



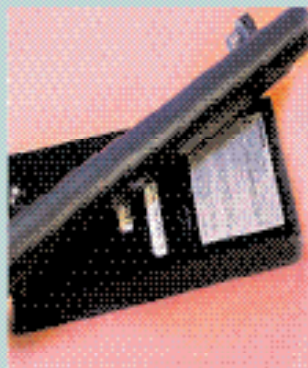
Our new
Recycling Technology for Li-ion batteries
 is
 Sustainable,
 Environmentally Friendly,
 Cost-efficient.

Umicore developed and patented the **VAL'EAS™** process dedicated to the environmentally sound recycling of rechargeable batteries. Main materials from end-of-life batteries are recycled and re-used in our battery division:

A real Closed Loop Solution for batteries!

Main advantages are:

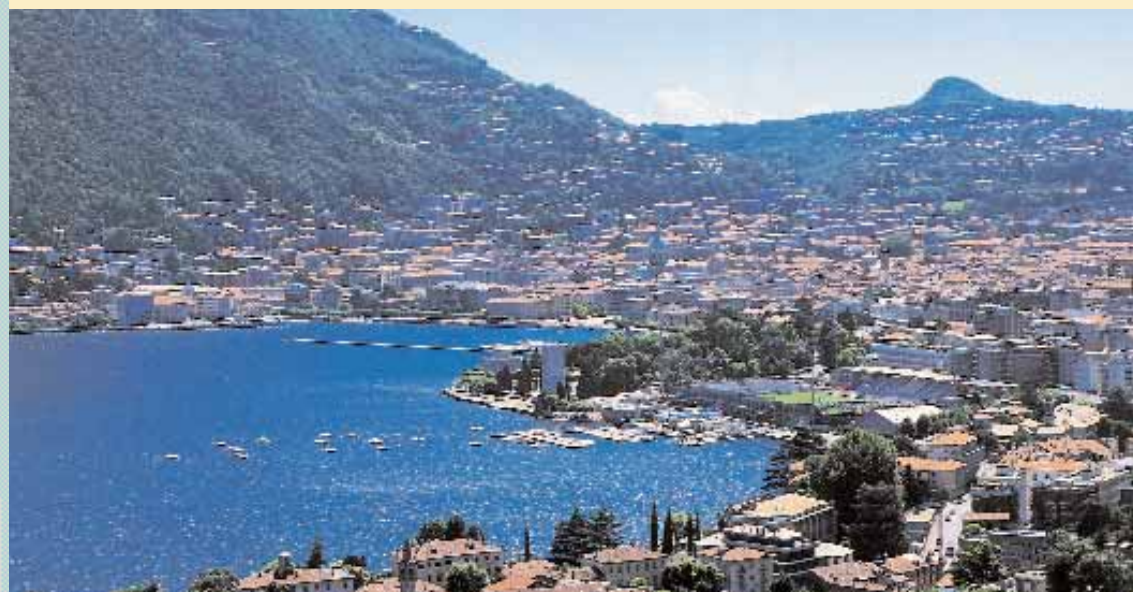
- *New dedicated technology*
- *No hazardous pre-processing*
- *No solid waste nor dioxin*
- *Closed loop for metals*
- *Full plastic valorisation*
- *High recycling & recovery rates*
- *0% landfilled materials*



For more info: **Umicore Battery Recycling**
 – Belgium –
 Tel.: +32.14.24.50.10 – Fax.: +32.14.24.57.16
 E-mail: BatteryRecycling@umicore.com
www.BatteryRecycling.umicore.com



9th International Congress for Battery Recycling
June 2 – 4, 2004
Como, Italy



Patronage
European Battery Recycling Association
European Portable Battery Association

Sponsored by:



Foreword of the ICBR 2004

Battery technology has constantly progressed the last few years. The production of conventional batteries, such as alkaline dry cells, lead-acid and nickel-cadmium batteries, continues to be massive with several billions of units per year. In addition many new systems are invading the market. The nickel-metal hydride batteries are acquiring a prominent role for electronic and tool applications and the lithium-ion batteries are rapidly becoming the power sources of choice for sophisticated consumer electronics, e.g., notebooks and cellular phones. Finally, the increasing concern on the air quality in large urban areas has promoted the request of a rapid introduction on the road of low-emission vehicles and accordingly, fleets of electric cars are now in demonstration in various cities and the hybrid cars are assuming a progressively important role in the automobile market. All these new sectors rely on the development of advanced types of batteries which in fact are now produced on a large scale. This market booming has not yet been accompanied by a proper concern on the appropriate methods of collection, especially for what the new types of batteries are concerned. The disposal or recycling of batteries of different chemistries, size and environment impact which are presently in circulation in all parts of the world, are

still far from being satisfactory. It is then of crucial importance to face the management of the spent batteries in all their aspects and problems. Although significant progress has been obtained in the past years in terms of collection programs and of recycling schemes of exhausted batteries, a lot is still to be achieved to reach an acceptable compromise between the cost and the efficiency of recycling.

This congress, which comes as the ninth edition of a successful series, provides a unique opportunity for approaching this topic by offering a perfect forum where battery experts can meet and share their experiences, discuss and find suitable solutions to the problems that still prevent a proper treatment of spent batteries.

In addition to assuring an exciting technical program, this 2004 edition keeps the high social standard of ICBRs and the traditional choice of elegant and beautiful sites. Welcome to Como and enjoy another beautiful lake on the Italian Alps!

Prof. Bruno Scrosati

Chairman of the Steering Committee
International Congress for Battery
Recycling

International Steering Committee

consists of:



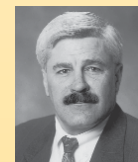
Rachel Barlow
European Portable Battery
Association (EPBA)
Secretary General
Belgium



Jan Bartels
STIBAT
Managing Director
Netherlands



Manfred Beck
Recycling International
Magazine
Editor
Netherlands



Norm England
Rechargeable Battery
Recycling Corp. (RBRC)
President
USA



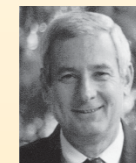
Jürgen Fricke
Foundation GRS Batterien
Chairman of the Board
Germany



Kinya Fujimoto
Battery Association of
Japan (BAJ)
General Manager
Japan



Helmut Klammer
Batrech Industrie AG
Managing Director
Switzerland



Prof. Bruno Scrosati, Chairman
University of Rome
Department of Chemistry
Italy



Jill Ledger
CollectNiCad, Chairman
SAFT, Communication Director
France



Prof. Oliver Lindqvist
Chalmers University of Technology
Dep. of Inorganic Chemistry
Sweden



Toshio Matsuoka
Matsuoka Technical Consul. Ltd.
Consultant
Japan



Johan van Peperzeel
W.A. van Peperzeel B.V.
President
Netherlands



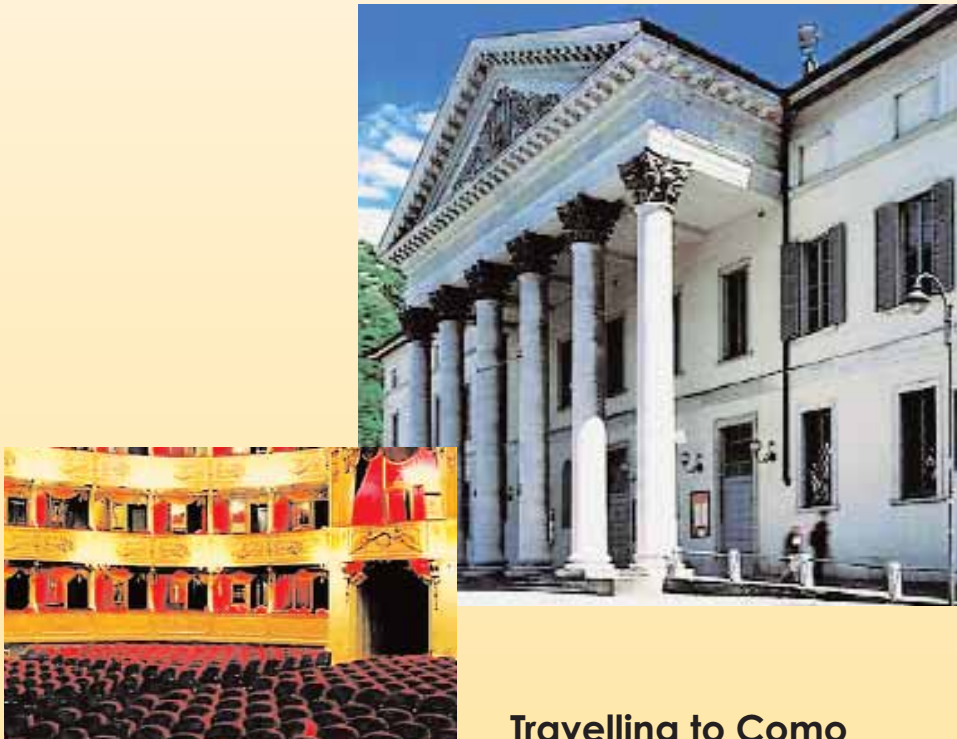
Shane Thompson
INMETCO Inc.
International Accounts Director
USA



Alain Vassart
European Battery Recycling
Association (EBRA)
President
Belgium



Location of the congress



The International Congress for Battery Recycling (ICBR 2004) will be held in the **Teatro Sociale di Como** from **2 – 4 June 2004** in **Como, Italy**.

Teatro Sociale di Como
Via Bellini, 3
I-22100 Como

www.teatrosocialecomo.it

Travelling to Como

Como is easily reached by plane, being close to both Milano Airports of Malpensa and Linate. Como is also connected by trains to all of the major European cities.

Driving to Como is easy, either by fast highways or by scenic mountain roads. The Milano Airports of Malpensa and Linate are roughly 30 – 45 minutes away from Como (60 – 70 km).

Como is served by two railway lines Ferrovie Nord Milano, with a station at Como Lago, and Italian State Railways, whose Como S. Giovanni station is on the international Milano – Chiasso line.

Keynote Speakers



Fernando Duranti
Leghe & Metalli International
CEO
President of BIR
Italy



Karl-Heinz Florenz
Member of the European Parliament
Coordinator of the European People's Party for the
Committee on the Environment,
Public Health and Consumer Policy
Germany



John Searle
SAFT
CEO and President
France

Hotel Accommodation

For the participants of the congress a number of rooms are being held **until April 30, 2004** at a special rate at the Palace Hotel and the Hotel Como. Reservation after this date will be subject to space and rate availability.



Palace Hotel****
Lungo Lario Trieste, 16
22100 Como
Italy
www.palacehotel.it
About 5 min. walk from the congress place



Hotel Como****
Via Mentana, 28
22100 Como
Italy
www.hcomo.it
About 20 min. walk from the congress place

Congress Program ICBR 2004

Wednesday, 2 June 2004

- 09.00 – 12.30** **Registration**
- 13.00 – 13.10 "Welcome and introduction"
Prof. Bruno Scrosati, Chairman of the Steering Committee
- 13.10 – 13.30 **KEYNOTE SPEAKER:**

**Fernando DURANTI, CEO of Leghe & Metalli International, Italy
President of BIR**
- Session 1: The new European Battery Directive I**
Session Chairman: Shane Thompson, INMETCO, USA
- 13.30 – 14.00 "The new draft Directive: The point of view of the recyclers"
Alain Vassart, EBRA/ERACHEM, Belgium
- 14.00 – 14.30 "EU Directive: Making battery legislation workable"
Raynald Dallenbach, ENERGIZER, Switzerland
- 14.30 – 15.00 "Collection of portable batteries in the EU"
Khush Marolia, EPBA, Belgium
- 15.00 – 15.30** **Coffee break**
- Session 2: The new European Battery Directive II**
Session Chairman: Jill Ledger, SAFT, France
- 15.30 – 16.00 "Stimulating battery collections in legislation-free environment:
The UK experience"
Greg Clementson, G&P Batteries Ltd., United Kingdom
- 16.00 – 16.30 "Battery Directive: A new step toward producer responsibility"
Emmanuel Beaurepaire, CES, France
- 16.30 – 17.00 "UK policy and approach to battery recycling"
Simon Aumônier, ERM, United Kingdom
- 17.00 – 17.30 "An update on environmental stewardship initiative in Canada"
Susan Antler, Canadian Household Battery Association, Canada
- 19.30** **Networking dinner**

Thursday, 3 June 2004

- Session 3: Country reports on battery recycling**
Session Chairman: Jürgen Fricke, GRS Batterien, Germany
- 09.00 – 09.30 "Building a battery collection and recovery system in Poland –
First effects of REBA recovery organization"
Michal Korcozowicz, Reba Recovery Organization, Poland
- 09.30 – 10.00 "RBRC's activities in North America"
Norm England, RBRC, USA
- 10.00 – 10.30 "Battery recycling in Belgium"
Eddy Pagnin & Michel Bauduin, REVATECH, Belgium
- 10.30 – 11.00** **Coffee break**
- 11.00 – 11.30 "The implementation of EU-waste batteries and accumulators
Directives in Slovenia"
**Dusan Marc, Ministry of the Environment, Spatial Planning and Energy,
Republic of Slovenia**
- 11.30 – 12.00 "BatterForeningens proposals for battery collection"
Frederik Madsen, Danish Battery Association, Denmark
- 12.00 – 13.30** **Lunch**
- 13.30 – 14.30 **KEYNOTE SPEAKERS:**

13.30 – 13.50 **Karl-Heinz FLORENZ, Member of the European Parliament**

13.50 – 14.10 **John SEARLE, CEO of SAFT, France**

14.10 – 14.30 **Discussions**
- Session 4: Country reports and new recycling technologies**
Session Chairman: Helmut Klammer, Batrec Industrie AG, Switzerland
- 14.30 – 15.00 "Li-ion battery recycling in the UK"
Dominic Kieran, AEA Technology plc, United Kingdom
- 15.00 – 15.30 "Battery-recycling – A perspective from a Ni and Co producer"
Patrick Henrion, Falconbridge International, Belgium
- 15.30 – 16.00** **Coffee break**
- 16.00 – 16.30 "Multi batteries non sorted recycling technology through
hydrometallurgy"
Aik Rosenberg, Metal-Tech Ltd., Israel
- 16.30 – 17.00 "R&D of recycling technology and regeneration of MH/Ni batteries"
Prof. Feng Wu, Beijing Institute of Technology, China
- 17.00 – 17.30 "Quality recycling for less..."
Bertrand Schutz, CITRON, France

Friday, 4 June 2004

Session 5: Electric vehicle battery and fuel cell recycling
Session Chairman: Johan van Peperzeel, Peperzeel BV, Netherlands

- 08.30 – 09.00 "Project of recycling of electric vehicle battery"
Yasuhiro Tsugita, Metal Mining Agency of Japan, Japan
- 09.00 – 09.30 "State of the art application and end-of-life of fuel cell systems"
Stefan Freiberger, Bayreuth University, Germany
- 09.30 – 10.00 "Recycling of electric vehicle and hybrid electric vehicle batteries in USA"
Shane Thompson, INMETCO, USA
- 10.00 – 10.30 "Car batteries: Different types and the upcoming Battery Directive"
Julien van Damme, Honda Europe, Belgium
- 10.30 – 11.00 **Coffee break**
- Session 6: Update of Li-batteries collection and recycling**
Session Chairman: Prof. Bruno Scrosati, University of Rome, Italy
- 11.00 – 11.30 "Umicore recycling service: Unique closed loop solution for Li-ion batteries"
Daniel Cheret, Umicore Recycling Solutions, Belgium
- 11.30 – 12.00 "Risk and safety aspects of waste Li-batteries"
Herbert van Deutekom, Bureau van Deutekom, Netherlands
- 12.00 – 12.30 "Producing of high quality chemicals and materials from the products of recycling of Li-batteries"
Dr. Andriy Plakhotnyk, National Ecological Center of Ukraine, Ukraine
- 12.30 – 13.30 **Lunch buffet**

Who should attend ?

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

Organizer of the ICBR

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Jeanette Duttlinger
Congress Organizer



Petra Fiorentin
Congress Assistant



Erika Noé
Congress Assistant



Virginia Keller
Congress Assistant



Sandra Ammann
Congress Assistant



Veronica Liu Ying
Congress Assistant



Networking Dinner

On June 2, 2004 we will organize for the participants an unforgettable evening on the beautiful island Comacina, the unique island on the Lake Como.

Don't miss this perfect possibility to meet your business partners and friends. You may register to this evening by means of the registration form.

Beautiful Como

Why not extend your stay in Como?

Along the banks of the Como basin lie countless 18th century villas surrounded by luxurious gardens whose splendour are evidence of the charm the Como area has exerted over the years.

Picturesque villages of stone houses set on the shores of the lake characterize these enchanting banks where time seems to have stood still.

The city of Como is important for its silks, unique in their refinement and novelty. Another widespread craft in the surrounding area, or more precisely around the town of Cantù "city of furniture", is that of wood manufacturing.

www.comolake.com



Registration Fees

Registration for the congress should be made by means of the registration form. Participants registering and paying **before April 30, 2004** will benefit from a reduced registration fee.

Congress Fee	before April 30, 2004	after April 30, 2004
Participants	€ 1'150.-	€ 1'300.-
Speakers	€ 690.-	€ 790.-
Students	€ 390.-	€ 450.-
Networking dinner	€ 90.-	€ 100.-
Networking dinner for accompanying person	€ 100.-	€ 110.-

Additional Proceedings

If it is not possible for you to attend the congress, you can purchase the complete proceedings at EUR 340.-. Participants will get the proceedings free of charge.

Payment

Payment should be made in EUR by bank transfer or by credit card.

Bank: Neue Aargauer Bank, 5300 Turgi, Switzerland
Beneficiary: ICM AG
Account no.: 447941-72, Swift code: CRESCHZZ 80A in favour of: AHHBCH 22
Clearing: 5885
IBAN no.: CH73 0588 5044 7941 7200 0

Exhibition

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

The fee for a typical exhibition stand (1.5 m x 3 m) is EUR 3'000.- for the full time of the conference.

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