

## EASEWASTE- training course – 26.–28. of April, 2010



# EASEWASTE

Life cycle assessment tool for integrated solid waste management

2010

EASEWASTE has been financed by public funds, grants from the waste management sectors and means from the Technical University of Denmark (DTU) and has no commercial ambitions or profit interests. EASEWASTE is owned, administrated and serviced by DTU. The fee for the training course contributes to the maintenance of the model.

**EASEWASTE – the DTU LCA-model  
for waste management  
– now available for consultants,  
contractors, technology developers  
and public authorities.**

Access to EASEWASTE can be obtained only by attending the 3-day intensive training course offered in April 2010.

The training course is presented in this folder and has a fee of 4 000 Euro. Sign up for the training course by sending an e-mail to [easewaste@env.dtu.dk](mailto:easewaste@env.dtu.dk)

Further information about the EASEWASTE model can be found at [www.easewaste.dk](http://www.easewaste.dk) or by contacting:

Professor Thomas H. Christensen  
Department of Environmental Engineering  
Miljoevej, Building 113  
Technical University of Denmark  
DK-2800 Kongens Lyngby, denmark  
(+45) 4524 1603  
E-mail: [thc@env.dtu.dk](mailto:thc@env.dtu.dk)



## *Tentative program*

### Day 1: Monday April 26th, 2010

- 09.00-10.00 Arrival and registration
- 10.00-10.30 Opening address and presentation of participants (THC, AND)
- 10.30-11.00 Session 1: LCA and waste? (THC)
- 11.00-11.45 Session 2: Introduction to LCA methodology (MZH)
- 11.45-13.15 Lunch and installation of program on laptops
- 13.15-13.45 Session 3: Waste quantities and composition (THC)
- 13.45-14.15 Session 4: Source segregation, collection and transport of waste (THC)
- 14.15-14.45 Break
- 14.45-15.45 Session 5: Introduction to program, manual, etc. (THC)
- 15.45-16.00 Break
- 16.00-18.00 Exercise 1: Waste quantities, source segregation and collection (AND)
- 18.00-19.00 Break: Food and drinks
- 19.00-20.00 Session 6: Energy use and energy substitution (THF)

### Day 2: Tuesday April 27th, 2010

- 09.00-09.45 Session 7: Mechanical sorting, material recycling and energy utilization (THC)
- 09.45-11.15 Exercise 2: Source segregation, mechanical sorting and recycling (AND)

## Teachers:

- THC: Thomas H. Christensen, Professor  
MZH: Michael Z. Hauschild, Professor  
AND: Anders Damgaard, PhD student  
THF: Thilde Fruergaard, PhD student

# Program for EASEWASTE- training course – 26.–28. of April, 2010

Building 113, Room 011, DTU, Kongens Lyngby, Copenhagen, Denmark

- 11.15-11.45 Exercise 3: Demonstration of mass flows, LCI, LCIA, plots and export of data to Excel (AND)
- 11.45-12.45 Lunch
- 12.45-14.15 Session 8: Impact assessment (MZH)
- 14.15-14.45 Break
- 14.45-15.45 Session 9: Incineration (THC)
- 15.45-16.00 Example 1: The significance of incineration flue gas cleaning (AND)
- 16.00-16.30 Break
- 16.30-18.00 Exercise 4: Incineration (AND)
- 18.00-19.00 Break, food and drinks
- 19.00-20.15 Session 10: ISO standard, good practice, sensitivity analysis (MZH, THC)

## Day 3: Wednesday April 28th, 2010

- 09.00-09.45 Session 11: Biotechnological treatment (composting, digestion) (THC)
- 09.45-10.00 Break
- 10.00-10.45 Session 12: Use of compost and digest (THC)
- 10.45-12.00 Exercise 5: Composting and digestion (AND)
- 12.00-13.00 Lunch
- 13.00-14.15 Exercise 6: Interpretation of results (THC, MZH)
- 14.15-15.00 Session 12: Landfilling (THC)
- 15.00-15.15 Example 2: Landfill technology (THC)
- 15.15-15.45 Break
- 15.45-16.15 Example 3: Questions from users (THC)
- 16.15-16.30 User agreement and updates (THC, AND)
- 16.30-17.00 Closing and evaluation (MZH, THC, AND)

# EASEWASTE- training course – 26.–28. of April, 2010

EASEWASTE has been applied in several Danish municipalities and for specific technology assessments, e.g. gas management alternatives at a Finish landfill.

EASEWASTE quantifies resources and potential environmental impacts from waste management - including loads and savings in greenhouse gas emission. EASEWASTE calculates mass flows, energy utilization, residue composition, and other technical features of waste management. EASEWASTE provides a sound technical platform for addressing many waste management issues, e.g.:

- Environmental benefits from increased paper recycling
- Benefits from packaging recycling
- Benefits of improving standards for diesel exhaust from collection trucks
- Benefits of composting and compost utilization
- Which material fractions contribute to mercury in stack emissions from incinerators
- How does the calorific value of the waste change if waste wood is sorted out for recycling into plywood
- How much energy can be recovered by anaerobic digestion of source separated organic waste

EASEWASTE is a comprehensive model and provides a new way of quantifying waste management systems. EASEWASTE is a user-friendly tool helping in implementing the EU concept of life-cycle-thinking in waste management

The fee for the training course is 4000 Euro covering:

- 3 days of intensive training (9–20) including materials, food, coffee etc.
- CD with EASEWASTE – each participant must bring a PC since the training course involves actual work with the model
- Electronic version of the documentation
- Electronic version of the user's manual
- Electronic version of the scientific papers published on EASEWASTE
- 5 hours of support per registered user
- An updated version of the model if any errors and mistakes are identified during 2010
- Access to internet homepage with additional materials and FAQs
- Membership of user-group that exchanges experiences

If more than one participant register from the same institution or company for the same training course, only the first registrant pay full price; the following participants pay 2000 Euro. Note that hotels are NOT included in the training course fee.

Prior to the training course, each participant must sign a user agreement regulating copyright issues and liability. There are no restrictions in the use of the model.