

6th International Electronics Recycling Congress

January 17 – 19, 2007

Hamburg, Germany



Patronage:

European Electronics Recyclers Association (EERA)

WEEE Forum

ORGALIME

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Foreword of IERC 2007

The 6th International Electronics Recycling Congress will be an extremely challenging event: "How do electronics manufacturers close the recycling loop and what are the challenges of the take back systems and the recycling industry?"

The first results and lessons of the implementation of the WEEE and RoHS directives as well as the review of the directives exercised by the Commission will be discussed. Besides these regulatory aspects, the market of reuse and recycling is in a constant evolution and is becoming more and more global. New reuse and recycling technologies open new perspectives. All stakeholders are looking for lowering costs, improving efficiency and guaranteeing high standards of recycling.

The IERC wants to be focused on electronics recycling without neglecting new linked aspects like EuP, RoHS and REACH. Key words will be: "quality standards, enforcement, harmonisation, reuse, business to business obligations, individual producers responsibility, export, shipment, best available technologies, ...".

The leading experts in the field of recycling technologies, manufacturing, component and material supply, chemical industry, collecting of waste, research and development, legislation and policy-making from all over the world will meet at this conference. It is a platform to exchange information with government, business, academia and

society, to meet your business partners and to get access to new potential clients.

The core of the IERC remains our congress with famous keynote speakers from industry and authorities and well-selected presentations. But at the IERC, you can also visit the exhibition, located directly within the conference area, where many companies and institutions will show you their latest products/services/solutions. The IERC offers you many networking opportunities, not least the famous networking dinner. On Friday, the IERC organises visits/technical tours to different electronics recycling plants. Do not miss this unique opportunity.

The presentations have been selected out of many abstracts by a critical paper selection committee, chaired by Prof. Ab Stevels to make sure that the IERC has the most relevant and innovative topics on its agenda. You can be sure that you will hear the vision, strategy and a lot of testimonials from OEMs, the academical world, authorities, take-back schemes and the recycling industry.

On behalf of ICM and the Steering Committee who guarantee you a high level event, I wish you a great congress in beautiful Hamburg.

Filip Geerts

Chairman of the Steering Committee
International Electronics Recycling
Congress

Keynote Speakers



Kurt Van der Herten
Desk Officer WEEE Directive
European Commission
Belgium

"...news about the revision of the EU-WEEE Directive in 2008!"



Renee St. Denis
Director, Americas Product
Take Back
Hewlett-Packard Company
USA

"...what means environmentally sound disposal solutions for all excess and obsolete Hewlett-Packard products?"



Carl Huijbregts
Adjunct Inspector
Ministry of Housing,
Spatial Planning
and Environment (VROM)
Netherlands

"...who is involved in illegal export?"



Hamburg – an ideal and professional congress place

The 6th International Electronics Recycling Congress (IERC 2007) will be held in the **congress center in Hamburg** from **17–19 January 2007**.

CCH Congress Center Hamburg
Am Dammtor / Marseiller Strasse 2
20355 Hamburg
Germany



Steering Committee of the IERC 2007



Filip Geerts
Chairman
Recupel ICT
President
Belgium



Victor Duart
IBM Europe/M East/Africa
Manager Environmental
Affairs & Product Safety
Spain



Dr. Viktor Haefeli
Vice-Chairman
RUAG Components
CEO
Switzerland



Manfred Fahrner
R-plus Recycling GmbH
Manager European Business
Germany



Prof. Ab Stevels
Chairman of the Scientific Committee
Philips Consumer Electronics
Senior Advisor
Netherlands



Hélène Fauve-Buresi
Alcatel
Manager, Environment
France



Prof. Takao Araki
University of Ehime
Japan



Prof. Theo Lehner
Boliden Mineral AB
Metallurgical Supervisor
Sweden



Manfred Beck
Recycling International
Magazine
Editor
Netherlands



Steve Skurnac
Noranda Recycling Inc.
CEO
USA



Dr. Michael B. Biddle
MBA Polymers, Inc.
CEO and President
USA



Dr. Mathias Tellenbach
Federal Office for the
Environment
Deputy Head of Division
Waste and Raw Materials
Switzerland



Roger Burri
Air Mercury AG
President
Switzerland



Norbert Zonneveld
GrinwisZonneveld
Director
Netherlands



Thomas Dietershagen
ENE EcologyNet Europe GmbH
General Manager
Germany

Congress Program IERC 2007

Wednesday, 17th January 2007

10.00 – 10.30 "Welcome and Introduction"
Filip Geerts, Chairman of the Steering Committee

Session 1: Keynote Speakers from industry and government
Session Chairman: Filip Geerts, Chairman of the Steering Committee

KEYNOTE SPEAKERS:

10.30 – 11.00 **Kurt Van der Herten, Desk Officer WEEE Directive, European Commission, Belgium**

11.00 – 11.30 **Renee St. Denis, Director, Americas Product Take Back, Hewlett-Packard Company, USA**

11.30 – 12.00 **Carl Huijbregts, Adjunct Inspector, Ministry of Housing, Spatial Planning and Environment (VROM), Netherlands**

12.00 – 13.30 Lunch

Session 2: How do electronics manufacturers close the recycling loop?
Session Chairman: Thomas Dietershagen, ENE EcologyNet Europe GmbH, Germany

13.30 – 14.00 "Where did WEEE go wrong in Europe?"
Dr. Thomas Marinelli, Philips Consumer Electronics, Netherlands

14.00 – 14.30 "Recycling technology for LCD-TVs and closed loop material recycling of waste plastics"
Yohei Kawaguchi, Sharp Corporation, Japan

14.30 – 15.00 "How excess of regulation might reduce environment protection"
Michel Pochitaloff-Huvalé, IBM Environmental Affairs Operations, France

15.00 – 15.30 "HP global take-back program"
Klaus Hieronymi, Hewlett-Packard Europe, Middle East and Africa

15.30 – 16.00 Coffee break

Session 3: How do countries close the recycling loop?
Session Chairman: Dr. Michael B. Biddle, MBA Polymers, Inc., USA

16.00 – 16.30 "Managing WEEE in Australia: Current status and challenges"
Dr. Sunil Herat, Griffith University, School of Engineering, Australia

16.30 – 17.00 "Technical and financial aspects of WEEE management in Austria"
Christian Ehrenguber, LAVU AG, Austria

17.00 – 17.30 "Challenges in WEEE recycling in Taiwan"
Ya-yun Wu, Recycling Fund Management Board, EPA, Taiwan

19.00 Networking dinner

Thursday, 18th January 2007

Session 4: Challenges of the systems & the recycling industry I
Session Chairman: Dr. Mathias Tellenbach, Federal Office for the Environment, Switzerland

09.00 – 09.30 "Collective take-back schemes: Efficiency and high standards of recycling"
Willem Canneman, WEEE Forum, Belgium

09.30 – 10.00 "A treatise of the illegal export of WEEE"
Norbert Zonneveld, European Electronics Recyclers Association (EERA), Netherlands

10.00 – 10.30 "The WEEE Directive Implementation – What has happened?"
Phår Oscár, Stena Technoworld AB, Sweden

10.30 – 11.00 Coffee break

Session 5: Challenges of the systems & the recycling industry II
Session Chairman: Hélène Fauve-Buresi, Alcatel, France

11.00 – 11.30 "High-efficient and compositive treatment technology of waste printed circuit boards"
Prof. Jinhui Li, Tsinghua University, Dept. of Environmental Science and Engineering, China

11.30 – 12.00 "Characterization of airborne metal exposures experienced by cellular phone recycling workers"
Michael S. Kent, Brush Wellman Inc., USA

12.00 – 12.30 "The WEEE Directive: Precautionary or prescriptive principles?"
Prof. Theo Lehner, Boliden, Sweden

12.30 – 14.00 Lunch

Session 6: New technologies & recycling equipment
Session Chairman: Manfred Fahrner, R-plus Recycling GmbH, Germany

14.00 – 14.30 "Efficient automatic sorting of plastics, metals & glass"
Jörg Schunicht, CommoDaS GmbH, Germany

14.30 – 15.00 "Final refinery of precious & non-ferrous metals as the final step of WEEE recycling"
Dr. Marek Moravec, SAFINA, a.s., Czech Republic

15.00 – 15.30 "Investigation on a novel process for the recycling of metals & plastics from WEEE"
Jing Cao, Brandenburg University of Technology Cottbus, Germany

15.30 – 16.00 Coffee break

16.00 – 17.00 ROUND TABLE DISCUSSION:

"What is the impact of REACH and RoHS to our business?"
Introduction: **Peter Boris Schmitt, EU Parliament, Germany**
Moderator: **Roger Burri, Air Mercury AG, Switzerland**

from 17.00 Cocktail reception in the exhibition hall

Friday, 19th January 2007

Technical visits

Every participant may choose one of the following tours:

Visit to CommoDaS GmbH, Wedel

CommoDaS®

| | |
|---------------|--|
| 09.00 | Departure by bus to CommoDaS GmbH |
| 10.00 | Arrival at CommoDaS testcenter |
| 10.00 – 12.30 | Demonstration of sorting systems |
| 13.30 | Arrival at Hamburg Airport |
| 14.30 | Arrival at the CCH Congress Center Hamburg |

CommoDaS GmbH – Our MikroSort® technology offers competent solutions for a wide range of separation tasks from sorting of ferrous and non-ferrous metals, plastics, glass and electronics to industrial minerals, base and precious metals or gems. Our individually configurable sorting systems based on metal, colour and x-ray sensors are installed in the recycling and mining industry in more than 20 countries on four continents. TiTech Visionsort AS, Norway, a wholly owned subsidiary of Tomra Systems ASA, Norway, has acquired CommoDaS GmbH in June, 2006. By joining forces new opportunities open up for the growth of both CommoDaS and Titech to become one of the largest and most professional provider of advanced sorting technology. You benefit from the professional services as well as from our cooperation with partner companies all over the world.

More information at: www.commodas.de

Visit to Norddeutsche Affinerie AG, Hamburg



| | |
|---------------|---|
| 09.00 | Departure by bus to Norddeutsche Affinerie AG |
| 09.30 | Arrival at Norddeutsche Affinerie AG |
| 09.30 – 13.00 | Visit of the copper smelter and electronics recycling plant |
| 14.00 | Arrival at Hamburg Airport |
| 14.30 | Arrival at the CCH Congress Center Hamburg |

The NA Group is the largest integrated copper producer in Europe and as well the largest copper recycler worldwide. The core business is the production of copper cathodes from copper concentrates, copper scrap and recycling materials. These are then processed into continuous cast wire rod and shapes, rolled products and copper alloys. Precious metals are likewise an important product sector, as well as the recycling of precious metal containing raw materials.

More information at: www.na-ag.com

Visit to REMONDIS Electrorecycling GmbH, Lünen

REMONDIS®

| | |
|---------------|--|
| 08.00 | Departure by bus to REMONDIS Electrorecycling GmbH |
| 11.30 | Arrival at REMONDIS Electrorecycling GmbH |
| 11.30 – 13.30 | Visit of the electronics recycling plant |
| 18.00 | Arrival at Hamburg Airport |
| 18.30 | Arrival at the CCH Congress Center Hamburg |

Many million tons of waste electrical and electronic equipment is produced across Europe each year. REMONDIS Electrorecycling removes the harmful substances found in this equipment in an environmentally friendly manner and then recovers the raw materials – such as copper, aluminium and plastic – and feeds them back into the circular-flow economy. In its processing and dismantling plants, which are among the most modern of their kind in Europe, REMONDIS processes refrigerators and freezers, televisions, monitors, small pieces of household equipment as well as IT and consumer electronics. REMONDIS Electrorecycling is active in many European countries and recycles approx. 130,000 tons of waste electrical and electronic equipment each year. In March 2006 REMONDIS put Europe's largest and most modern dismantling centre in Lünen into operation.

More information at: www.remondis-electrorecycling.de



“Meet your clients” Networking Dinner

On Wednesday, January 17, a special networking dinner will be organized in beautiful Hamburg.

Do not miss this perfect possibility to meet your business partners and register to this evening now!



Exhibition

A special exhibition will be organized for companies wishing to display their products or advertising materials.

The fee for an exhibition stand of 4 m² is EUR 2'000.– and for 8 m² is EUR 3'500.– for the full time of the conference.

Space is limited, so take your chance and book your exhibition stand today!



Hotel Accommodation

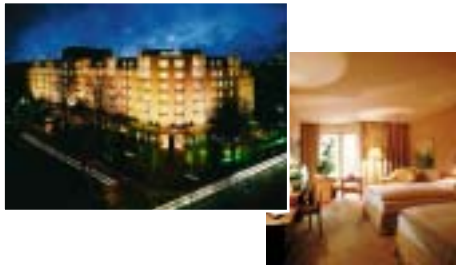
For the participants of the congress a number of rooms are held **until December 10, 2006** at a special rate at the four below-mentioned hotels. Reservation after this date will be subject to space and rate availability. If you wish, you may also extend your stay at the same rate.



Radisson SAS Hotel****
Marseiller Strasse 2, 20355 Hamburg
Phone: +49 40 3502 0
Fax: +49 40 3502 3530
www.hamburg.radissonsas.com
next to the congress center



Kempinski Hotel Atlantic Hamburg*****
An der Alster 72–79, 20099 Hamburg
Phone: +49 40 2888 0
Fax: +49 40 2471 29
www.kempinski.atlantic.de
20 min walk from the congress center



ELYSEE Hotel AG Hamburg*****
Rothenbaumchaussee 10, 20148 Hamburg
Phone: +49 40 4141 20
Fax: +49 40 4141 2733
www.elysee-hamburg.de
5 min walk from the congress center



Mercure Hotel Hamburg an der Messe***
Schröderstiftstrasse 3, 20146 Hamburg
Phone: +49 40 4506 30
Fax: +49 40 4506 91 000
www.mercure.com
15 min walk from the congress center

Registration Fees

Registration for the conference should be made by means of the registration form. Participants registering and paying **before November 10, 2006** will benefit from a reduced registration fee. The registration fee includes congress, entrance to the exhibition, proceedings and meals.

| Congress Fee | before November 10, 2006 | after November 10, 2006 |
|--|-----------------------------|----------------------------|
| Fee for participants | € 1'290.– | € 1'390.– |
| Fee for speakers | € 690.– | € 790.– |
| Fee for students | € 490.– | € 590.– |
| Networking dinner (January 17, 2007) | € 100.– | € 110.– |
| Technical visits (January 19, 2007): | | |
| – CommoDaS GmbH, Wedel | € 30.– | € 50.– |
| – Norddeutsche Affinerie AG, Hamburg | € 30.– | € 50.– |
| – REMONDIS Electrorecycling GmbH, Lünen | € 30.– | € 50.– |
| Networking dinner for accompanying persons (January 17, 2007) | € 110.– | € 120.– |

All prices excl. German VAT

Additional Proceedings

If it is not possible for you to attend the congress, you may purchase the complete proceedings at EUR 350.–. Participants will get the proceedings free of charge.

Payment

Payment should be made in EUR by bank transfer or by credit card.
Wire payment to:

| | |
|----------------------|---------------------------------------|
| Beneficiary: | ICM AG |
| Name of the bank: | Neue Aargauer Bank |
| Address of the bank: | 5300 Turgi, Switzerland |
| Account number: | 447941-72 |
| IBAN: | CH73 0588 5044 7941 7200 0 |
| Clearing number: | 5885 |
| Swift code: | CRESCHZZ 80A in favour of AHHBCH22XXX |

Who should attend?

- Original electronic equipment manufacturers (OEMs)
- Electronic components suppliers
- Electronic equipment importers and dealers
- Retailers
- Telecom and broadcasting companies
- Electric power generation companies
- Collection and transportation companies
- Recycling and dismantling companies
- Shredding companies
- Plastic industry
- Non ferrous metal industry
- Ferrous and stainless steel industry
- Financing organizations for electronics waste recycling
- Environmental authorities
- Universities and research institutes
- Laboratories for material science
- Consultants

Organizer of the IERC

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Jeanette Duttlinger
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Veronica Ying Liu
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Susann Schmid
Congress Assistant



Sandra Ammann
Congress Assistant



Petra Fiorentin
Congress Assistant

Beautiful Hamburg



Hamburg, 1'000 years old, is loved both for its contemporary scene as well as for its cultural offerings. With its one million inhabitants (Germany's second largest city) Hamburg offers a high quality of life and international flair.

Stunning location on the Elbe and Alster Rivers, colorful activity in the St. Pauli entertainment district, unforgettable musicals, a night at the theater, Michaelis Church ("der Michel") or the impressive harbour...

In Hamburg, the word "boredom" is unknown.

www.hamburg-tourism.de

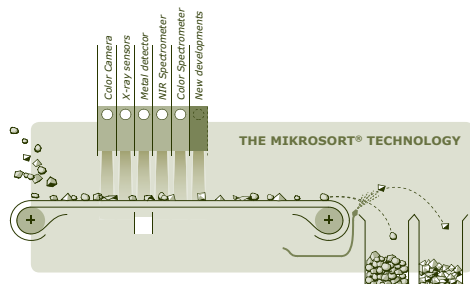
Raw materials: dog, spots

CommoDaS®



Everything consists of elements.
The question is how to get to them.

The answer: Use MikroSort® technology. The innovative X-ray transmission process, MikroSort® X-Tract, uses a dry method to separate materials based on their density and does so with no chemicals. The metal detector, MikroSort® Finder, and the camera system, MikroSort® SpectraSense, let you separate the most complex material streams. And this regardless of whether you recover high quality metals or create plastic fuels from waste. Regardless of whether you have to remove unprocessables to protect your machines or have to separate parts containing halogen in order to meet your consumer specifications. Regardless of whether you recycle plastics or prepare slag. CommoDaS offers the correct approach to all your challenges.



WE SORT IT OUT

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Fax: +49-4103-1888-188
info@commodas.de

WWW.COMMODAS.DE

REMONDIS®



WEEE as a source of raw material

Many million tonnes of WEEE are produced each year across Europe. REMONDIS Electorecycling removes the harmful substances from this equipment using environmentally compatible methods and feeds the raw materials back into the economic cycle. All categories

of waste equipment are collected throughout Europe, dismantled in dismantling centres and then processed. Would you like to learn more about our services? Then please contact us. Our telephone number and e-mail address are listed below.

REMONDIS Electorecycling GmbH, Brunnenstr. 138, D-44536 Lünen, Tel.: 08 00/85 83 888
www.remondis-electorecycling.com, electorecycling@remondis.com



Discover brilliant prospects.

Discover NA.

As Europe's leading copper producer and recycler, NA creates added value for its electronic scrap customers.

Our processes comply with the highest environmental protection, health and safety standards.

Our state-of-the-art sampling and assaying procedures enable us to derive the maximum value from electronic scrap materials for our customers.

We cooperate with our customers on an individual basis to provide worldwide purchasing of materials and flexible price fixing and financing, as well as notification and logistics services.

NA is your reliable partner for precious metals recovery and the answer to your electronic scrap recycling requirements.

For further information, please visit our website: www.na-ag.com

Kupferstraße 23
44532 Lünen
Germany
Tel. ++49(0) 2306 / 108 595
Fax ++49(0) 2306 / 108 449
s.fuchs@na-ag.com



Upcoming recycling congress:

7th International Automobile Recycling Congress March 21 – 23, 2007 Amsterdam, Netherlands



www.icm.ch

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6th International Electronics Recycling Congress:

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