

# Programme, June 22-27, 2014

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

**Czech  
Republic  
Austria**



**Seminar and Technical Tour to 10 Plants in Operation**  
**Vienna ⇒ Brno ⇒ Zwentendorf ⇒ Gmunden**  
**⇒ Lenzing ⇒ Amstetten ⇒ Vienna**



**ISWA** Austria  
International Solid Waste Association



**ISWA**  
International Solid Waste Association

# 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)*

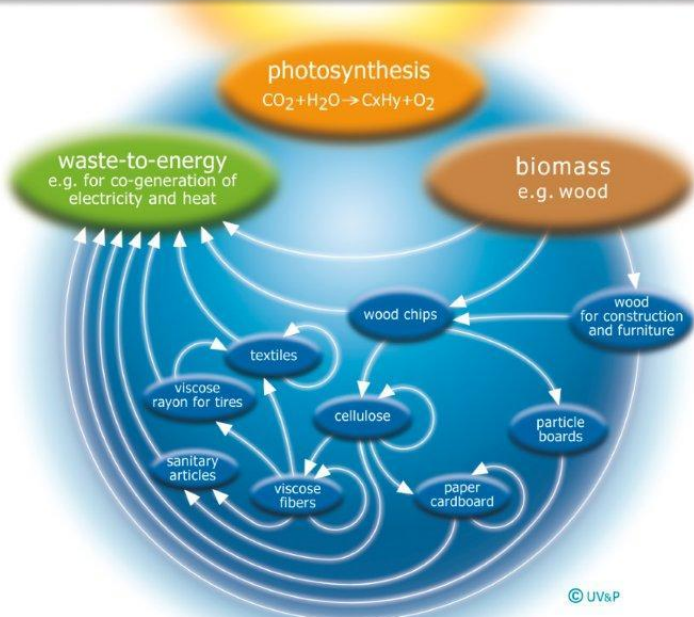
[UV&P Environmental Management and Engineering](#)

## Method for the Practice Seminar

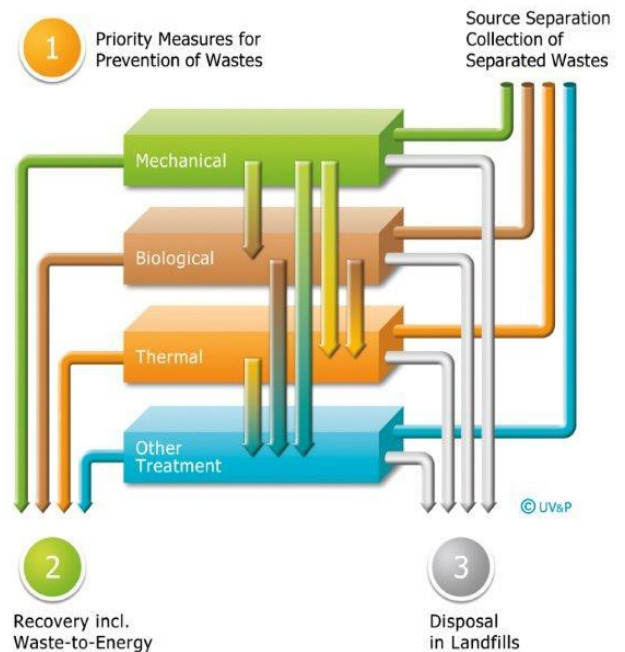
There are 3 pillars of individual benefit and professional learning offered within this unique practice seminar:

1. Quality seminar taught by senior experts in waste management, environmental policy and engineering
2. Visits to waste treatment facilities representing Best Available Techniques including discussion with operators, government inspectors, and reputable suppliers
3. 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)

## Green Technology: Recycling and Recovery for Sustainable Waste Management



## Future-oriented Integrated Systems for Sustainable Waste Management



# SUNDAY, June 22, 2014

8.00 pm – 9.30 pm

Welcome by Seminar Team at [Austria Classic Hotel](#) in Vienna



# MONDAY, June 23, 2014

8.00 am – 8.30 am

Transfer to Pfaffenau

8.30 am – 10.00 am

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

Introduction by Dr. Helmut Stadler, Vice-President of ISWA International

10.00 am – 10.30 am

Refreshments

10.30 am- 12.00 pm

**Seminar “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 worldwide, status of waste management in different regions and countries of the EU, the 20-20-20 Goals of the EU for 2020

12.00 pm – 12.30 pm

Lunch buffet

12.30 pm – 2.00 pm

**Development of Municipal Solid Waste Management and Treatment Facilities in Vienna**

Introduction and overview by Rainer Kronberger (MA48)

2.00 pm – 4.00 pm

**Site visits of the Municipal Waste Incineration Plant Pfaffenau,  
the Waste Logistic Center and the Biogas Plant Vienna**



4.00 pm – 4.30 pm

Refreshments

4.30 pm – 6.00 pm

**Seminar on „Prevention, Detection and Control of Fire Hazards  
in Treatment Facilities and Storage of Waste“**

by Hannes Kern (Mining University Leoben)



6.00 pm – 6.30 pm

Transfer

7.00 pm – 9.00 pm

Dinner at a traditional [Austrian Biergarten](#) (non alcoholic beverages and vegetarian options available)



# TUESDAY, June 24, 2014

8.00 am – 8.30 am

*Transfer to Simmering*

8.30 am – 10.00 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; co-incineration of waste-derived fuels in industrial production processes (e.g. in cement kilns); odour control and control of atmospheric emissions, auxiliary chemicals, treatment of liquid and solid residues, recovery of organic and inorganic materials

10.00 am – 10.30 am

*Refreshments*

10.30 am – 12.30 pm

## **“Overview of Hazardous Waste Treatment Facilities at Simmering”**

by Dr. Andrea Ramer



12.30 pm – 1.30 pm

*Lunch at the Cantina of Simmering*

1.30 pm – 3.30 pm

**Site visit of the rotary kilns for hazardous waste incineration and fluidized bed systems for pre-treated solid wastes and sewage sludge**

3.30 pm – 4.00pm

*Transfer to hotel*

4.00 pm

*Individual program in Vienna; option for dinner at a local restaurant*



# WEDNESDAY, June 25, 2014

7.30 am – 9.00 am

*Bus transfer to Brno, Czech Republic*

9.00 am – 10.30 am

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

by Dipl.Ing. Vojcek Dolezal

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

10.30 am – 11.00 am

*Refreshments*

11.00 am – 12.00 pm

## **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

12.00 – 1.00 pm

*Lunch buffet*

1.00 pm – 2.00 pm

## **Site visit of the Waste-to-Energy Plant Brno**

2.00 pm – 4.00 pm

*Bus transfer to Zwentendorf, Lower Austria*

4.00 pm- 6.00 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

6.00 pm – 7.00 pm

*Dinner at the “Bärenhütte” next to the Nuclear Power Plant Zwentendorf (never permitted to operate)*

7.00 pm – 9.30 pm

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



# THURSDAY, June 26, 2014

7.30 am – 9.00 am

## **Seminar “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

9.00 am – 9.30 am

*Refreshments*

9.30 am - 11.00 am

## **Case studies and Discussions “Economics of Waste-to-Energy in Specific Regions“**

(cases selected by participants)

11.00 am – 11.30 am

*Bus transfer to Cement Plant Rohrdorfer in Gmunden*

11.30 am – 12.30 pm

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

12.30 pm – 1.30 pm

*Lunch in the cantina*

1.30 pm – 2.00 pm

*Bus transfer to Lenzing*

2.00 pm – 4.00 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**



4.00 pm – 4.30 pm

*Bus transfer*

6.00 pm – 7.00 pm

Dinner

# FRIDAY, June 27, 2014

8.00 am – 10.00 am

*Bus transfer to Amstetten*

10.00 am – 12.00 pm

## **Recovery of Metals in Waste Treatment Processes by Gunther Panowitz**

**Tour of the Metal Separation Facilities of METRAN (incl. Buffet)**

12.00 pm – 12.30 pm

*Refreshments*

12.30 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**

4.00 pm - 5.00 pm

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



# REGISTRATION

The deadline for registration is **June 17, 2014**. Please register with **Ms. Julia Schönherr** by using the **Registration Form** (see attachment or [here](#)). Registration will only be accepted in written form (E-Mail or Fax) and will be acknowledged by E-Mail within 7 days after submission.

## **Early Bird Registration Fee (Registration and Payment latest by March 31, 2014)\*\*\***

- 1 person, ISWA Member € 2,400
- 1 person, Non-Member € 2,900

## **Registration Fee (Registration or Payment after March 31, 2014)\*:**

- 1 person, ISWA Member € 2,700
- 1 person, Non-Member € 3,200

\*\*\* A total of 5 Participants from 5 different low- and lower-middle-income economies (according to the current [World Bank list](#)) receive a 50% discount on the registration fee. Further a total of 5 Participants from 5 different upper-middle-income economies (according to the current [World Bank list](#)) receive a 20% discount on the registration fee. The discounts are awarded on a first-come-first-serve basis.

We encourage you to become an ISWA Member. For information please visit [www.iswa.org](http://www.iswa.org).

All stated amounts are free of VAT. Registration fee includes accommodation with breakfast from June 22 to June 27, 2014, handouts, refreshments, lunch and dinner, transportation and visits to the waste treatment plants. Upon registration seminar participants accept all accommodation arrangements organised by ISWA.

The conference programme may be subject to change.

The number of participants will be limited to a maximum of 25 persons due to the nature of the programme.

## **Cancellation**

Any cancellation of registration must be submitted in writing to ISWA, Ms. Julia Schönherr

- by E-Mail to [iswa@iswa.org](mailto:iswa@iswa.org) or
- by Fax to +43 1 253 6001 99

Cancellation and refund will be subject to the following conditions:

- Cancellation **before June 01, 2014** 50% Refund
- Cancellation **between June 02 and June 21, 2014** 10% Refund
- Cancellation **on June 22, 2014 or "no show"** no refund

Registration may be transferred to a nominated representative.

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

## **Certificate of Participation**

Participants will receive a Certificate of Participation in the ISWA Study Tour and Practice Seminar "Waste-to-Energy".

For technical information see "[White Book Waste-to-Energy in Austria](#)"

**For organisational matters please contact Ms Julia Schönherr**

ISWA – International Solid Waste Association, [www.iswa.org](http://www.iswa.org)

**E-Mail: [iswa@iswa.org](mailto:iswa@iswa.org); Phone: +43 1 253 6001-11**

1080 Vienna, Auerspergstrasse 15/41, Austria



# REGISTRATION FORM

**Please register with Ms. Julia Schönherr**

- by Fax **+43 1 253 600 199** or
- by E-Mail: [iswa@iswa.org](mailto:iswa@iswa.org)

I hereby register for the following event:

*ISWA Study Tour "Waste-to-Energy", June 22 - 27, 2014*

*(Recommended arrival: before / latest June 22, 2014 at the [Austria Classic Hotel](http://www.classic-hotelwien.at) Praterstrasse 72, 1020 Vienna, Austria; Tel. +43-1-211 30-0; email: [info@classic-hotelwien.at](mailto:info@classic-hotelwien.at); [www.classic-hotelwien.at](http://www.classic-hotelwien.at))*

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**Title, First- and Last Name**

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**Company Name / Organisation**

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**Address** (Street/Number, ZIP Code, City, Country)

.....  
**Address for invoice** (if different from the company address)

**Telephone / Fax:** \_\_\_\_\_

**E-Mail:** \_\_\_\_\_

**ISWA Member Number:** \_\_\_\_\_

On payment of registration fee, following receipt of invoice, the bank transfer must clearly state the name of the participant and the name of the seminar.

Date:

Signature:

ISWA Study Tour

**WASTE-TO-ENERGY**