



## IWWG News & Views

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*In this section of the Journal the reader will find information on the IWWG (International Waste Working Group), reports on activities carried out by Task Groups, a list of future events and relevant notes on the think tank elaboration and activities of the association.*

*In this issue: report from the Venice 2012 Symposium and notes from the last IWWG Managing Board meeting, which was held in Venice on November 11th, 2012.*

### Report from the 4th International Symposium on Energy from Biomass and Waste VENICE 2012 (by Marco Ragazzi and Elena Cristina Rada, University of Trento, Italy)

The fourth edition of the VENICE Symposium, organised by the IWWG (International Waste Working Group), was held on the island of San Servolo, Venice, Italy from 12th to 15th November 2012.

The event was attended by approximately 560 participants (researchers, technicians, administrators and operators) from 56 different nations with the presentation of 359 scientific papers.

The traditional issues of energy from waste and biomass were addressed in 60 general, specialised and workshop sessions where new ideas and concepts were presented and thoroughly discussed.

In the frame of the opening lectures of the Venice 2012 Symposium, Prof. Raffaello Cossu (University of Padova, Italy) presented the new concept of urban mining. Urban mining involves actions and technologies to recover resources, in terms of secondary raw materials and energy, from residues produced by the urban catabolism: municipal, industrial and agricultural waste. This process concerns both new production and old deposits, with a progression beyond separate collection and the current logic of consumer responsibility. This concept can help the public administrations to reach the EU targets regarding mass and energy valorisation, a concept which in past years has been increasingly reinforced.



A moment from the Opening Session

The theme of anaerobic digestion was discussed in several sessions during Venice 2012, demonstrating that at the international level a significant effort is made not only for its optimisation but also for opening new pathways. The emerging topic on agricultural biomass dedicated to anaerobic digestion and its consequences on the food chain was one of the main subjects of the debate.

An animated session on plasma processes in the waste-to-energy sector characterised the conference. Efficiency, costs, definitions were discussed during a crowded session whose debate continued during the subsequent coffee break.

Moreover, the discussion on the environmental performance of the SRF option demonstrated the presence of multiple points of view in the sector, where the recent regulations seem to provide new perspectives not only for the waste to energy strategy, but also for the role of selective collection. This last activity is evolving as an indirect “pre-treatment” of residual MSW.



Participants enjoy one of the coffee breaks outside the San Servolo Congress Center

A special session, “Lessons from Venice 2012”, open to all delegates, was organised in the framework of a GITISA (Italian Group of Sanitary Environmental Engineering) Winter School, which was attended by participants of many different nationalities. In this session Prof. Umberto Arena (Second University of Naples, Italy) and

Prof. Rainer Stegmann (Hamburg University of Technology, Germany) presented the evolution of the sectors of thermochemical processes and anaerobic digestion, concerning both theory and implementation. The Winter School activities, focused on energy from waste and biomass, began one day before the VENICE sessions in order to foster the creation of a network among doctoral students.

During the conference a few IWWG Task Groups took advantage of the event for organising internal meetings: this opportunity was taken by the IWWG Task Group on Thermal Treatments and by the IWWG Task Group on WEEE – Waste Electrical and Electronic Equipment.

The final (plenary) session of Venice 2012 included a round table with participants who were not exclusively from technical areas in order to enlarge the debate to regulatory aspects. The Round Table was moderated by Antonio Cianciullo from “La Repubblica” newspaper, with the following invited participants:

- Umberto Arena (Second University of Naples, Italy).
- Luciano Butti (B&P Law Firm, Verona, Italy).
- Raffaello Cossu (University of Padova, Italy).
- Luis Diaz (CalRecovery Inc., Concord, USA).
- Toshihiko Matsuto (Hokkaido University, Japan).
- Marco Ragazzi (University of Trento, Italy).
- Paolo Russo (President of the Agriculture Commission of the Italian Chamber of Deputies).
- Rainer Stegmann (Hamburg University of Technology, Germany).

An award was assigned for the best Poster of VENICE 2012 and was delivered during the Closing Session. At this occasion, a special committee, composed by Prof. Alessandra Polettini (University of Rome “La Sapienza”, Italy), Prof. Marco Castaldi (City University of New York, USA) and Prof. Evangelos Gidaracos (Technical University of Crete, Greece), with the coordination of Elena Cristina Rada (University of Trento, Italy), analysed the presented posters taking into account relevance of the topic, innovation and communication style. Among the 67 posters, the winner was Marco Antonio Gaya de Figueiredo (Rio de Janeiro State University, Brazil) with his poster entitled “Study of the pyrolysis process for obtaining fuel for the second generation using biomass as raw material”.

#### Technical visits

Some of the delegates took advantage of four technical visits organized as post conference events. The available plants represented two of the main topics of the conference: anaerobic digestion and waste combustion aimed at energy recovery.

Concerning the biological processes, a plant in Camposampiero (near the city of Padova) was chosen for the first technical visit, as it combines a biological wastewater and a solid waste treatment plant for the production of biogas from food waste, zootechnical wastewater and sewage sludge.

The second plant, in Bassano del Grappa (near the city of Vicenza) was chosen as it processes food waste through anaerobic digestion, but also residual non-recyclable waste: the treatment line of this last stream consists of different physical-biological processes, aimed at the production of RDF/SRF.

Concerning the thermochemical processes, the MSW Incineration plant in Padova was selected because of the recent addition

of a third treatment line. The plant mainly treats residual municipal solid waste, non-hazardous special waste, and hazardous medical waste.

Finally, an incineration plant in Brescia was chosen as it integrates energy recovery both from biomass and from residual MSW. An additional interesting characteristic of this plant is its integration in the district heating network.

#### Social events

In the evening of November 12th, right after the end of the sessions, a traditional Sardinian concert was organized in the San Servolo church. The choir of the Sardinian cultural association “Cuncordu planu de murtas” performed a mixture of sacred and traditional Sardinian compositions, which was highly appreciated by the Symposium delegates.

Moreover, members of the GITISA group were invited to a guided tour of Venice on Tuesday night, followed by dinner at a traditional Venetian restaurant.

#### Notes from the IWWG Managing Board Meeting – Island of San Servolo, Venice, November 11th, 2012

The IWWG Managing Board (MB) met at the island of San Servolo, Venice, Italy, the day before the start of the Fourth International Symposium on Energy from Biomass and Waste, VENICE 2012.

Members of the Board attending the meeting were as follows:

- R. Stegmann, Hamburg University of Technology, Germany (Chair).
- R. Cossu, University of Padova, Italy.
- A. Lagerkvist, University of Luleå, Sweden.
- Y. Matsufuji, Fukuoka University, Fukuoka, Japan.
- T. Matsuto, Hokkaido University, Japan.
- M. Milke, University of Canterbury, Christchurch, New Zealand.
- H. Robinson, Enviro Consulting, Shrewsbury, UK.
- H. Scharff, NV Afvalzorg Holding, Assendelft, The Netherlands.
- H. Van der Sloot, Hans van der Sloot Consultancy, Langedijk, The Netherlands.

The MB members were joined on this occasion by Heijo Scharff (NV Afvalzorg Holding, NL; Task Groups Chair), Marco Ritzkowski (Hamburg University of Technology, Germany; IWWG Managing Director), Cristina Trois (University of kwaZulu-Natal, Durban, South Africa; IWWG Southern Africa Regional Branch coordinator), Michael Nelles (University of Rostock, Germany; Associate Editor of the official IWWG journal Waste Management) Paola Pizzardini (IWWG secretariat) and the following Task Group Chairs: William Clarke (University of Queensland, Brisbane, Australia), Felicitas Schneider, Stefan Salhofer and Marion Huber-Humer (all from BOKU-University of Natural Resources and Life Sciences, Vienna, Austria).

The meeting took place under difficult weather conditions, since Venice experienced the sixth highest recorded flood level in 150 years. Some of the participants were facing extreme challenges to make it to the meeting location whereas others, accommodated at the island, could enjoy a spectacular view over the flooded lagoon of Venice.



The IWWG Managing Director, Marco Ritzkowski while trying to reach the location of the MB Meeting

During the meeting the following issues were discussed:

#### *Renewal of the Managing Board*

Mark Milke, IWWG Vice President, resigned from the Managing Board due to the severe financial and organisational problems the University of Canterbury in New Zealand is facing after the major earthquake in 2010 and 2011. Meanwhile, Pinjing He from the Tongji University in China has accepted the nomination for Vice President. Together with the Vice President Anders Lagerkvist (Luleå University, Sweden) and President Rainer Stegmann (Hamburg University of Technology, Germany), Pingjing He will contribute to a further successful development of the IWWG in the next years.

#### *Change at the IWWG secretariat*

The IWWG welcomed a new secretary: Paola Pizzardini has replaced Marina Canapero at the IWWG secretariat in Padova, Italy.



Paola Pizzardini, the new IWWG Secretary

Paola Pizzardini obtained her Master's Degree in Environmental Engineering from the University of Padova, Italy, in 2011. She is cur-

rently an environmental engineer at Spinoff Srl, a company based in Padova, Italy, which specializes in in situ aeration of landfills.

#### *Upgrade of the IWWG website*

The IWWG website has been further developed and upgraded. IWWG members have the benefit of carrying out searches among hundreds of symposium and conference papers of the previous events in Venice, Sardinia and Chania and of downloading the accordant PDF files for free. In addition, selected presentations from these events are also available for download from the Members' Area.

Information about the ongoing activities of the IWWG Task Groups, including information on past and future meetings as well as contact details, are summarized on a specific section of the website.

#### *New fee structure as of 2013*

During the meeting the MB members agreed on a new membership fee structure which will be valid as of 2013. Membership to the IWWG renews every year automatically unless it is cancelled 3 months before the subsequent calendar year. The annual cost for joining the IWWG is as follows: 100 Euro/year (Regular membership fee), 80 Euro/year (Regular membership fee – public sector) and 60 Euro/year (Regular membership fee – students, pensioners, and individuals from developing countries). Organisations and institutions wishing to register additional members of their staff to IWWG are now entitled up to 25% discount. More information and the possibility of signing-up are provided on the IWWG website ([www.iwwg.eu](http://www.iwwg.eu)).

Members of the IWWG should now sign up directly at the publisher Elsevier for the official journal Waste Management at a special discount price. For the year 2013, the prices are 94 Euro (print subscription) or 114 Euro (print plus electronic subscription), respectively.

#### *IWWG Regional Branches*

In order to meet the needs of IWWG members in different regions of the world as well as to exchange and discuss information on local, regional and global waste management issues, the IWWG has established a number of Regional Branches. Each branch is organised by regional contact persons out of the Managing Board or the Scientific Advisory Panel.

In addition to the Asian Regional Branch (coordinated by Toshiko Matsuto, Pinjing He and Jae Young Kim, from the Seoul National University in South Korea), a new branch will cover regions in Latin America (e.g. Brazil, Colombia, Ecuador) and will be chaired by Luis Diaz (CalRecovery Inc., USA). Another branch will serve Southern Africa (e.g. Republic of South Africa) and will be established by Cristina Trois (University of kwaZulu-Natal, Durban, South Africa) Further branches are in discussion (e.g. North Africa - Egypt, Tunisia, Morocco). The different branches are co-ordinated by Luis Diaz and local conferences and workshops are planned in all branch regions. The first events will take place in Japan (March 2013) and Durban (April 2013), respectively (see IWWG future activities and events).

#### *IWWG Future activities and events*

A list of future IWWG events has been defined as follows:

- 2013 10–12 February: WasteSafe 2013 – 3rd International Conference on Solid Waste Management in Developing Countries, Khulna, Bangladesh.

- 2013 18–20 March: 1st IWWG Asian Regional Branch Symposium, Sapporo, Japan.
- 2013 10–11 April: HPM5 – 5th International Workshop “Hydro-physico-mechanics of Landfills”, Edinburgh, UK.
- 2013 24–26 April: First International Training Seminar on Energy from Biomass and Waste in Africa, Durban, South Africa.
- 2013 10–13 September: 3rd International Conference on Waste Management in Latin America – GRAL, Sao Paulo, Brazil.
- 2013 30 September–4 October: SARDINIA 2013 – 14th International Waste Management and Landfill Symposium, S. Margherita di Pula, Cagliari, Italy.

The next IWWG Managing Board meeting will be held on September 29th in S. Margherita di Pula, Cagliari, Italy, before the start of the SARDINIA 2013 Symposium.

For further information on IWWG activities, please:

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