

# ICBR 2013

## 18<sup>th</sup> International Congress for Battery Recycling ICBR 2013

September 11 – 13, 2013, Dubrovnik, Croatia



### Patronage:

Association of European Automotive and Industrial Battery Manufacturers (EUROBAT)

Call2Recycle®

EUCOBAT

European Battery Recycling Association (EBRA)

The European Association for Advanced Rechargeable Battery Technologies (RECHARGE)

The Rechargeable Battery Association (PRBA)

WEEE Forum





## FOREWORD

### PROFESSOR BRUNO SCROSATI

Chairman of  
the Steering Committee  
International Congress for  
Battery Recycling

Efficient and diversified recycling is a top priority for our society. Accordingly, consistent efforts are in progress worldwide to reach this important goal. Battery recycling in particular is one of the major tasks and many countries in Europe, America and Asia are issuing programs to promote recycling at a large market share. However, there are still differences among legislations and a certain confusion persists due to the constant renewal of the battery chemistries. To attend a forum where these important matters can be carefully examined, discussed and evaluated is a unique opportunity that cannot be missed by anyone involved in that field of growing importance and continuous evolution of battery recycling. On the other hand, a forum of this kind can be useful and rewarding only if it succeeds in attracting the participation of the world leaders in the field, as undoubtedly does

the International Congress for Battery Recycling. ICBR is the event that is worldwide recognized as the top conference in battery recycling technologies and marketing, where scientists, engineers, producers and recyclers can meet to share their views and discuss their business.

This year's ICBR edition will be opened by keynote lectures delivered by leaders in the area, who will inform us on the status of the EU waste legislation as well as on the issues still to be addressed within car manufacturing and recycling industries. The program will then include a session where the impact of the legislation on battery collection and recycling in various European countries will be further discussed and evaluated in detail. Finally, the day closes with a Panel Discussion where important aspects associated with lithium battery recycling, such as safety and waste transport, will be presented by

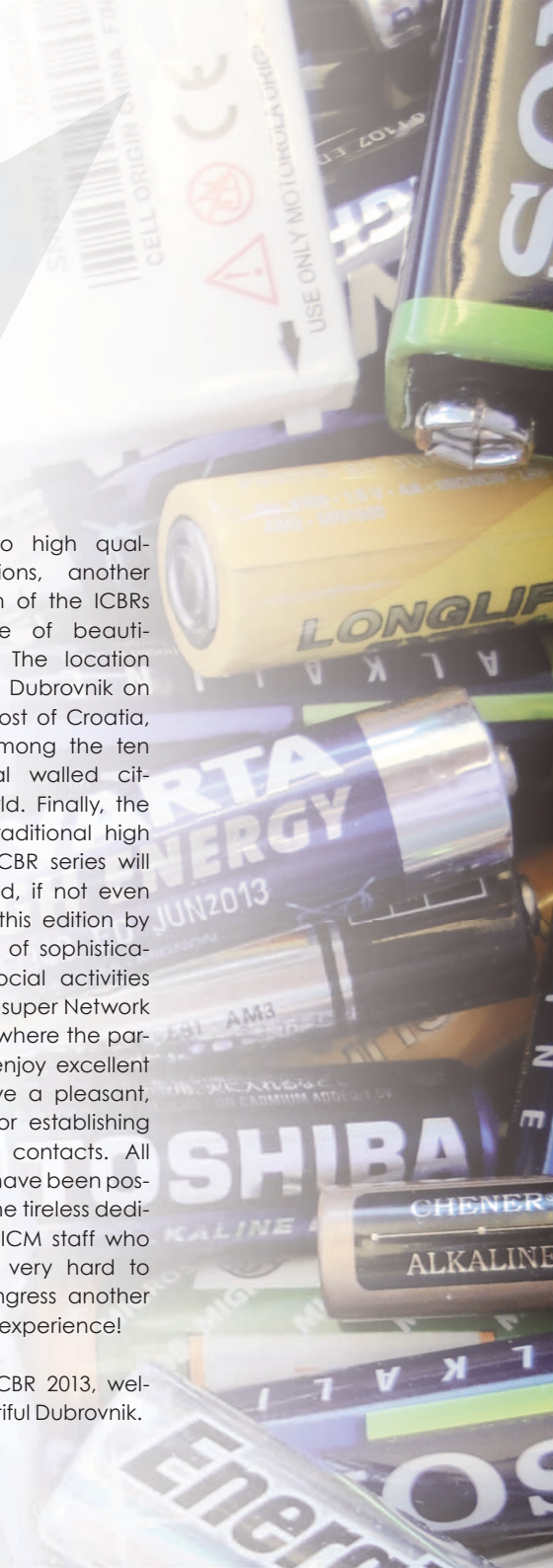
a panel of experts and then opened to the audience for a general discussion.

In the morning session of the second day we will first hear about the status of battery collection and recycling in progress in Russia, USA and Japan. In the second session, we shall be informed about the regulation for substance restrictions, as well as on battery sustainability, with particular attention to their use for electromobility. The afternoon program will be arranged with two parallel sessions. One is devoted to updating recycling technology and the other one on certification and stewardship.

A great program that certainly will stimulate interest and living discussion among the participants. I would then like to express my gratitude to the top worldwide experts who have graciously accepted the invitation of the Steering Committee to contribute to the congress.

In addition to high quality presentations, another great tradition of the ICBRs is the choice of beautiful locations. The location for this year is Dubrovnik on the Adriatic coast of Croatia, considered among the ten best medieval walled cities in the world. Finally, the well-known, traditional high class of the ICBR series will be guaranteed, if not even surpassed, in this edition by the high level of sophistication of the social activities that include a super Network Dinner event, where the participants will enjoy excellent food and have a pleasant, relaxing site for establishing their business contacts. All this could not have been possible without the tireless dedication of the ICM staff who have worked very hard to make this congress another unforgettable experience!

Welcome to ICBR 2013, welcome to beautiful Dubrovnik.



## KEYNOTE SPEAKERS



**ARTEMIS HATZI-HULL**

European Commission  
DG Environment  
Policy Officer  
Belgium

“THE EX-POST EVALUATION OF FIVE WASTE  
STREAM DIRECTIVES”

**DR ATSUSHI TERAZONO**

National Institute for Environmental Studies  
Center for Material Cycles and Waste Management Research  
Chief  
Japan

“MATERIAL FLOW, HAZARDOUS  
SUBSTANCES CONTROL AND SAFETY  
ISSUES OF BATTERIES IN JAPAN”



**ALAIN LIGER**

High Council for Economy, Industry, Energy  
and Technologies / COMES  
Secretary General  
France

“MEETING THE TARGETS OF THE BATTERY  
DIRECTIVE IN FRANCE, WITH AN OUTLOOK  
ON STRATEGIC METALS RECYCLING”

**ALAIN VASSART**

EBRA  
General Secretary  
Belgium

“KEY ISSUES FOR THE EU BATTERY  
RECYCLING INDUSTRY”





## INTERNATIONAL STEERING COMMITTEE



**PROFESSOR BRUNO SCROSATI**  
**Chairman**  
University La Sapienza (Rome)  
Department of Chemistry  
Italy



**JACQUES DAVID**  
SCRELEC  
Managing Director  
France



**CARL E. SMITH**  
Call2Recycle®  
CEO/President  
USA



**ALAIN VASSART**  
EBRA  
General Secretary  
Belgium



**DR JEAN-POL WIAUX**  
**Chairman of the Scientific Committee**  
RECHARGE  
Director General  
Belgium



**ANDREAS KREBS**  
Batrec Industrie AG  
Managing Director  
Switzerland



**MIKE TAKAO**  
Energy Company,  
Panasonic Corporation  
Environmental Affairs Group  
Senior Manager  
Japan



**JAN BARTELS**  
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Managing Director  
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**JILL LEDGER**  
SAFT  
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and Investor Relations  
Director  
France



**MARK R. TOMASZEWSKI**  
INMETCO  
President  
USA



**GEORGIOS CHRYSOS**  
Stiftung GRS Batterien  
Managing Director  
Germany



**TOSHIO MATSUOKA**  
Matsuoka Technical  
Consultant Ltd.  
Consultant  
Japan



**JOHAN VAN PEPERZEEL**  
Van Peperzeel B.V.  
Managing Director  
Netherlands

## LOCATION OF THE CONGRESS

## HISTORICAL DUBROVNIK



The 18<sup>th</sup> International Congress for Battery Recycling will be held from **September 11–13, 2013** in the Hotel Dubrovnik Palace in beautiful Dubrovnik, Croatia.

Hotel Dubrovnik Palace is nestled between the sea and pine forest on the beautiful Lapad peninsula and it is blessed with a unique view of the Elaphite islands. This beautiful hotel is only a few minutes located from the UNESCO-protected Dubrovnik Old Town by car, bus or taxi.



For the participants of the congress a number of rooms are held at a special rate if you register before July 31, 2013. If you wish, you may also extend your stay at this lovely hotel at the same special rate.

### **Hotel Dubrovnik Palace\*\*\*\***

Masarykov put 20  
20000 Dubrovnik  
Croatia

Phone +385 20 430 000

Fax +385 20 430 100

[www.adriaticluxuryhotels.com/en/hotel-dubrovnik-palace/](http://www.adriaticluxuryhotels.com/en/hotel-dubrovnik-palace/)



Dubrovnik, a walled city with renaissance architecture and charming narrow streets, is located on the coast at the most southern tip of Croatia. The terracotta roofs of the old City framed by the turquoise Adriatic Sea is one of the most recognizable and photographed sights in the world.

Dubrovnik is one of the most famous tourist destinations in the whole of the Adriatic, helped by its status as an UNESCO World Heritage Site. In the middle Ages, as the Republic of Ragusa, it became the only eastern Adriatic city-state to rival Venice. Supported by its wealth and skilled diplomacy, the city achieved a remarkable level of development, particularly during

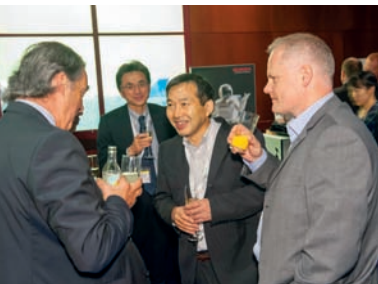
the 15<sup>th</sup> and 16<sup>th</sup> centuries. Dubrovnik today is a town that blends old and new in its own unique way. Although hundreds of thousands of visitors come to Dubrovnik each year, it remains essentially a quiet, small town whose residents know each other well. On one hand, the lifestyle is traditional. You can still see fishermen mending their nets in the old harbor, and people tending their vegetable gardens as much as they did generations ago. On the other hand, Dubrovnik is also part of the modern world, with bars and clubs, sushi restaurants and a growing number of international immigrants choosing to make Dubrovnik their permanent homes.



[www.tzdubrovnik.hr](http://www.tzdubrovnik.hr)



## WHO SHOULD ATTEND?



- Battery producers
- Recycling companies
- Waste management companies
- Battery collection schemes
- Battery collection and transportation companies
- Non ferrous metal traders
- Non ferrous metal industry
- Associations in the field of battery waste management
- Financing organization for battery recycling
- Environmental authorities
- Laboratories for material science
- Universities and research institutes
- Consultants

## TRAVELLING TO DUBROVNIK

### Getting to Dubrovnik by plane

Dubrovnik International Airport has regular flights to many European countries, including major hubs such as London, Paris, Frankfurt and Rome. International airlines such as British Airways, Austrian Airlines, Lufthansa, Aer Lingus, Easy Jet, German Wings, Norwegian Air Shuttle and Iberia all have scheduled flights through out the summer months. Croatian Airlines are the biggest carrier from Dubrovnik airport and operate regular flights to European destinations.

### Climate/weather

Dubrovnik has a typical Mediterranean climate with hot, dry summers and mild, wet winters. September is one of the best months to visit Dubrovnik, since it is still warm enough (around 25°C) to enjoy the incredible coastline and even go for a swim in the sea. Also, the old town is not that crowded anymore.

### Transfer from the Airport to Dubrovnik

The journey by taxi from Dubrovnik Airport to the Hotel Dubrovnik Palace (conference place) takes about 25 minutes (22 km).



## CONGRESS PROGRAM ICBR 2013



### TUESDAY, SEPTEMBER 10, 2013

17.00 – 19.00 Registration

### WEDNESDAY, SEPTEMBER 11, 2013

08.00 – 09.45 Registration and welcome coffee in the exhibition area

09.45 – 10.00 "Welcome and Introduction"

**Prof. Bruno Scrosati, Chairman of the Steering Committee**

10.00 – 12.00

#### KEYNOTE SPEAKERS

"The ex-post evaluation of five waste stream Directives"

**Artemis Hatzi-Hull, European Commission, DG Environment, Belgium**

"Meeting the targets of the Battery Directive in France, with an outlook on strategic metals recycling"

**Alain Liger, High Council for Economy, Industry, Energy and Technologies/ COMES, France**

"Material flow, hazardous substances control and safety issues of batteries in Japan"

**Dr Atsushi Terazono, National Institute for Environmental Studies, Japan**

"Key issues for the EU battery recycling industry"

**Alain Vassart, EBRA, Belgium**

12.00 – 13.30

Lunch

#### Session 1: Battery collection

Session Chairman: **Jill Ledger, SAFT, France**

13.30 – 14.00

"Portable battery recycling in the UK – What's next?"  
**David Reynolds, BatteryBack Plc, United Kingdom**

14.00 – 14.30

"French battery CRO's: Implementation of an eco-modulated 2013 price list"  
**Frédéric Hédouin, COREPILE, France**

14.30 – 15.00

"Battery collection in Poland – Results of 2012, upcoming legal changes and forecast for 2016"  
**Michal Korzowicz, REBA Compliance Organization S.A., Poland**

15.00 – 15.30

Coffee break in the exhibition area

15.30 – 17.00

Panel Discussion: "Lithium battery safety: A global issue"

**Moderator:**

**Jean-Pol Wiaux, RECHARGE, Belgium**

**Participants:**

**Imke May, Stiftung GRS Batterien, Germany**

**Dr Thomas Forchert, CELONO, Germany**

**Johan Van Peperzeel, Van Peperzeel B.V., Netherlands  
Representative of EU COBAT**

19.00

Networking dinner

# CONGRESS PROGRAM ICBR 2013



## THURSDAY, SEPTEMBER 12, 2013

08.00 – 09.00 Welcome coffee in the exhibition area

**Session 2: International**  
**Session Chairman: Carl E. Smith, Call2Recycle®, USA**

09.00 – 09.30 "Saint Petersburg experience in the making of battery collection system for the first time in Russia"  
**Dmitry Krutoy, Committee for Nature Use, Environmental Protection and Ecological Safety (Government of Saint Petersburg), Russia**

09.30 – 10.00 "Battery recycling for the automotive industry: An American OEM's perspective"  
**Renata Arsenault, Ford – Energy Storage & Materials Research, USA**

10.00 – 10.30 "Update of rechargeable batteries collection & recycling activity and the latest survey for average age of batteries returned in Japan"  
**Mike Takao, Panasonic Corporation & Battery Association of Japan, Japan**

10.30 – 11.00 Coffee break in the exhibition area

**Session 3: Sustainability**  
**Session Chairman: Alain Vassart, EBRA, Belgium**

11.00 – 11.30 "Substance restrictions – A jungle of regulations"  
**Dr Beate Kummer, Kummer: Umweltkommunikation GmbH, Germany**

11.30 – 12.00 "LCA results on the recycling of Li-ion batteries from the e-mobility sector"  
**Dr Matthias Buchert, Öko-Institut e.V., Germany**

12.00 – 12.30 "Sustainable e-mobility from a battery manufacturer perspective"  
**Clémence Siret and Béatrice Lacout, SAFT, France**

12.30 – 14.00 Lunch

**Session 4: Recycling technologies update I**  
**Session Chairman: Andreas Krebs, Batrec Industrie AG, Switzerland**

14.00 – 14.30 "Alkaline battery recycling and RMC's patented process"  
**Wayne Elliott, Raw Materials Company Inc., Canada**

14.30 – 15.00 "A new way in the recycling of alkalimanganese batteries"  
**Ingo Götz, Redux Recycling GmbH, Germany**

15.00 – 15.30 "Battery safety evaluation during recycling operations"  
**Delphine Tigreat, INERIS, France**

15.30 – 16.00 Coffee break in the exhibition area

**Session 5: Recycling technologies update II**  
**Session Chairman: Andreas Krebs, Batrec Industrie AG, Switzerland**

16.00 – 16.30 "A new process for global recycling of advanced Lithium Ion EV"  
**Prof. Farouk Tedjar and Guillaume Charpy, RECUPYL SAS, France**

16.30 – 17.00 "Efficient and sustainable pyro metallurgical recycling of spent batteries"  
**Thierry Claisse, VALDI, France**

17.00 Cocktail reception in the exhibition area

**Parallel Session 4: Certification and stewardship I, Session Chairman: Georgios Chryssos, Stiftung GRS Batterien, Germany**

"Process orientated audit of the battery recycling efficiency – The Nickel-based battery facility of Accurec"  
**Prof. Bernd Friedrich, RWTH Aachen University, Germany**

"Certification of the end-of-life value chain: The example of WEEELABEX"  
**Lucia Herreras, WEEE Forum, Belgium**

"Battery stewardship in Australia: Paving the way for growth"  
**Dr Helen Lewis, Australian Battery Recycling Initiative, Australia**

**Parallel Session 5: Certification and stewardship II, Session Chairman: Georgios Chryssos, Stiftung GRS Batterien, Germany**

"Damaged, defective or waste batteries. New provisions for lithium batteries transport in the UN model regulation"  
**Dr Marco Ottaviani, ANIE-CSI, Italy**

"Battery take back, established legislation but new complexity"  
**Johanna Brucker, 1WEEE Services GmbH, Germany**



# TRAINING COURSE



## TRANSPORT OF DANGEROUS GOODS TARGETING LITHIUM BATTERIES

EXCLUSIVELY FOR THE PARTICIPANTS OF ICBR 2013

**Directed by:** Kristel Vermeersch, KVS & Partners bvba.,  
Dangerous Goods Consulting, Belgium

**When:** Friday, September 13, 2013

**Time:** 09.00 h – 15.00 h

**Location:** Hotel Dubrovnik Palace,  
Dubrovnik, Croatia

**Price:** **250 EUR** per person  
(incl. documents & certificate)  
Lunch and coffee breaks included  
Minimum number of participants: 15

**Sponsor:**



The workshop is directed by:



**Kristel Vermeersch**  
Dangerous Goods Consulting

All attendants  
will get a certificate  
for attending the  
training course !

### WHO SHOULD ATTEND THE TRAINING COURSE?

- Battery recycling companies
- Representatives of authorities
- Battery manufacturers
- Lawyers and consultants of the battery and recycling industry
- Transportation companies in the battery recycling industry
- Anyone shipping Lithium batteries

### COURSE DESCRIPTION

The course will give you an overview of International Transport Regulations (UN/Road/Air/Sea) and the decision process. The classification and identification of Lithium batteries will be reviewed including the UN test criteria for Lithium batteries. The participants will learn how to use and interpret the information and special provisions provided in the lists of dangerous goods in the different transport regulations. The course will also cover the packing requirements for Lithium batteries including the differences amongst the different transport modes. A description of transport documents required for shipments of Lithium batteries will be supplied.

## HONDA HYBRID CARS

*Exclusive test drive possibility  
for participants.*



Model shown is the CR-Z Sport grade. Fuel consumption figures in l/100km: Urban 6.0, Extra Urban 4.4, Combined 5.0. Co2 116 g/km. For more information visit [www.honda.hr](http://www.honda.hr)

To attend this training course, please register at [info@icm.ch](mailto:info@icm.ch)



## SIGHTSEEING TOUR ICBR 2013

FRIDAY, SEPTEMBER 13, 2013

### OLD TOWN OF DUBROVNIK & CRUISE TO CAVTAT

10.00	Departure by bus to the Old Town of Dubrovnik
11.15	Boat cruise along the Dubrovnik Riviera to Cavtat
12.00	Arrival in Cavtat and lunch in the popular restaurant Leut
13.45*	Arrival at Dubrovnik Airport
14.15*	Arrival at Hotel Dubrovnik Palace

Dubrovnik is on UNESCO's list of cultural heritages and is regarded as one of the most beautiful cities in the Mediterranean. Surrounded by ramparts and fortresses, it is a treasure of architectural and cultural masterpieces, well preserved over the centuries. During a sightseeing tour with a professional guide, the guests will get to see some of the most attractive sights in the Old Town.

After this impressive cultural experience we invite the guests on a boat cruise from the Old Town port along the Dubrovnik Riviera to the little picturesque town Cavtat which is situated at the south slopes of the peninsula of Rat. Also known as the ancient Epidaurum, it is a popular get-away and fascinates its visitors with its very attractive mixture of old and new architecture.

After lunch in the restaurant Leut, where the family Bobic have spoilt their guests for over 30 years with excellent seafood in a beautiful setting right by the sea, we return to the hotel via a short stop at the airport.

Minimum number of participants: 20

\* No guarantee on arrival time due to traffic conditions.





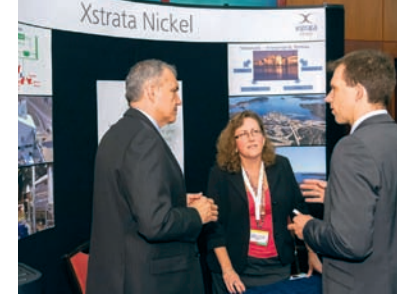
## EXHIBITION AND POSTER PRESENTATIONS



A professional exhibition area is available for all companies wishing to display their products or advertising materials.

The fee for an exhibition booth (2m x 3m) is € 3'500.- and for a poster presentation € 350.- for the full time of the conference.

Space is limited, so take the chance and book your exhibition booth or your poster presentation today!



## EXHIBITION

As per May 27, 2013:



Ecotest, Netherlands



Greenoffice, France



Rufing d.o.o., Croatia



Metal Depot Zurich AG, Switzerland



Optisort AB, Sweden



Raw Materials Company Inc., Canada



Redux Recycling GmbH, Germany



Umicore Battery Recycling, Belgium



UNTHA shredding technology GmbH, Austria



Xstrata Nickel International S.A., Belgium





# NETWORKING DINNER



# SPONSORS



On **Wednesday, September 11, 2013**, an unforgettable sunset networking dinner will be organized on the beautiful Vala Beach of the Hotel Dubrovnik Palace.

Do not miss this perfect possibility to meet your business partners and friends in a nice atmosphere and register to this event now.

Meet friends and business partners in a nice atmosphere!



REGISTER BY  
JULY 31, 2013  
TO RECEIVE  
DISCOUNT RATE

## ORGANIZER OF ICBR 2013

ICM AG  
International  
Congress & Marketing  
Schwaderhof 7  
5708 Birrwil, Switzerland

Phone +41 62 785 10 00  
Fax +41 62 785 10 05

info@icm.ch  
www.icm.ch



Registration for the congress should be made by means of the registration form or online. Participants registering and paying **before July 31, 2013** will benefit from a reduced registration fee. The registration fee includes congress, entrance to the exhibition, proceedings and luncheons.

## REGISTRATION FEES



**JEANETTE DUTTLINGER**  
Congress Organizer



**MIRJAM WAGNER**  
Congress Assistant



**SABRINA BOLLIGER**  
Congress Assistant



**CLAUDIA GERSTENDÖRFER**  
Congress Assistant



**NADINE MÜLLER**  
Congress Assistant



**SUSANN SCHMID**  
Congress Assistant



**SIBYLLE ZIMMERLI**  
Congress Assistant



**YING LIU REICHENBACH**  
Congress Assistant



**SANDRA MANNHART**  
Congress Assistant

### Congress Fee

Fee for participants  
Fee for speakers  
Fee for students

	before July 31, 2013	after July 31, 2013
Fee for participants	€ 1'390.-	€ 1'490.-
Fee for speakers	€ 790.-	€ 890.-
Fee for students	€ 590.-	€ 690.-

Networking dinner (Sept. 11, 2013) € 100.-  
Networking dinner for spouse (Sept. 11, 2013) € 120.-

### September 13, 2013 (you may choose one)

- Training course	€ 250.-	€ 290.-
- Transport of dangerous goods (Li-batteries)		
- Sightseeing tour	€ 75.-	€ 90.-
Old town of Dubrovnik & cruise to Cavtat		

Registration on site € 100.- surcharge

### Online registration

**NEW!**

You may also register online at: [www.icm.ch/icbr-2013](http://www.icm.ch/icbr-2013)

### Additional Proceedings

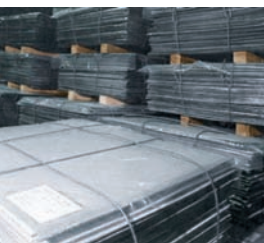
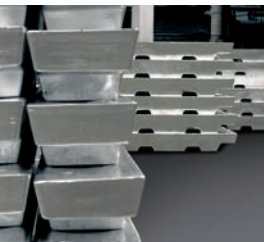
If it is not possible for you to attend the congress, you may purchase the complete proceedings at € 350.-. Participants will get the proceedings free of charge.

### Payment

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

Beneficiary: ICM AG  
Bank: Neue Aargauer Bank, 5400 Baden, Switzerland  
IBAN: CH41 0588 1044 7941 7200 0  
Swift code: AHHBCH22XXX  
Currency: EUR





**The Swiss Depot for Industrial Metals**  
Real values safely stored in Switzerland

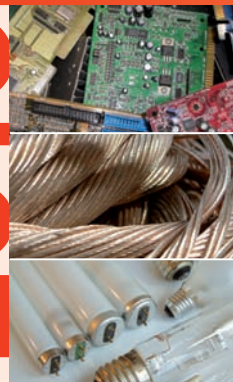
We buy, store and sell physical metals and master alloys in your name. Metal Depot warehouses are solely located in Switzerland.

We are specialists for all aspects of metal trading. Our service is available for anyone who wants to invest in physical metals.

Contact:  
**Metal Depot Zurich AG**  
Phone +41 62 765 8222  
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office@metaldepot.ch  
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**Electronics Recycling Asia WRF 2013**

**WRF  
2013**

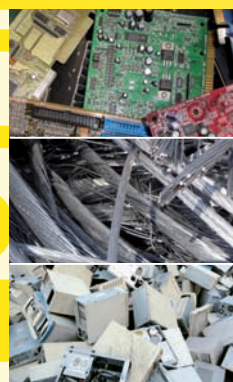


November 12 – 15, 2013  
Singapore



**13<sup>th</sup> International Electronics Recycling Congress IERC 2014**

**IERC  
2014**



January 22 – 24, 2014  
Salzburg, Austria



**14<sup>th</sup> International Automobile Recycling Congress IARC 2014**

**IARC  
2014**



March 19 – 21, 2014  
Brussels, Belgium







You and us:  
**Collection and recycling for portable  
and industrial batteries**

GRS Batterien guarantees you professional collecting, sorting and recycling of spent batteries. Many years of experience in the handling of portable batteries has made it possible to implement the first nationwide collection system for industrial batteries, in particular industrial lithium accumulators from e-bikes.

We offer individual solutions for eco-friendly recycling to all producers and distributors in Germany.