### Conversion of Wet Waste to Fuel and Value-Added Products using Hydrothermal Carbonization



#### **Training Course of Hydrothermal Carbonisation of Wet Waste**









# **Course structure**

Part I: Introduction

Part 2: Experimental Procedure 1: Performing laboratory-scale HTC experiments

**Part 3: Analytical Methods** 

Part 4: Experimental Procedures 2: Performing Biological methane potential (BMP)

Part 5: Case study of HTC of food waste

Part 6: Life cycle analysis

Part 7: Qualitative Research







# **Part I-Introduction**

**Session I: Introduction to Hydrothermal conversion** 

**Session 2: Introduction to Hydrothermal carbonisation** 

**Session 3: Application of products** 







# Part 2- Laboratory scale HTC experiments

**Session I: Reactors and standard operating procedures** 

**Session 2: Sample work-up and separation of products** 

**Session 3: Health and Safety considerations** 







# **Part 3- Analytical Methods**

**Session I: General methods of analysis** 

**Session 2: Specific analysis for energy and agronomic applications** 

**Session 3: Analysis of process waters** 







# **Part 4-** Biochemical methane potential tests (BMP)

**Session I: Introduction to BMP tests** 

Session 2: Setting up a BMP test

**Session 3: Data Handling and Interpretation** 







# Part 5- Case study of HTC of food waste

**Session I: Review of the behaviour of food waste HTC** 

**Session 2: Introduction to factorial design of experiments** 

Session 3: Case study of food waste HTC outputs







# Part 6- Life Cycle Analysis

**Session I: An introduction to life cycle analysis** 

**Session 2: LCA procedure** 

Session 3: Case study of life cycle analysis of HTC of wet waste







# **Part 7- Qualitative Research**

**Session I: Surveys** 

**Session 2: Interviews and focus groups** 

Session 3: Qualitative research case study



