

Plenary Session

- 9:00 Welcome Address**
Professor Dipl.-Ing. Dr. techn. Franz Winter, Vienna University of Technology, Austria
Opening Remarks
Elisabeth Thomé-Kozmiensky, M.Sc.

EU Policies and Legislation

PRESENTATION: PROFESSOR DIPL.-ING. DR. TECHN. FRANZ WINTER

- 9:15 The Impact of New EU Legislation on Waste-to-Energy** p. 3
Dr. Ella Stengler, Managing Director
CEWEP – Confederation of European Waste-to-Energy Plants e.V., Brussels, Belgium
- 9:45 Best Available Techniques (BAT) Reference Document (BREF) for Waste Incineration – Status and Last Steps of the Review** p. 15
Dr. Frederik Neuwahl
European IPPC Bureau (EIPPCB), European Commission, Joint Research Centre, Seville, Spain
- 10:15 Environmental Policies Point of View on the EU Legislation on Waste**
Julika Dittrich, LL.M., Deputy Director
EU-Umweltbüro, Vienna, Austria
- 10:45 Coffee Break**
- PRESENTATION: PROFESSOR ING. PH.D. DAGMAR JUCHELKOVÁ
- 11:15 The Role of Waste-to-Energy in the EU's Long-term Greenhouse Gas Emissions Reduction Strategy** p. 25
Patrick Clerens, Secretary General
European Suppliers of Waste to Energy Technology (ESWET), Brussels

Strategy and Perspectives

- 11:45 China's Green Economy: Corporate Acquisitions and Political Strategy – For a Better Environment in China: BEHL and EEW Realize First Chinese-German Energy from Waste Project –** p. 37
Dipl.-Phys. Karl-Heinz Müller
Chief Operating Officer of EEW Energy from Waste GmbH, Helmstedt, Germany
- 12:15 International Perspectives of Energy from Waste – Challenges and Trends –** p. 47
Tech.Lic. Inge Johansson, Researcher, Division Built Environment – Energy and Circular Economy
RISE Research Institutes of Sweden, Borås, Sweden
Leader of IEA Bioenergy Task Integrating Energy recovery into solid waste management systems
- 12:45 Lunch Break**

Country Reports

PRESENTATION: DR. ELLA STENGLER, ATTORNEY DR. TOBIAS FABER

- 14:00 Current Status, Waste Management Strategies and Planning in Finland** p. 97
Dipl.-Ing. Mika Pekkinen, Managing Director of Tammervoima Oy, Tampere, Finland
- 14:10 Waste Management in Bosnia and Herzegovina – Current Situation and Perspectives** p. 109
Mehmed Cero, Ph.D., Assistant Minister on Environment
Federal Ministry on Environment and Tourism, Sarajevo, Bosnia and Herzegovina
- 14:20 The New National Action Plan for Waste Management 2016 to 2023 of the Republic of Turkey** p. 119
Professor Dr.-Ing. Oktay Tabasaran, University of Stuttgart, Germany
- 14:30 Current Status, Waste Management Strategies and Planning in Kuwait** p. 127
Dipl.-Ing. Manfred Graf, Head Project Management
EVN Umweltholding und Betriebs-GmbH, Maria Enzersdorf, Austria
- 14:40 Municipal Solid Waste Management in India – A Critical Assessment** p. 137
Dr. Atul N. Vaidya, Chief Scientist & Head, Solid & Hazardous Waste Management
CSIR – National Environmental Engineering Research Institute (NEERI), Nagpur, Maharashtra, India
- 14:50 Future Development of Waste Management in China According to the Current Five-Year Plan** p. 149
Professor Dr. Rundong Li,
Director for Institute of Clean Energy & Environmental Engineering (ICEEE)
Shenyang Aerospace University, China

15:00 Panel Discussion

16:00 Coffee Break

Projects

PRESENTATION: DR.-ING. STEPHANIE THIEL

- 16:30 Worldwide Waste-to-Energy Market – Where are the Upcoming Projects?**
Amedeo C. Vaccani, Managing Partner, Practice Leader Sustainability and Waste
A. Vaccani & Partner AG, Zurich, Switzerland
- 17:00 Why Major Projects Fail – a Snapshot on Deal Killers, Disruption of Projects and Project Related Dispute Resolution** p. 63
Attorney Dr. Tobias Faber, Hogan Lovells International LLP, Frankfurt am Main, Germany
- 17:30 Energy-from-Waste Project Development EPC Contractor & O&M Contractor as One-Stop-Shop?** p. 77
Christophe Cord'homme, Business & Products Development Director, Environment Sector
CNIM Constructions Industrielles de la Méditerranée S.A., Paris, France
- 18:00 Open Bar**
- 19:30 Dinner**

Incineration

Optimisation und Efficiency

PRESENTATION: PROFESSOR DIPL.-ING. DR. TECHN. HARALD RAUPENSTRAUCH

- ▶ **8:30** **Problems with Biodegradable Wastes – Potential in Myanmar and Other Asian Countries for Combination of Drying and Waste Incineration –** **p. 163**
Maw Maw Tun, M.Sc., Energy Engineering Department
Technical University of Ostrava (VŠB-TUO), Czech Republic
- ▶ **9:00** **Capacity, Efficiency and Emissions: Pushing the Limits of Waste-to-Energy Plants** **p. 177**
Dr. Reto Strobel, Senior Process Engineer Design
Hitachi Zosen Inova AG, Zurich, Switzerland
- ▶ **9:30** **Waste Heat Recovery for District Heating – A Hot Topic at a Low Temperature** **p. 187**
Marcus Whitworth, Product Sales Director Europe, FGC & Fuel Flexibility Solutions
GE Power AG, Stuttgart, Germany
- ▶ **10:00** **Generation 4.0 of Incineration Optimisation Systems for Moving Grates**
Dipl.-Ing. Matthias Lukic, CEO and owner, Dipl.-Ing. Damir Zibrat
TG GmbH, Premstätten, Austria
- ▶ **10:30** **Coffee Break**

Example Plants and Experiences in the Plant Construction and Operation

PRESENTATION: DIPL.-ING. KLAUS-GÜNTHER ZINK

- ▶ **11:00** **New Construction and Modernization of the Existing Plant in Prague/Czech Republic– Project GOLEM –** **p. 203**
Dr.-Ing. Ales Blaha, Director WtE plant, Prazske Sluzby a.s.
ZEVO Malesice, Prague, Czech Republic
Dipl.-Ing. Norbert Eickhoff, Senior Vice President, Projects and Acquisition
Martin GmbH für Umwelt- und Energietechnik, Munich, Germany
- ▶ **11:30** **Technical Concept and Energy Management of the Tampere Waste-to-Energy Plant in Finland** **p. 219**
Dipl.-Ing. Mika Pekkinen, Managing Director of Tammervoima Oy, Tampere, Finland

Processing of Incinerator Bottom Ash

- ▶ **12:00** **Mining Incinerator Bottom Ash for Heavy Non-ferrous Metals and Precious Metals** **p. 275**
Dr. Jan-Peter Born, Manager Business Development Energy
N. V. HVC, Alkmaar, Netherlands
- ▶ **12:30** **Hazardous Property HP14 of MSWI Bottom Ash** **p. 287**
Dipl.-Chem. Hermann Nordsieck, Professor Dr.-Ing. Wolfgang Rommel, Managing Director
Dr. Karsten Wambach
bifa Umweltinstitut GmbH, Augsburg, Germany
Dr.-Ing. Ragnar Warnecke
Managing Director of GKS – Gemeinschaftskraftwerk Schweinfurt GmbH, Germany
- ▶ **13:00** **Lunch Break**

Boiler Cleaning

PRESENTATION: DR. IR. ROBERT VAN KESSEL

- ▶ **14:00** **Methods for Optimized Online Cleaning** **p. 231**
Dipl.-Ing. Franziska Graube, Dr.-Ing. Sebastian Grahl
Professor Dr.-Ing. Michael Beckmann, Dipl.-Ing. Matthias Reiche
Technical University Dresden, Germany
- ▶ **14:15** **Boosting Boiler Efficiency and Availability through Fouling Management** **p. 245**
Martin Ellebro, Chief Technology Officer
Wave Impact Heat Management AB, Sundbyberg, Sweden
- ▶ **14:30** **Automated Radiation Pass Cleaning in Waste Incineration Plants – Experience from More Than Seventy Shock Pulse Generator Installations –** **p. 257**
Kaspar Ninck, M.Sc., Dipl.-Ing. Christian Mosbeck
Explosion Power GmbH, Lenzburg, Switzerland
- ▶ **14:45** **Mobile Industrial Dust Collector Risk Management** **p. 267**
Dr. Michael W. Seitz, CEO of BlueSky Global – Industrial Air Cleaners
- ▶ **15:00** **Discussion**
- ▶ **15:30** **Final Coffee Break**

Experience with Materials and Corrosion

PRESENTATION: ASSOCIATE PROFESSOR DR. SC. PATRIK YRJAS, DR. RER. NAT. WOLFGANG SPIEGEL

- ▶ **8:30** **Relevant Thermochemical Processes in Biomass Fired Power Plants** **p. 457**
Dr. rer. nat. Wolfgang Spiegel
Managing Director of CheMin GmbH, Augsburg, Germany
- ▶ **8:45** **Corrosion of Boiler Materials in the Presence of K-, Pb- and Zn-chlorides at 300 and 350 °C – Laboratory Tests with and without SO₂** **p. 465**
Associate Professor Dr. Sc. Patrik Yrjas, Senior Researcher, Na Li, Dorota Bankiewicz
Laboratory of Inorganic Chemistry
Johan Gadolin Process Chemistry Centre
Åbo Akademi University Finland
Rikard Norling, Ph.D., Business Developer, Project Coordinator
Swerea KIMAB, Stockholm, Sweden
- ▶ **9:00** **Experience in Managing the Superheater Corrosion of the Waste-to-Energy Plant in Naples**
Lorenzo Zaniboni, Technical Director, Ing. Simone Malvezzi, Ing. Maurizio Rossi
A2A Ambiente S.p.A., Brescia, Italy
- ▶ **9:15** **Ceramic Coating of Superheater Tubes in WtE Boilers as Alternative to Nickel Based Protection –** **p. 475**
Eddie Marcarian, Head of Department Chaudières et Combustion
CNIM S.A., La Seyne-sur-Mer CEDEX, France
Ildefonso Goikoetxea, Director de Explotacion y Desarrollo
Zabalgarbi, S.A., Bilbao, Spain
- ▶ **9:30** **Refractory Engineering for Waste-to-Energy Plants – Challenges and Solutions of New Constructions and Maintenance –** **p. 499**
Dipl.-Ing. Markus Horn, Managing Director of Jünger+Gräter GmbH, Schwetzingen, Germany
- ▶ **9:45** **New Silicon Nitride-Bonded Silicon Carbide Tile System for Waste-to-Energy Boilers – Implemented Optimisations in Installation, Process (Heat Transfer) and Service Life** **p. 519**
Jos van der Hoeff
Managing Director of Van der Hoeff Refractories BV, Limmen, Netherlands
Dipl.-Ing. Karl-Ulrich Martin
Managing Director of DETACK GmbH, Ludwigsburg, Germany
- ▶ **10:00** **Discussion**
- ▶ **10:30** **Coffee Break**

Sewage Sludge

PRESENTATION: PROFESSOR DIPL.-ING. DR. TECHN. KARL E. LORBER

- ▶ **11:00** **Treatment of Sewage Sludge in Europe: Status Quo and Perspectives of Energy and Phosphorus Recovery Illustrated by the Example of Selected Countries** **p. 371**
Dipl.-Ing. Martin Gutjahr, Managing Director
wandschneider + gutjahr ingenieurgesellschaft mbh Hamburg, Germany
Professor Dr.-Ing. Johannes Müller-Schaper
PFI Planungsgemeinschaft GmbH & Co. KG, Hanover, Germany
- ▶ **11:30** **Processes and Techniques for the Treatment of Sewage Sludge** **p. 385**
Professor Dipl.-Ing. Dr. techn. Harald Raupenstrauch, Dipl.-Ing. Christoph Ponak
Montanuniversität Leoben, Austria
- ▶ **12:00** **Recovery of Phosphorus in Sewage Sludge Treatment** **p. 395**
Dipl.-Ing. Dr. mont. Andreas Schönberg, Owner
S-PEC e.U., Graz, Austria
- ▶ **12:30** **Lunch Break**

PRESENTATION: PROFESSOR DIPL.-ING. DR. MONT. ROLAND POMBERGER

- ▶ **14:00** **Location Based Solutions for Thermal Sewage Sludge Utilisation and Phosphorus Recovery – Current Projects at EVN / WTE / S2E –** **p. 407**
Dipl.-Ing. Dr. techn. Thomas Gröbl
EVN Wärmekraftwerke GmbH, Zwentendorf an der Donau, Austria
- ▶ **14:30** **Sewage sludge – fluidized bed incineration as a reliable and proven treatment process** **p. 433**
Dr.-Ing. Josef Langen, Combustion Systems Engineering
Standardkessel Baumgarte GmbH, Bielefeld, Germany
Felix Wyss
General Manager of Raschka Engineering Ltd, Liestal, Switzerland
- ▶ **15:00** **Improving the Energetic Self-Sufficiency of Waste Water Treatment Plants – Tool for Needs-based Configuration of the Thermal Sludge Gasification Process** **p. 443**
Dr. Eoin Butler, Project Development / Sales
Kopf SynGas GmbH & Co. KG, Tübingen, Germany
- ▶ **15:30** **Final Coffee Break**

Alternative Waste-to-Energy Processes

Mechanical(-Biological) Waste Treatment and Energy Recovery from Solid Recovered Fuels

PRESENTATION: DIPL.-ING. DR. MONT. RENATO SARC

- 8:30

Mechanical-Biological Waste Treatment Plants in Croatia
Irena Relic, Ministry of Environment and Energy, Republic of Croatia
Dipl.-Ing. Dr. mont. Renato Sarc, Montanuniversität Leoben, Austria

p. 313
- 9:00

Return of Experience in Two RDF Waste-to-Energy Plants in Italy
Agostino Calcagno, Chief Executive Officer
Eng. Davide Rao, Engineering Department, Ruths S.p.A., Genova, Italy

p. 337
- 9:30

Possibilities of Waste Derived Fuels Use in the Energy Sector in Poland
Assistant Professor Dr.-Ing. Piotr Krawczyk
Professor Krzysztof Badyda, Ph.D, D.Sc., Eng., Director, Institute of Heat Engineering
Warsaw University of Technology, Poland

p. 349
- 10:00

Mercury Removal System Using a Splitted Preheater – First Experiences in the Cement Industry –
Dipl.-Ing. Holger Reinhold, Process Engineer Industrial Minerals Industry
Scheuch GmbH, Auroldmünster, Austria

p. 359
- 10:30

Coffee Break

Hydrothermal Carbonisation, Pyrolysis and Gasification

PRESENTATION: DIPL.-ING. MARKUS GLEIS

- 11:00

Converted Local Biomass – Processing Biomass to a Valuable Solid Fuel
Dipl.-Ing. Hannes Bieler, Tendering
Mitsubishi Hitachi Power Systems Europe GmbH, Duisburg, Germany
- 11:30

Alternative Thermal Treatment technologies for Municipal Solid Waste – Overview of Gasification and Pyrolysis Processes, Their Status and Performance –
Frans Lamers, M.Sc., Principal Consultant
DNV GL Group, Arnheim, Netherlands

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Flue Gas Treatment

- 12:00

History of Flue Gas Treatment for Waste Incineration Plants Since 1981 to the Present
Fons Doms, Directeur, Milieucoördinator
IVOO Intergemeentelijke Vereniging voor het afvalbeheer voor Oostende en Ommeland,
Oostende, Belgium

p. 533

12:30 Lunch Break

PRESENTATION: ING. GRAD. JÖRG ECKARDT

- 14:00

Influence of New Best Available Techniques Reference Document (BREF) on Future Concepts for Flue Gas Treatment – What Will Change?
Dipl.-Ing. Ruediger Margraf
Managing Director of LUEHR FILTER GmbH, Stadthagen, Germany

p. 541
- 14:15

Improved SNCR Performance by Means of Innovative Control Concepts
Dr.-Ing. Wolfgang Schüttenhelm, Senior Vice President Business Development & Technology
ERC Emissions-Reduzierung-Concepte GmbH, Buchholz i.d.N., Germany

p. 559
- 14:30

Integrated Technology for NO_x and Dioxine Removal Inside the Boiler
Dr. Frank Tabaries, Directeur Services
CNIM / LAB SA, La Seyne Sur Mer, France
- 14:45

Bromine-enhanced Mercury Emissions Control at Divers Waste Incineration Plants in Germany and France
Professor Dr.-Ing. Bernhard W. Vosteen
Vosteen Consulting GmbH, Cologne, Germany
Ingénieur Xavier Chaucherie, M.Sc., Expert
SARPI-Veolia, Direction du Développement Industriel, de l'Innovation et de la Recherche,
Limay, France

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- 15:00

Discussion
- 15:30

Final Coffee Break