

2nd International Symposium

MBT 2007

**Mechanical biological treatment and
automatic sorting of municipal solid waste**

**Conference with simultaneous translation
English – French – German – Italian**

**22nd – 24th of May 2007 in Hanover,
Germany**

Conference Programme

Commercial Exhibiton

Registration Form

Arrival

wasteconsult
INTERNATIONAL

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2nd International Symposium MBT 2007

Tuesday, 22nd of May 2007

9:00 – 10:55 **General and International Aspects of MBT**

1. Lessons from Municipal Solid Waste Processing Initiatives in India. *Kurian Joseph, Anna University, Chennai, India*
2. Biogas from Municipal and Agricultural Waste Processing – A Valuable Renewable Energy Resource for China. *B. Raninger, Y. Zhao*, R. Ji*, A. Li*, W. Bidlingmaier**, R. Li***, R. Li****; CIM/GTZ expert at ICEEE, CIM Germany & Montanuniversität Leoben, *Tongji University, Shanghai, **Bauhausuniversität Weimar, ***Hankong University Shenyang, ****Agriculture Env. Protection Monitoring Station Nanjing, CN*
3. Mechanical Biological Treatment as an Effective Alternative for Landfilling of MSW in Shiraz. *M. Sabouri, F. Gheytsi, Behmand Technology Company, Teheran, Iran*
4. The Role of Alternative Waste Technologies in Australia in Achieving Sustainable Waste Management. *David Gamble, GHD Pty Ltd., Sydney, Australia*

Coffee break

- 11:25 – 13:20
5. Mechanical-Biological Treatment Experiences in Greece. *T. Haritopoulou*, K. Lasaridi**, *Municipality of Athens, **, Harokopio University, Athen, Greece*
 6. Could MBT Plants be the Solution to Fulfil Landfill Directive Targets in Portugal? *A. Pires, M.G. Martinho, A. Silveira,, New University of Lisbon, Caparica, Portugal*
 7. Promoting the Uptake of Advanced Waste Management Technologies in the UK. *S. Gandy, Environmental Resources Management Limited, Oxford, UK*
 8. Amendment of the European Waste Directive. *J. Hagmann, Baumeister Lawyers, Münster, Germany*

Lunch

- 14:20 – 16:15
9. MBT: Yesterday's Technology or Synergistic with a New Low Carbon Economy. *E. Archer, Juniper Consultancy Services, Uley, UK*
 10. Capability of MBT to meet treatment targets in different EC states. *W. Müller, IGW, Witzenhausen, Germany*
 11. Recent Developments in the Area of Mechanical Biological Treatment in Austria. *C. Neubauer, Environment Agency, Vienna, Austria*
 12. Drawing the Materials Balance for an MBT Cycle from Routine Process Measures in a MBT Plant located in Venice. *S. Nicosia, P. Lanza, G. Spataro, F. Casarin*, Università degli Studi de Palermo, *VESTA, Italy*

Coffee break

16:45 – 18:40 **Short Presentations**

13. Video Presentation: MBT Grossefehn. *H.-H. Dörnath, Materialkreislauf- und Kompostwirtschaft (MKW) GmbH & Co. KG, Grossefehn, Germany*
14. Experiences with the Nehlsen Drying MBT Stralsund. *W. Breuer, Nehlsen Contracting GmbH & Co. KG, Bremen, Germany*
15. Application of Refuse derived fuel (RDF) in the cement industry. Examples from India and Lebanon. *D. Lechtenberg, Lindner Recyclingtech GmbH, Ahaus, Germany.*
16. MBT Concepts of an International Plant Constructor. *G. Pilz, Linde-KCA-Dresden GmbH, Linz, Austria*
17. Mechanical-biological treatment with the plant concept 3A-biogas. *H. Mueller, S. Hinterberger, Mueller-Abfallprojekte GmbH, Weibern, Austria.*
18. Research and Development Results of the Mechanical Biolo-gical Treatment Process NEW EARTH in the UK. *A. Lübke, Compost Systems, St. Agatha, Austria*
19. Modification and Optimisation of Existing MBT Plants with BTA Technology. *T. Rahn*, P. Bozano Gandolfi**, *BTA Biotechnische Abfallverwertung, Munich, Germany, ** Biotec Sistemi, Genova, Italy*
20. Application of layered heaps in aerobic waste treatment. *T. Dippert, Weser-Engineering, Bad Oeyenhausen, Germany*

Dinner

2nd International Symposium MBT 2007

Wednesday, 23rd of May 2007

9:00 – 10:55 **MBT Experiences and Optimisation**

21. Current Situation and Experience with MBT in Germany. *W. Butz**; *M. Kuehle-Weidemeier***, *Environment Agency, Dessau, Germany, **Wasteconsult international, Langenhagen, Germany
 22. Two Years of Experience with New German Regulations for MBT Plants. View of an MBT Operator. *A. Warnstedt**, *J. Dach***; *G. Müller**, *AWZ Rhein-Lahn-Kreis, Singhofen, **Björnsen Consulting Engineers GmbH, Koblenz Germany
 23. Suitability of MBT Facilities for Treatment of Different Kinds of Waste. *S. Scotti*, *C. Minetti*, *ECODECO S.r.l.*, *Giussago, Italy*
 24. Future Oriented MBT Concepts. *R. Schu*, *EcoEnergy Gesellschaft für Umwelt- und Energietechnik mbH*, *Walkenried, Germany*
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Coffee break

- 11:25 – 13:20
25. Weak-point Analysis: Example MBT Wilsum. *K.-H. Scheffold*, *University of applied sciences Bingen FB1 SGU, Bingen, Germany*
 26. Optimisation of the MBT Schwanebeck. *M. Kleinke*, *Abfallbehandlungsgesellschaft Havelland, Nauen, Germany*
 27. Construction and Start-up of the MBT Kahlenberg – Results of an EC Funded Research Project. *R. Schneider*, *G. Rettenberger*, *Ingenieurgruppe RUK, Stuttgart, Germany*

Mechanical Treatment and Automatic Sorting

28. Perspectives of Sensor-Based Sorting of Solid Waste. *D. Killmann*, *T. Pretz*, *RWTH Aachen, Germany*
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Lunch

- 14:20 – 16:15
29. Automatic Sorting Systems for Waste Sorting Applications. *U. Habich*, *Steinert Elektromagnetbau GmbH, Köln, Germany*
 30. Metal Sorting in Waste Management: Quality Improvement and Economical Backing. *U. Kohaupt*, *Steinert Elektromagnetbau GmbH, Köln, Germany*
 31. Solid waste material characterisation and recognition by hyperspectral imaging based logics. *S. Serrant*, *G. Bonifazi*, *Università di Roma "La Sapienza", Rome, Italy*
 32. IVU Directive and Best Available Techniques (BREF) for Sorting Technology. *S. Kalmbach*, *Environment Agency, Dessau, Germany*
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Coffee break

- 16:45 – 18:40
33. Separability of Dynamically Dried Residual Waste. *B. Bartha*, *TU Dresden, Germany*
 34. Simulation of Mechanical Conditioning Processes in Waste Treatment. *B. Zwisele*, *ARGUS – Statistik und Informationssysteme in Umwelt und Gesundheit in projekt union with TU Berlin and Fraunhofer First, Berlin, Germany*
 35. Optimisation of Fuels from MBT Processes. *C. Ibbetson**, *Kurt Wengenroth***, *Regen Fuels Ltd., Richmond, UK, **B&T Umwelt GmbH, Buseck, Germany
 36. Applying Mechanical Pre-Treatment and Landfill Mining Approach in recovering Refuse Derived Fuels (RDF) from Dumpsite Waste: Thailand Case Study. *C. Visvanathan**, *T. Norbu**, *C. Chimchaisri***, *B. Charnnok***, *Asian Institute of Technology, Klong Luang, **Kasetsart University, Bangkok, Thailand
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Dinner

22nd - 24th of May 2007, Poster Presentation, Exhibition Area

Whole day

- The Present Situation of the Mechanical and Biological Treatment of Waste in Georgia and Ways of Correction. *I. Kaviladze**, *K. Dgebuadze***, *Environmental Advisor, Parliament of Georgia, **International Information Centre of Social Reforms, Georgian Republic
 - Modelling of landfilling acceptance of residue from refuse derived fuel generation. *Ragazzi, M**; *Venturi, M.*; *Rada, E.C.***; *Apostol, T***. *University of Trento; **Polytechnical University of Bucharest.
 - Study on Selected Odorous Compounds at the Barycz Municipal Landfill Site in Krakow, Poland. *A. Sadowska-Rociek**, *M. Kurdziel**, *K. Piejko***, *E. Szczepaniec-Cieciak**, *Faculty of Chemistry, Jagiellonian University, **Municipal Services and Waste Management Company Ltd., Krakow, Poland
 - Interpretation approaches of infrared-spectroscopic waste analysis in order to assess biological stability. *M. Tesar*, *K. Meissl*, *University BOKU, Vienna, Austria*
 - Wertstoffgewinnung durch Niedertemperaturtrocknung. *R. Schu*, *EcoEnergy Ge-sellschaft für Umwelt- und Energietechnik mbH, Walkenried, Deutschland*
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2nd International Symposium MBT 2007

Thursday 24th of May 2007

8:30 – 10:25

Fuels (RDF) and Recycled Materials

37. Capacity Development of RDF Power Plants for Secondary Fuels as Market for MBT Plants in Germany. *T. Greiner, trend:research, Bremen, Germany*
 38. Tenders and Contracts for the Sale of RDF. *N. Michels, WMRC-Lawyers, Berlin, Germany*
 39. Experiences with Conditioning and Use of RDF from Commercial Waste for Heat Production in Flensburg. *R. Oetjen-Dehne, Oetjen-Dehne & Partner Umwelt- und Energie-Consult GmbH, Berlin, Germany*
 40. Optimised Management of Commercial Waste. *F. Knappe, Ifeu-Institut Heidelberg*
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Coffee break

10:55 – 12:50

Biological Treatment

41. Critical Analysis of High Moisture MSW Bio-Drying: The Romanian Case Study. *E. C. Rada*, M. Ragazzi*, T. Apostol**, V. Panaitescu**, *, University of Trient, Italy, **Politehnica University of Bucharest, Romania*
 42. Economic Analysis of Energy Recovery from the Aerobic Bioconversion of Solid Urban Waste Organic Fraction. *V. Goriatti, F. Di Maria, Università degli Studi di Perugia, Italy*
 43. Optimisation of Intensive Rotting Processes – Comparison of Experiences with Tunnel and Container Rotting (Composting) Systems.. *B. Mähl, Gewitra – Ingenieurgesellschaft für Wissenstransfer mbH, Hanover, Germany*
 44. Dry Fermentation: Ideal for the Biologically Treated Fraction? *M. Caviezel, CTU-Concepte Technik Umwelt AG, Winterthur, Switzerland*
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Lunch

13:50 – 15:45

45. Sand: A Problem in Fermentation Systems. *K. Schu, EcoEnergy Gesellschaft für Umwelt- und Energietechnik mbH, Walkenried, Germany*

Sampling and Analytical Methods

46. Sampling and Conditioning of Waste Samples. *M. Kühle-Weidemeier*, Jürgen Graf**, *Wasteconsult international, Langenhagen, **Erdwisch Zerkleinerungssysteme GmbH, Kaufering, Germany*
 47. Assessment of the Biological Activity of Residual Waste – Comparison of British and German Anaerobic Test Methods. *A. Bockreis*, W. Müller,* TU Darmstadt, ** Ingenieurgemeinschaft Witzenhausen, Germany*
 48. Thermal Analysis for MBT Process and quality control. *E. Smidt, J. Tintner, University of Natural Resources and Applied Life Sciences, Vienna, Austria*
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Coffee break

16:15 – 18:10

Emissions and Emission Treatment

49. Customised Exhaust Gas Treatment for MBT: Costs, Maintenance Effort and Efficiency of the Combination RTO (Regenerative Thermal Oxidation) / Chemical Scrubber / Biofilter at MBT Neumünster. *R. Bisdorf, Tholander Ablufttechnik GmbH, Viernheim, Germany*
 50. Operational Experiences and Optimisation Potential for the Application of RTO at MBTs. *O. Neese, O. Carlowitz, T. Reindorf, CUTEC-Insitut GmbH und Institut für Umweltwissenschaften, TU Clausthal, Germany*
 51. Ecobalance of Regenerative Thermal Oxidation (RTO) Regarding the Avoidance of Greenhouse Gas Emissions. *J. Dach*, A. Warnstedt**, G. Müller**, *Björnssen Beratende Ingenieure GmbH, Koblenz, ** AWZ Rhein-Lahn-Kreis, Singhofen, Germany*
 52. Laboratory Biological Process for Treatment of Leachate from the Initial Phase of Landfilling of Mechanically Sorted Organic Residue and Mechanically-Biologically Treated Municipal Solid Waste. *P. L. N. Kaparaju, J. A. Rintala, Dept. of Biological and Environmental Science, University of Jyväskylä, Finland*
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End of the International Symposium MBT 2007

2nd International Symposium MBT 2007

The conference session chairs:



Egan Archer, PhD

is a Principal Technology Specialist with Juniper. He has a PhD in Chemical Engineering. In his current role, Egan is involved full-time with the technical and commercial appraisal of novel waste processing technologies and has therefore built up an exceptionally wide knowledge of technologies and process suppliers throughout the world. A key part of this role is advising Municipalities, Venture Capital Funds, Project Developers and Banks worldwide. He has expertise in the design and technical evaluation of many types of thermal treatment processes for waste. More recently he conducted assessments of over 40 MBT processes, including site appraisals of the key reference plants around the world.



Dipl.-Ing. Wolfgang Butz

works since 1991 in the German environment agency (UBA). In the department of waste treatment and landfills he works on mechanical biological waste treatment and landfill technique. He was significantly involved in the conception of the legal requirements for MBT in Germany.



Dr.-Ing. Carsten Cuhls

has been researcher at the Universities Hanover and Halle. Since 2000 he is a managing director at gewitra Ltd. In Bonn and Hanover. He is doing consultancy, design engineering and research in the area of biological waste treatment and especially emission reduction. He has done pioneer work in measurement, documentation and evaluation of gaseous emissions from MBT plants. He certainly is the most experienced expert concerning emission measurement from MBT plants.



Dr.-Ing. Dipl.-Geogr. Matthias Kuehle-Weidemeier

has been working long time as consulting engineer in landfill construction at two leading German companies. Afterwards he was scientist at the institute for water quality and waste management (ISAH) at the university of Hanover. He was working on MBT process optimisation, MBT landfills and an evaluation of all German municipal household waste landfills. He wrote his doctoral thesis about landfilling of MBT waste. Afterwards he founded Wasteconsult international, consulting engineers on waste treatment, landfills, contaminated sites and photovoltaics. He is organiser of 3 conferences: International Symposium MBT, Days of Waste Research (German) and Conference on Landfill Practice (German).



Dr.-Ing. Wolfgang Mueller

has worked at the forefront of advanced solid waste treatment technology for the past 15 years and is now Head of international projects within IGW Fricke & Turk GmbH. He was awarded a doctorate at Kassel University on MBT. He has subsequently carried forward this in depth knowledge into the development of practical methods of assessing the performance of waste strategies and treatment technology both in his native Germany and more recently in the UK with IGW's sister company Organic Resource Agency (ORA). His areas of expertise include the optimisation of composting, AD, MBT and RDF utilization technology, facility planning, concept design, environmental and cost analysis.



Howard Robinson

is technical director at Enviros Consulting, a UK-based international environmental consultancy. He has more than 30 years of experience in waste management, especially in landfill science and characterisation and treatment of leachate. He has been responsible for hundreds of projects in the UK, Ireland, Hong Kong, Malaysia, New Zealand, South Africa, throughout Europe and in the USA. His work is founded on extensive research.

2nd International Symposium MBT 2007

22nd - 24th of May 2007, Exhibition Area

Commercial exhibition

Designers and manufacturers of MBT plants and other companies present themselves.

The conference is accompanied by a commercial exhibition. There are many possibilities of advertisement and endorsement at the International Symposium MBT 2007 and in the conference proceedings. Take the chance to meet an exclusive international circle of potential customers. Most of the exhibition space is already rented, book on time! First come, first served! Please get further information from our [website](#) and contact us! tagung@wasteconsult.de



2nd International Symposium MBT 2007

Binding registration for the International Symposium MBT 2007

I sign up binding for the participation at the marked symposium days. I will pay the registration fee within 14 days after receipt of the invoice. I recognize and accept the terms and conditions (see below).

Please note, that this form does not register you to the accommodation!

Wasteconsult International

Robert-Koch-Strasse 48b

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Germany

FAX ++49 511 23 59 384

Please select (X)

	Registration fee net if we receive your registration until 15 th of February 2007	Registration fee net in case of registration after 16 th of February 2007
22 nd of May 2007 1 st conference day	<input type="checkbox"/> 195,00 €	<input type="checkbox"/> 217,00 €
23 rd of May 2007 2 nd conference day	<input type="checkbox"/> 195,00 €	<input type="checkbox"/> 217,00 €
24 th of May 2007 3 rd conference day	<input type="checkbox"/> 195,00 €	<input type="checkbox"/> 217,00 €
3 day ticket 22 nd – 24 th of May 2007	<input type="checkbox"/> 499,00 €	<input type="checkbox"/> 555,00 €
3 day ticket for students up to 29 years (proof!)	<input type="checkbox"/> 198,00 €	<input type="checkbox"/> 220,00 €
	Each plus 19% VAT	Each plus 19% VAT

My conference language is: English French German Italian

Mr. Mrs.

Title / Name:

Firm / Institution:

Address:

Postcode, City:

First name:

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Fax:

Email:

Date, signature, chop:

Make sure to enter a valid email address! Invoice and your conference ticket will be sent via email (PDF documents)!

VAT-ID (EU-members)

Terms and conditions, services

Conference organizer:

Wasteconsult, Robert-Koch-Str. 48 b, 30853 Langenhagen

Fon ++49 (0)511 / 23 59 383 • FAX ++49 (0)511 / 23 59 384 • www.wasteconsult.de

Conference venue:

Wienecke XI. Hotel, Hildesheimer Str. 380, 30519 Hannover,

Fon ++49 (0)511 / 126 110 • FAX ++49 (0)511 / 12 611 511 • www.wienecke.de

Registration has to be in written form (letter or fax) using this form. After receipt of your registration you will get the invoice which has to be paid within 14 days. After reception of your payment your conference ticket will be sent. The registration is binding. In case of being prevented alternative participants of the same institution are accepted without extra costs. **Cancellations** must be received in written form. In case of cancellation before 27th of April.2007 (date of reception at Wasteconsult) your payment less an administration charge of 50 Euro will be refunded. In case of later cancellation the registration fee will not be refunded, the conference documents are forwarded. If the conference is cancelled by Wasteconsult (this will only happen because of unanticipated reasons), the registration fee will be completely refunded. Further pretensions / requirements are excluded.

Included services: Lunch (inclusive 1 soft drink), dinner (inclusive 1 soft drink or beer) and 2 coffee breaks with coffee and pastry are included at the first and second conference day. The third day includes coffee breaks and lunch. All delegates receive an issue of the conference proceedings in English language (if you selected German, you get the original language edition). Conference programme and programme sequence are subject of alterations.

Arrival and accommodation are not included in the registration fee and have to be organised and paid by the participants themselves.

Judicial: Only German law applies. Jurisdiction is Hanover, Germany. The organizer / Wasteconsult takes no obligatory supervision and is not liable for lost or broken objects, injuries, accidents and deaths.

2nd International Symposium MBT 2007

Accommodation:



Wienecke XI. Hotel, Hildesheimer Str. 380, 30519 Hannover,
Phone ++49 (0)511 / 126 110 • FAX ++49 (0)511 / 12 611 511 www.wienecke.de

The hotel holds a limited room contingent for the conference. With reference to the conference participation you can get a single room inclusive breakfast for 75 Euro/day. Other hotels and information about Hanover can be found at www.hannover.de and hotels at www.hrs.com (for finding Hanover, type Hanover with double "n" (Hannover)).

Arrival:

Flights to Hanover:

Hanover has an international airport, which is served by many airlines. www.tuifly.com, which is based in Hanover, has budget flights to many European destinations. www.air-berlin.com connects Hanover to many European and North African destinations at budget rates too. www.lufthansa.com has world wide service. Many other airlines have well-priced flights to Hanover too. Please contact your local travel agency! This flight information is just a hint. Wasteconsult has no relation to any of the mentioned airlines and doesn't recommend any of them more than other not directly mentioned airlines.

**Non EU residents should check if they need a visa for Germany
and apply for it as soon as possible!**

Railway, Underground and Tram:

Starting at Hanover airport:



Take urban railway ("S-Bahn") S5 direction Hameln and get off the train at Hanover main station ("Hauptbahnhof"). Go down 2 floors to the Underground station.

Starting at Hanover main station (DB):



Take Underground line 1 direction Laatzen/Sarstedt or Underground line 2 direction Rethen. Deboard at the station Dorfstrasse



1 minute footpath to hotel Wienecke XI.

By car:

Take Motorway A2 or A7 until interchange Hanover east ("Autobahnkreuz Hannover Ost"). Follow Motorway A7 heading south (if you are coming from the south, your description starts now):

Leave the Motorway A7 at exit Hannover – Anderten. Follow road B65 ("Suedschnellweg") direction Hanover fair ("Messe") until exit Doehren / Zentrum. Turn left at the first traffic light. Now you have reached the Hildesheimer Strasse. The conference Hotel "Wienecke XI." is 2 km ahead (direction south) on the right side of the road.

You can get detailed maps of Hanover at www.stadtplandienst.de.