

Programme, June 24-29, 2018

ISWA Study Tour **WASTE-TO-ENERGY**



**Austria
and
Czech
Republic**



Seminar and Technical Tour to 10 Plants in Operation

**Vienna ⇒ Brno ⇒ Zwentendorf ⇒ Ohlsdorf ⇒
⇒ Gmunden ⇒ Lenzing ⇒ Linz ⇒ Vienna**



ISWA Austria
International Solid Waste Association



ISWA

INTRODUCTION

Practice Seminar on Sustainable Waste Management in Europe based on Prevention, Recycling, Recovery, Treatment, and Intermediate Storage - without any disposal of untreated wastes exceeding 5 % TOC in landfills



Led by

Franz Neubacher

M.Sc. Technology & Policy (M.I.T., USA)

M.Sc. Chemical Engineering (TU Graz, Austria)

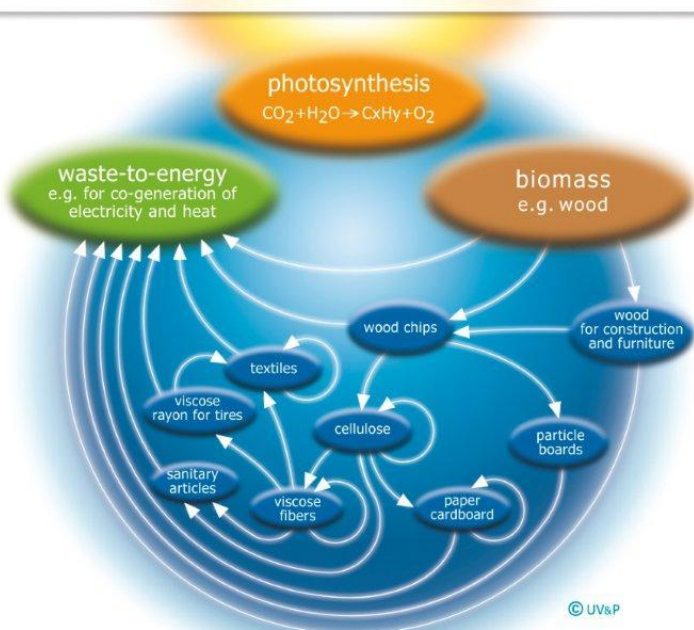
[*UVP Environmental Management and Engineering*](#)

Method for the Practice Seminar

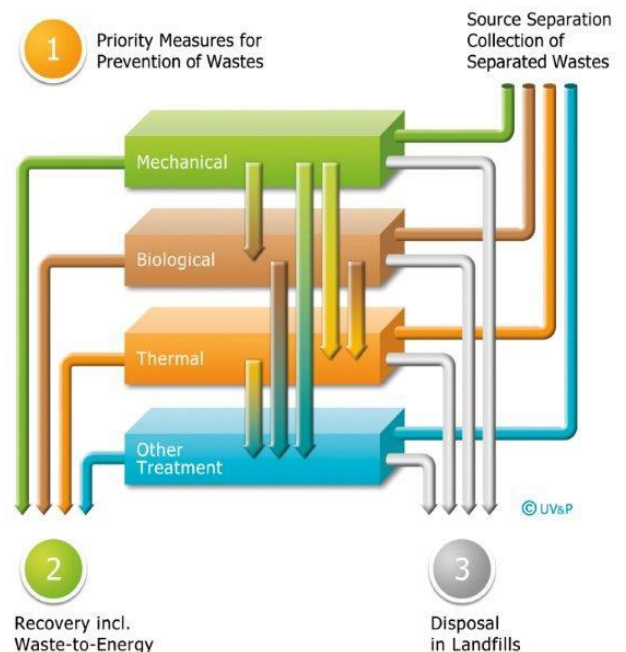
There are 4 pillars of individual benefit and professional learning offered within this unique practice seminar:

- Quality seminar taught by senior experts in waste management, environmental policy and engineering
- Visits to waste treatment facilities representing Best Available Techniques including discussion with operators, chemical engineers and suppliers
- Discussions with political and environmental experts on control and public acceptance of hazardous waste treatment and waste incineration plants (typical "LULU" projects - locally unwanted land use and "NIMBY" – not in my backyard)
- Exchange of experience and challenges amongst the international participants.

Green Technology: Recycling and Recovery for Sustainable Waste Management



Future-oriented Integrated Systems for Sustainable Waste Management



SUNDAY, June 24, 2018

7.00 pm – 9.00 pm

Welcome by the Seminar Team at [Park Hotel Schonbrunn](#) in Vienna



MONDAY, June 25, 2018

8.00 am – 10.00 am

**Welcome Address by ISWA , Introduction of participants,
Sustainable Waste Management, Recycling and Recovery
of Energy from Waste**

Introduction by Dipl.-Ing. Rainer Kronberger, President of ISWA Austria (MA48)

10.00 am – 10.30 am

Refreshments

10.30 am- 12.00 pm

Development of Municipal Solid Waste Management and Treatment Facilities in Vienna

by Dipl.-Ing. Rainer Kronberger

12.00 pm – 1.00 pm

Lunch buffet

1.00 pm – 1.45 pm

Transfer to Spittelau

1.45 pm – 3.45 pm

**Overview of the Waste-to-Energy Plant Spittelau and seminar on
"Energy from Waste in Vienna by Co-generation of Electricity
and District Heating / Cooling"**



WIEN ENERGIE
– FERNWÄRME WIEN –

by Dipl.-Ing. Dr. Michael Kotschan and Dipl.-Ing. Alexander Wallisch, WtE Plant Spittelau

3.45 pm – 4.15 pm

Transfer to Rautenweg

4.15 pm – 5.30 pm

Visit of Ash Treatment and Landfill Operation at Rautenweg

by MA48



5.30 pm – 6.30 pm

Bus transfer to [Hotel Celnice](#), Breclav, Czech Republic

7.00 pm – 9.00 pm

Dinner at traditional Czech Beer Garden (non alcoholic beverages and vegetarian options available)



TUESDAY, June 26, 2018

8.00 am – 9.30 am

Seminar on “Systems for Waste Treatment and Energy Recovery”

Fundamentals of drying, pyrolysis, gasification, and combustion; characterisation of wastes as fuel, sorting and pre-treatment of wastes, fluidised-bed systems, rotary kilns with afterburning chamber, grate systems, practical experience and limitations for specific wastes in various systems according to state-of-the-art in Austria and the EU; odour control and control of atmospheric emissions, auxiliary chemicals, treatment of liquid and solid residues, recovery of organic and inorganic materials.

9.30 am – 10.30 am

Bus Transfer to Brno

10.30 am – 11.30 am

Seminar on “Technical Overview of the Waste-to-Energy Plant Brno”

Plant layout, technology of grate firing system, steam boiler and energy recovery with co-generation of electricity and district heating, flue-gas treatment process, recovery and disposal of residues.

11.30 pm – 12.00 pm

Lunch buffet

12.00 pm – 1.30 pm

Seminar on “Socially Acceptable Costs for Municipal Solid Waste Management Services”

EU policy on socially acceptable waste disposal fees, costs and benefits of environmentally friendly waste management; design of the new waste-to-energy facility in Brno, financing, future development and perspectives on the economics of waste-to-energy for municipalities in New EU member states.

by Dipl.-Ing. Vojtěch Doležal and Mag. Jakub Doležal



1.30 pm – 3.00pm

Site Visit of the Waste-to-Energy Plant Brno

3.00 pm - 4.00 pm

Bus transfer to [Hotel Celnice, Breclav](#)

4.30 pm – 6.30 pm

Seminar on “Development of Waste Management and Integrated Pollution Prevention and Control”

Policy and legal framework in Austria and EU, legal ban on hazardous and untreated wastes exceeding 5 % TOC from disposal in landfills, landfill tax; development of the most stringent emission standards for Waste-to-Energy worldwide, status quo of waste management in different regions and countries of the EU, trans-boundary shipment of wastes.

7.00 pm – 8.00 pm

Dinner



WEDNESDAY, June 27, 2018

8.00 am – 10.00 am

Seminar on "Resource and Energy Efficiency in Sustainable Waste Management, The 20-20-20 goals of the EU for 2020 and goals for 2030" including co-incineration of waste-derived fuels in industrial production processes (e.g. cement kilns) and recovery of materials, concept of Circular Economy and Zero Waste.

10.00 am – 10.30 am

Refreshments

10.30 am – 12.00 pm

Transfer to Zwentendorf, Lower Austria

12.00 am – 1.00 pm

Overview and Site Tour of Anaerobic Bio-waste Treatment Facility VORAN with Production of Bio-gas and Fertilizer, Zwentendorf

1.00 – 2.00 pm

Lunch at the "Bärenhütte" next to the Nuclear Power Plant Zwentendorf (never permitted to operate)

2.00 pm – 4.00 pm

Overview and Site Tour of the EVN Waste-to-Energy Plant and Transport Logistics in Zwentendorf

Design of the largest waste-to-energy plant for municipal waste in Austria, energy efficiency in combination with the neighboring coal-fired power plant, flue-gas cleaning, treatment of liquid and solid residues, auxiliary chemicals, transport logistic based on railway, operational experience with seasonally low-calorific waste composition in the EVN plant in Moscow.

4.00 pm- 6.00 pm

Bus transfer to [Seminarhotel Aichinger in Nussdorf am Attersee](#), Upper Austria

7.00 pm – 8.00 pm

Dinner



THURSDAY, June 28, 2018

8.00 am – 9.30 am

Seminar on “Project Development of Waste-to-Energy in Various Regions”

Technical and economical criteria, resource and energy efficiency, public information, role of media and politics, positive examples for public acceptance of large waste-to-energy facilities, discussion of failures and typical mistakes, situation in developing countries with low and middle income economies.

9.30 am – 10.15 am

Bus transfer to Ohlsdorf

10.15 am - 11.45 am

Site Tour of ERG with Removal and Sorting for Recovery of a large Historic Tire and Rubber Disposal Site (due to high risk for fire hazards with more than 100,000 m³ waste volume)

Site Tour of KIAS with Processing of Scrap Tires for Recovery of Rubber, Steel and Textile Cord (capacity for processing up to 30,000 tons of scrap tires per year)

11.45 am – 12.00 am

Bus transfer to Cement Plant Rohrdorfer in Gmunden

12.00 am – 1.00pm

Overview on Utilization of Waste-derived Materials and Fuels in Cement Production

1.00 pm – 2.00 pm

Lunch

2.00 pm – 3.00 pm

Site Visit on Utilization of Waste-derived Fuels in Cement Production at Rohrdorfer Cement Plant in Gmunden

3.00 pm – 3.30 pm

Bus transfer to Lenzing

3.30 pm – 5.00 pm

Overview and Site Visit of the large FBC Waste-to-Energy Plant Integrated in the Industrial Site Lenzing for Steam Production and Off-gas Treatment from Fiber Production

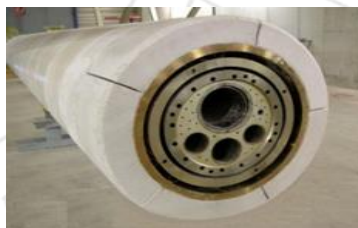
ENERGIE AG
Oberösterreich

5.00 pm – 5.30 pm

Bus transfer to [Seminarhotel Aichinger in Nussdorf am Attersee](#)

6.00 pm – 8.00 pm

B-2-B Get together and buffet at the invitation of WKO



8.00 am – 10.00 am

Seminar on "Prevention, Detection and Control of Fire Hazards in Treatment Facilities and Storage of Waste"

by Dipl.-Ing. Dr. Hannes Kern (Mining University Leoben)



10.30 am – 11.30 am

Bus transfer to Linz

11.30 am – 1.30 pm

Overview and Site Visit of Waste-to-Energy Plant Linz

Sorting and pre-treatment of solid wastes, treatment of sewage residues, co-generation of electricity and district heating

by Dipl.-Ing. Dr Albert Zschetzsche, UVP.

With lunch buffet



1.30 pm – 3.00 pm

Bus transfer to Vienna (stop at Vienna International Airport approx. 2.45 pm)

3.00 pm – 4.00 pm

Visit of Composting Plant LOBAU –

Largest Green-Waste Composting Plant in EU

by Eng. Christian Fischer



4.00 pm - 5.00 pm

Bus transfer to Vienna / Stop at Vienna International Airport at approx. 4.30 pm



REGISTRATION

Registration Fees:

All stated amounts are excluding 20% VAT

If you are an ISWA National Member or Organisational Member or eligible for reverse VAT; please request a registration e-voucher by E-Mail to Georgina Nitzsche, Event Manager, events@iswa.org

"Early Bird" Registration Fee (Registration and Payment latest by March 31, 2018)		Regular Registration Fee (Registration or Payment after March 31, 2018)	
ISWA Member	Non-Member	ISWA Member	Non-Member
€ 2,750	€ 3,300	€ 2,900	€ 3,500

Deadline for Registration and Payment is May 22, 2018

Discounts:

- total of **3 participants from 3 different low- and lower-middle-income economies** (according to the [World Bank list](#)) receive a **50% discount**
- total of **5 participants from 3 different upper-middle-income economies** receive a **20% discount** on the registration fee.
- total of **3 young professionals** in engineering or waste management under the age of 33 are eligible for a **50% discount**.

The discounts are awarded on a first-come-first-serve basis and need to be requested by E-Mail to Georgina Nitzsche, Event Manager, events@iswa.org

We encourage you to become an ISWA Member. For information please visit www.iswa.org.

Registration fee covers accommodation with breakfast during the duration of the Study Tour June 24 – 29, 2018, handouts, refreshments, lunch and dinner, transportation to waste treatment plants.

Upon registration, seminar participants accept all accommodation arrangements organised by ISWA.

In order to be well rested for the intense Study Tour and seminar, we recommend an earlier arrival of two days (not included in the above fees).

The programme is subject to change.

Due to the nature of the programme, the number of participants is limited to:

a **maximum of 25 participants** and
a **minimum of 12 participants**.

Participants will receive a Certificate of Participation.

Cancellation:

Cancellation and refund are subject to the following conditions:

- | | |
|--|------------|
| • Cancellation before May 22, 2018 | 50% refund |
| • Cancellation between May 23 and June 23, 2018 | 10% refund |
| • Cancellation on June 24, 2018 or "no show" | no refund |

Registration may be transferred to a nominated representative.

In case of cancellation of the Study Tour due to unforeseeable events, ISWA will refund the registration fee but no other costs incurred prior to cancellation.

For organisational matters please contact Georgina Nitzsche:

E-Mail: gnitzsche@iswa.org ; **Phone:** +43 1 253 6001-22

