

# 19<sup>th</sup> International Automobile Recycling Congress IARC 2019

March 20 – 22, 2019, Vienna, Austria









#### Patronage:

Alliance of Automobile Manufacturers Association of European Automotive and Industrial Battery Manufacturers (EUROBAT) Austrian Federal Ministry of Sustainability and Tourism Automotive Recyclers Association (ARA) Automotive Recyclers of Canada (ARC) Confederation of European Waste-to-Energy Plants (CEWEP) European Association of Automotive Suppliers (CLEPA) European Automobile Manufacturers' Association (ACEA) European Group of Automotive Recycling Associations (EGARA) European Recycling Industries' Confederation (EuRIC) Japan Automobile Manufacturers Association (JAMA) Japan Automotive Recyclers Association (JARA) Malaysia Automotive Recyclers Association (MAARA) **PlasticsEurope** RECHARGE

































# **WELCOME ADDRESS**

ELISABETH KÖSTINGER Federal Minister for Sustainability and Tourism, Austria We live in exciting times as regards economic and technological developments. Technological change is associated with considerable changes in many areas of our life. This is particularly true of societal mobility and the automotive industry. Electromobility, autonomous driving and the increasing shared use of automobiles are outstanding examples of this.

In view of global trends and the rising dependence on imported raw materials, our current economic system is not sustainable. The linear economic system, in which raw materials are extracted, processed and mostly used only once before they are disposed of, cannot be pursued forever. The circular economic model differs fundamentally from this approach; to be even more precise. it is obvious that the circular economy has become a necessity rather than an option.

In terms of recycling, the automotive sector - in conjunction with the recycling industry - has been exemplary for years. In compliance with the EU End-of-Life Vehicles (ELV) Directive, high recycling rates are being achieved in most European countries. Recyclina rates of 85% and recovery rates of 95% are impressive given the complex mix of materials. Automobiles are among the most recycled consumer products: to ensure that this remains the case and to implement a circular economy in this sector, a multitude of tasks must be mastered.

The circular economy goes beyond recycling. Intelligent product design is crucial when it comes to recyclability and a reduction of environmental pollution. To date, however, life-cycle thinking and the recyclability of materials and products have barely been taken into account in design and production.

Electromobility is regarded as one of the technology fields of the future. The recycling of electric vehicles will definitely gain in importance. The dismantling and recycling of lithium-ion batteries still pose a particular challenge. New solutions need to be found and current research work is being dedicated to this topic. From a waste management perspective, significant changes can be expected in the field of ELV treatment.

The 19<sup>th</sup> International Automobile Recycling Congress will address all these topics and, for the first time, turns the spotlight on the issue of electromobility. The benefits of a circular economy in the field of

vehicles will also be presented during the congress.

Attending this conference will enable you to access unique, high-quality content, to learn from experts about the latest developments in the management of ELVs, and to network with an interdisciplinary aroup from around the world. You can certainly expect a full and interesting agenda. I am convinced that this conference will make a significant contribution to meeting the challenges ahead.

I wish you a remarkable and enjoyable stay in Vienna!

Federal Ministry Sustainability and Tourism



## **FOREWORD**

# MANFRED BECK

Chairman of the Steering Committee International Automobile Recycling Congress "Never change a winning team" is a common expression in the English language. The International Automobile Recycling Congress IARC 2019 is sticking to this maxim and will once again take place in the Austrian capital of Vienna.

The IARC is recognised by all of those involved in the car recycling chain as the most important and informative meeting in the world. Once again, IARC 2019 is expected to attract hundreds of car recyclers and manufacturers, as well as local, European and global politicians among many others. Attendees will gather in Vienna to hear about the latest relevant developments from leading policy-makers and experts in the vehicle manufacturing and recycling arenas.

# Opening & Keynote speakers

For its 2019 edition, IARC is proud that the congress will be opened by DI Christian Holzer of the Austrian Federal Ministry of Sustainability and Tourism. He will make a short welcome speech.

As Chairman of the Steering Committee of the IARC, I will look back on what the EU ELV Directive has – or has not – brought the industry since it was introduced in 2000.

On the second day, Johann Prammer of Austrian steelmaker voestalpine will offer his insights on "Steel Industry – Technology Trends for Processes and Materials for 2050".

#### **Panel discussion**

A panel discussion entitled "Opportunities of the Circular Economy" will shed light on the benefits and pitfalls of the circular economy for the car recycling industries. A 20-minute keynote intro-

ductory presentation entitled "Mobility's Circular Economy Potential" will be delivered by Andreas Tschiesner of McKinsey & Company, Inc., Germany. During the discussion, moderated by Roger Burri and Steve Hope, five experts will discuss the challenges of a circular economy. Expect fireworks and controversial points of view.

## **Hot topics**

During the three-day event, the following topics will be among those to be addressed:

Reuse & Recycling: Closedloop recycling at car manufacturer Renault of France; From ELV to valuable plastic compounds; Demands for more reuse and recycling according to metals recycler Scholz Recycling

Legislation & Regulation: Review of the ELV Directive; Car makers' views on ELV Directive changes; Waste and chemical legislation - a new challenge Car dismantling: Hybrid & electric vehicles: risks and rewards for recyclers

Technology: The impor-

tance of recycling in the

growth of electric vehicles: Volvo's response to the EU's plastics strategy Sorting & Classification: Classification of scrap in an automated scrapyard using artificial intelliaence: The unstoppable advance of XRF-based sorting: The risks of chemicals in end-of-life tyres E-Mobility & Battery Recycling: Life-cycle management of xEV batteries in practice; FIREBOX: a Safe Solution for Transportation of Lithium-Containing Devices; Recycling of Lithiumion Batteries in Electric Vehicles - Opportunities and Challenges

Country Reports: ELV recycling in Argentina under siege; ELV recycling in Germany and ELV recycling in India.

#### **Plant Tours**

For the day after the congress, the organisers are offering interesting tours to leading companies in the recycling industry: Scholz Austria Group, voestalpine Stahlwelt and ISOVOLTA AG.

#### Networking

And, of course, no congress can succeed without extensive networking opportunities. IARC 2019 has an exciting array of coffee breaks, lunches, cocktail receptions and a networking dinner in the famous Kursalon – only a 5-minute walk from the congress hotel.

I look forward to welcoming you to IARC 2019 in Vienna.

# INTERNATIONAL STEERING COMMITTEE



MANFRED BECK Chairman Recycling Consultant Netherlands



JAN BOLLEN
ArcelorMittal Europe
Environmental &
Climate Change Affairs
Manager
Belgium



STEVE HOPE
Toyota Motor Europe NV/SA
General Manager
Environmental Affairs and
Corporate Citizenship
Belgium



RICHARD PAUL
Environmental
Management
Consultant
USA



OLIVIER FRANÇOIS Vice-Chairman Group GALLOO Market Development Officer France



DR FRANCESCO
BONINO
Fiat Chrysler Automobiles
Vehicle Safety & Regulatory
Compliance, LCA & ELV Expert
Italy



JANET KES
ARN Holding B.V.
Manager Public &
Corporate Affairs
Netherlands



WILLY TOMBOY RECHARGE Chairman of the Industrial Battery Working Group Belgium



JULIEN VAN DAMME
Chairman of the Lecture Group
Honda Motor Europe Ltd.
Recycling Manager
Belgium



ROGER BURRI Air Mercury AG President Switzerland



FERDINAND KLEPPMANN CEWEP Honorary President Germany



DR JENS WARSEN
European Automobile
Manufacturers'
Association – ACEA
Environmental Policy Director
Belgium



DR RUGGERO ALOCCI Alocci Rappresentanze Industriali President Italy



DANIEL CHRISTEN
Foundation Auto
Recycling Switzerland
Managing Director
Switzerland



WALTER KLETZMAYR
Österreichische Shredder Altautoentsorgungs- und
Entwicklungs-GmbH & Co KG
General Manager
Austria



CATHERINE LENAERTS Febelauto Managing Director Belgium



ROGER BLESI
Thévenaz-Leduc SA
CEO
Switzerland



JOSEPH M. HOLSTEN LKQ Corporation Chairman of the Board USA

# **OPENING & KEYNOTE SPEAKERS**



DI CHRISTIAN HOLZER

Federal Ministry of Sustainability and Tourism Director General Department V – Waste Management, Chemicals Policy and Environmental Technology Austria

"Welcome Speech"



McKinsey & Company, Inc. Senior Partner Germany

"Mobility's Circular Economy Potential"





Chairman of the Steering Committee of IARC Recycling Consultant Netherlands

"Introduction: Looking Back on 19 Years of ELV Directive - What has it Brought the Industry?"



voestalpine AG Head of Strategic Environmental Management Austria

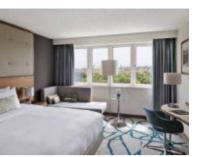
"Steel Industry - Technology Trends for Processes and Materials for 2050"





# **LOCATION & ACCOMMODATION**

A number of rooms are held at a discounted rate for the participants by registering by January 31, 2019. If you wish, you may also extend your stay at the same rates.



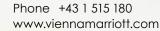
The 19th International Automobile Recycling Congress IARC 2019 will be held from March 20 - 22, 2019 in the Vienna Marriott Hotel in beautiful Vienna. The hotel is ideally located, only moments away from the Vienna Opera House, St. Stephen's Cathedral and much more.

Vienna International Airport is located about 16 km east of Vienna in Schwechat. The city center can be reached within a 20-minute ride by public transport or taxi.

With more than 1.8 million inhabitants Vienna is situated on the Danube and is the seventh largest city of the European Union. Architecturally Vienna is stamped by the "Baroque and Jugendstil" with the wonderful buildings ground the Viennese ring road which derived from the period of promoterism.









# VIENNA - A CITY OF PROUD PALACES AND PEACEFUL PARKS, A HOME TO EMPERORS AND ART, STRAUSS AND SISSI

There are many good reasons to travel to Vienna: The city is world famous for its magnificent imperial heritage, for Schönbrunn Palace. Belvedere Palace and for Hofburg Palace.

Vienna scores like no other city with its exceptional music and cultural programme in concert halls, museums and on stages from the Golden Hall in the Musikverein to the renowned Kunsthistorische Museum (Museum of Art History) right up to the Vienna State Opera. Vienna is also synonymous with a tradition of refined tasteful eniovment which has established itself over centuries in the coffee houses and wine taverns.

And last but not least, over half of Vienna's urban area is made up of relaxing green spaces, parks and gardens, the Vienna Woods and the Danube Floodplains.

A walk through Vienna is like going on a journey through time to the imperial past. No wonder the historical city centre was named a world heritage site by UNESCO. Vienna boasts more than 27 castles and 163 palaces. On every corner you can discover valuable cultural artefacts or dream of the good old imperial period in a coffee house.







www.vienna.convention.a

# WHO SHOULD ATTEND?



- Automobile importers and dealers
- Automobile manufacturers
- Automotive parts and materials suppliers
- Battery manufacturers
- Collection and transportation companies
- Environmental authorities
- Ferrous and non ferrous metal traders
- Ferrous and stainless steel industry
- Financing organizations for ELV recycling
- Laboratories for material science
- Non ferrous metal industry
- Plastics industry
- Recycling and dismantling companies
- Shredding companies
- Universities and research institutes









# **CONGRESS PROGRAM IARC 2019**

TUESDAY, MARCH 19, 2019

17.00 – 19.00 Pre-registration

WEDNESDAY, MARCH 20, 2019

08.00 - 09.00 Registration and welcome coffee in the exhibition area

**OPENING AND KEYNOTE SPEAKERS** 

09.00 - 09.20 "Welcome"

Manfred Beck, Chairman of the Steering Committee

DI Christian Holzer, Federal Ministry of Sustainability and Tourism, Austria

09.20 - 09.40"Introduction: Looking Back on 19 Years of ELV Directive – What has it Brought

the Industry?"

Manfred Beck, Chairman of the Steering Committee

09.40 - 11.00Panel Discussion: "Opportunities of the Circular Economy"

**Moderators:** 

Roger Burri, Air Mercury AG, Switzerland

Steve Hope, Toyota Motor Europe NV/SA, Belgium

**Keynote Introduction:** 

"Mobility's Circular Economy Potential"

Andreas Tschiesner, McKinsey & Company, Inc., Germany

Participants:

Pierre Gaudillat, European Commission Joint Research Centre, Spain

Henk Jan Nix, EGARA, Netherlands

Olivier François, Group Galloo, France Andreas Tschiesner, McKinsey & Company, Inc., Germany Johann Prammer, voestalpine Stahl GmbH, Austria

11.00 - 11.30Coffee break in the exhibition area

	Session 1: Legislation & Regulation Session Chairman: Willy Tomboy, RECHARGE, Belgium
11.30 – 12.00	"The Upcoming Review of the ELV Directive" Artemis Hatzi-Hull, European Commission, Belgium
12.00 – 12.30	"Potential Changes of the ELV Directive – Challenges from the Automotive Perspective"  Jens Warsen, ACEA, Belgium
12.30 – 13.00	"The Interface of Waste and Chemical Legislation – A New Challenge" Chris Slijkhuis, Müller-Guttenbrunn Group, Austria
13.00 – 14.15	Lunch in the exhibition area
	Session 2: Reuse & Recycling Session Chairman: Julien Van Damme, Honda Motor Europe Ltd., Belgium
14.15 – 14.45	"The Circular Ecosystem and Closed Recycling Loops set up by Groupe Renault" Jean-Denis Curt, Groupe Renault, France
14.45 – 15.15	"Demands for more Reuse and Recycling"  Dr Klaus Hauschulte, Scholz Recycling GmbH, Germany
15.15 – 15.45	"From ELV to Valuable Plastic Compounds"  Jannick Sercu, GALLOO Plastics S.A., France
15.45 – 16.15	Coffee break in the exhibition area
	Session 3: Dismantling Session Chairman: Joseph M. Holsten, LKQ Corporation, USA
16.15 – 16.45	"Telematics, Data Sharing and Transparency of Vehicle Repair & Motor Claims Process – How this will Impact the Use of Recycled Parts in Vehicle Repair?"  Andy Latham, Salvage Wire Ltd., United Kingdom
16.45 – 17.15	"The Green Repair: Used Parts are Easy to Order and Make the Automotive Circle Round"  Henk Jan Nix, EGARA, Netherlands
17.15 – 17.45	"Hybrid & Electric Vehicles – The Risks and Rewards for Vehicle Recyclers"  Jason Cross, FAB Recycling Ltd., United Kingdom
19.00	Meeting point in the hotel lobby of the Vienna Marriott Hotel
19.15	Cocktail reception & networking dinner at the famous Kursalon (5-minute walk from the congress hotel)



# CONGRESS PROGRAM IARC 2019

# THURSDAY, MARCH 21, 2019

08.00 – 09.00 Welcome coffee in the exhibition area

	Totalina conta in the extination area
	Session 4: Country Reports Session Chairman: Richard Paul, Environmental Management Consultant, USA
09.00 – 09.30	"Argentina Automotive Recycling Industry in Danger – Could it be Expanded to the Region and the World?" Maximiliano Marques, Nuevo Horizonte SA, Argentina
09.30 – 10.00	"End-Of-Life Vehicle (ELV) Recycling in Germany – Challenges and Opportunities" Olaf Pusch, TSR Recycling GmbH & Co. KG, Germany
10.00 – 10.30	"Resource Recovery through Recycling Automobiles in India" Dr Lakshmi Raghupathy, Former Director, Ministry of Environment & Forests, Advisor / Consultant Environment & Waste Management, India
10.30 – 11.00	Coffee break in the exhibition area
	KEYNOTE SPEAKER
11.00 – 11.30	"Steel Industry – Technology Trends for Processes and Materials for 2050"  Johann Prammer, voestalpine Stahl GmbH, Austria
	Session 5: Materials & Technology
	Session Chairman: Jan Bollen, ArcelorMittal Europe, Belgium
11.30 – 12.00	"Importance of Recycling to Support the Growth of EVs"  Maarten Quix, Umicore Battery Recycling, Belgium
12.00 – 12.30	"Volvo Cars Sustainable Future and Approach to Plastic" Niklas Kilberg, Volvo Car Corporation, Sweden
12.30 - 14.00	Lunch in the exhibition area

	Session 6: Sorting & Classification Session Chairman: Jan Bollen, ArcelorMittal Europe, Belgium	
14.00 – 14.30	"QSYM2: Automatic Scrap Yard with Classification of Scrap via Artificial Intelligence"  Daniele Stelluto, Danieli Centro Cranes, Italy	
14.30 – 15.00	"What the Eddy Current was 10 Years ago will XRF-Based Sorting be in 2 Yea from Now" Martin Weiss, REDWAVE / BT-Wolfgang Binder GmbH, Austria	
15.00 – 15.30	"The Risks of Chemicals in End-Of-Life Tyres"  Barend ten Bruggencate, Chairman of the BIR's Tyres & Rubber Committee, Netherlands	
15.30 – 16.00	Coffee break in the exhibition area	
	Session 7: E-Mobility & Battery Recycling Session Chairman: Catherine Lenaerts, Febelauto, Belgium	
16.00 – 16.30	"Life Cycle Management of xEV Batteries in Practice" Dirk Spiers, Spiers New Technologies, USA	
16.30 – 17.00	"FIREBOX – A Safe Solution for Transport of Lithium Containing Devices"  Andreas Krebs, BLUBOX Trading AG, Switzerland	
17.00 – 17.30	"Recycling of Lithium-ion Batteries in Electric Vehicles: Opportunities and Challenges"	
	Zhangqi Wang, ACCUREC Recycling GmbH, Germany	
17.30 – 17.45	"Wrap-up / Closing Remarks" Manfred Beck, Chairman of the Steering Committee	
from 17.45	Farewell reception in the exhibition area	



Join us on Wednesday, March 20, 2019 at a memorable networking dinner at the historical location "Kursalon", one of the most exclusive and splendid buildings of Vienna – accompanied by a "Tribute to Falco show" in the beautiful "Vienna Ballroom".



Have a great time
with friends and business
partners in a nice
atmosphere!

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Participants registering and paying before January 31, 2019 will benefit from a reduced registration fee. The registration fee includes congress, entrance to the exhibition, proceedings and luncheons.

# **REGISTRATION FEES**

	before	е	after	
Congress fee	Jan. 3	31, 2019	Jan. 3	1, 2019
Fee for participants	EUR	1'590	EUR	1'690
Fee for speakers	EUR	990	EUR	1'090
Fee for students* *only with valid student card and age below 30	EUR	690	EUR	790
Networking dinner (March 20, 2019) Networking dinner spouse (March 20, 2019)	EUR EUR	100 120	EUR EUR	120 150
Plant tours (March 22, 2019)				
ISOVOLTA AG, Werndorf	EUR	50	EUR	70
Scholz Austria Group, Laxenburg	EUR	50	EUR	70
voestalpine Stahlwelt, Linz	EUR	50	EUR	70

All prices excl. 20% Austrian VAT.

Congress registration on site EUR 100 surcharge.

#### Online registration

You may also register online at: www.icm.ch/iarc-2019

## **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.

# **EXHIBITION AND POSTER PRESENTATIONS**







The exhibition area provides your company with the perfect opportunity to reach key industry decisionmakers. Promote your products and services to all conaress attendees. The fees are:

<b>Booth 6 m²</b> (2 m x 3 m)	EUR	3'690
Poster presentation (wall rental)	EUR	390
Display board (1 m x 2 m)	EUR	690

Space is limited, book today!

















































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Official Hydrogen Consumption Figures for the Toyota Mirai in kg/100 km: Urban 0.69, Extra Urban 0.80, combined 0.76. Power Consumption 0 kWh/100 km. CO, Emissions combined 0 q/km.

# **PLANT TOUR**

FRIDAY, MARCH 22, 2019



#### SCHOLZ AUSTRIA GROUP, LAXENBURG

**08.30** Departure by bus to Scholz Austria Group

09.15 Arrival at Scholz Austria Group
09.15 – 12.45 Visit to the shredder plant

13.30\* Arrival at the airport Vienna (Schwechat)

14.15 Arrival at the Vienna Marriott Hotel

**Scholz Austria** is a market leader in recycling of steel scrap and nonferrous metal scrap. Especially when it comes to end-of-life vehicle (ELV) recycling Scholz Austria has a powerful network and considerable knowledge. The process engineering concepts developed in close cooperation with universities for the processing of light and heavy shredder fractions, as well as plastics, lead to a rate of nearly 90% in material recycling only. It stands to reason that Scholz's engineering activities include recycling concepts for future electro ELV recycling, as well as the processing and recycling of electrical appliances.

This sense of forward-thinking and quality for our processes and products is the reason why Scholz Austria has cooperated with one of the leading steel mills in the world. In 2007 Voestalpine and Scholz formed a joint venture to guarantee compliance to the highest standards of steel production. Scholz Austria performs as a reliable and flexible partner with tailor-made solutions customers require.

Hundreds of skilled employees are taking care of household and industrial metal recycling every day in Austria. Additionally an efficient logistic network makes Scholz Austria cooperate globally within the German-based Scholz Recycling and the Asian Chiho Environmental Group. Together the Group is a global leader in the metal recycling and environmental protection industry. The Group currently has a presence in over 30 countries and regions spanning Europe, Greater China, and North America, operating more than 250 sites including metals processing facilities equipped with the one-stop system for collecting, gathering, sorting and processing.

www.scholz-austria.at/en

The plant tour will only take place with a minimum of 8 participants.

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



Austria's number 1 in recycling of steel and nonferrous metal scrap.



www.scholz-austria.at

# **PLANT TOUR**

FRIDAY, MARCH 22, 2019

# ISOVOLTA AG, WERNDORF



**08.00** Departure by bus to ISOVOLTA AG, Werndorf

10.30 Arrival at ISOVOLTA AG, Werndorf

10.30 – 14.00 Visit to a production plant of prepregs, laminates and

composite material

17.00\* Arrival at the airport Vienna (Schwechat)
17.45 Arrival at the Vienna Marriott Hotel

Since 1949 partners from more than 20 industries have relied on **ISOVOLTA's** broad product portfolio with customized product developments.

The passion for the combination of various materials with unique properties to superior technical laminates and composites has enabled the ISOVOLTA Group to become a leading international player of the industry.

ISOVOLTA's laminates allow the uniting of required properties of various materials in one product, e.g. electrical insulation + thermal conductivity + mechanical strength.

www.isovolta.com



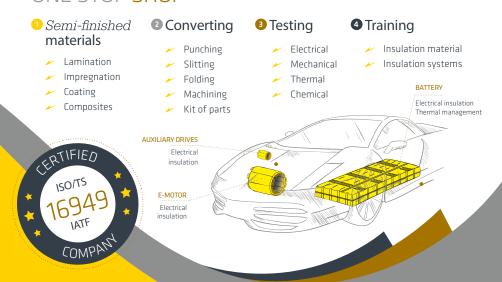


## Combination of properties

**sovolta's laminates** allow to unite required properties of various materials in one product. e.g. electrical insulation + thermal conductivity + mechanical strength.

Electrical Insulation Layer
Thermal Conductive Layer
Mechanical Strength Layer

# ONE STOP SHOP



The plant tour will only take place with a minimum of 8 participants.

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

# voestalpine

ONE STEP AHEAD.

# **PLANT TOUR**

FRIDAY, MARCH 22, 2019

# voestalpine

#### VOESTALPINE STAHLWELT, LINZ

ONE STEP AHEAD.

**08.30** Departure by bus to voestalpine Stahlwelt

11.00 Arrival at voestalpine Stahlwelt

11.00 – 14.00 Visit to voestalpine Stahlwelt and plant tour through the factory

premises, live production areas, e.g. blast furnace, hot-rolling mill

16.30\* Arrival at the airport Vienna (Schwechat)
17.15 Arrival at the Vienna Marriott Hotel

Around the world, **voestalpine** produces, processes and develops steel to make high-quality products and innovative solutions. Come and visit voestalpine's world of discovery, where you can learn more about steel and the countless and innovative ways it can be used. Discover the fascinating world of steel. Discover the voestalpine Stahlwelt.

The voestalpine steel plant is one of the cleanest and most innovative in the world. A claim many steel plants make – but how many allow a glimpse of what is on the other side of the factory gate? voestalpine does and even goes one step further: After you visit the exhibition in the voestalpine Stahlwelt, you're in for an exciting plant tour.

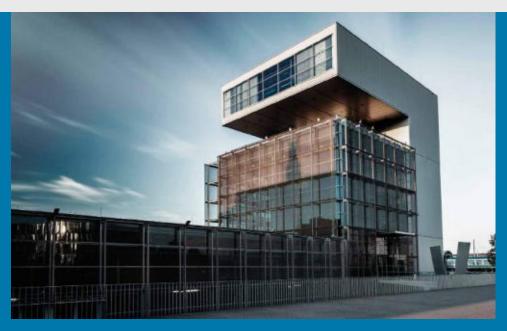
The multimedia buses will take you deep inside the plant grounds, covering 5.2 square kilometers, directly to the production facilities, where you will get a behind-the-scenes look at various steps in the steel making process up to the finished product.

**Please note:** You have to wear sturdy, closed-toed shoes (no sandals, flip-flops, crocs, etc.). We also recommend you wear stain-resistant clothing.

www.voestalpine.com/stahlwelt/en

The plant tour will only take place with a minimum of 8 participants.

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









voestalpine Stahlwelt GmbH | voestalpine-Straße 4 | 4020 Linz, Austria T. +43/50304/15-9538 | www.voestalpine.com/stahlwelt



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+ For Zorba and IBA

#### THE VULTURE

The global market for aluminum scrap is vastly expanding and is expected to grow at an annual rate of 7% over the next five years.

To tackle the ever increasing demand for aluminum scrap Ad Rem has developed the VULTURE, a compact and highly efficient installation for the separation of Zorba and IBA. During design of the VULTURE the Ad Rem team has focused on reducing running costs while maintaining an exceptional aluminum quality.

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**HIKARU BHEND** Congress Assistant

# **Upcoming ICM Events:**

18th International Electronics Recycling Congress





19th International Automobile Recycling Congress IARC 2019





**E-Mobility & Circular Economy** 





**ICBR 2019** 

24th International Congress for Battery Recycling







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