23rd International Congress for Battery Recycling ICBR 2018

September 26 – 28, 2018, Berlin, Germany

Patronage:
Australian Battery Recycling Initiative (ABRI)
Association of European Automotive and Industrial Battery Manufacturers (EUROBAT)
Call2Recycle, Inc.
EUCOBAT
European Battery Recycling Association (EBRA)
European Electronics Recyclers Association (EERA)
European Portable Battery Association (EPBA)
Light Electric Vehicle Association (LEVA-EU)
The Advanced Rechargeable & Lithium Batteries Association (RECHARGE)
The Rechargeable Battery Association (PRBA)
Welcome to Berlin!

We have entered an area of “disruption” where progress in technology is taking place at record speeds and driving new societal attitudes. Portable and Industrial Batteries are playing a key role in this technology and societal evolution.

While offering an increasing range of electrical energy densities and performances, advanced electrical energy sources are making innovative applications feasible in a world of convenience, mobility, communication and energy storage.

These market and technology changes are taking place in a context where Policy Makers want to accelerate the transition from a linear to a Circular Economy that will promote the second life of the battery and the re-use of active materials as well as other battery components. This may require from the recycler to offer a specialized service as a complementary activity to its processing facility.

The Battery Recycling Industry has to adapt to new requirements at technical but also economic levels. Indeed, at end of life a significant range of advanced battery technologies have to be processed with cost not fully balanced by the value of recovered materials.

The EU Batteries Directive is under review in order to evaluate, among others, the efficiency of collection of batteries and recycling of their content. The collection or take back of batteries at end of life operates via established logistic and industrial channels but it remains challenging to collect billions of pieces of articles (including their batteries) that have been widely dispersed in the economy (homes, offices, small workshops, vehicles…) and are laying down in drawers!

It is an opportunity to consider alternative methodologies to evaluate the collection efficiency of spent batteries and the performances of a recycling process. A harmonization between the WEEE Directive and the Batteries Directive appears a necessity as both waste streams follow parallel commercial and return routes.

The necessity to consider a second producer during the battery service life requires urgently additional regulatory measures to guarantee performance and safety to the user of a re-purposed battery and of the equipment it is powering. Embarking more energy in a given volume creates new concerns such as the safety of new batteries technology: How to take care of this issue? Despite a large range of quality standards applied to manufacturing of Lithium batteries, incidents may occur during service life or after. Industry needs to propose guidance to the end of life actors to control hazards and minimize risks when storing, sorting and transporting waste Lithium batteries.

All these issues are at the agenda of ICBR 2018 “the forum” where specialists in the field of battery collection and recycling will discuss the many issues related to the battery end of life value chain. For 23 years, ICBR has been offering the best networking opportunity for professionals while meeting with legislators, consultants, academics and economic actors of the battery and battery recycling industries.

The Organizers of ICBR 2018 are pleased to present a program that will cover the many aspects of the Battery Recycling and related activities in Europe and from all around the world.

Welcome to Berlin, a capital city of politics, culture and science.
KEYNOTE SPEAKERS

PROF. KERSTIN KUCHTA
Hamburg University of Technology
Institute of Environmental Technology and Energy Economics
Germany

“Batteries and a Circular Economy”

GUDULA SCHWAN
Federal Ministry of Transport and Digital Infrastructure
Germany

“The Importance of Dangerous Goods Regulations for the Recycling of Batteries”

DIDIER MARGINEDES
Blue Solutions
CEO
France

“The Importance of Dangerous Goods Regulations for the Recycling of Batteries”
INTERNATIONAL STEERING COMMITTEE

DR JEAN-POL WIAUX
Chairman
Consultant
Switzerland

JACQUES DAVID
Consultant
France

CARL E. SMITH
Call2Recycle, Inc.
CEO / President
USA

GEORGIOS
CHRYSSOS
Chairman of the Lecture Group
Stiftung GRS Batterien
Managing Director
Germany

JACQUES DAVID
Consultant
France

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

JACQUES DAVID
Consultant
France

JAN BARTELS
STIBAT
Managing Director
Netherlands

JACQUES DAVID
Consultant
France

DR ALAIN VASSART
EBRA
General Secretary
Belgium

JACQUES DAVID
Consultant
France

PATRICK DE METZ
SAFT
Corporate Environmental and Governmental Affairs Director
France

HANS CRAEN
European Portable Battery Association (EPBA)
Secretary General
Belgium

MICHAEL GREEN
Independent Waste Battery Consultant
United Kingdom

DR DIETER
OFFENTHALER
Batrec Industrie AG
Managing Director
Switzerland

GEORGIOS
CHRYSSOS
Chairman of the Lecture Group
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DR DIETER
OFFENTHALER
Batrec Industrie AG
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Switzerland
LOCATION & ACCOMMODATION

The 23rd International Congress for Battery Recycling will be held from September 26 – 28, 2018 in the Hotel Palace in beautiful Berlin. The hotel is located in the heart of Berlin between the Gedächtniskirche church and Kurfürstendamm avenue, just a few minutes away from Potsdamer Platz and the Brandenburg Gate.

Berlin has two airports: The airport Tegel (TXL) has excellent road and public transport connections. The city center can be reached within a 20 minutes taxi ride. From the airport Schönefeld (SXF) the journey to the hotel is 50 minutes.

Hotel Palace Berlin *****
Budapester Strasse 45
10787 Berlin, Germany
Phone +49 30 2502 0
Fax +49 30 2502 1109
www.palace.de

IMPORTANT NOTICE:
We have been alerted that unofficial housing providers are trying to contact ICBR delegates and exhibitors claiming to be associated to ICM and can secure hotel rooms at the Hotel Palace Berlin. These companies are not authorized to represent ICM nor ICBR. Please note that we have no affiliation with any housing coordinator. If you have any concerns, contact us at info@icm.ch.

Please book your room at your earliest convenience as the number of rooms at the reduced rate is limited. If you wish, you may also extend your stay at the same rate.

BERLIN – COSMOPOLITAN AND OPEN-MINDED

Berlin, located in the heart of Europe, is the third most popular travel destination in Europe. The city’s attractiveness lies in its diversity and its inexhaustible potential: Visitors can pick their highlights from the long list of sights such as the Brandenburg Gate or the TV Tower and cultural institutions like the 180 museums and memorials, 440 galleries, and three UNESCO World Heritage sites. And for those who look for relaxation: In Berlin, the fast-paced metropolis and resting areas in nature are not far apart - every district has its green oasis.

Berlin is also a center for fashion and shopping. International exhibitions like the Berlin Fashion Week make guests familiar with the latest trends.

The four big shopping complexes – Kurfürstendamm, Potsdamer Platz, Friedrichstrasse and Alexanderplatz – along with smaller trend shops in the “scene” districts of Mitte, Prenzlauer Berg, Kreuzberg and Friedrichshain display anything from chic haute couture to casual street wear.

In the culinary scene, all tastes are catered to as well. Few other cities have developed such creativity in their kitchens. Every type of food is ready to be tasted, from Asian delights over oriental food to German classics and Michelin star-awarded restaurants – Berlin can do it all.

www.visitberlin.de/en
## Opening and Keynote Speakers

### Tuesday, September 25, 2018

**17.00 – 19.00** Pre-Registration

### Wednesday, September 26, 2018

**08.00 – 09.00** Registration and welcome coffee in the exhibition area

### Opening and Keynote Speakers

**09.00 – 11.00** "Welcome and Introduction"

- **Dr Jean-Pol Wiaux**, Chairman of the Steering Committee
- "Batteries and a Circular Economy"
- **Prof. Kerstin Kuchta**, Hamburg University of Technology, Germany
- "From Delivering Transport to Delivering Solutions"
- **Didier Marginèdes**, Blue Solutions, France
- "The Importance of Dangerous Goods Regulations for the Recycling of Batteries"
- **Gudula Schwan**, Federal Ministry of Transport and Digital Infrastructure, Germany

**11.00 – 11.30** Coffee break in the exhibition area

**11.30 – 11.45** Results of the Battery Recycling Industry Barometer presented by Jean-Pol Wiaux, Chairman of the Steering Committee

**Session 1: Challenges for the Battery Recycling Industries**

*Session Chairman: Georgios Chryssos, Stiftung GRS Batterien, Germany*

**11.45 – 12.15** "The EU Chemicals Policy and Substances in Recycled Batteries"

- **Jos Mossink**, European Chemicals Agency (ECHA), Finland

**12.15 – 12.45** "The European Metals Policy in the Context of a Circular Economy"

- **Chris Heron**, Eurometaux – European Association of Metals, Belgium

**12.45 – 14.00** Lunch in the exhibition area

**15.00 – 15.30** "The European Battery Alliance (EBA): Achievements So Far and Next Steps"

- **Dr Christian Müller**, InnoEnergy GmbH, Germany

**15.30 – 16.00** Coffee break in the exhibition area

**16.00 – 17.30** Panel Discussion 1: Batteries Directive’s Review: Portable Batteries

*Moderator: Peter Coonen, Bebat, Belgium*

*Participants:*
- **Dr Claude Chanson**, RECHARGE, Belgium
- **Hans Craen**, EPBA, Belgium
- **Frédéric Hédouin**, EUCOBAT, Belgium
- **Dr Alain Vassart**, EBRA, Belgium

**19.30** Departure by bus

**20.00** Networking dinner at the “Bar jeder Vernunft”

### Session 2: Raw Materials Supply & Demand: The Role of Recycling

*Session Chairman: Patrick de Metz, SAFT, France*

**14.00 – 14.30** "Market Structure for Li-Batteries Materials"

- **Alison Tran**, Argus Media Limited, United Kingdom

**14.30 – 15.00** "Industrial Minerals: Lithium, Cobalt and Nickel Market Price Discovery and Industry Insights"

- **Martim Facada**, Industrial Minerals, United Kingdom

**15.00 – 15.30** "Pilot Project on Rechargeable Li-Batteries Recycling"

- **Holger Kuhlmann**, Redux Recycling GmbH, Germany

### Session 3: Recycling Processes & Technology

*Session Chairman: Carl E. Smith, Call2Recycle, Inc., USA*

**14.00 – 14.30** "Recycling Advanced Batteries in North America"

- **Todd R. Coy**, Kinsbursky Brothers Inc., USA

**14.30 – 15.00** "Intelligent Fragmentation of Li-ion Batteries by Shockwaves"

- **Dr Jörg Zimmermann**, Fraunhofer Project Group IWKS, Germany

**19.30** Departure by bus

**20.00** Networking dinner at the “Bar jeder Vernunft”
<table>
<thead>
<tr>
<th>Time</th>
<th>Session 4: Li-Battery Safety: Portable &amp; Industrial</th>
<th>Session 5: Batteries Availability at End of Life</th>
<th>Session 6: Battery Recycling in a Circular Economy</th>
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<td>09.00 – 09.30</td>
<td>“Lithium Batteries: The Charge Up Safety Campaign”</td>
<td>“What the Urban Mine Teaches us on Waste Batteries Availability and Closing of Material Loops”</td>
<td>“Recycling of Key Materials for Li-ion Batteries”</td>
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<tr>
<td></td>
<td>Carl E. Smith &amp; Tim Michaels, Call2Recycle, Inc., USA</td>
<td>Johanna Emmerich, TU Berlin, Germany &amp; Peter Binnemans, EUCOBAT, Belgium</td>
<td>Silvia Bobba, JRC-EC / Politecnico di Torino, Italy</td>
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<td>09.30 – 10.00</td>
<td>“Safety Concepts for Production Plants/Sites and Battery Assessment with Focus on Li-ion Technology”</td>
<td>“Directive 2006/66/EC – Lessons Learned?”</td>
<td>“Life Cycle Assessment (LCA) of Repurposed Traction Li-ion Batteries in Storage Second-Use Applications”</td>
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<td>Lars Hollmotz, Strategic Support DL UG, Germany</td>
<td>Helmut Minor, RENE AG – Recycling Network Europe, Germany</td>
<td>Silvia Bobba, JRC-EC / Politecnico di Torino, Italy</td>
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<td>Andy Latham, Salvage Wire Ltd., United Kingdom</td>
<td>Dr Jarkko Vesa, Not Innovated Here, Finland</td>
<td>Franco Di Persio, JRC-EC Petten, Netherlands</td>
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<td>Coffee break in the exhibition area</td>
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<td></td>
<td>Charles Stuyck, Umicore Battery Recycling, Belgium</td>
<td>Dr Jens Peters, Helmholtz-Institute for Electrochemical Energy Storage Ulm (HIU), Germany</td>
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**Session 4: Li-Battery Safety: Portable & Industrial**
Session Chairman: Michael Green, Independent Waste Battery Consultant, United Kingdom

**Session 5: Batteries Availability at End of Life**
Session Chairman: Dr Alain Vassart, EBRA, Belgium

**Session 6: Battery Recycling in a Circular Economy**
Session Chairman: Hans Craen, EPBA, Belgium

**Session 7: Life Cycle Analysis**
Session Chairman: Hans Craen, EPBA, Belgium
THURSDAY, SEPTEMBER 27, 2018

Session 8: E-Bikes, Weee & Batteries
Session Chairman: Johan van Peperzeel, Van Peperzeel B.V., Netherlands

14.00 – 14.30 “Li-Battery Transport and Disposal – Theory and Practice”
Lukas Fast, REMONDIS Industrie Service GmbH & Co. KG, Germany
“Promotion of Sustainable Secondary Battery to Battery Recycling and International Standardization”
Hirohito Teraoka, FDK Corporation, Japan

14.30 – 15.00 “Challenges in Modern Battery Sorting”
Katrien Busselot, Geert Allard & Benny Van Den Steen, SORTBAT NV, Belgium
“Battery Recycling in the UK: Past, Present and Future”
David Reynolds, WasteCare Group, United Kingdom

Annick Roetynck, Light Electric Vehicle Association (LEVA-EU), Belgium
“Towards a Product Stewardship Approach for Distributed Renewable Energy Systems in Australia”
Libby Chaplin, Australian Battery Recycling Initiative (ABRI), Australia & Dr Nick Florin, Institute for Sustainable Futures (ISF), University of Technology Sydney, Australia

15.30 – 16.00 Coffee break in the exhibition area

16.00 – 17.30 Panel Discussion 2: Batteries Directive's Review: Industrial Batteries 2nd Life
Moderator: Patrick de Metz, SAFT, France
Participants:
François Barsacq, easyLi, France
Frédéricq Peigneux, Febelauto, Belgium
René Schroeder, EUROBAT, Belgium
Clémence Siret, SAFT, France
Pieter Ursem, EcarACCU, Netherlands

17.30 – 17.45 “Wrap-up / Closing Remarks”
presented by Georgios Chryssos, Chairman of the Lecture Group

from 17.45 Farewell cocktail in the exhibition area

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
Join us on Wednesday, September 26, 2018 at a memorable networking dinner at the fantastic location “Bar jeder Vernunft” accompanied by unforgettable show acts.

Do not miss this perfect opportunity to socialize with your business partners and register for this evening now!

Stibat facilitates all actors in the circular economy of batteries in realizing reuse of products and materials and ensuring a safe, sound and environmentally friendly treatment of batteries and accumulators. We offer sustainable services and solutions ensuring compliance with national and European law and regulations with regard to batteries and accumulators.

Meet friends and business partners in a nice atmosphere!

© Brigitte Heinrich

Working together towards a circular economy for batteries and accumulators

Safe and responsible, ISO certified.

In depth knowledge, over 20 years of experience.

Offering both collective and customized services and solutions.
EXHIBITION & ADVERTISING

Reach key industry decision makers and promote your products to all congress attendees.

The fees are:

- **Booth 6 m² (2 m x 3 m)**: EUR 3'690.–
- **Booth 12 m² (3 m x 4 m)**: EUR 4'990.–
- **Poster presentation (wall rental)**: EUR 390.–
- **Display board (1 m x 2 m)**: EUR 690.–

Space is limited, book today!

As per May 8, 2018:

- **Battery Safety Solutions BV, Netherlands**
- **BLUBOX Trading AG, Switzerland**
- **DOLAV Germany GmbH, Germany**
- **Glencore AG, Switzerland**
- **Prodigentia Information Technology, S.A., Portugal**
- **REMONDIS Industrie Service GmbH & Co. KG, Germany**
- **THE SAFETY FORUM (Lithium Batteries), Switzerland**

ICBR 2018

Sept. 26 – 28, 2018

Berlin, Germany

www.icb.ch
WORKSHOP

Lithium Batteries: Hazards and Safety during Storage and Transport

The workshop will concentrate on Lithium Batteries transportation (Li-Ion and Li-Metal) requirements due to their properties. It will concentrate on good practice guidance to minimize incidents. Practical solutions will be recommended for safe transport, storage and handling of new and used Lithium Batteries. The appropriate fire response will also be reviewed.

**Moderator**
Jean-Pol Wiaux, Consultant, Switzerland

**Contributors**
Katrien Busselot, Bebat, Belgium
Dr Claude Chanson, RECHARGE, Belgium
Dr Marco Ottaviani, ANIE-CSI, Italy
Johan van Peperzeel, Van Peperzeel B.V., Netherlands

**Date**
Friday, September 28, 2018

**Time**
09.00 – 12.30

**Location**
Hotel Palace Berlin, Germany

**Price**
EUR 90.00 (incl. coffee break)

**Preliminary Agenda**

1. From prevention to control
2. Lithium Battery properties and safety issues
3. New ADR requirements
4. The implementation of packaging requirements for batteries and batteries in equipment
5. Fire protection: Active and passive
6. Conclusions: Good practices guidance

The workshop will be held with a minimum of 10 participants.
Participants will receive a certificate of attendance.
To register, please contact ICM AG.

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**REGISTRATION FEES**

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<tr>
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<th>before July 31, 2018</th>
<th>after July 31, 2018</th>
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<tbody>
<tr>
<td>Congress fee</td>
<td>EUR 1'590.–</td>
<td>EUR 1'690.–</td>
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<tr>
<td>Fee for speakers</td>
<td>EUR 990.–</td>
<td>EUR 1'090.–</td>
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<td>Fee for students*</td>
<td>EUR 690.–</td>
<td>EUR 790.–</td>
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*only with valid student card and age below 30

**Networking dinner (Sept. 26)**
EUR 100.– EUR 120.–

**Networking dinner spouse (Sept. 26)**
EUR 120.– EUR 150.–

**Plant tours (Sept. 28)**
Nickelhütte Aue GmbH
EUR 50.– EUR 70.–
Electrocycling GmbH
EUR 50.– EUR 70.–

**Workshop (Sept. 28)**
Lithium Batteries: Hazards and Safety during Storage and Transport
EUR 90.– EUR 150.–

All Prices excl. 19% German VAT

Congress registration on site EUR 100.– surcharge

**Online registration**
You may also register online at: [www.icm.ch/icbr-2018](http://www.icm.ch/icbr-2018)

**Proceedings**
If you cannot 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.
PLANT TOUR ICBR 2018
FRIDAY, SEPTEMBER 28, 2018

NICKELHÜTTE AUE GMBH, AUE, GERMANY

07.30  Departure by bus to Nickelhütte Aue GmbH
11.30  Arrival at Nickelhütte Aue GmbH
11.30 – 14.00  Visit of the recycling plant
18.00*  Arrival at the Hotel Palace Berlin
18.30*  Arrival at the airport Berlin Tegel

Nickelhütte Aue GmbH is specialized in the recycling of waste materials containing non-ferrous metals. The facility is especially interested in Nickel, Copper, Cobalt, Vanadium, Molybdenum and precious metal containing spent catalysts from chemical and pharmaceutical industries but also from petrochemical industries and from hydrogenation processes of oils and fats. But they are also able to treat other kinds of residues like ashes, dusts, grindings, liquids, slurries as long as they contain one or a combination of the above named metals.

7 years experience in the recycling of Li-Ion batteries and a following production of Ni, Cu and Co quality chemicals out of these waste materials offers their customers an unique recycling loop.

Nickelhütte Aue GmbH is a fully certified and pre-authorized waste facility according to the UN Basel convention. They have been accredited with “Entsorgungsfachbetrieb” by the German Government which is the highest accolade for a processing facility in Germany.

More information at: www.nickelhuette-aue.de

* No guarantee on arrival due to traffic conditions. The tour will only take place with a minimum of 10 participants.
PLANT TOUR ICBR 2018  
FRIDAY, SEPTEMBER 28, 2018

ELECTROCYCLING GMBH, GOSLAR, GERMANY

08.00  Departure by bus to Electrocyling GmbH
11.30  Arrival at Electrocyling GmbH
11.30 – 13.30  Visit of the electronic devices recycling plant
17.30*  Arrival at the Hotel Palace Berlin
18.00*  Arrival at the airport Berlin Tegel

ELECTROCYCLING was founded in 1994 and always pursues an innovative approach to recycle old electronic devices. Our Facility not only is one of the most advanced in Europe, it also is one of the largest ones with regard to its capacity of 80,000 tons of WEEE per year.

Until today, we have processed up to 1 Million ton of old devices from private households and Industry. Electronic waste and old electrical devices are treated in several steps until pure raw materials such as iron, aluminum, copper, glass and plastics are segregated. The obtained substances are used as secondary raw material in new products.

Our top position in the market is founded on the many experiences we have gained so far. The result of our work is the trust we get from our customers.

By employing the latest technology we are currently capable of reintroducing more than 80% of all processed material in the economic cycle. About 18% of it gets into energy re-covery and less than 2% is disposed in an environmental sound way.

More information at: www.electrocycling.de

* No guarantee on arrival due to traffic conditions. The tour will only take place with a minimum of 10 participants.