

## 6th World Recycling Forum WRF 2011

International Conference & Exhibition on Electronics, **Battery & Car Recycling** 

November 15 - 18, 2011, Hong Kong





## Supported by:

Call2Recycle®, USA

China Automotive Technology and Research Center (CATARC) China Industrial Association of Power Sources (CIAPS) Japan Automobile Manufacturers Association (JAMA) Japan Automotive Recyclers Association (JARA) Korea Automobile Manufacturers Association (KAMA) Korea Institute of Geoscience & Mineral Resource (KIGAM) The Rechargeable Battery Association (PRBA), USA WEEE Forum, Belgium































## **FOREWORD**

## PROFESSOR DUAN WENG

Chairman of the Steering Committee 6<sup>th</sup> World Recycling Forum Hong Kong Hong Kong – the door into the Pacific Rim – a place where business leaders and investors meet

The 6<sup>th</sup> World Recycling Forum (WRF 2011) will be another successful event. Speakers from all over the world tell about the news and challenges of the industry regarding recycling and the circular economy.

Many associations, a diversified Steering Committee, powerful sponsors and interesting exhibitors welcome the Forum Participants from all over the world. Meet your clients, friends and partners at a beautiful place in booming Hong Kong. An excellent networking dinner, cocktail receptions and the heartbeat of the city will give you the floor to share your experience among other leaders from the recycling sector. Learn from the others and get the latest information from the markets.

Hong Kong is known as one of the Four Asian Tigers for its high growth rates and rapid development. More than 7 Million people live in Hong Kong with a population density of about 6,500 people per square kilometer!

The excellent infrastructure such as a modern airport, one of the world largest container ports, international banks and the multilingual business opportunities with China, India and Malaysia make Hong Kong as the number one hub for business for foreigners.

Huge tonnages of raw materials, products and semi products are traded between China and the world markets via Hong Kong. On the other hand also huge tonnages of raw materials

and valuable wastes are imported into China for recovery and recycling. China is on the way to become the world's largest recycling nation. The technical standards and levels get better very rapidly. Chinese electronics, battery and car producers want to keep the recycling and of course the whole raw materials chain in their own hands. This is totally different than in the USA and Europe!

The organizer of WRF is offering once more very interesting plant tours in the vicinity of Hong Kong and in Mainland China. Take the chance and visit outstanding manufacturing and recycling companies. It is a gorgeous program.

I wish all participants an interesting and pleasant stay and look forward to meeting you in beautiful Hong Kong!



## **KEYNOTE SPEAKERS**



PROF. DUAN WENG

Tsinghua University
Institute for Energy & Environment Materials
Director
China

"IMPACT OF CHINA'S INCREASE OF POPULATION ON THE RECYCLING INDUSTRY"



Hewlett-Packard Head of Environmental Management Asia Pacific and Japan

"E-WASTE LEGISLATION IN ASIA PACIFIC"





Hartwell Pacific/Oaktree Capital Hong Kong



"STARTING FROM SCRAP: A HONG KONG ENTREPRENEUR'S STORY"



## INTERNATIONAL STEERING COMMITTEE

## **CHAIRMAN**



PROF. DUAN WENG Tsinghua University, Institute for Energy & Environment Materials, Director China





ROGER BURRI Air Mercury AG President Switzerland

## **MEMBERS**



GENKICHI ANDO Seinan Corporation President Japan



VINCENT BARTIN Bel A Venture s.p.r.l. Manager Belgium



TODD COY
Kinsbursky Brothers, Inc.
Executive Vice President
USA



PROF. HUANZHENG DU Institute of Recycling Economic Technology of the Yangtze Delta Area Zhejiang Province, Director China



JEAN-PHILIPPE FUSIER MTB Recycling President France



ALFRED HAMBSCH GEEP – Global Electric Electronic Processing Inc. Vice President Canada



ERIC HARRIS
ISRI, Inc.
Director of Government
and International Affairs
USA



PAUL HEALEY Xstrata Copper Senior Director Recycling Canada



PATRICK HENRION
Xstrata Nickel International S.A.
Manager Raw Materials
Belgium



JOSEPH M. HOLSTEN LKQ Corporation CEO USA



PROF. THEO LEHNER
Boliden Mineral AB
Manager Business Development
Sweden



SONG JIANG China Nonferrous Metal Industry Resource Regenerating Co., Ltd. General Manager China



PROF. JINHUI LI Tsinghua University China



ANDREAS KREBS Batrec Industrie AG Managing Director Switzerland



FUKUAN LU Shanghai Society of Environment Sciences (SSES) Vice Chairman China



JILL LEDGER SAFT Corporate Communication and Investor Relations Director France



PROF. HSIAO-KANG MA National Taiwan University Department of Mechanical Engineering Taiwan



**DR JAE-CHUN LEE**Korea Institute of Geoscience
and Mineral Resources
(KIGAM), Principal Researcher
Korea



SCOTT NEWELL
The Shredder Company, LLC
Chairman and CEO
USA

## INTERNATIONAL STEERING COMMITTEE



KAZUMI NOZAWA

IBM Corporation, Program Manager,
Environmental Policy & Programs
Japan and ASEAN countries
Japan



RICHARD PAUL LKQ Corporation Manager Environmental and Sustainability Programs USA



KUMAR RADHAKRISHNAN Sims Recycling Solutions Senior Vice President – Recycling Solutions – Asia Pacific Australia



STEPHAN SCHWARZ environplasma Managing Director Germany



Chairman of ICBR University La Sapienza (Rome) Department of Chemistry Italy

PROF. BRUNO SCROSATI



CHRIS SLIJKHUIS
MBA Polymers, Inc.
Director Sourcing Europe
USA/Austria



CARL E. SMITH
Call2Recycle®, operated by RBRC
CEO/President
USA



DOUGLAS SMITH
Sony Electronics Inc.
Director, Corporate Environment,
Safety and Health
USA



MARK TOMASZEWSKI Inmetco Inc. President USA



**ANJA TOMAZIC**General Motors / Adam Opel AG
ELV, Manager Business Relations
Germany



**DR JAN TYTGAT**Umicore Battery Recycling
General Manager
Belgium



**DR JEAN-POL WIAUX**RECHARGE
Manager
Belgium



DR KAIHUA XU Shenzhen GEM High-Tech Co., Ltd. President China



JOSEPH YOB
Creative Recycling Systems, Inc.
Business Development Manager
USA



NAIJIN ZHENG
China Automotive, Technology &
Research Center, Automotive Data
Center, Deputy Chief Engineer /
Senior Engineer, China



JOE ZHOU Global Metals Co., Ltd. President China

## **MEDIA PARTNERS**



MANFRED BECK
Recycling International Magazine
Publisher & Editor
Netherlands



STEPHAN PETER KRAFZIK
Recycling Magazin
Senior Editor
Germany



ADAM MINTER Shanghai Scrap Freelance Recycling Industry Journalist China



BRIAN TAYLOR
Recycling Today
Associate Publisher/Editorial
Director
USA



MIKE THIRD

Auto Recycling Australia Magazine

Publisher

Australia



XIN ZHAI Resource Recycling Chief Editor China



## HONG KONG - PEARL OF THE ORIENT



The 6<sup>th</sup> World Recycling Forum will be held from **November 15 – 18, 2011** in the beautiful hotel Harbour Grand Kowloon in exciting Hong Kong.

## Hotel Harbour Grand Kowloon \*\*\*\*\*

20 Tak Fung Street, Whampoa Garden Hunghom, Kowloon, Hong Kong

Phone +852 2621 3188 Fax +852 2621 3311

www.harbourgrand.com/kowloon







Hong Kong is a city that works. It has a solid infrastructure and efficient transportation network as well as thousands of fine restaurants and tastes. It holds a beautiful concentration and diversity of cultures. One can explore plenty of vegetation, country parks, and exotic outlying islands plus one of the world's greatest skylines and waterways - the Victoria Harbour. Hong Kong is the regional hub for business in Asia. With 7 million residents in just 1.000 square kilometers (400 square miles), this vibrant city possesses an amazing network of the cleanest and most convenient modes of transport and of course a world-class airport. A bustling metropolis? Yes, but Hong Kong is also 70% vegetation, where hikers, climbers and travel groups traverse the land for recreation and relaxation. And its outlying islands prove lovely tropical getaways for residents and visitors.





www.discoverhongkong.com

## HOTEL ACCOMMODATION

For the participants of the forum a number of rooms are held at a special rate if you register before October 14, 2011. If you wish, you may also extend your stay at this lovely hotel at the same special rate.



## Hotel Harbour Grand Kowloon \*\*\*\*\*

20 Tak Fung Street, Whampoa Garden Hunahom, Kowloon Hong Kong

Phone +852 2621 3188 +852 2621 3311

www.harbourgrand.com/kowloon



(Forum place)



## **FORUM STRUCTURE**

## TUESDAY, NOVEMBER 15, 2011 / PLANT TOURS

11.00 – 19.00 Registration

13.00 - 17.00 Plant tour 1 13.00 – 17.00 Oil recycling & treatment centre **Dunwell Group**, Hong Kong E.T.M., Hona Kona

Plant tour 2 Electronics recycling plant

13.00 - 17.00 Plant tour 3 Chemical Waste Treatment Centre Ecospace Ltd., Hong Kong

17.00 – 19.00 Welcome reception

19.00 Steering Committee Meeting (I)

## WEDNESDAY, NOVEMBER 16, 2011 / CONFERENCE & EXHIBITION

08.00 – 09.00 Registration, welcome coffee and tea

09.00 - 12.30 **Keynote Speakers & Panel Discussion** 

12.30 – 14.00 Lunch

14.00 - 15.30

14.00 - 15.30

Electronics & Battery Recycling Session (I)

Electric Vehicle & Battery Recycling Session (I)

16.00 - 17.00

Electronics & Battery Recycling Session (II)

16.00 - 17.00

Car Recycling Session (II)

19.00

Cocktail reception & networking dinner

## THURSDAY, NOVEMBER 17, 2011 / CONFERENCE & EXHIBITION

08.00 – 09.00 Coffee and tea

09.00 - 10.00

09.00 - 10.00

Electronics & Battery Recycling Session (III)

Car Recycling Session (III)

10.30 - 11.30

Electronics & Battery Recycling Session (IV)

10.30 - 11.30

Car Recycling Session (IV)

11.30 - 13.00 Lunch

13.00 - 14.30

Electronics & Battery Recycling Session (V)

13.00 - 14.30

Car Recycling Session (V)

15.00 - 16.00 Electronics & Battery Recycling Session (VI)

16.00 – 17.00 Cocktail reception

17.00 Steering Committee Meeting (II)

## FRIDAY, NOVEMBER 18, 2011 / PLANT TOURS

07.00 - 19.00 Plant tour 4\* Electronics manufacturing plant Wistron South China, Zhongshan 07.00 - 19.00 Plant tour 5\* Plastics recycling plant

GISE-MBA, Guangzhou

07.00 - 21.00 Plant tour 6\*

Alkaline and Li-ion battery recycling plant & car manufacturing plant Tele Battery Recycle & BYD, Shenzhen

<sup>\*</sup>China visa is required to attend these plant tours!

TUESDAY, NOVEMBER 15, 2011

## DUNWELL GROUP, HONG KONG



## Visit of the oil recycling and treatment centre

**13.00** Departure by bus from the hotel Harbour Grand Kowloon to Dunwell Group

14.00 Arrival at Dunwell Group

14.00 – 16.00 Visit of the oil recycling and treatment centre
 17.00\* Arrival at the hotel Harbour Grand Kowloon

In 1993, Dunwell acquired an Australian bankrupted operation that lost USD 10 million from used oil re-refining activities. With much forward looking management and investment in innovative technologies, Dunwell has turned around this 100,000 sq. ft. used lubricant recycling facility to handle about 85% of used lubricant generated in Hong Kong and become an environmental pioneer within Asia Pacific.

From recycling, Dunwell has been able to turn the waste lubricants into high quality, green lubricants and market to clients such as the local government, construction industries, power utility, different manufacturers and vehicle users locally and overseas.

Apart from used lubricants recycling, Dunwell especially serves the auto dealers in Hong Kong for waste oily effluent treatment, solvent recovery and lead acid battery handling, treatment and recycling. These are all classified by the Environmental Protection Department of HKSAR Government as chemical wastes that have to be properly handled only by licensed facilities.

Realizing the high temperature (350°C), high operation cost and limitation of wiped film evaporation (WFE) process, Dunwell has developed a proprietary vibratory membrane technology into Vibratory Membrane Advanced Treatment (VMAT) which is a highly effective, low cost, low temperature (90°C) process for used lubricant recycling.

More information at: www.dunwellgroup.com

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

## Your Asian Partner lubricant recycling & wastewater treatment



The technological breakthrough of VMAT used lubricant recycling system has enabled Dunwell to win four important international awards:

- 2008 PRC National Environmental Science Award The Silver Prize (at Beijing, China)
- 2006 IChemE Awards Environment Award (at London, U.K.)
- 2006 Wall Street Journal Asian Innovation Award Bronze Medalist (at Singapore)
- 2005 Hong Kong Awards for Industry: Machinery & Equipment Design Category Grand Award (at Hong Kong)

These different award organizers (representing world class expertise in the areas of technological advancement and financial/commercial achievements) recognized Dunwell's restless effort in practicing Corporate Social Responsibility (CSR), and in particular, the engineering capability, innovative design, as well as the commercial sensibility of Dunwell's VMAT, the world's first commercialized vibrating membrane used oil recycling system.

8 Wang Lee Street, Yuen Long Industrial Estate, N.T., Hong Kong

Tel: (852) 2443 8188 Fax: (852) 2789 3346

Website: http://www.dunwellgroup.com Email: Info@dunwellgroup.com

TUESDAY, NOVEMBER 15, 2011



## E. TECH MANAGEMENT (HK) LTD., HONG KONG

## Visit of the electronics recycling plant

**13.00** Departure by bus from the hotel Harbour Grand Kowloon to E.T.M.

14.00 Arrival at E.T.M.

14.00 – 15.30 Visit of the electronics recycling plant
 17.00\* Arrival at the hotel Harbour Grand Kowloon

## Recycle Today, Save Tomorrow

**E.T.M. (E. Tech Management Ltd.)** is a leader of electronic recycling based in Hong Kong and North America. As a local electronic recycler and raw materials supplier in Asia, top security recycling and environmental protection are our prioritized considerations. We also strongly believe that our 3R mission "reduce", "reuse", "recycling" is the best way for us to keep the economy growing and minimize destruction to the environment. In our 100,000 SQF recycling plant, E.T.M. is able to handle any kind of E-Waste over 1000 ton in a month, through sorting, separating, dismantling, baling and data-secure removing. To further improve our service, any positive comments and suggestion from you would be highly appreciated.

More information at: www.e-techmanagement.com

E.T.M





## Recycle Today Save Tomorrow

## E.Tech Management (HK) Ltd.

is a business specializing in sourcing, processing and exporting of various productive raw materials to different industry manufacturers. We are interested in collecting various kinds of computer, plastic, non ferrous and E-scrap materials from many qualified recyclers around the world.

We also offer professional disposal of telecom, computer, electronic equipments. We ensure all those obsolete equipments are disposed in an environmentally friendly manner.













## E.Tech Management (HK) Ltd.

Unit 1-3, 29/F, CEO Tower, 77 Wing Hong Street, Lai Chi Kok, Kowloon, Hong Kong Tel: 852-24462566 Fax: 852-24160266 e-mail: info.etmhk@gmail.com website: www.e-techmanagement.com

<sup>\*</sup> No guarantee on arrival time due to traffic conditions.

TUESDAY, NOVEMBER 15, 2011

ECOSPACE LIMITED 衡力化學廢料處理有限公司

ECOSPACE LTD., HONG KONG

## Visit of the Chemical Waste Treatment Centre and the mercury recovery facility

**13.00** Departure by bus from the hotel Harbour Grand Kowloon to Ecospace Ltd.

14.00 Arrival at Ecospace Ltd.

14.00 – 15.30 Visit of the Chemical Waste Treatment Centre & the mercury recovery facility

17.00\* Arrival at the hotel Harbour Grand Kowloon

**Ecospace Limited** is the contractor appointed by the Hong Kong SAR Government Environmental Protection Department to operate the Chemical Waste Treatment Centre (CWTC) for 10 years starting from 2009, upgrade the Facility to meet emission standards of the European Union, and construct a reception and storage building for the management of clinical waste.

Located at Tsing Yi Island, the Facility occupies an area of about 2 hectares. It is the only facility of its kind in Hong Kong that provides collection as well as various treatment services for all land-based chemical waste generated by local industries and the marine pollutants (MARPOL waste Annex I and II) generated from ocean-going and local vessels. The designed treatment capacity is 100,000 metric tonnes per year. Major treatment processes include incineration, physical-chemical treatment, oil-water separation, chemical stabilization and mercury recovery.

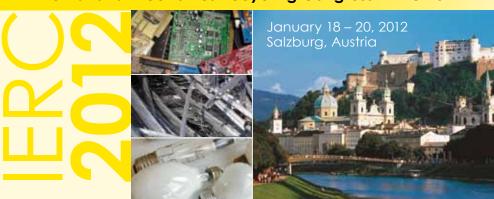
ECOSP

## **Upcoming ICM Events:**

16<sup>th</sup> International Congress for Battery Recycling ICBR 2011



11th International Electronics Recycling Congress IERC 2012



12<sup>th</sup> International Automobile Recycling Congress IARC 2012





<sup>\*</sup> No guarantee on arrival time due to traffic conditions.

## FORUM PROGRAM WRF 2011

| TUESDAY,<br>11.00 – 19.00<br>13.00 – 17.00<br>17.00 – 19.00 | NOVEMBER 15, 2011 Registration in the exhibition area Plant tours 1 & 2 & 3 Welcome reception  |  |  |  |  |
|---|--|--|--|--|--|
| WEDNESDAY, NOVEMBER 16, 2011                                |  |  |  |  |  |
| 08.00 - 09.00   | Registration, welcome coffee and tea   |  |  |  |  |
| 09.00 – 09.15   | "Welcome and Introduction" by Roger Burri, Co-Chairman of the Steering Committee   |  |  |  |  |
| 09.15 – 11.00   | KEYNOTE SPEAKERS   |  |  |  |  |
|   | "Impact of China's increase of population on the recycling industry"  Prof. Duan Weng, Tsinghua University, China  |  |  |  |  |
|   | "Starting from scrap: A Hong Kong entrepreneur's story"  Stephen Hartwell Greer, Hartwell Pacific/Oaktree Capital, Hong Kong   |  |  |  |  |
|   | "E-Waste Legislation in Asia Pacific"  Annukka Dickens, Hewlett-Packard, Asia Pacific and Japan  |  |  |  |  |
| 11.00 – 11.30   | Coffee break in the exhibition area  |  |  |  |  |
| 11.30 – 12.30   | PANEL DISCUSSION  "Is China becoming the world's leading recycling nation?"  Moderator: Adam Minter, Shanghai Scrap, China  Participants: Michel Dubois, Recylux Group, Luxembourg Stephen Hartwell Greer, Hartwell Pacific/Oaktree Capital, Hong Kong Prof. Jinhui Li, Tsinghua University, China |  |  |  |  |
| 12.30 – 14.00   | Joe Yob, Creative Recycling Systems, Inc., USA  Lunch in the exhibition area   |  |  |  |  |

| Session 1:    | Electronics & Battery Recycling<br>Session Chairman: Kazumi Nozawa,<br>IBM Japan Ltd., Japan   | Parallel Session 1: <u>Electric Vehicle &amp; Battery Recycling,</u> Session Chairman: Dr Andreas Röthlisberger, WEEE Forum, Belgiur   |
|---------------|--|--|
| 14.00 – 14.30 | "Closing the loop at Philips<br>Consumer Lifestyle"<br>Eelco Smit, Philips Consumer<br>Lifestyle (CL), Netherlands   | "Recycling of future electric vehicles: Recycling technologies follow the product"  Anja Tomazic, General Motors/Adam  Opel AG, Germany  |
| 14.30 – 15.00 | "8 years of WEEE in Europe<br>moving some of the myth"<br>Klaus Hieronymi, Hewlett-Packard,<br>Europe – Middle East – Africa   | "Smartgrids and eMobility: Purpose<br>and impact on recycling from Euro-<br>pean & Global perspectives"<br>Alfons Westgeest, EUROBAT, Belgium  |
| 15.00 – 15.30 | "Update of development on<br>electronics recycling in China"<br>Prof. Jinhui Li, Tsinghua University,<br>China   | "Characterization of used electrical vehicle<br>lithium ion batteries for recycling of valu-<br>able metals" <b>Sravya Kosaraju</b> , <b>Chalmers</b><br><b>University of Technology</b> , <b>Sweden</b> |
| 15.30 – 16.00 | Coffee break in the exhibition area  |  |
| Session 2:    | Electronics & Battery Recycling Session Chairman: Prof. Hsiao-Kang Ma, National Taiwan University, Taiwan  | Parallel Session 2: <u>Car Recycling</u><br>Session Chairman: Genkichi Ando,<br>Seinan Corporation, Japan  |
| 16.00 – 16.30 | "Update and challenges of the electronics and lamps recycling business in USA"  Jon Yob, Creative Recycling Systems, Inc., USA   | "Undertaking of derelict end of life<br>vehicles (ELV) in developing countries"<br>Minoru Goko, Japan Automotive<br>Recyclers Association (JARA), Japan  |
| 16.30 – 17.00 | "Sustainable development via<br>recovery of copper and precious<br>metals from recycled electronics at<br>Xstrata Copper's Horne Smelter"<br>Paul J. Healey, Xstrata Copper,<br>Canada | "The opportunity and challenge of ELV recycling in China"  Jing Chai, CATARC, China  |
|               |  | 1  |

Cocktail reception & networking dinner

19.00

## **FORUM PROGRAM WRF 2011**

Flectronics & Rattery Recycling

| THURSDAY, | NOVEMBER | 17, 2011 |
|-----------|----------|----------|
|-----------|----------|----------|

Technology, Sweden

11.30 – 13.00 Lunch in the exhibition area

Session 3.

| session 3:    | Session Chairman: Jill Ledger,<br>SAFT, France   | Session Chairman: Scott Newell, The Shredder Company, LLC, USA   |
|---------------|--|--|
| 09.00 – 09.30 | "North America's capacity to recycle consumer batteries"  Carl E. Smith, Call2Recycle®, USA            | "Application of HARDOX wear plate in<br>car recycling"<br>Dr Fenwei Su, SSAB Swedish Steel Ltd.<br>SSAB APAC, China                          |
| 09.30 – 10.00 | "Separation technologies for mixed<br>WEEE plastics"<br>Dr Rainer Koehnlechner, Hamos<br>GmbH, Germany | "Used engine oil recycling develop-<br>ment & challenges in Hong Kong and<br>Asian regions" Ir. Daniel M. Cheng,<br>Dunwell Group, Hong Kong |
| 10.00 – 10.30 | Coffee break in the exhibition area  |  |
| Session 4:    | Electronics & Battery Recycling Session Chairman: Dr Jae-Chun Lee,                                     | Parallel Session 4: <u>Car Recycling</u><br>Session Chairman: <u>Richard Paul</u> ,  |
|               | Korea Institute of Geoscience and<br>Mineral Resources (KIGAM), Korea                                  | LKQ Corporation, USA   |
| 10.30 – 11.00 |  | "The evolution within the car recycling industry" Christer Sundberg, Scandinavia EcoTech, LLC, China   |

| ment & challenges in Hong Kong and<br>Asian regions" Ir. Daniel M. Cheng,<br>Dunwell Group, Hong Kong   |
|---|
|   |
| Parallel Session 4: <u>Car Recycling</u><br>Session Chairman: <u>Richard Paul,</u><br>LKQ Corporation, USA  |
| "The evolution within the car recycling industry" Christer Sundberg, Scandinavia EcoTech, LLC, China  |
| "Why we shred: An investigation of<br>the evolving benefits of shredding in<br>the recycling, steel, and nonferrous<br>industries"<br>Scott Newell, The Shredder Company,<br>LLC, USA |

Parallel Session 3: Car Recycling

Session 5: **Electronics & Battery Recycling** Parallel Session 5: Car Recyclina Session Chairman: Chris Slijkhuis, Session Chairman: Scott Horne, Institute of MBA Polymers Austria GmbH, Austria Scrap Recycling Industries, Inc. (ISRI), USA 13.00 – 13.30 "One year on, the experience with "CO2 - certification from recycling certifying electronics recyclers in the processes?" e-Stewards program" Dr Beate Kummer, Kummer Umweltkommunikation GmbH, Germany Jim Puckett, BAN, USA 13.30 - 14.00 "Improving the end-of-life for "Automobile shredding 101: Choosing electronic materials via sustainable equipment for long term success" recycling methods" Mark Ridall, Wendt Corp., USA Michael Korzenski, ATMI, USA 14.00 – 14.30 "Update on worldwide recycling laws "Cutting edge technology - the and regulations to use the WEEE legisla-HAMMEL scrap metal processing plant" tion in Europe as a mirror to look upon Siegfried Lohmeier, Hammel Recyclingthe opportunities (and challenges) in technik GmbH, Germany particularly China" Phär Oscár, Stena Technoworld AB. Sweden 14.30 – 15.00 Coffee break in the exhibition area Session 6: **Electronics & Battery Recycling** Session Chairman: Stephan Schwarz. environplasma Verwertungscenter GmbH, Germany 15.00 - 15.30 "Disposal and recycling of small appliances" Peter Hessler, UNTHA Recycling GmbH, Germany 15.30 – 16.00 "Post consumer recycled (PCR) plastic makes OEMs greener" Eric Wang, MBA Polymers, Inc., China 16.00 – 17.00 Cocktail reception in the exhibition area

FRIDAY, NOVEMBER 18, 2011

07.00 - 19.00 Plant tours 4 & 5 (China visa is required!) 07.00 – 21.00 Plant tour 6 (China visa is required!)



FRIDAY, NOVEMBER 18, 2011

## WISTRON SOUTH CHINA OPERATION, ZHONGSHAN



## Visit of the electronics manufacturing plant

**07.00** Departure by bus from the hotel Harbour Grand Kowloon to Wistron

11.00 Arrival at Wistron

11.00 – 14.30 Visit of the electronics manufacturing plant 19.00\* Arrival at the hotel Harbour Grand Kowloon

Founded in 1999 **Wistron South China Operation** is one of six manufacturing campuses operated by Wistron Corporation in North America, Europe and Asia. Wistron is among the world's largest original design manufacturer (ODM) companies producing information and communication technology (ICT) products including mobile and handheld devices, servers and storage, information appliances, LCD TVs and monitors, networking, and communication products. Wistron is a leader in the delivery of a broad range of ICT services to globally recognized companies, aligning extensive engineering resources to develop leading products and services.

Utilizing comprehensive product development experience, as well as partnerships with leading technology companies, Wistron incorporates the latest technology platforms into product offerings for OEM customers. Design teams cover all pre-manufacturing areas from initial product conceptualization and prototyping to design-for-manufacturing, test, and service. Manufacturing teams assist with all aspects of product development from PCB layout to full system integration, including CTO. After-sales service teams collaborate with customers' service teams or customers' outsourced service partners to develop customized service business models and integrated reverse logistics programs.

Wistron was included in Forbes magazines' Asia FAB 50 (Asia Pacific's best big public listed companies) in 2007, 2008, and 2009. Wistron employs 50,000 people in 18 offices worldwide with revenue of over US\$ 21 billion.

More information at: www.wistron.com

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

# the 6<sup>th</sup> World Recycling Forum





protect our plane

ktop/server PCs. As a major designer, manufacturer, and after-sales service vider for electronics products we are in a prime position to support product's re life cycle. In partnership with leading recyclers, Wistron is creating the to-cradle closed-loop solutions needed to protect our planet.

company with 50,000 employees. To m. For information about Wistron's earn more about Wistron עופו: www.wistrecycling life cycle solutions contact: Frank\_ worldwide, Wistron is Providing services

Wistron



FRIDAY, NOVEMBER 18, 2011

## **GUANGZHOU GISE-MBA NEW PLASTICS** TECHNOLOGY CO., LTD. (GMP), GUANGZHOU



## Visit of the plastics recycling plant

07.00 Departure by bus from the hotel Harbour Grand Kowloon to GMP

11.00 Arrival at GMP

11.00 - 14.30Visit of the plastics recycling plant

19.00\* Arrival at the hotel Harbour Grand Kowloon

Guangzhou GISE-MBA New Plastics Technology Co., Ltd (GMP) is a Sino-US Joint Venture between Guanazhou Iron & Steel Enterprise Group (GISE) and MBA Polymers Inc. (MBA) with a total investment of US \$17 million. GMP is located in the Nansha District of Guangzhou, China. It produces high quality, recycled plastics of ABS, HIPS and PP from 100% post-consumer plastic from durable goods (appliances, electronics and automobiles). Operations began in the 3<sup>rd</sup> quarter of 2005. GMP has the capacity to processes 40,000 tons of mixed scrap plastics per year.

GMP utilizes MBA technology which is entirely mechanical using no chemicals and thus entirely safe environmentally. MBA technology offers a revolutionary solution to post-consumer plastic (PCR) recycling. It shifts the recycling of mixed plastics from impossible to possible, from environmentally dangerous to environmentally safe, from traditionally labor-intensive (and inaccurate manual) sorting to high-tech based automated separation.

GMP produces consistent virgin-like quality PCR plastic resin. Its EvoSourceTM premier finished goods are UL certified and are widely applied to electronic OEM products. Compared to producing virgin plastic, GMP consumes less than 10% of the energy and reduces production of CO<sub>2</sub> from 1.5 kilo to 2.5 kilo for each kilo of PCR resin produced. GMP is proud to contribute to global CO<sub>2</sub> reduction and to play a leading role in the growing global plastic recycling industry.

More information at: www.gisemba.com



## CIMIP 广州广钢MBA塑料新技术有限公司

Guangzhou GISE-MBA New Plastics Technology Co., Ltd(GMP)



完全再生塑料、媲美新料品質、大規模工業化生產

"World leading technology, post consumer recycled plastic, virgin quality, industrialized production"

## 產品種類及其適用產業與產品

廣州廣鎭MBA型料新技術有限公司向客户提供高質量的再生ABS/HIPS/PP. 廣泛應用于家電,電腦,汽車等用途。

Guangzhou GISE-MBA New Plastics Technology Co., Ltd(GMP)provides the high quality recycled ABS/HIPS/PP to the customers, multi application in home appliance, computer, autos, etc.













## 技術應用與發展

MBA Polymers has developed a number of revolutionary processes where it is possible to economically recover distinct types and even grades of plastics from highly mixed post consumer . MBA聚合物公司研發了數種革命性的塑料分離技術,能够經濟地從非常混雜的塑料 混合物中按塑料種類甚至塑料的級别將它們分離出來。

MBA Polymers has received international recognition and awards:



Dr. Crang Servett John need and getta Dr. Bride over times all night abou Geine also gels fin







Total Tech Laureaty for 2006.

<sup>\*</sup> No guarantee on arrival time due to traffic conditions.



FRIDAY, NOVEMBER 18, 2011

## TELE BATTERY RECYCLE & BYD AUTO COMPANY LIMITED, SHENZHEN



## Visit of the alkaline and Li-ion battery plant and the car manufacturing plant

**07.00** Departure by bus from the hotel Harbour Grand Kowloon

to Tele Battery Recycle

10.00 Arrival at Tele Battery Recycle

10.00 – 13.00 Visit of the alkaline and Li-ion battery recycling plant

13.00 Departure to BYD14.30 Arrival at BYD

14.30 – 16.30 Visit of the car manufacturing plant

21.00\* Arrival at the hotel Harbour Grand Kowloon

**Tele Battery Recycle Technology Co., Ltd.**, headquartered in the Bao'an District in Shenzhen, with the facility located in Shaoguan, is a high and new technology company, experted in the reclaiming technology of rechargeable batteries, such as Li-ion, Li-polymer, Ni-MH, Ni-Cd, and reuse the substance in the batteries, including lithium, Cobalt, Nickel, Zinc etc.

The R&D team in Tele is leading in the battery reclaimed technology and we have strong ability and rich experience in converting new technology to commercial scale.

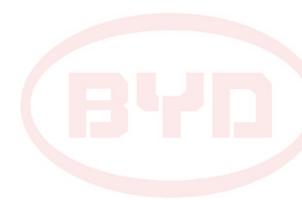
Relying on the corporate culture stressing on "Science & Technology innovates green life", and advanced technology and equipment, capable manpower and scientific management mode, our company has grown to be one of China's largest recycling enterprises integrating recovery, processing and sales of lithium, nickel and cobalt. We are chasing the objective of "Battery makes our life smart and environment-friendly" and contributing in energy recycling and environmental protection to the society.

More information at: www.telerecycle.com



Established in 1995, **BYD Company Limited** (BYD for short) is a high-tech enterprise listed on the Hong Kong Stock Exchange. It is a top high-tech enterprise in China specializing in IT, automobile, and new energy. BYD has the largest market share for Nickel-batteries, handset Li-ion batteries, cell-phone chargers and keypads worldwide. It is the largest supplier of rechargeable batteries and has the second largest market share for cell-phone shells in the globe. BYD Auto becomes the most innovative independent national auto brand with a growth rate of over 100% for recent consecutive 5 years and leads the field of electric vehicles with unique technologies. In the field of new energy, BYD has developed green products such as Electric Vehicles, Energy Storage Stations and Solar Power Stations. It will continue to lead the new energy revolution in the world!

More information at: www.byd.com



<sup>\*</sup> No guarantee on arrival time due to traffic conditions.



www.telerecycle.com

## Battery we collect -



- ①Li-ion battery
- ②Ni-MH battery
- ③Ni-Cd battery

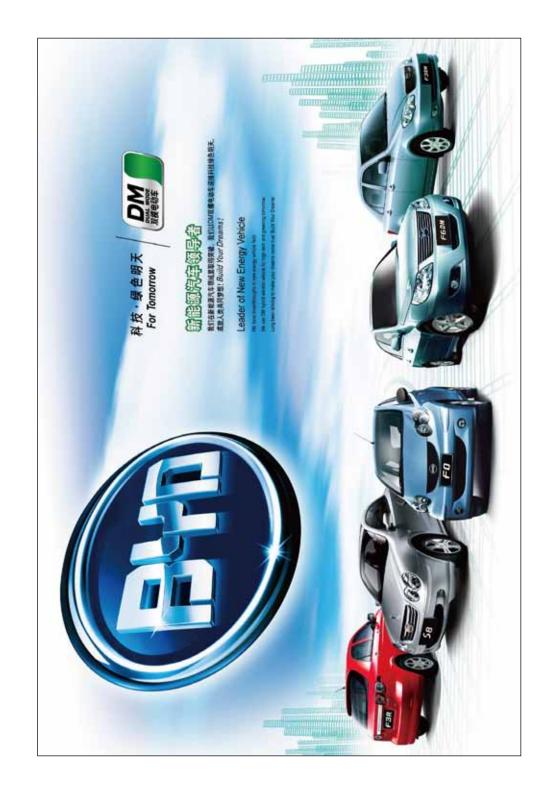
## Battery we recycle —

- ① Li-ion battery used in Mobile phone, Notebook, EV, Digital camera and power tool
- 2 Alkaline battery

## **Recycling Flow Chart**



TELE BATTERY RECYCLE CO.,LTD





## **EXHIBITION**

## **NETWORKING DINNER**



On Wednesday, November 16, a special networking dinner will be organized in exciting Hong Kong.

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





Meet friends and business partners in a relaxed atmosphere!



## As per August 2, 2011:



Albert Hoffmann GmbH, Germany



Hamos GmbH Recycling- und Separationstechnik, Germany



HAMMEL Recyclingtechnik GmbH, Germany



Li Tong Group, China



Logan Oil Inc., USA



MRT System International AB, Sweden



Scandinavia EcoTech LLC, China



The Shredder Company LLC, USA



TiTech GmbH, Germany



TradeScrap.com, USA



UNTHA Recyclingtechnik GmbH, Germany



Vecoplan AG, Germany



Wendt Corp., USA



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

info@icm.ch www.icm.ch Registration for the forum should be made by means of the registration form. Participants registering and paying before September 30, 2011 will benefit from a reduced registration fee. The registration fee includes conference, entrance to the exhibition, proceedings and luncheons.

# OFFICE OF

## **REGISTRATION FEES**

## WHO SHOULD ATTEND?

- Electronics, battery and car manufacturers (OEMs)
- Components & parts suppliers
- Ferrous & non ferrous traders
- Shredding companies
- Recycling and dismantling companies
- Collection and transportation companies
- Financing organizations for WEEE, used batteries and ELV
- Plastic industry
- Steel industry
- Non ferrous metal industry
- Ferrous and stainless steel industry
- Environmental authorities
- Universities and research institutes
- Laboratories for materials science
- Consultants

## ORGANIZER OF WRF 2011



JEANETTE
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Forum Organizer



CORINNE KONRAD Forum Assistant



**CLAUDIA GERSTENDÖRFER**Forum Assistant



YING LIU REICHENBACH Forum Assistant



SUSANN SCHMID Forum Assistant



SIBYLLE ZIMMERLI Forum Assistant



MIRJAM WAGNER Forum Assistant

| Forum Fee  |                      | before<br>Sept. 30, 2011 |                      | after<br>Sept. 30, 2011 |  |
|--|----------------------|--------------------------|----------------------|-------------------------|--|
| Participants<br>Speakers<br>Universities, government & authorities   | US\$<br>US\$<br>US\$ | 1'490<br>990<br>590      | US\$<br>US\$<br>US\$ | 1'590<br>1'090<br>690   |  |
| Networking dinner (Nov. 16, 2011)<br>Networking dinner for accompanying<br>person (Nov. 16, 2011)  | US\$<br>US\$         | 100.–<br>120.–           | US\$<br>US\$         | 120<br>150              |  |
| Forum registration on site US\$ 100.– surcharge  |                      |                          |                      |                         |  |
| Plant tours on Tuesday (Nov. 15, 2011):<br>Tour 1: Dunwell Group, Hong Kong<br>Tour 2: E. Tech Management (HK) Ltd., Hong Kong<br>Tour 3: Ecospace Ltd., Hong Kong | US\$<br>US\$<br>US\$ | 70<br>70<br>70           | US\$<br>US\$<br>US\$ | 90.–<br>90.–<br>90.–    |  |
| Plant tours on Friday (Nov. 18, 2011): Tour 4: Wistron South China, Zhongshan* Tour 5: GISE-MBA, Guangzhou* Tour 6: Tele Battery Recycle & BYD, Shenzhen*          | US\$<br>US\$<br>US\$ | 130<br>130<br>160        | US\$<br>US\$<br>US\$ | 160<br>160<br>190       |  |

## \* China visa is required to attend these plant tours!

Visa is the responsibility of individual delegates.

## Conference language and additional proceedings

The language of the conference is English. If it is not possible for you to attend the forum, you may purchase the complete proceedings at US\$ 250.—. Participants will get the proceedings free of charge.

## Pavmen<sup>1</sup>

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

Beneficiary: ICM AG

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