24th International Congress for Battery Recycling ICBR 2019

September 18 – 20, 2019, Lyon, France

Patronage:
Australian Battery Recycling Initiative (ABRI)
Association of European Automotive and Industrial Battery Manufacturers (EUROBAT)
Call2Recycle, Inc.
EUCOBAT
European Association of Metals (Eurometaux)
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)
Battery Recycling, an Industrial Reality

The development of human activity and our society is closely linked to the evolution of the use of energy sources and energy transfer technologies.

Combining convenience and high energy density has been constantly associated with technology development of society from the age of fire to modern times.

Tomorrow, energy will be produced from increasingly diversified sources, such as renewables (biomass, hydro, wind, solar, etc.). However, non-renewables such as coal, oil, gas or nuclear power will continue to play an important but reduced role.

In this context, we see both primary and rechargeable batteries as becoming some of the most convenient means of storage and carriers of electrical energy between the production source and the final delivery in applications.

Recently, the development of new applications powered by rechargeable batteries has been on the front page of many media releases.

Drones and e-bikes as well as individual and collective autonomous means of transport are under the scrutiny of the general public.

The media share hopes and concerns, optimisms and criticisms – and citations about batteries have never been as numerous.

To deliver their function as a source of electrical energy, batteries are made of chemicals and engineered materials.

Significant amounts of critical materials are therefore placed on the EU market as active battery materials. Their management at end-of-life is at the origin of the Batteries Directive 2006/66/EC.

Eleven years after its implementation, the Directive is considered to have delivered positive results in terms of a better environment, promoted recycling and improved the functioning of the internal market for batteries and recycled materials.(1)

The Batteries Directive is under review in an economic context that announces major changes in a commercial development of batteries integrating both circular economy and low-carbon policies. The large majority of OEMs placing batteries on the market have now integrated end-of-life management in their policy.

How efficient will the end-of-life management of batteries be in reducing CO2 emissions? Will recycled materials be a competitive source of active battery materials?

ICBR 2019 is the 24th meeting that will review issues linked to the management of waste batteries, including collection efficiency and material recovery.

ICBR 2019 will tackle the new concerns raised among stakeholders by the definition of waste and the extended producer responsibility for the second use or second life of batteries.

Discussions on battery material flows and the role of raw materials in terms of demand and recovery will take place in an international context with guests and speakers from all over the world.

The 24th ICBR will provide the ideal environment to develop your networking opportunities among specialists and experts in the field of battery recycling.

Lyon has always been a flourishing commercial city at the confluence of the Rhône and Saone Rivers, with an active industry and trade since Roman times.

Join us in Lyon to develop your knowledge of worldwide initiatives on the recycling of end-of-life batteries and their key business operators.

And... Do not miss a three star dinner experience at the famous Restaurant l’Abbaye of Paul Bocuse!

KEYNOTE SPEAKERS

GHISLAIN LESCUYER
Saft
CEO
France

“The renewable energy market and the role of electrical energy storage”

JEAN-DENIS CURT
Groupe Renault
Recycling & Circular Economy Unit Manager
France

“A path towards low-carbon and resource-efficient mobility”

CHRISTOPHE PILLOT
AVICENNE ENERGY
Director
France

“Update of the Lithium batteries market”
The 24th International Congress for Battery Recycling ICBR 2019 will be held from September 18 – 20, 2019 at the Lyon Marriott Hotel Cité Internationale, which is located in the heart of the business district of Lyon.

The hotel provides its guests with all-round business service and professional support.

The Lyon-Saint Exupéry Airport (LYS) is located 20 km from the city center and can be reached within a 30 minutes taxi ride for EUR 55 (one way). Next to the train stations Lyon-Perrache and Lyon-Part Dieu, you can easily travel with the TGV train to Saint-Exupéry Airport (LYS) or to Paris within two hours.

**Lyon Marriott Hotel Cité Internationale**
70 Quai Charles de Gaulle
69463 Lyon, France
Phone +33 4 78 17 50 50
Fax +33 4 78 17 52 52
Web marriott.com/hotels/travel/lysmc-lyon-marriott-hotel-cite-internationale

As the second most popular city in France for international association meetings according to the 2017 ICCA rankings, Lyon has a great deal to offer. It is centrally located in Europe, in the country’s east-central part at the confluence of the rivers Rhône and Saône, is easy to access and the charm of a 2,000-year-old city that is a UNESCO World Heritage Site and has two rivers running through it.

Lyon is the capital of the Metropolis of Lyon and the region of Auvergne-Rhône-Alpes.

Lyon has a long and chronicled culinary arts tradition. The noted food critic Curnonsky referred to the city as “the gastronomic capital of the world”, a claim repeated by later writers such as Bill Buford. Renowned 3-star Michelin chefs such as Marie Bourgeois and Eugénie Brazier developed Lyonnaise cuisine into a national phenomenon favoured by the French elite; a tradition which Paul Bocuse later turned into a worldwide success.

It’s not just a gastronomic capital with 20 starred chefs, it’s also a creative city in the fields of fashion, the arts and culture.

**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 Lyon Marriott Hotel. 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.
**CONGRESS PROGRAM ICBR 2019**

**TUESDAY, SEPTEMBER 17, 2019**
17.00 – 19.00 Pre-registration

**WEDNESDAY, SEPTEMBER 18, 2019**
08.00 – 09.00 Registration and welcome coffee in the exhibition area

**OPENING AND KEYNOTE SPEAKERS**
09.00 – 10.45 “Welcome and Introduction”
Dr Jean-Pol Wiaux, Chairman of the Steering Committee
“The renewable energy market and the role of electrical energy storage”
Ghislain Lescuyer, CEO, Saft, France

“Update of the Lithium batteries market”
Christophe Pillot, Director, AVICENNE ENERGY, France

“A path towards low-carbon and resource-efficient mobility”
Jean-Denis Curt, Recycling & Circular Economy Unit Manager, Groupe Renault, France

10.45 – 11.00 PRESENTING OF THE “ICBR HONORARY AWARD”

11.00 – 11.30 Coffee break in the exhibition area

**Session 1: National Reports**
Session Chairman: Georgios Chryssos, Stiftung GRS Batterien, Germany
11.30 – 12.00 “France – How to make competition positive and a success. Achievements and challenges of the portable collection schemes”
Frédéric Hédouin (COREPILE), Emmanuel Toussaint Dauvergne (SCRELEC) and Frédéric Sanchez (RECY-STEM PRO), France

12.00 – 12.30 “Status from Norway – The country with the most electrical vehicles in Europe”
Guro Kjersvik Husby, NORSIRK AS, Norway

12.30 – 14.00 Lunch in the exhibition area

14.00 – 14.30 “Transportation complexities of new, refurbished and waste Lithium batteries”
George A. Kerchner, PRBA, USA

14.30 – 15.00 “Legal requirements when implementing a shipment process of end-of-life Lithium ion batteries”
Julia Feuring, 1cc GmbH, Germany

15.00 – 15.30 “Dangerous goods and the waste regulation: The case of waste Lithium batteries”
Tobias Schultze Wettenzorado, Stiftung GRS Batterien, Germany

15.30 – 16.00 Coffee break in the exhibition area

16.00 – 16.15 Results of the Battery Recycling Industry Barometer presented by Dr Jean-Pol Wiaux, Chairman of the Steering Committee

16.15 – 17.45 Panel Discussion I: Batteries Directive Review
Moderator: Peter Coonen, Bebat vzw-asbl, Belgium
Participants:
José Rizo Martin, European Commission, Belgium
Peter Binnemans, EUCOBAT, Belgium
Dr Claude Chanson, RECHARGE, Belgium
Hans Craen, EPBA, Belgium
Francesco Gattilglio, EUROBAT, Belgium
Dr Alain Vassart, EBRA, Belgium

19.30 Departure by bus

20.00 Networking dinner at the famous Restaurant L’Abbaye of Paul Bocuse
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Session Chairman</th>
<th>Location</th>
<th>Talks</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.00 – 09.00</td>
<td>Welcome coffee in the exhibition area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09.00 – 09.30</td>
<td>Session 4: Electric Vehicles Batteries Flow</td>
<td>Hans Craen, European Portable Battery Association (EPBA), Belgium</td>
<td>Cardiff University, United Kingdom</td>
<td>“Trickle or flood? The supply of ELV batteries by 2025” Dr Jean-Paul Skeete, Cardiff University, United Kingdom</td>
</tr>
<tr>
<td>09.30 – 10.00</td>
<td>Session 5: Technology Management at EOL</td>
<td>Michael Green, Independent Waste Battery Consultant, United Kingdom</td>
<td></td>
<td>“Sorting of Lithium batteries in a stream of lead-acid batteries” Jan Sietsgaard, FORCE Technology, Denmark</td>
</tr>
<tr>
<td>10.00 – 10.30</td>
<td>Session 6: Recycling I</td>
<td>Alain Vassart, EBRA, Belgium</td>
<td></td>
<td>“Automatic sorting through machine learning enabling the Circular Economy transition” Johanna Reimers, Refind Technologies AB, Sweden</td>
</tr>
<tr>
<td>10.30 – 11.00</td>
<td>Coffee break in the exhibition area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.00 – 11.30</td>
<td>Session 7: Electric Vehicles and Circular Economy</td>
<td>Carl E. Smith, Call2Recycle, Inc., USA</td>
<td></td>
<td>“Impact of process chain design on recycling efficiency – Simulation and practical results” Prof. Bernd Friedrich, IME Process Metallurgy and Metal Recycling, Institute of RWTH Aachen University, Germany</td>
</tr>
<tr>
<td>11.30 – 12.00</td>
<td>Session 5: Technology Management at EOL</td>
<td>Michael Green, Independent Waste Battery Consultant, United Kingdom</td>
<td></td>
<td>“OEM perspective on battery recycling in the new mobility era” Renata Arsenault, Ford Motor Co. – Energy Storage &amp; Materials Research, USA</td>
</tr>
<tr>
<td>12.00 – 12.30</td>
<td>Session 7: Electric Vehicles and Circular Economy</td>
<td>Carl E. Smith, Call2Recycle, Inc., USA</td>
<td></td>
<td>“Blockchain for Lithium ion battery lifecycle management” Lauren Roman, Everledger Ltd., USA</td>
</tr>
<tr>
<td>12.30 – 14.00</td>
<td>Lunch in the exhibition area</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THURSDAY, SEPTEMBER 19, 2019

**Session 8: Recycling II**
Session Chairman: Dr Alain Vassart, EBRA, Belgium

- 14.00 – 14.30 “The impact of safety aspects on the economics of EV batteries recycling”
  Eric Nottez, SNAM, France
- 14.30 – 15.00 “Power up: How to harness the power in Lithium ion batteries”
  Christian Winkler, TES-AMM Central Europe GmbH, Germany
- 15.00 – 15.30 “Collection and recycling of general purpose batteries in the Russian Federation”
  Vladimir Matsyuk, Megapolis Resource, Russia

**Session 9: Battery Materials in a Circular Economy**
Session Chairman: Libby Chaplin, Australian Battery Recycling Initiative (ABRI), Australia

- 14.00 – 14.30 “Circular Economy perspectives for the management of batteries used in electric vehicles”
  Pierre Gaudillat, European Commission (Joint Research Centre), Spain
- 14.30 – 15.00 “Cobalt and the battery value chain”
  Carol-Lynne Pettit, Cobalt Institute, United Kingdom
- 15.00 – 15.30 “Global battery supply chain analysis and its impact on the US battery recycling initiatives”
  Margaret K Mann, National Renewable Energy Laboratory and Jeffrey Spangenberger, Argonne National Laboratory, USA

15.30 – 16.00 Coffee break in the exhibition area

16.00 – 17.30 **Panel Discussion II: Eco-Design and Sustainability Policies for Batteries**
Moderator: Arie de Jong, STIBAT Services, Netherlands
Participants:
- Cesar Santos, European Commission, Belgium
- Manfred Fahrner, European Electronics Recyclers Association (EERA)
- Hirohito Teraoka, FDK Corporation, Japan
- Sustainable Policy for Batteries: “Beyond the Batteries Directive”

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

In depth knowledge, over 20 years of experience.

Offering both collective and customized services and solutions.

Safe and responsible, ISO certified.

Working together towards a circular economy for batteries and accumulators

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.

Take the unique opportunity and join us on Wednesday, September 18, 2019 at a magical networking dinner at the outstanding Michelin 3-star Restaurant l’Abbaye of Paul Bocuse.

Let yourself get inspired of this famous place and enjoy an exceptional and unforgettable evening with us.

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

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

The fees are:

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booth 6 m² (2 m x 3 m)</td>
<td>EUR 3'690</td>
<td></td>
</tr>
<tr>
<td>Booth 12 m² (3 m x 4 m)</td>
<td>EUR 4'990</td>
<td></td>
</tr>
<tr>
<td>Poster presentation</td>
<td>EUR 390</td>
<td></td>
</tr>
<tr>
<td>Display board (1 m x 2 m)</td>
<td>EUR 690</td>
<td></td>
</tr>
</tbody>
</table>

Space is limited, book today!

As per July 12, 2019:

- Battery Safety Solutions BV, Netherlands
- Bunting Magnetics, United Kingdom
- DENIOS, France
- Glencore AG, Switzerland
- Groupe Renault, France
- LogBATT GmbH, Germany
- MTB Recycling, France
- Nickelhütte Aue GmbH, Germany
- REMONDIS Industrie Service GmbH & Co. KG, Germany
- TES, Australia
Interested in electric cars? Choose Renault, market leader for electric vehicles in France.*

Discover Renault’s electric vehicles range, adapted for professional and personal usage.

*Renault is the market leader for electric vehicle sales to individuals and professionals with a 56.85% of market share in 2018. AAA-DATA source (Association Auxiliaire de l’Automobile)
THE UN and ADR REGULATIONS FOR THE TRANSPORT OF WASTE and DAMAGED and DEFECTIVE LITHIUM BATTERIES

CASE STUDIES and GOOD PRACTICE RECOMMENDATIONS

Date: Friday, September 20, 2019
Time: 08.30 – 12.30
Location: Lyon Marriott Hotel Cité Internationale

1. Workshop Content & Objective
The workshop will review the hazard properties of Lithium batteries classified as Dangerous Goods. It will review the current Transport Regulation for WASTE Lithium Batteries and for DAMAGED and DEFECTIVE Lithium Batteries. During the workshop, practical cases will be illustrated where operators have difficulties to implement the ADR Regulation for certain categories of waste batteries and to apply the required packaging and shipping instructions mainly taking into consideration the physical status of waste batteries before shipment.

2. Participants and Case Studies
Registered participants to the workshop will be invited to describe their own case study in advance to the organizer in order to share knowledge among the audience and increase the level of practical recommendations.

3. Moderators and Experts
The workshop will be moderated by George A. Kerchner (PRBA) and Dr Jean-Pol Wiaux (Consultant). The experts who will present case studies are: Dr Claude Chanson* (RECHARGE) Dr Marco Ottaviani* (ANIE) Katrien Busselet (Bebat) Tobias Schulze Wettendorf (GRS) Johan van Peperzeel (Van Peperzeel B.V.) Dr Alain Vassart (EBRA)

* Participants to the UN Sub-Committee for the Transportation of Dangerous Goods and ADR Joint Meeting.

The workshop will be held with a minimum of 10 participants and will be limited to 30 participants. A certificate of attendance will be delivered after the workshop.

To register, please contact ICM AG at info@icm.ch

REGISTRATION FEES

<table>
<thead>
<tr>
<th></th>
<th>before July 31, 2019</th>
<th>after July 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congress fee</td>
<td>EUR 1’590</td>
<td>EUR 1’690</td>
</tr>
<tr>
<td>Fee for participants</td>
<td>EUR 990</td>
<td>EUR 1’090</td>
</tr>
<tr>
<td>Fee for students*</td>
<td>EUR 690</td>
<td>EUR 790</td>
</tr>
<tr>
<td>*only with valid student card and age below 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Networking dinner (Sept. 18)</td>
<td>EUR 120</td>
<td>EUR 140</td>
</tr>
<tr>
<td>Networking dinner spouse (Sept. 18)</td>
<td>EUR 140</td>
<td>EUR 160</td>
</tr>
<tr>
<td>Plant tours (Sept. 20)</td>
<td>EUR 50</td>
<td>EUR 70</td>
</tr>
<tr>
<td>SNAM, Saint-Quentin-Fallavier</td>
<td>EUR 50</td>
<td>EUR 70</td>
</tr>
<tr>
<td>MTB Recycling, Trept</td>
<td>EUR 50</td>
<td>EUR 70</td>
</tr>
<tr>
<td>Workshop (Sept. 20)</td>
<td>EUR 90</td>
<td>EUR 150</td>
</tr>
<tr>
<td>Transport Regulation and Safety</td>
<td>EUR 90</td>
<td>EUR 150</td>
</tr>
</tbody>
</table>

All Prices excl. 20% French VAT

Congress registration on site EUR 100.– surcharge

Online registration
You may also register online at: https://icbr.icm.ch/

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.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00</td>
<td>Departure by bus to SNAM</td>
</tr>
<tr>
<td>09.45</td>
<td>Arrival at SNAM</td>
</tr>
<tr>
<td><strong>09.45 – 12.45</strong></td>
<td><strong>Visit of the battery recycling plant</strong></td>
</tr>
<tr>
<td>13.15*</td>
<td>Arrival at the airport Lyon Saint-Exupéry</td>
</tr>
<tr>
<td>14.00*</td>
<td>Arrival at the Lyon Marriott Hotel</td>
</tr>
</tbody>
</table>

Société Nouvelle d’Affinage des Métaux (SNAM) was formed as an offshoot of the metallurgical industry in 1981, and from the 1990s has established itself as a major player into the «loop economy». SNAM’s wealth of experience and renowned expertise make it one of few companies in the world to have mastered the techniques for processing batteries and accumulators. A subsidiary of the Floridienne Group (chemistry division), SNAM is a company enjoying continuous growth: European environmental 14001 Certification; acquisition of specialised subsidiaries (sorting of mixed batteries, galvanisation processes, etc).


* No guarantee of arrival due to traffic conditions. The tour will only take place with a minimum of 8 participants.
MTB RECYCLING, TREPT

09.00  Departure by bus to MTB Recycling
10.15  Arrival at MTB Recycling
10.15 – 13.15  Visit of the recycling site and manufacturing workshop
14.15*  Arrival at the airport Lyon Saint-Exupéry
15.00*  Arrival at the Lyon Marriott Hotel

MTB is a unique model in the world of recycling. As a French operator/manufacturer, we know customers’ issues, we master technologies, we offer best solutions. Pioneer and innovative, we develop the future recycling processes: coming wastes and containerized, turnkey chopping solution. MTB is a committed company and claims its position as eco-responsible recycler. The development of our company is based on an ambitious plan and 3 key commitments: Zero waste, The Wow effect and Our children’s future. MTB, More Than Business.

More information at: https://www.mtb-recycling.fr/en/

* No guarantee of arrival due to traffic conditions. The tour will only take place with a minimum of 8 participants.
ORGANIZER

JEANETTE DUTTLINGER
Congress Organizer

SUSANN SCHMID
Congress Assistant

MICHAL FREI
Congress Assistant

SANDRA MANNHART
Congress Assistant

YING LIU REICHENBACH
Congress Assistant

ANNA ROSA BAUMANN
Congress Assistant

HIKARU BHEND
Congress Assistant

ANGELA DORNBIERER
Congress Assistant

LAURA ZEHNDER
Congress Assistant

ALEKSANDRA BLOCH
Congress Assistant

ICM AG
International Congress & Marketing
Schwaderhof 7
5708 Birrwil, Switzerland
+41 62 785 10 00 (English)
+86 182 176 289 10 (Chinese)
+41 79 124 08 50 (Japanese)
info@icm.ch
www.icm.ch

Upcoming ICM Events:

19th International Electronics Recycling Congress IERC 2020
January 22 – 24, 2020
Salzburg, Austria

20th International Automobile Recycling Congress IARC 2020
March 11 – 13, 2020
Geneva, Switzerland

E-Mobility & Circular Economy EMCE 2020
June 29 – July 1, 2020
Tokyo, Japan