>Course Unit 2:</b>	<b>2. The different techniques used in the different stages</b>
<b>Sub-units</b>	<ul style="list-style-type: none"><li>- Waste preparation: hammer mill, shredder, rotating drum, ball mill, wet rotating drum with knives, bag splitter</li><li>- Waste separation: Trommels and Screens, manual separation, magnetic separation, eddy current separation, wet separation, air classification, ballistic separation, optical separation<ul style="list-style-type: none"><li>• - Biological treatment: aerobic biostabilisation, aerobic in vessel composting, anaerobic digestion</li></ul></li></ul>

<b>Course description</b>	Upon Completion of the training course, trainees will be able to: <ul style="list-style-type: none"> <li>- control waste input and output</li> <li>- verify the mechanical conditions necessary to guarantee high performances</li> </ul>
<b>Course material</b>	<a href="#">Technology Fact Sheet Mechanical-biological treatment (MBT)</a>

<b>Course Unit 3:</b>	<b>3. Markets and outlets for MBT Outputs</b>
<b>Sub-units</b>	Materials recycling <ul style="list-style-type: none"> <li>- Use of compost</li> <li>- Production of biogas</li> <li>- Materials recovered for energy</li> </ul>
<b>Course description</b>	During this course markets and outlets for MBT outputs will be treated. Upon Completion of the training course, trainees will be able to identify the best solution for the emplacement of treated waste
<b>Course material</b>	Mechanical Biological Treatment of Municipal Solid Waste

### Requirements for the trainers

Be in one of the following condition:

- Master's degree and at least 5 years of work experience in anaerobic digestion sector
- High school diploma and at least 8 years of work experience in anaerobic digestion sector

Each of members of the teaching staff must have good communication skills

### Requirements for the participants

- Basic skills of inorganic chemistry and microbiology
- Knowledge of mechanics
- Sources of law

### Requirements for the training facilities and infrastructures

No specific requirements are requested by national law for the infrastructures (except the ones concerning safety and security). Training Vet Providers accredited by their own Region have to observe specific requirements, in accordance with regional rules concerning the accreditation