www.waste-to-resources.eu

14–16 MAY 2019 HANOVER, GERMANY

Conference with simultaneous translation ENGLISH - FRENCH - GERMAN

B INTERNATIONAL SYMPOSIUM MBT, MRF & RECYCLING

RESOURCES AND ENERGY FROM WASTE CONFERENCE, SEMINAR, EXHIBITION AND SITE VISITS

PATRONAGE: SVENJA SCHULZE GERMAN MINISTER OF ENVIRONMENT

Gold Sponsor





Silver Sponsor



Organizers

wasteconsult

www.icp-ing.de

www.wasteconsult.de

ASTE-TO-RESOURCES 2019

CONFERENCE AND EXHIBITION



The conference is accompanied by a commercial exhibition. Take the chance to meet an exclusive interna-tional circle of potential customers. Further information including Gold and Silver Sponsor packages are available at <u>http://www.waste-to-resources.eu/ausstellung.html</u> Or contact us directly at: <u>waste2resources@icp-ing.de</u>

Some of this year's or previous exhibitors:



Media Partners:



Recyclage & Valorisation

WASTE-TO-RESOURCES 2019 THE DAY BEFORE THE CONFERENCE, 13TH OF MAY

INTRODUCTORY SEMINAR TO MECHANICAL-BIOLOGICAL TREATMENT IN ENGLISH LANGUAGE. 9.30 – 18:00. Presenters: Dr. Matthias Kuehle-Weidemeier, Dr. Ludwig Streff Seminar limited to 20 persons. Coffee breaks and lunch included. **SEMINAR TOPICS:** Selection of appropriate waste treatment technologies Introduction, what is MBT, targets MBT technologies and examples Mechanical treatment **Biological treatment** Aerobic technologies MBT prior to landfill Biological drying for refuse derived fuel (RDF) production Combined anaerobic-aerobic technologies Partial flow dry digestion Full flow dry digestion Partial flow wet digestion Full flow wet digestion Percolation plants MBT related technologies Wet mechanic separation technology Mechanical-physical stabilisation Quality supervision of the major solid MBT output fractions and MBT process control Taking representative samples, analytics, which parameters make sense? Landfill material RDF Control of Gaseous emissions Emitted substances, variation of emissions during the process Encapsulation Air management **Biofilter** Regenerative thermal oxidation (RTO) Practical experience with MBT in Germany History and legal background Results of an evaluation of all German MBTs in 2007 **Current situation** Landfilling of MBT output Is agricultural application of MBT output a good solution? MBT compared to other technologies Incineration **Bioreactor landfill** Costs of MBT Adoption of MBT to the local situation

TUESDAY, 14TH OF MAY 2019

9:00 - 11:00 BLOCK 1

MBT AND RECYCLING

- 1. Potential of waste management to achieve the recyling rates of the EU Waste Framework Directive. C. Böhm, ARGUS Statistik und Informationssysteme in Umwelt und Gesundheit GmbH, Berlin, Germany
- 2. Recyclingregion Harz The education offensive. P. Hauschild, University of Applied Sciences Nordhausen, Ger.
- 3. Implementation of the requirements of the European Best Available Technique Reference Documents (BREF) for the waste treatment industires in Germany. W. Butz, Umweltbundesamt, Dessau, Germany
- 4. Zero Waste: Material recovery instead of incineration and landfilling of MBT output fractions. The way it technically and economically works. *M. Kuehle-Weidemeier, ICP Ingenieurgesellschaft Prof. Czurda & Partner mbH, Karlsruhe / Wasteconsult international, Langenhagen, Germany*

11:30 - 13:00 BLOCK 2

CLIMATE PROTECTION BY CIRCULAR ECONOMY

- 5. Recycling instead of landfilling Acontribution to climate protection. W. P. Bauer, ia GmbH, Munich, Germany
- 6. Waste management and climate protection internationally (Brazil). C. Buchenberger, K. Fricke, C. Pereira, Technical University Braunschweig, Germany
- 7. GHG reduction in waste management in Brazil: Life cycle and IPCC approaches and its preliminary results. *H. Cardoso Moreira, GIZ, Brasilia, Brazil*

14:30 - 16:00 BLOCK 3

CURRENT PLANTS AND SYSTEM CONCEPTS

- 9. Conversion of the MVA Stellinger Moor into a center for resources and energy with sorting plant, fermentation plant, biogas upgrading and refuse-derived fuel power plant. V. Höck, Stadtreinigung Hamburg
- 10. New material-from-waste facility in PARIS 17. C. Cord'Homme, CNIM Group, Paris, France
- 12. 1.5 years experience with 1000t/d MBT Mumbai (India). B. Gamerith, Compost Systems, Wels, Austria

16:30 - 18:00 BLOCK 4

CONCEPTS FOR CIRCULAR ECONOMY

13. Solid Waste Management in Germany: Deriving Lessons for India. S. Sugandh, D. Weichgrebe, University of Hanover, Germany

LIQUEFACTION AND CARBONATION OF WASTE

- 15. Hydrothermal carbonation (HTC) & vapothermal carbonation (VTC). Key technologies in worldwide waste treatment. A. Kuhles, GRENOL GmbH, Ratingen-Meiersberg, Germany
- 16. How to REACH Circular Economy liquid resource from SRF to feed BASF production. *N. Karpensky, Recenso GmbH, Remscheid, Germany*

18:30 DINNER

WEDNESDAY, 15TH OF MAY 2019

9:00 - 11:00 BLOCK 5

WASTE ANALYSIS

17. Real-time analytics to determine the quality of input in waste pretreatment plants. T. Weißenbach, Montanuniversität Leoben, Austria

PRODUCTION, OPTIMIZATION AND UTILIZATION OF ALTERNATIVE FUELS

- 18. Production of alternative fuels in Latin America Possibilities and Challenges. R. Craizer, BlackForest Solutions GmbH, Berlin, Germany
- 19. Sorting process and energy recovery possibilities of hospital waste in Brazil using the example of the hospital association SINDIHOSPA in Porto Alegre. S. Kohlmann, envitecpro GmbH, Rostock, Germany
- 20.MSW to RDF; the Indonesian Experience & Outlook to large scale Biological Drying. J. Gressmann, Eggersmann Anlagenbau GmbH, Bad Oeynhausen, Germany

11:30 - 13:30 BLOCK 6

- 21. Biological Drying of MSW for RDF production in MBT plants with membrane covered boxes plus biofilter. *A. Huber, STRABAG Umwelttechnik GmbH, Dresden, Germany*
- 22. MBT Sofia: Lessons learned. L. Streff, M. Kühle-Weidemeier, A. Grooterhorst, ICP Ingenieurgesellschaft GmbH, Karlsruhe, Germany
- 23. Use of SRF (solid recovered fuel) and RDF (refuse derived fuel) in Europe; RECORD project. *M. Le Bihan*, *F. Michel, RDC Environment, Brussels, Belgium*
- 24. Small & medium WTE-plants for decentral thermal treatment of RDF and industrial waste. C. Eder, WEHRLE-WERK AG, Emmendingen, Germany

14:45 - 16:45 BLOCK 7

- 25. Coprocessing as a tool for the sustainable waste management in Brazil. C. Pereira, K. Fricke, C. Buchenberger, Technical University of Braunschweig, Germany
- 26. Substitute use and implementation of new exhaust gas treatment technologies in the Austrian cement industry. *G. Mauschitz, Technical University of Vienna, Austria*
- 27. Screening of the fine fraction to improve the SRF quality possibilities and effects. A. Curtis, Montan University Leoben, Austria
- 28. Different aeration methods during biodrying of mixed municipal solid waste. V. Pilnáček, Charles University, Prague, Czech Republic

17:15 - 19:15 BLOCK 8

29. Optimizing secondary fuel combustion in cement production by NIR spectroscopy. L. Fit, J. Lemke, R. Teutenberg, S. Zühlsdorf, thyssenkrupp Industrial Sol. AG, Beckum, C. Steckert, LLA Instruments, Berlin, Germany

FIRE SAFETY AND OCCUPATIONAL SAFETY IN WASTE TREATMENT AND RECYCLING PLANTS

- 30. Fire and explosion protection in the waste management and recycling industry. B. Busemann, DMT GmbH & Co. KG, Dortmund, Germany
- 31. Prevention of fire hazards and business interruptions in recycling plants: Infrared camera units for temperature monitoring in fire protection with automatic control of extinguisher systems. *M. Müller, Orglmeister Infrarot-Systeme GmbH & Co.KG; Walluf, Germany*
- 32. Molds, dusts and diesel engine emissions (DME) at workplaces in waste management. State of the art and development from 1996 to 2018. T. Missel, Labor für Arbeits- und Umwelthygiene, Isernhagen, Germany

THURSDAY, 16TH OF MAY 2019

8:30 - 10:30 BLOCK 9

ORGANIC WASTE FRACTIONS AND ANAEROBIC WASTE TREATMENT

33. Food waste statistics (generation and treatment) in Slovenia. T. Vidic, Statistical Office of the Republic of Slovenia

- 34. Quantitative Survey of Organic Waste Generated In Oman and the Feasibility for Usage in Biogas Production Plants. S. Al-Hosni, Oman Environmental Services Holding Company be'ah, Muscat, Oman
- 35. Mechanical wet pre-treatment efficiency of OFMSW for biogas production. A. do Carmo Precci Lopes, W. Müller, A. Bockreis, University of Innsbruck, Austria
- 36. The impact of pretreatment and wet/dry screening on impurities in compost derived from MSW. B. Mattheeuws, L. De Baere, W. Six, OWS nv, Gent, Belgium

11:00 - 12:30 BLOCK 10

BIOGAS

- 38. Biological desulphurisation filter for biogas. C. Bogenrieder, ZÜBLIN Umwelttechnik GmbH, Stuttgart, A. Maile, STRABAG Umwelttechnik GmbH, Düsseldorf, Germany
- 39. Regional concepts for a direct valorization of biogas. Case studies in Austria and Canada. S. Schulte, H. Kübler, R. Pellegrini, T. Rahn, BTA International GmbH, Pfaffenhofen, Germany

LEACHATE FROM WASTE TREATMENT

40. Treatment of Waste Derived Liquids. B. Fitzke, WEHRLE Umwelt GmbH, Emmendingen, Germany

14:00 - 15:30 BLOCK 11

PLASTICS AND OTHER WASTE FRACTIONS

- 41. First investigation of the occurring stresses during the collection, transport and unloading of waste electrical and electronic equipment. *R. Brüning, J. Wolf, Dr. Brüning Engineering UG, Brake, Germany*
- 42. Valorization of Deinking Sludges from wastepaper recycling. M. Kolade Ogun, I. Körner, Hamburg University of Technology, Germany
- 43. Neue Recyclingtechnologie mit Löseverfahren und mischfaserverstärkten Kunststoffen. R. Schu, EcoEnergy GmbH, Göttingen, Germany

16:00 - 18:00 BLOCK 12

PROCESSING AND RECYCLING OF MINERAL WASTE

- 45. Use of air separation tables for density sorting of waste materials. A. Simal de Pedro, Allgaier Mogensen S.L.U., Madrid, Spain; A.P. Kindler, J.J. Cebrian de la Torre, M. Trojosky, Allgaier Process Technology GmbH, Uhingen, Germany
- 46. Analysis of single stream and drop off glass collection systems using LCA: A case study of the City of Guelph, Canada. K. Gatzos, B. Abbassi, University of Guelph, Canada
- 47. Waste glass reuse in geo-polymer binder prepared by combining fly ash and meta kaolin. A. Bouchikhi, M. Benzerzour, N.-E. Abriak, W. Maherzi, Y. Mamindy-Pajany, IMT Lille Douai, France

17:30 END OF THE CONFERENCE

17TH OF MAY, 8:20: SITE VISIT MBT IN THE WASTE MANAGEMENT CENTRE OF HANOVER. RETURN CA. 13:00

The municipal waste management centre comprises the former landfill, composting plant for green waste and biowaste from households (source separated collection) and the MBT plant with full flow dry anaerobic digestion. Next door there is the private waste incinerator operated by EON. The site visit is not included in the free ticket for authors.



REGISTRATION FOR CONFERENCE, SEMINAR AND SITE VISIT:

Registration is done online at <u>www.waste-to-resources.eu</u> or register directly by using the following link:

https://px.convent-registration.de/cgi-bin/regform.exe?company=76227&Event=WASTE19&Language=1&Entry=9 In case of any problems concerning your registration, please contact <u>waste2resources@icp-ing.de</u> and use the registration form on the last page of this brochure.

Participation fees net (add 19% German VAT)	Until 25/2/2019	From 26/2/2019
14 May First conference day (day ticket)	199 €	269€
15 May Second conference day (day ticket)	199 €	269€
16 May Third conference day (day ticket)	199 €	269€
3-day-ticket 14-16 May	529€	689€
3-day-ticket for students (proof required!) up to 29 years	159 €	239€
17 May Site visit	85€	129€
13 May MBT introductory seminar in English language	249 €	299€
13-16 May MBT introductory seminar and conference	749 €	949€
13-17 May MBT introductory seminar, conference, site visits	835€	1029€

Included services: Lunch (inclusive 1 soft drink), dinners when indicated in the brochure (inclusive 1 soft drink or beer) and 2 coffee breaks. No food but a bottle of water included in the site visit. The third day includes coffee breaks and lunch. All delegates receive an issue of the conference proceedings. Conference program and program sequence are subject of alterations.

Organizer of seminar, conference and site visit: ICP Ingenieurgesellschaft Prof. Czurda und Partner mbH; Auf der Breit 11, 76227 Karlsruhe, Germany Tel:+49 721 94477 0 • Fax: +49 721 94477 70 • <u>www.icp-ing.de</u> E-Mail <u>waste2resources@icp-ing.de</u>

VENUE AND ACCOMMODATION:

Wienecke XI. Hotel, Hildesheimer Str. 380, 30519 Hannover, Tel: +49 (0)511 / 126 110 FAX +49 (0)511 / 12 611 511 <u>https://www.wienecke.de/</u>

The conference hotel Wienecke XI. has a limited contingent of rooms for conference participants (Single room incl. breakfast 95€/night; double incl. breakfast 125€/night).

Other hotels: http://www.waste-to-resources.eu/tagungsort-unterkunft.html

ARRIVAL:

Hotel website with direction and parking information: https://www.wienecke.de/en/service/directions-parking.html

PUBLIC TRANSPORT:

Starting from Hanover Airport:

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

Starting from Hanover main station (DB):

Take Underground line 1 direction Laatzen/Sarstedt or Underground line 2 direction Rethen. Deboard at the station Wiehbergstrasse. 1 minute foot path to Hotel Wienecke XI.

BY CAR:

Take Motorway A2 or A7 until interchange Hanover east ("Autobahnkreuz Hannover Ost"). Follow Motor-way 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.

ICP Ingenieurgesellschaft Prof. Czurda und

Partner mbH Auf der Breit 11 76227 Karlsruhe, Germany

FAX registration+49 511 6558 1775

Please select (X)

Until 25/2/2019	From 26/2/2019
199€	269€
199€	269€
199€	269€
529€	689€
159€	239€
85€	129€
249€	299€
749€	949€
835€	1029€
	199 € 199 € 199 € 529 € 159 € 85 € 249 € 749 €

My conference language is: English French G	erman
□ Mr. □ Ms.	Title: Prof. Dr.
Last Name:	First name
Firm / Institution:	Phone:
Address:	Fax:
Postcode, City:	Email:
Date, signature, chop:	Make sure to enter a valid email address! Invoice and your conference ticket will be sent via email (PDF documents)!
Your VAT ID:	Promotion code:

Terms and conditions, services

Conference organiser:

ICP Ingenieurgesellschaft Prof. Czurda und Partner mbH; Auf der Breit 11, 76227 Karlsruhe, Germany Tel:+49 721 94477 0 • Fax: +49 721 94477 70 • <u>www.icp-ing.de</u> E-Mail <u>waste2resources@icp-ing.de</u>

Conference venue:

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

Fon +49 511 / 126 110 · FAX +49 511 / 12 611 511 · <u>www.wienecke.de</u>

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. 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 30th of April (date of reception at ICP mbH) 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 the organiser (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. On the site visit, only a bottle of water will be supplied. All delegates receive an issue of the conference proceedings. 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 Karlsruhe, Germany. The organizer takes no obligatory supervision and is not liable for lost or broken objects, injuries, accidents, deaths and acts of god. No liability for consequential damages