



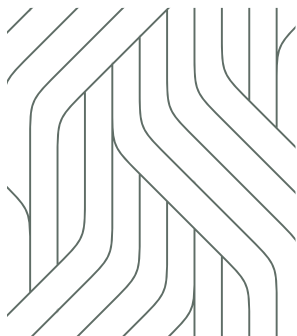
Annual Report
2015

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Ferrous
Division



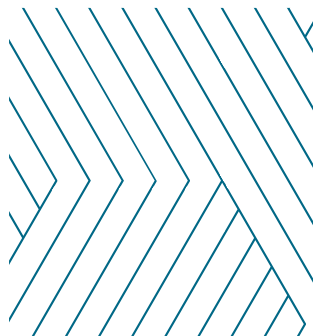
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Non-Ferrous
Metals Division



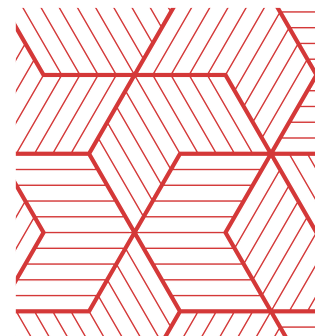
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Textiles
Division



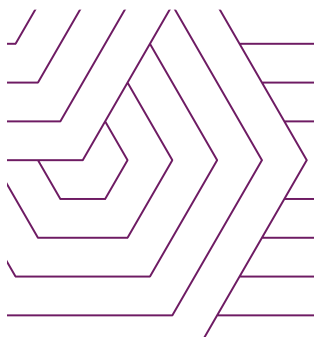
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Paper
Division



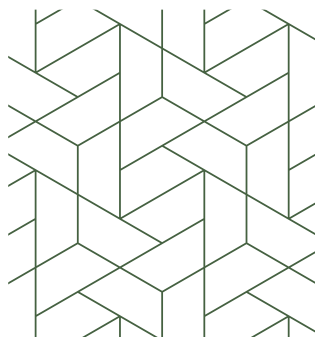
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Stainless Steel
& Special Alloys
Committee



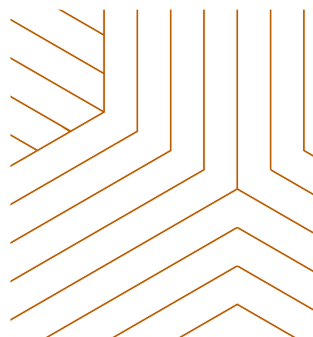
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Plastics
Committee



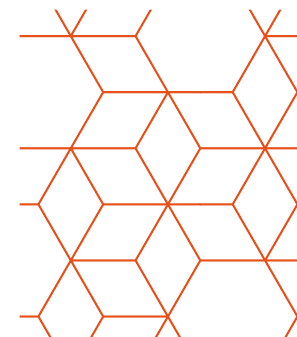
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Tyres/Rubber
Committee



30

E-Scrap
Committee





Ranjit Singh Baxi
J&H Sales International Ltd (GBR)
BIR President

WORDS FROM THE PRESIDENT

2015 will be remembered in our industry as one of the most testing periods for all of us, a period in which demand and profitability both suffered...

“The BIR secretariat is endeavouring to bring recycling to the forefront of the next climate change conference.”

... Global trade continued to fluctuate with some Western and emerging economies showing a steady decline in demand and consumption while a few economies continued to post a slow, sustained recovery.

The importance of recycling continued to gain centre stage in several countries, with many of them able to increase their collection rates. With increasing collection and weakening demand, we also saw a reduction in global trading volumes of recyclables which, all in all, made 2015 a very challenging year for our members.

In the middle of this, I was asked to take up the BIR President's baton from Björn Grufman. I wish to take this opportunity to thank all our BIR members for giving me this honour of representing our global organisation as your President. I accepted this job with great humility and pride at the trust all of you have bestowed upon me. I must also thank our outgoing

President for his valued contributions. In 2015, we not only had to navigate through a challenging year but also had to face the increasing legislative controls imposed upon us. Working together with all our members, I shall continue our endeavour to promote free and fair trade of recyclables and strengthen our position of being not only the world's leading suppliers of raw materials but also an organisation whose members are the world's leading climate change ambassadors through the carbon emission reductions our industry delivers.

Every year, our industry is responsible for a reduction of more than 700 million tonnes in carbon emissions across all commodities and recycling sectors. As a matter of fact, our recently-conducted update of the BIR report on the environmental benefits of recycling (see case study in this Annual Report) reveals annual carbon emission savings of 572 million tonnes for aluminium, copper



Jens Hempel-Hansen
*H.J. Hansen Recycling Industry
Ltd A/S (DNK)*
BIR Treasurer (ad interim)

BIR'S FINANCIAL SITUATION

Following the election of Ranjit Baxi as BIR President, the Nominations Committee needed to devote a considerable amount of time to finding a successor for the position of BIR Treasurer. In the meantime, the BIR Executive Committee asked me to become interim Treasurer until the next General Assembly in May 2016. It was my honour to accept this position, which I have held since October 2015.

2015 was a year of financial consolidation for BIR. Given the enduring adverse global economic conditions, we had foreseen a conservative budget. Finally, the year turned out more positively than we had expected, to the point that we did not have to take funds from our reserves as we had anticipated.

The state of our finances allows us to continue to offer a valuable service to our members on the occasion of our biannual conventions. The continued positive turn-out of registered delegates in 2015 confirmed that these conventions remain a unique meeting point for the movers and shakers of the worldwide recycling industry.

Keeping sufficient reserves in order to meet all possible headwinds remains one of our top priorities in the uncertain economic climate we are all experiencing. The budget outlook for 2016 will remain conservative, although we will still have at its heart the making of those investments necessary to continue bolstering our services to members.

and ferrous metals alone. This great contribution that we are all making to a greener planet needs to be recognised. The BIR secretariat is endeavouring to bring recycling to the forefront of the next climate change conference.

Recycling needs to grow globally and must not remain the luxury of the Western economies or a few emerging economies. To do this, we need not only to promote recycling awareness and education but also to improve and promote the knowhow of our industry globally. To help spread this message, we are proposing to organise a Global Recycling Day. Working together with the BIR secretariat and the Executive Committee supported by all our members, we aim to deliver this message globally and promote such a day hopefully by 2017.

For the BIR secretariat and the Executive Committee to continue

serving your industry, we constantly need your support in terms of the time that you give us, the financial support you offer both as members of BIR and by attending our conventions, and above all by continuing to be our honourable Green Ambassadors with all the work that you continue doing. On behalf of the Executive Committee, I wish to thank you wholeheartedly for your support and look forward to working together as a Global Recycling Family.

I wish also to thank the BIR secretariat on behalf of all BIR members for its excellent work and continued support for our membership.

Finally, I look forward to 2016 – a year when, hopefully, our members can enjoy better, more sustained growth.



Alexandre Delacoux

BIR Director General

DIRECTOR GENERAL'S REPORT

Market conditions remained challenging throughout 2015. The recycling industry, including all our members, companies and national trade associations, had to battle these adverse conditions without a moment's respite...

“The framework around our industry is forever evolving and it remains crucial for BIR to be present at the top table of discussions that shape our industry's rights and operating conditions”

... BIR too had to look hard at the way we operated to ensure we remained as financially efficient as possible. BIR reflects the indomitable spirit of the industry it represents and, thanks to the support and dedication of our members, we concluded the year on a positive note both financially and from a membership perspective.

Several improvements to our membership services were made in 2015. First, we published “Guidelines for BIR Chairpersons”, a document that aims to ensure the quality of chairmanship is maintained as new leaders emerge from the BIR's ranks. This document, available on our website, will evolve with time as experiences are fed back by successive generations of leaders.

Second, at the Prague Convention in October, we tested a new tool to maximise business contact opportunities during these events. The BIR mobile app was made available to registered members and enabled them to interact with each other and publicise their information

to other delegates. The app also provided a live information feed from the convention as well as a range of other tools and possibilities. The app enjoyed a resoundingly positive response from members and will be activated in the run-up to, and during, future BIR conventions.

Third, the creation of our Exhibitors Committee in late 2014, led by Chairman Rolf Gren of Pallmann and Vice Chairman Aykut Karahan of Birim Makina, ensured the necessary focus on the requirements of companies exhibiting at BIR conventions. Immediate results included the successful Meet the Exhibitor event at our Dubai Convention last May. In Prague, we presented a new exhibition concept offering a professional, personalised “ready-to-meet” turnkey solution that drew high praise from exhibitors.

Fourth, the BIR arbitration service was used extensively in 2015 and in several cases allowed affiliated companies to settle commercial disputes in a time- and cost-effective manner

based on a solid legal framework and well-established business principles. Members are urged to include a BIR arbitration clause in any new business contract, which would make this service even more efficient. It is envisaged that a separate committee will be set up to deal with arbitration in the course of 2016.

BIR remains as relevant as ever in providing its members with the best business opportunities through our conventions and online database of members, but members benefit in other ways too. Most notably, we are pursuing our defined priorities through engagement at every necessary level to represent the recycling industry on the international regulatory stage. The framework around our industry is forever evolving and it remains crucial for BIR to be present at the top table of discussions that shape our industry's rights and operating conditions.

Several initiatives relating to the United Nations Environment Programme (UNEP) Basel Convention have required our sustained attention. A source of concern is the ongoing revision of the "glossary of terms" and "legal definitions" under which the Basel Convention operates. BIR is engaged in discussions pertaining to the development of practical manuals and fact sheets that will influence what constitutes "trade in hazardous wastes and other wastes".

The Basel Convention sets rules via which companies can be considered environmentally soundly managed, thereby defining who can trade with whom.

In parallel, a new Public Private Partnership has been launched by the Basel Convention concerning promotion of the environmentally sound management of household waste and we have alerted our members to the fact that they can join this initiative if the topic is relevant to their business.

BIR also officially complained to Achim Steiner, UNEP's Executive Director and the Under-Secretary-General of the UN, about gross misreporting of the scale of illegal transboundary movements of electronic waste reported by certain stakeholders. The stakes are high in the discussions about "Technical guidelines on transboundary movements of electronic waste and used electrical and electronic equipment" and so arguments should come from a solid factual base.

EU policy developments have also kept BIR busy and the collaboration with the European Recycling Industries' Confederation (EuRIC) has proven very effective at engaging at the correct level on such matters as: the European Commission's Circular Economy package; the notification of waste shipments in Europe; and

the revision of the Best Available Techniques Reference document (BREF) for waste treatment under the Industrial Emissions Directive.

We also collaborated closely with our French national member federation Federec in an outreach paralleling the United Nations' COP21/CMP11 climate change conference in Paris at the end of 2015, at which we were able to communicate and underline at a high level the strategic importance of the raw materials emanating from industrial recycling activity. This has created the template from which BIR will work with all its member national associations to push the recycling industry's interests in the climate change debate.

Resilience, perseverance and progress: these terms neatly summarise BIR in 2015. Your world organisation has focused on service to members, on delivering high-quality, business-relevant conventions and on representing the worldwide recycling industry wherever necessary with the assistance of our network of national associations.

Even if these harsh economic conditions endure for some time to come, members should rest assured that BIR will be on their side to assist in the development of their businesses and in promoting and ensuring the global recycling industry's long-term right to operate.

MEMBERSHIP SPREAD 2015

Western Europe

Austria
Belgium
Cyprus
Denmark
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Luxemburg
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom

Russia & Eastern Europe

Belarus
Bulgaria
Czech Republic
Hungary
Latvia
Lithuania
Poland
Romania
Russia
Slovenia
Ukraine

Asia

China
India
Iran
Japan
Republic of Korea
Malaysia
Pakistan
Singapore
Taiwan (China)
Thailand
Vietnam

Central & South America

Brazil
Chile
Cuba
El Salvador
Haiti
Honduras
Mexico
Trinidad and Tobago
Uruguay

Turkey & Middle-East

Bahrain
Israel
Jordan
Kuwait
Lebanon
Libya
Saudi Arabia
Turkey
United Arab Emirates

North America

Canada
USA

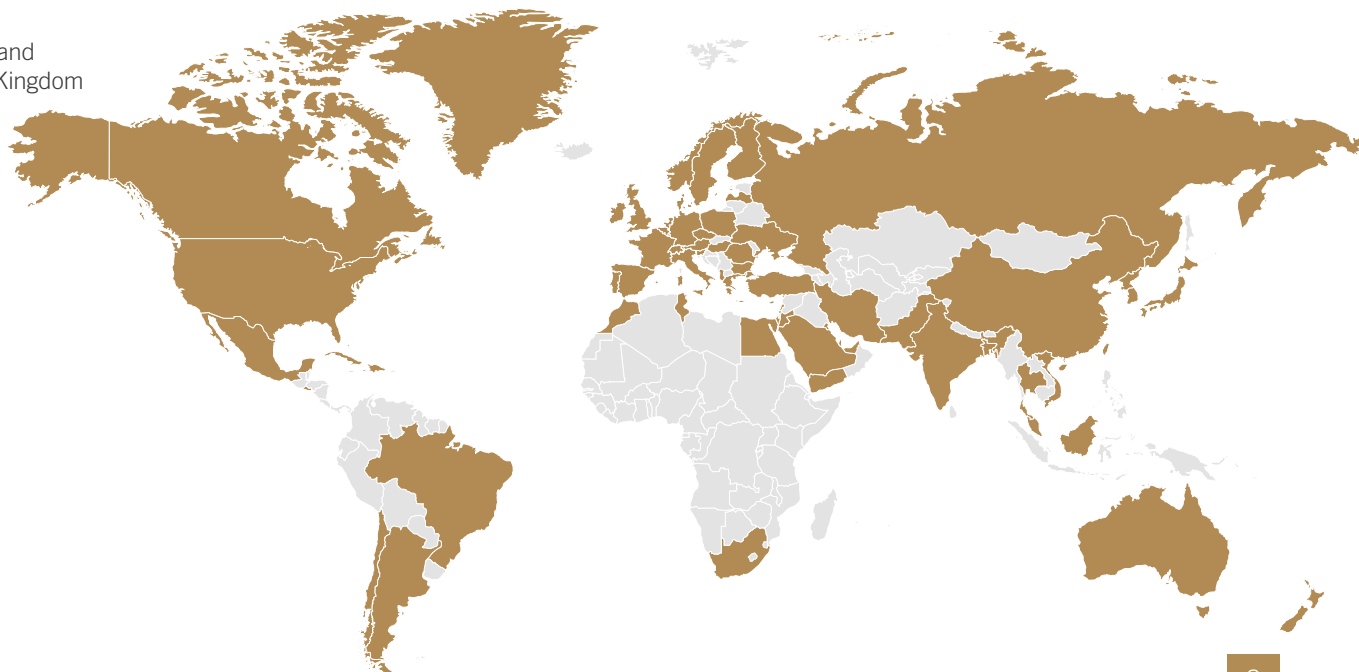
Australia & Pacific Rim

Australia
New Zealand

Africa

Egypt
Morocco
Reunion Island
South Africa
Tunisia

• COUNTRIES IN WHICH BIR IS REPRESENTED



MEMBERSHIP HIGHLIGHTS

34
National
Federations

Around **800**
BIR Members
all over the World!

68 Countries

More than **40%**
Members outside the
European Continent

50%
Increase
within
10 years!

66
New Members
in 2015

LIST OF BIR MEMBER FEDERATIONS

AUSTRIA

- Austria Recycling (AREC)

BELGIUM

- Confédération belge de la Récupération / Confederatie van de Belgische Recuperatie (COBEREC)

CANADA

- Canadian Association of Recycling Industries (CARI)

CHINA

- China Association of Metal Scrap Utilization (CAMU)
- China Nonferrous Metals Industry Association Recycling Metal Branch (CMRA)
- China Resource Recycling Association (CRRRA)
- China Scrap Plastics Association

CUBA

- Union de Empresas de Recuperacion de Materias Primas (UERMP)

CZECH REPUBLIC

- Svaz Průmyslu Druhotných Surovin (SPDS-APOREKO)

FRANCE

- Fédération des Entreprises du Recyclage (FEDEREC)

GERMANY

- Bundesvereinigung Deutscher Stahlrecycling- und Entsorgungsunternehmen e.V. (BDSV)
- Bundesverband Sekundärrohstoffe und Entsorgung e.V. (BVSE)
- Verband Deutscher Metallhändler e.V. (VDM)

HUNGARY

- Hungarian Waste Management Federation (HOSZ)

INDIA

- Metal Recycling Association of India (MRAI)

ITALY

- Associazione Nazionale Imprese Recupero (FISE – UNIRE)

JAPAN

- Japan Iron & Steel Recycling Institute (JISRI)
- Japan Recovered Paper Association (JRPA)

THE NETHERLANDS

- Vereniging Afvalbedrijven (DWMA)
- Federatie Nederlandse Oudpapier Industrie (FNOI)
- Metaal Recycling Federatie (MRF)

POLAND

- Izba Gospodarcza Metali Nieżelaznych i Recyklingu (IGMNiR)
- Scrap Economy Chamber of Industry and Commerce (IPHGZ)

ROMANIA

- Organizația Patronală Și Profesională „REMAT”

SOUTH AFRICA

- Metal Recyclers Association of South Africa (MRA)

SPAIN

- Federación Española de la Recuperación (FER)
- Gremi de Recuperació de Catalunya
- Asociación Española de Recuperadores de Papel y Cartón (REPACAR)

TURKEY

- TÜDAM Değerlendirilebilir Atık Malzemeler Sanayicileri Derneği

UNITED ARAB EMIRATES

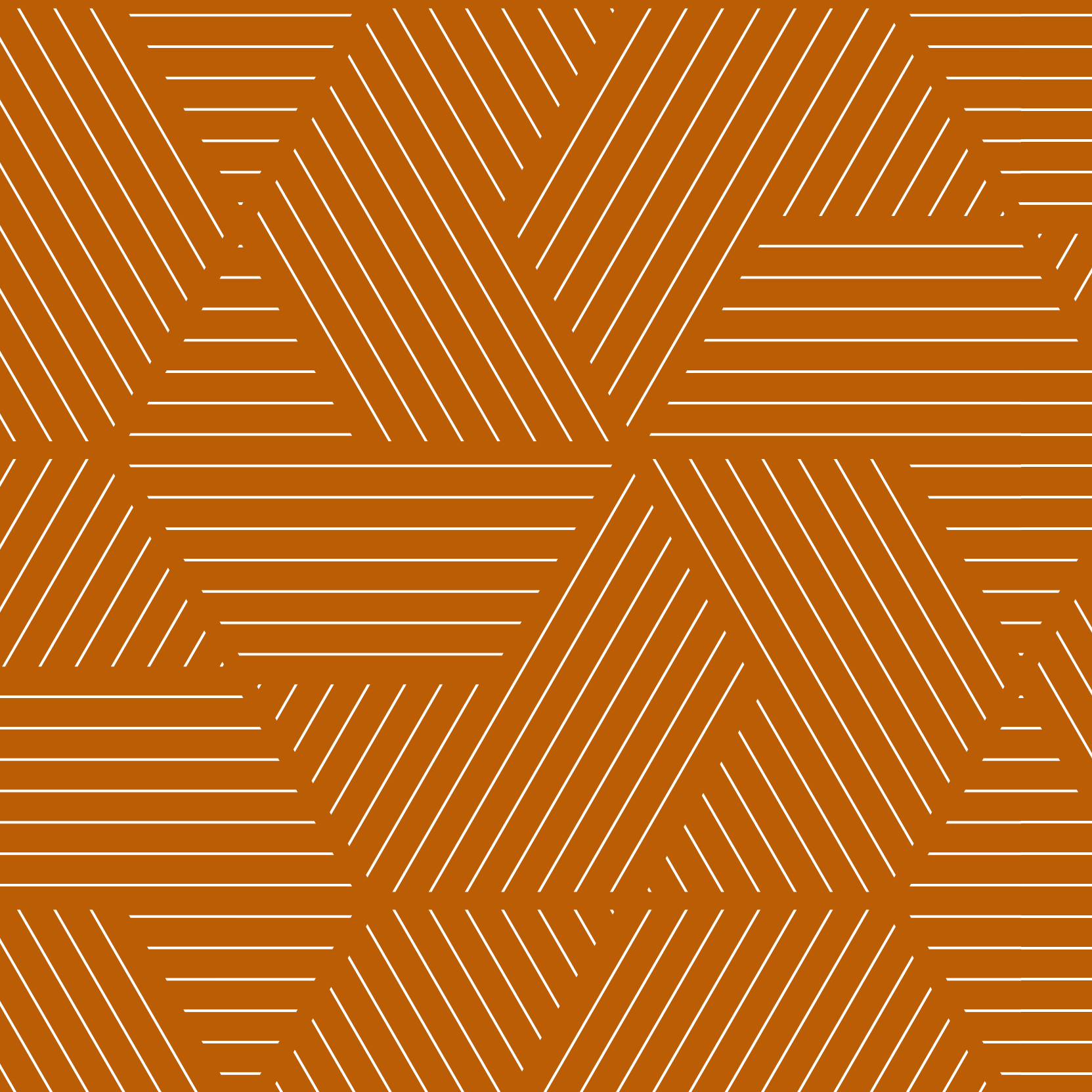
- Bureau of Middle East Recycling (BMR)

UNITED KINGDOM

- British Metals Recycling Association (BMRA)
- The Recycling Association
- Textile Recycling Association

UNITED STATES

- Institute of Scrap Recycling Industries, Inc. (ISRI)





DIVISIONS AND COMMITTEES

Each Commodity Division and Committee represents a specific material and is headed by a president/chairman who in general is supported by an elected board. Two additional BIR committees cover cross-commodity issues pertaining to trade and environmental matters: the International Environment Council and the International Trade Council.



William Schmiedel

Sims Metal Management Global Trade Corporation (USA)

President Ferrous Division

FERROUS

DIVISION

I guess it has been the same since time immemorial: despite the experience we gain and the lessons we learn one year, we begin the next year with more questions than answers...

... At the time of writing, the iron ore price is around US\$ 40 per tonne and getting closer to the cash cost to produce. So does this slide in value represent decreased demand or increased supply? If it's the former, then could this be a positive sign of the Chinese starting to rationalise their overcapacity? And will the Chinese now remove chrome and titanium added billets from the alloy steel list, just as they did in 2014 with boron?

In a world constantly churning with unrest and conflict, what effect will geopolitical tensions have on scrap pricing? In particular for our sector, what impact will the tensions between Russia and Turkey have on the flow of billets and scrap from the former to the latter?

Chinese steel exports, which soared 20% to 112.4m tonnes in 2015, and the slump in iron ore values were key factors in pushing scrap prices below US\$ 175 per tonne on a cfr basis in November. But did that represent a true bottom for ferrous scrap pricing, under which the supply chain breaks?

The supply chain certainly showed signs of creaking under the pressure in 2015. Our consumers in the steel industry can point to a multitude of negatives when reviewing last year, including cash flow problems, widespread job losses and the collapse of some long-established businesses under the weight of commercial pressures – but the same applied equally to the scrap industry.



“Overcapacity is a challenge yet to be fully grasped.”

KEY FACTS

World Crude Steel Production in 2015:

-2.8% to **1.623bn** tonnes

World steelmaking capacity utilisation:

69.7% in 2015 versus **73.4%** in 2014.

Indicative international prices (shredded scrap):

Start of 2015: US\$ **325** per tonne

End of 2015: US\$ **200** per tonne

Furthermore, there is an awareness within both sectors that overcapacity is a challenge yet to be fully grasped. World steel capacity utilisation spent the second half of 2015 at below 70% – but I suspect many scrap processors would be delighted to achieve such a rate in the current business climate.

But given that our industry has been founded on deriving opportunity from adversity, it would be wrong to allow the gloom to obscure the many grounds for optimism. At our divisional meeting in Dubai last May, the World Steel Association's Director General Dr Edwin Basson acknowledged the likelihood of slower Chinese steel use growth into the future, but he still believed that global steel demand would climb from 1.537bn tonnes in 2014 to 2.101bn tonnes by 2040 and, more importantly, that “close to half”

of the latter total would be produced using scrap.

And while many established international outlets for our scrap have taken a backward step from the marketplace, other countries have been picking up at least some of the slack, including Mexico and parts of Asia. India stands out as a source of growing opportunity for exporters: at our gathering in Prague last October, Sunil Barthwal from the country's steel ministry suggested Indian scrap imports could double to 10m tonnes by 2020.

At the same event, guest speaker Becky E. Hites of US-based Steel-Insights LLC joined with me and our divisional board member Tom Bird in suggesting that the Chinese government was perhaps losing patience with its polluting and loss-

making steel industry and that its unsustainable business model would no longer find such ready support in the future. Furthermore, there were signs in 2015 that governments previously unwilling to impose tariffs on low-priced Chinese steel exports were starting to lose patience too.

In response to the doom-mongers, we should remember above all else that a large proportion of the world's steelmakers – both established and emerging – are basing their production around our scrap. There is already evidence that lower scrap prices are encouraging buyers to look afresh at ferrous scrap as the viable economic and environmental solution to their production requirements.



David Chiao

Uni-All Group Ltd (USA)

President Non-Ferrous Metals Division

NON-FERROUS METALS

DIVISION

Writing in the previous BIR Annual Report, I pointed out that 2015 was The Year of the Ram in the Chinese calendar. Since red is considered a lucky colour for people born under this zodiac sign, I expressed the hope nevertheless that we wouldn't be seeing too much of it on our balance sheets. Unfortunately, 2015 proved to be one of the most challenging, demanding and, for many, financially fruitless years in our collective memory...

... Take as evidence just a few of the observations made about the non-ferrous scrap industry during our divisional meeting in Prague last October: "very tough"; "painful and ugly"; "the most pessimistic of bears couldn't have foreseen the constant downward spiral"; and perhaps most ominously, "it will not be long until the banks become nervous".

Regrettably, the conditions that gave rise to these comments have pursued us into 2016. Downward pressure on metals prices has been applied by a combination of: a strong US dollar; overcapacity in both primary and secondary production industries; and a fall-off in demand in many parts of the world, but most particularly in

China. At the time of writing, we hear that major aluminium smelters and copper producers in China are planning further sharp output cuts for 2016.

Also of concern to our sector, it emerged at the Annual Convention of the China Nonferrous Metals Industry Association Recycling Metal Branch (CMRA) in November last year that an increasing number of China's non-ferrous alloy consumers are using primary grades, refined grades and copper cathode rather than their traditional scrap input. They are doing this because of lower energy costs as well as the higher environmental costs shouldered by the recycling industry.



KEY FACTS

LME PRICES PER TONNE

	START OF 2015	END OF 2015
Copper	US\$ 6446	US\$ 4731
Aluminium	US\$ 1831	US\$ 1530

“Unfortunately, 2015 proved to be one of the most challenging, demanding and, for many, financially fruitless years in our collective memory.”

Although conference debate often turns to the need to find alternative markets as a response to the downturn in China, clearly none can match it in terms of scale. However, our meetings last year confirmed a healthy and growing demand for different forms of non-ferrous scrap in various parts of the world. In Prague, our guest speakers from Poland – Marek Orlicz of secondary zinc and zinc die casting alloys producer MetalCo and Marek Zelazny of lead-acid battery recycler Baterpol – both emphasised how the sourcing of raw material was a pre-eminent concern for them. In Dubai, Nasser Aboura of UAE-based Aboura Metals hailed the Middle East not only as a major generator of scrap but also as a region where scrap demand was

likely to grow strongly in the future, while Mohan Agarwal of Century Metal Recycling – India’s largest manufacturer of aluminium and zinc alloys – projected further rapid growth in scrap imports thanks to the expansion of India’s car industry and a substantial insufficiency in domestic scrap generation.

2015 was also a year of “hellos” and “hasta la vistas”. On the one hand, we welcomed Nick Rose, Alexandra Weibel-Natan, Murat Bayram, Leopoldo Clemente and Jurgen van Gorp as board members. On the other, we said farewell to two stalwarts of our division following their decision to retire from BIR activities: our Immediate Past President Bob Stein helped to build a strong

profile and platform for our Division while Robert Voss CBE, also a key member of our Division over many years, helped to establish the BIR’s International Trade Council as an integral and high-functioning service to our members in the performance of their day-to-day activities.

In China, 2016 is The Year of the Monkey and people born under this zodiac sign are celebrated for always being smart, clever and intelligent (especially with regard to their career and wealth), as well as flexible, quick-witted and versatile. I suspect all of us – whether born under this sign or not – will need to demonstrate these attributes in abundance this year if our businesses are to make headway.



Mehdi Zerroug

Framimex (FRA)

President Textiles Division

TEXTILES

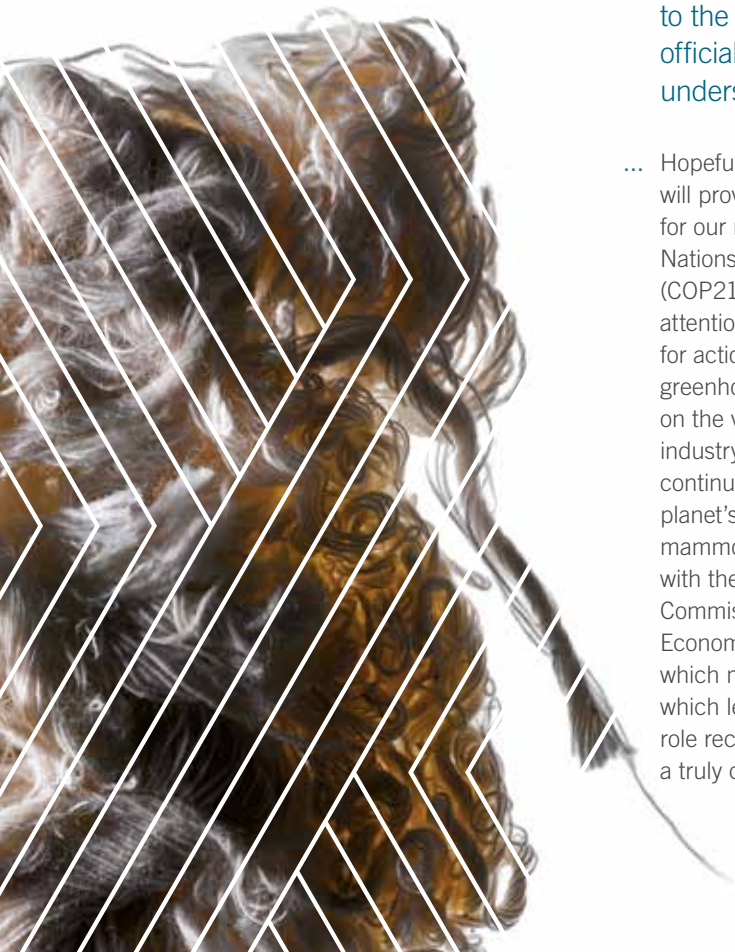
DIVISION

For many decades, the recycling industry declined to sing its own praises and simply got on with the job of conserving vast quantities of natural resources through day-to-day activities refined over the course of generations. As a result, however, our huge environmental contribution is in danger of being undervalued to the extent that our livelihoods may come under threat from officials, legislators and policy-makers if we do not help them to understand what we do and why our efforts are so important...

... Hopefully, the final weeks of 2015 will prove to have been a watershed for our noble industry. The United Nations climate change conference (COP21) in Paris focused the world's attention not only on the urgent need for action to tackle issues such as greenhouse gas emissions but also on the vital role that the recycling industry has played – and can continue to play – in protecting our planet's climate and resources. This mammoth global event coincided with the launch of the European Commission's revamped Circular Economy package, a document which may have its imperfections but which leaves no doubt as to the key role recycling must play in delivering a truly circular economy.

As an industry, we must ensure that we take advantage of the pro-recycling momentum generated by these two events because, unfortunately, our industry remains mired in many misconceptions. It was disturbing, for example, to hear guest speaker Nohar Nath of India's Kishco Group explain to our meeting in Dubai last May that his government had issued no operating licences for 13 years because used clothing grading/sorting was perceived to be “a health hazard”.

As I explained at our meeting in Prague last October, the textiles recycling industry risks falling victim to inappropriate regulations unless we explain very clearly what



“We must ensure that we take advantage of the pro-recycling momentum because, unfortunately, our industry remains mired in many misconceptions.”

KEY FACTS

IN THE USA

Annual arisings of textile waste: >11m tonnes

Recycling rate: 15%

environmental and social benefits we deliver through our collection and sorting expertise as well as our constant R&D.

During 2015, we continued to provide this expertise against a backdrop of harsh commercial conditions. Prices of originals were falling, margins were squeezed and sales into some regions were compromised by a toxic cocktail of slow payment, currency devaluations and local unrest. Many companies in our industry, some of them long-established, lost the fight for survival.

On top of these pressures, our industry was also confronted by unfair competition. In Prague, Nicole Kösegi of Germany's Future of Textiles Association explained that amendment of her country's recycling law in 2012 had given

rise to an “immense” number of illegal collectors while specialist companies were facing a shortage of goods. In effect, those businesses employing time-consuming but necessary processes for achieving value creation were being put at a competitive disadvantage to those operators who had secured easy market entry only to employ “marginal” sorting and processing methods.

But despite the difficulties and hardships, we should acknowledge the many reasons to be positive about our industry, such as the huge untapped potential for recycling textiles.

For example, the guest presentation of the IVL Swedish Environmental Research Institute's Hanna Ljungkvist to our meeting in Prague outlined

the Nordic region's attempts to direct more used textiles into the reuse/recycling channel and away from landfill and incineration, setting what it believes is a realistic goal of doubling the share of post-consumer textiles collected separately when compared to 2012 and of creating perhaps as many as 4000 new jobs through collection and sorting initiatives. Massive potential is also evident in the USA where reportedly only 15% of the 11bn kg-plus of textile waste arising every year is recycled.

Clearly, there is still much to do to maximise textiles recycling both in terms of volumes and optimal quality. Therefore, our industry should be handed every available tool to help it strive towards this goal.



Reinhold Schmidt
Recycling Karla Schmidt (DEU)
President Paper Division

PAPER DIVISION

Relative to other commodities, it has been suggested that paper recyclers can have no complaints about 2015. Prices held reasonably steady for most of our grades whereas our friends in the ferrous, non-ferrous and plastics sectors, among others, were forced to watch values crash...

... A large proportion of consuming mills were regular in their fibre purchases despite a generally difficult sales climate. Furthermore, those recyclers and traders who rely on the important Far East market were assisted by shipping rates that concluded 2015 at multi-year lows and by the fact that the world's largest international buyer, China, was purchasing more than in 2014. As detailed at our meeting in Prague last October by our Paper Division Honorary President and now also BIR World President Ranjit Baxi, China was on course to buy in perhaps 1.5m tonnes more recovered paper in 2015 than in the previous year.

Despite these positives, there remained a significant number of entries in the debit column for our sector, including: mill closures and

capacity reductions; losses in volume caused by structural changes such as in the graphic sector; an increasing bureaucratic burden; mounting fibre access problems, notably in Germany; and constant pressure from mills to improve the quality of supplied fibre without financial reward for the additional sorting efforts required to achieve this.

Our meetings in Dubai and Prague in 2015 provided a welcome opportunity for regional focus. At the former, guest speaker Atul Kaul of Saudi Arabia's WARAQ mill group offered the encouraging prediction that the Middle East/North Africa region would import more than 8m tonnes of paper and board by the year 2025 and that local supply of OCC was likely to remain short. However, we would take issue with

“Those recyclers and traders who rely on the important Far East market were assisted by shipping rates that concluded 2015 at multi-year lows.”

KEY FACTS

CHINESE IMPORTS
OF RECOVERED PAPER
(MILLION TONNES):

2011	27.28
2012	30.08
2013	31.65
2014	27.36
2015 (estimated)	28.86

his call for the region's governments to consider protection of the local paper industry by banning recovered paper exports – a move which, as experience has proved time and again, serves only to distort the markets. Also in Dubai, our latest Papyrus prize winner Habiba Al Mar'ashi of the UAE-based Emirates Environmental Group offered an optimistic view of the Middle East by detailing how many people in the region were pursuing effective recycling initiatives “even without the force of law”.

In Prague, meanwhile, we learned more about recovered paper developments in Eastern Europe. Jaroslav Tymich of EuroWaste (Mondi Group), the Association of Czech Pulp and Paper Industry and CEPI's raw material committee reported

strong growth in Eastern European collections while Balázs Makó of PMR GmbH in Hungary spoke of how EU funding had helped to establish approaching 5000 collection points nationwide.

Looking ahead, RISI analysts concluded in a late-2015 outlook that, following two years of slower global recovered paper markets, expanding capacities of recycled fibre-based paper and board would “re-accelerate demand growth over the next 15 years” at an average rate of 2.5% per annum to reach 346m tonnes by 2029 even though world paper and board output is thought likely to expand by only 1.8% annually over the same period.

While the report's authors expect international trade in recovered

paper to remain important over this period, they also anticipate a change in trading patterns, with China's foothold in the market expected to weaken in terms of import demand whereas other key regions could counterbalance this trend. This conclusion tallies with that of our Honorary President Dominique Maguin, who urged exporters in Prague to no longer regard China as the only solution for our surplus recovered paper and to “push for new markets”. In other words, we must be prepared to demonstrate one of those attributes which have come to characterise the recycling industry, namely flexibility.

CASE STUDY

RECYCLING SAVES FAR MORE CO₂ EMISSIONS THAN PREVIOUSLY THOUGHT

Back in 2008, one study changed the face of the carbon emissions debate: while a whole host of industries was coming forward with environmental reports outlining their attempts to reduce their greenhouse gas impacts, BIR commissioned experts at Imperial College London to assess the carbon dioxide equivalent emissions saved as a result of using secondary raw materials, or scrap, rather than primary raw materials. The final, stunning conclusion was that, every year, the recycling of just seven metals and recovered paper achieved CO₂ emission savings of 501 million tonnes – a figure on a par with the carbon dioxide impact of the global aviation industry at that time.

Countless experts had been urging our industry not to hide its achievements but rather to shout its environmental contribution from the rooftops. The carbon report enabled the global recycling industry – and its world association – to take a decisive step into the spotlight, earning substantial positive press coverage around the globe. The study also earned praise not only from within our own industry but also from other industrial sectors, governments, policy-makers and decision-takers. It would be true to

say that no other report from BIR has garnered such massive attention and approbation.

Winding forward several years, it was decided to repeat this valuable exercise and compile an up-to-date report using a refined, innovative methodology while incorporating real data from industry rather than relying solely on desk-based calculations, thereby lending the results even greater validity.

The calculations in the 2008 report were based on the recycling of paper, ferrous metals, aluminium, copper, lead, zinc, nickel and tin whereas the 2015 update has tightened its focus to just aluminium, copper and ferrous metals, as well as paper. And for the three metals alone, it emerged that the carbon emission savings tally was substantially higher than previously thought, exceeding that for the 2008 analysis of eight commodities. In effect, the total estimated savings in annual CO₂ emissions arising from the

Material	Energy Savings (achieved by industry against Primary Benchmark) (TJ/100,000t)	Annual Worldwide Secondary Production* (Mt)	Estimated Savings in Annual CO ₂ Emissions (Mt)
Aluminium	4434	18	63.3
Copper	1033	6	4.8
Ferrous	206	580	503.9
Total Estimated Savings in Annual CO₂ Emissions for the Production of the Secondary Metals Studied [Current Study]			572.0

* Annual worldwide secondary production (Mt) as quoted in 2014 for Aluminium and in 2013 for Copper and Ferrous.

secondary production of aluminium, copper and ferrous metals when compared to primary production are 572 million tonnes.

As noted, the latest report supplements literature-based and benchmark data from the 2008 study with actual data derived from industry, including use of a novel “Front-end” tool for “normalisation” of the industry-acquired data in terms of energy requirements and associated CO₂ emissions. The methodologies

described in the report can be used to calculate CO₂ savings for any company’s recycling operations and for any material on a case-by-case basis.

The study, which was printed at the beginning of 2016, is an important tool not just for the recycling industry but for the industry’s representatives as they continue on their mission to convince policy-makers and legislators that the recycling industry dovetails perfectly with the push to create a circular economy. It is vital that we

regularly update such reports – not only to ensure we can offer latest, best-available information but also because it creates a fresh opportunity to hammer home the positive message about the recycling industry and its unparalleled contribution to protecting our planet’s resources and also its climate.



Joost van Kleef

ORYX Stainless BV (NLD)

Chairman Stainless Steel
& Special Alloys Committee

STAINLESS STEEL & SPECIAL ALLOYS COMMITTEE

The stainless steel sector will have felt a strong sense of déjà vu at the start of 2015. As in 2014, the year began with high hopes of an improvement in market conditions, only for this optimism to be thwarted as the months went by...

... Despite those positive early-year expectations, it is likely that stainless steel melt shop production did not increase in 2015. Figures released by the International Stainless Steel Forum (ISSF) in December revealed that global production across the first nine months of last year totalled 31.277m tonnes for a year-on-year decline of 0.5%.

Interestingly, the ISSF figures reveal conflicting results for Asia, the engine room of stainless steel production growth in recent years: while China upped its output by 0.7% to 16.13m tonnes in January-September last year, the rest of the continent registered a fall of 0.9% to 7.069m tonnes. At our meeting in Dubai last May, the extent of Asia's domination of stainless steel

production was stressed by guest speaker Markus Moll of Steel & Metals Market Research as he explained how companies from that continent now occupied 18 of the top 25 places in the world producer league table; China alone has boosted its share of the world stainless market from 25% to 42% over the past decade. But our guest also reminded us that more volume does not always equate to more financial success as the most profitable producer had been North American Stainless while Europe's leading lights in the sector had become much more efficient over the last five years as a result of substantial cost reduction programmes.

The ISSF statistics also confirm that the decline in Asia's production (ex-China) in the first three quarters



KEY FACTS

CHINA'S SHARE OF THE WORLD STAINLESS MARKET

2005: 25%

2014: 42%

LME PRICE PER TONNE

	START OF 2015	END OF 2015
Nickel	US\$ 15 300	US\$ 8750

“2015 was undoubtedly one of the most challenging years for our sector in living memory.”

of 2015 was eclipsed by the drop of around 4% in Europe and Africa combined to 5.932m tonnes. The Americas, in contrast, chalked up the biggest year-on-year growth of 2.3% to 2.146m tonnes.

Underlying these figures was a palpable shortage of demand and confidence within the marketplace, fuelled by slowing growth in the all-important Chinese economy. Stainless steel product prices duly began to buckle under this pressure, with scrap prices following suit. The scrap slide became particularly steep in the second half of the year, not least because of ever-weaker nickel prices. This decline in values led to a reduced supply of scrap as merchants awaited an improvement that never came.

But while 2015 was undoubtedly one of the most challenging years for our sector in living memory, the highly-qualified guest speakers addressing our meetings in 2015 provided us with ample statistical ammunition to suggest the stainless steel scrap sector will rediscover better times at some point in the future. Mr Moll emphasised that stainless steel remained the fastest-growing metal in demand terms; by type, he envisaged compound annual growth rates for the period from 2014 to 2020 of 3% for chrome-manganese, 4% for austenitics and 6% for ferritics. In Prague last October, Dr Gerhard Pariser of Heinz H. Pariser Alloy Metals & Steel Market Research predicted that, even with slow growth in China, annual world consumption of stainless steel would still reach

50m tonnes by 2030, going on to make the welcome assertion that stainless steel is nowhere near its peak as yet.

For the moment, however, day-to-day business conditions remain tough for stainless steel scrap companies. As was stressed in Prague, raw material producers – primary as well as secondary – would not be able to supply sufficient amounts at profitable levels. Put another way, prices of underlying alloying elements such as nickel, chrome, molybdenum and iron would have to climb out of their deep troughs in order to secure a continuous flow of raw materials.



Surendra Patawari Borad
Gemini Corporation NV (BEL)
Chairman Plastics Committee

PLASTICS COMMITTEE

For those in the plastics industry, the stand-out development in 2015 was the oil price crash which brought about massive reductions in what was charged for final products. Plastic scrap prices, meanwhile, were slashed by more than half in some instances, with even some negative prices in evidence. Volumes and confidence were compromised as a result...

... One of the benefits of lower oil costs, however, was a slump in shipping freight rates, with leading Western European exporters able to dispatch a 40-foot container to China for as little as US\$ 400 in some instances towards the end of last year compared to substantially higher sums only a few months earlier. Nevertheless, these lower shipment costs did not necessarily spur an increase in international trade in scrap plastics.

As we learned in detail at our convention meetings from our good friend Dr Steve Wong of the China Scrap Plastics Association, particularly significant changes are

taking place in his home country which entail major implications for the plastics recycling community globally. He pointed to liquidity issues for many domestic recyclers and to the higher costs of processing that are undermining their competitiveness. Furthermore, the Chinese government is clamping down ever harder on highly-polluting processors and on imports of heavily-contaminated material.

China's imports of plastics scrap declined steeply last year – to 3.58m tons in the first half of 2015 versus 8.45m tons for 2014 as a whole. Nevertheless, the country remains a vitally important market for the

“It is my unshakeable belief that the plastics recycling industry still has much to be positive about. The quality of plastics scrap has undergone huge improvements over recent years and producers are under pressure to increase their usage of reprocessed and recycled materials.”

KEY FACTS

CHINA'S PLASTIC SCRAP IMPORTS:

January-June 2015	3.58m tons
2014 as a whole	8.45m tons

world's plastics scrap. Also as Steve suggested, substantial opportunities will continue to await those Chinese recyclers who have already embraced change by, for example, investing in greater automation and innovation in their operations.

Indeed, it is my unshakeable belief that the plastics recycling industry still has much to be positive about. The quality of plastics scrap has undergone huge improvements over recent years and producers are under pressure to increase their usage of reprocessed and recycled materials, thus creating more demand and opportunities for recyclers.

There were also many positives to be drawn from guest presentations at our meetings in 2015. In Dubai, both Katharina Goeschl (recently of Emirates Environmental Technology) and Mahmoud Al Sharif Jr of Sharif Metals Int'l both emphasised the huge scope and desire for growth in

the Middle East's "nascent" plastics recycling industry. And in Prague, Manuel Burnand of Derichebourg in France, who is the new Chairman of the BIR Shredder Committee, outlined how increasing amounts of plastics scrap would be arising from automotive sources in the coming years – volumes which represent a challenge but also a major opportunity for our sector.

We also have reason to be upbeat about the increasing volumes of plastics that are being recycled in developed regions of the world. This is particularly true in Europe, for example, where consumer and legislative pressures have already combined to boost recycling rates and where further impetus is likely to be applied by the Circular Economy package published by the European Commission at the end of 2015. This describes an increase in plastic recycling as "essential for the transition to a circular economy".

While welcoming this emphasis on plastics recycling, it is a shame that end-of-waste criteria for plastics are not mentioned in the package. Undoubtedly, end-of-waste status would improve not only the image of recycled material but also its competitive position – a double-whammy that would assuredly help in achieving the European Commission's goals.

As pointed out by Dr Li Shen of the Netherlands' Copernicus Institute of Sustainable Development at our meeting in Prague, the mechanical, semi-mechanical and chemical recycling of PET, for example, have all showed significant energy demand and carbon footprint gains when compared to the virgin production route. Our industry is an environmental success story and one we should miss no opportunity to tell.



Ruud Burlet

Rubber Resources BV (NLD)

Chairman Tyres/Rubber Committee

TYRES/RUBBER COMMITTEE

Our Committee's two highly-successful meetings in 2015 were distinct from each other but very important in their own way. In Dubai last May, delegates were treated to a whistle-stop tour of the world as we reviewed tyre recycling developments on five continents – a clear illustration of our global outreach. And five months later in Prague, the focus was on Europe and on bringing together tyre recyclers and producers around the same table to explore areas of mutual interest and potential co-operation...

... At the former, we heard presentations from the Netherlands, Brazil, South Africa, India and the USA. The last of these, delivered by Jeff Kendall of Liberty Tire Recycling, underlined that this is still “a tough business”, subject to all sorts of challenges such as constrained flow of used tyres for shredding, fluctuating demand from end users, low-priced uses for tyre-derived aggregate and limited outlets for ground rubber – a theme that also emerged at our second meeting.

In the Czech capital, our guest speakers included Fazilet Cinaralp and Dr Valerie Shulman, the Secretary Generals of, respectively, the European Tyre & Rubber

Manufacturers' Association (ETRMA) and the European Tyre Recycling Association (ETRA). As mentioned, this gathering constituted a very visible step in the process we have initiated towards greater co-operation between recyclers and tyre producers, not least so that they can act in a more concerted way in their dealings with the European Commission. This is a long-term commitment and will demand our continuous attention.

In May this year, furthermore, BIR will join ETRMA and ETRA at a conference about tyre recycling at Messe Essen in Germany. In another sign of the closer ties now

“Our gathering in Prague constituted a very visible step in the process we have initiated towards greater co-operation between recyclers and tyre producers, not least so that they can act in a more concerted way in their dealings with the European Commission.”

KEY FACTS

DESTINATIONS FOR THE 3.2M TONNES OF TYRES COLLECTED IN EUROPE IN 2014:

38% material recycling

35% energy recovery

6% retreading

13% exported

9% landfilled

being sealed within Europe, Dutch association VACO – which represents the tyre and wheel business in the Netherlands – is to rejoin BIR as a member.

In Prague, Ms Cinaralp identified several topics which demand a constructive dialogue, including end-of-life tyre (ELT) producer responsibility, ELT standardisation and the Circular Economy agenda. She also stressed the absolute necessity of supporting the development of new markets for secondary raw materials, such as through mandatory “green” public procurement schemes and through EU-harmonised end-of-waste criteria for materials derived from ELTs. While Europe’s tyre recovery rate jumped from less than 50% in 1999

to more than 90% in 2014, some end uses remain marginal at best – including road-building – while several of the bigger applications have reached maturity and/or are under threat, notably from European regulation. For example, new limits on polycyclic aromatic hydrocarbon contents apply to infill (which accounts for around 30% of Europe’s ELT-derived granulate/powder) even though evidence suggests no adverse health effects can be expected from playing on ELT-derived synthetic turfs/shock-absorbing surfaces. In such areas, recyclers and producers share a common interest, thus underlining the value of their closer co-operation.

Dr Shulman from the ETRA also highlighted a number of areas of

concern for recyclers, including the limited government support available in terms of finance, incentives and “green” public procurement, as well as legislation that appeared “outdated” in some instances.

In the past, I suggested the BIR Tyres Committee wanted to reinforce its credentials as a source of top-notch information so that the recycling industry could throw the weight of numbers and facts behind its arguments when meeting with policy-makers and regulators. This continued to be the case in 2015, but we also provided a meeting point for the various links in the tyre recycling chain and hopefully the momentum to develop these ties further in the future.



Thomas Papageorgiou
Anamet Recycling Industry SA (GRC)
Chairman E-Scrap Committee

E-SCRAP COMMITTEE

Our Committee's two open meetings in 2015 confirmed their ever-widening breadth – not only in terms of membership and global coverage but also in the types of organisation that want to become involved in our activities...

... In Dubai last May, we opened up contacts with OEMs with the objective of promoting deeper collaboration with recyclers on issues of mutual interest. In her guest presentation, Andrea Sarudi of IBM Corporate Environmental Affairs provided us with an in-depth analysis of her company's environmental policies and requirements, as well as its end-of-life management operations through which 913,000 tonnes of product and product waste had been collected and processed for reuse and recycling between 1995 and 2013. She also made the bold and impressive claim that less than 2% of processed IBM product waste is sent to landfill or incineration in an average year.

Fellow guest speaker Klaus Hieronymi of Hewlett-Packard also

provided some interesting figures in his assessment of current trends in electronics that would impact recycling, including miniaturisation, centralisation and a dramatic reduction in precious metal/rare earth contents. According to him, metals usage in computers has tumbled from approximately 10-15kg per unit in the year 2000 to an average of around 1.5kg today. Over the same period, the gross value of the precious metals content has plummeted from more than US\$ 40 to around US\$ 10.

Clearly, such trends are already having major repercussions for recyclers, for whom the metals content in waste electrical and electronic equipment – and particularly precious metals – often holds the key to a recycling



“The electronics sector never stands still and experts are anticipating a further seismic shift in product design and componentry over the years to come, all of which will have a profound effect on our businesses.”

KEY FACTS

AVERAGE METALS USAGE IN A COMPUTER:

Year 2000	10-15kg
2015	1.5kg

AVERAGE PRECIOUS METALS VALUE IN A COMPUTER:

Year 2000	>US\$ 40
2015	US\$ 10

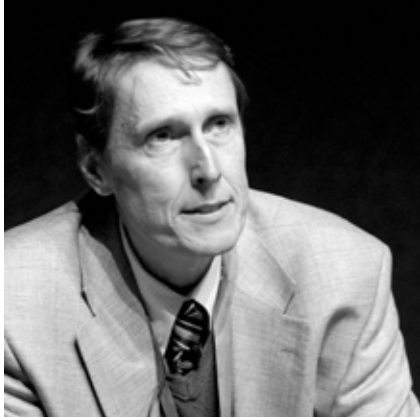
operation's profitability and even viability. But as we all know, the electronics sector never stands still and experts are anticipating a further seismic shift in product design and componentry over the years to come, all of which will have a profound effect on our businesses. For his part, Mr Hieronymi forecast that in perhaps only 15 or so years from now, increased use of plastics and glass fibre will have virtually eliminated copper cables and precious metals from computer processors.

How our industry should respond to such striking developments became a core theme of our lively moderated session in Prague last October. What emerged most strongly was that innovation and diversification would be crucial to achieving business sustainability. As pointed

out by Eric Harris of the US Institute of Scrap Recycling Industries, an increasing number of companies have been looking to develop through diversification into new service areas such as data security and through maximisation of reuse, refurbishment and remanufacturing. The same applies equally in Europe.

I began this report by commenting on how our E-Scrap Committee continued to gain more traction in 2015 through the involvement of an increasing number of members and participants in our meetings. Our gathering in Prague certainly generated wide input into a frank discussion about the various directions in which our Committee might go in the future. We are fully aware that this development phase for our activities remains ongoing and will

be a strong point of focus in 2016. As indicated in Prague, part of that remit should include lobbying on behalf of the e-scrap industry as well as the boosting of its profile and reputation by seeking to challenge some of the myths, misunderstandings and misapprehensions that surround our sector, often propounded or repeated by some highly influential organisations. Our Committee fully acknowledges the need to set the record straight and all I would add is: “Watch this space.”



Olivier François

Galloo Group (FRA/BEL)

Chairman International Environment Council

INTERNATIONAL ENVIRONMENT COUNCIL

There is a popular misconception that the interests of trade and of the environment are mutually exclusive, but BIR as a whole – and the International Environment Council (IEC) in particular – looks to challenge this misguided belief on an almost daily basis...

... Raw materials, both primary and recycled, do not arise locally in the exact quantities needed by local consumers; in many cases, the raw materials required to feed industrial processes and to foster growth in emerging economies, for example, are simply not available from close at hand. Therefore, trade across borders, seas and oceans is absolutely essential to ensure that raw materials reach the point where they are most needed to enable industries and economies to develop. When restrictions stand in the way of transboundary movements of recyclables, they are undermining the effectiveness of recycling and preventing the full resource conservation benefits of recycling from being realised.

This was one of the key messages delivered by the recycling industry in the process leading up to the launch of the European Commission's

revised Circular Economy package in December 2015, and this inalienable truth was also highlighted during BIR's two conventions in Dubai and Prague in 2015. Both of our events highlighted how India, for example, was becoming an ever more important destination for the world's recycled raw materials, thereby mitigating the impact of the country's stellar growth on the mining of primary resources. In Prague, we learned that the Indian government expects the country's annual steel scrap imports to double to 10m tonnes by 2020 because domestic production would be insufficient to cover demand. And yet that same government is persisting with a scrap import duty that puts recycled raw materials at a competitive disadvantage to their primary counterparts.

2015 also saw disruption to international shipments of metals

“Recycled raw materials should be classified as environmental goods and have their tariffs eliminated so that they will be preferred to primary raw materials, thus mitigating climate change and turning the economy from linear to circular.”

scrap to India as a result of the protracted debate surrounding the country's revised pre-shipment inspection procedures. Once again, the recycling industry played a central role in ensuring that the final version of these procedures was workable. Clearly, further dislocation of recycled raw material supplies to India suits neither the seller, the consumer nor the environment.

Our gathering in Dubai also reflected what had happened only days earlier during the Conferences of the Parties (COPs) in Geneva covering the United Nations' Rotterdam, Stockholm and Basel Conventions, which deal with respectively: informed consent in the movement of chemicals; protection of human health and the environment from persistent organic pollutants (POPs); and transboundary movement of hazardous and other waste. As outlined at our meeting, the Stockholm and Basel Conventions

have potentially profound implications for the recycling industry and will continue to receive our close attention.

Geneva also provided a launch-pad for the United Nations Environment Programme's report entitled "Waste Crimes, Waste Risks: Gaps and Challenges in the Waste Sector" which makes the wholly unsubstantiated claim that up to 90% of electronic waste is illegally traded or dumped. Clearly, misconceptions regarding recycling can be circulated by even some of the most highly-respected bodies. Again, BIR and the IEC will ensure that the public gets to hear the facts as opposed to the fiction.

In chairing a panel discussion in Dubai, I highlighted another perceived inequity in that other industries receive carbon credits using recycled materials (like metal smelters) and yet the recycling industry does not, despite its

undoubtedly positive contribution to saving CO₂ emissions.

To end on a positive, however, 2015 also brought progress towards an Environmental Goods Agreement at the World Trade Organization (WTO) which would have potentially important benefits for our sector. If items such as recycling machinery and equipment as well as recycled commodities were to be listed as "environmental goods", this would ultimately lead to an optimisation of recycling by eliminating the inefficient mix of tariffs and non-tariff barriers imposed by those WTO member countries signing up to the agreement. Recycled raw materials should be classified as environmental goods and have their tariffs eliminated so that they will be preferred to primary raw materials, thus mitigating climate change and turning the economy from linear to circular.



Michael Lion

Everwell Resources Ltd (CHN)

Chairman International Trade Council

INTERNATIONAL TRADE COUNCIL

It is with great pleasure that I took up the position of Chairman of the BIR's International Trade Council (ITC) in time to lead the steering committee meeting in Prague last October. However, it would be remiss of me to begin this report in any other way than to recognise the enormous contribution made by my predecessor in this role, Robert Voss CBE. I look forward to continuing the work of connecting the ITC with the BIR membership on topics as wide-ranging as trade barriers, shipping issues, financing and mergers & acquisitions...

... Given the global interdependence of raw materials supply, BIR has always been – and remains – a strong advocate of free and fair trade, continuing to support the work of the OECD Trade Committee that promotes the benefits of free trade to governments by carrying out surveys, publishing reports and hosting 'Global Forum' events. Despite the best economic advice from its experts, however, OECD surveys reveal long and growing lists of countries regulating scrap exports, with 38% of governments identifying protection of their domestic industries as justification for such restrictions. A further 21% quoted "addressing current economic conditions" as the reason while 20% were using trade restrictions as a means of "preventing illegal activities". OECD experts argue that

alternatives exist to better achieve those stated objectives "in almost every case".

Specific trade issues continued to abound in 2015. At the ITC meeting in Dubai last May, Sidney Lazarus of Non-Ferrous Metal Works in South Africa argued that his country's export permit system was "not working for copper and brass scrap" and urged all involved bodies to come together to discuss possible improvements. The meeting also coincided with India issuing revised procedures for the pre-shipment inspection (PSI) of metal scrap in a bid to eliminate not only explosives or radiation in imported scrap but also the estimated one-third of PSI agencies in India that were "bogus". The active participation of the Metal Recycling Association of India (MRAI)

“Given the global interdependence of raw materials supply, BIR has always been – and remains – a strong advocate of free and fair trade.”

and other Indian experts made this ITC meeting particularly informative and current.

Discussions moved forward towards the Environmental Goods Agreement that seeks to eliminate duties on listed environmental goods. BIR and its US member ISRI continued to argue the case that recycling machinery/equipment and processed secondary raw materials meeting industrial infeed specifications should be included on the list of environmental goods as a proactive means to use recycling for optimising the circular economy and climate change mitigation.

Other trade related activities came to the fore in 2015. Around mid-year, ISRI became the first national association member of BIR to join

the world body's co-operation with the International Maritime Bureau (IMB) in its efforts to tackle theft in international transport and shipping. From January 2016, members of ISRI have been able – as BIR members already were – to report instances of theft and fraud to the IMB and to access the Bureau's growing database of cargo thefts and security issues arising at various ports or via specific transport modes worldwide. We are continuing to urge other recycling federations and associations to join with BIR and ISRI in making full use of this valuable IMB tool.

Looking ahead, the ITC will continue to raise awareness among BIR members regarding commercial issues that concern more than one commodity, whether metals or non-metals for either recycling or

reuse. The ITC will also continue to enhance the means for addressing these commercial issues in order to benefit BIR members by co-ordinating the actions between the relevant commodity divisions and committees, dealing with subjects that those divisions and committees were not addressing on their own. As an international body, BIR has an important role to play in terms of setting trading conditions.

CASE STUDY

RECYCLING: THE KEY TO A GLOBAL CIRCULAR ECONOMY

Ever since the European Commission discarded its first Circular Economy package with the promise of a more ambitious replacement, Europe's recycling industry representatives began working tirelessly behind the scenes to ensure that the interests of the sector were reflected in the new document. They did so with high hopes given that, in its own literature, the European Commission has specifically identified recycling as one of the essential ingredients of a circular economy.

The wait to see what the revised package would contain ended on December 2, 2015, an important date for recyclers not only in Europe – where it will shape EU policy for the coming years – but also potentially worldwide. As with so many of its directives in the past, the rules and regulations emanating from Brussels have provided the template for legislation elsewhere and so the package could well serve as a model for other regions of the world.

Furthermore, the recycled commodities produced by our industry satisfy more than 40% of raw material needs globally. Recyclers

produce secondary resources at a local level for consumption notably in industrial plants on the other side of the planet. In effect, you cannot have a truly circular economy if it is limited to one continent or region of the world. Primary and secondary resources are scattered across the globe and are often not available close to the desired point of consumption. Therefore, international trade and access to world markets are integral to the successful working of a circular economy.

BIR supports the goal of swapping a linear, throwaway society for a circular model. Through free and fair

trade, BIR believes, consumption of secondary raw materials will be optimised, thereby displacing as much primary raw material as possible to bring huge environmental gains, not least in terms of energy savings and reduced CO₂ emissions. As highlighted in this Annual Report, the latest BIR-commissioned study has concluded that recycling industry activities deliver carbon emission savings well beyond what had been calculated previously.

The European Commission package contains many encouraging aspects, including: electronic notification to simplify cross-border formalities for

“You cannot have a truly circular economy if it is limited to one continent or region of the world.”

movement of secondary raw materials, thus helping such procedures to keep in step with the pace of modern business; the emphasis put on eco-design encompassing repairability, durability, upgradability and recyclability of products; and support for separate collection of paper, something long espoused by Europe’s paper recycling branch.

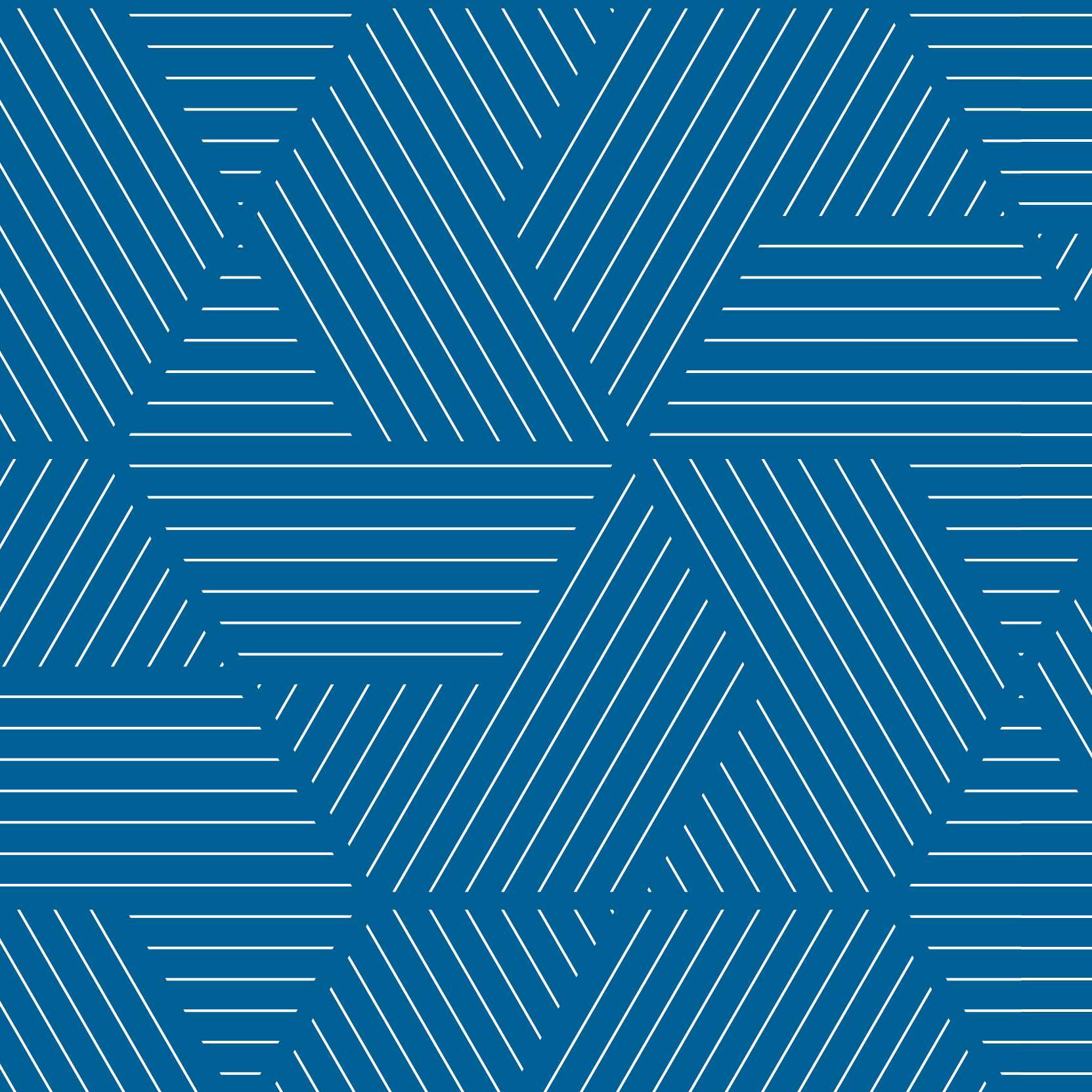
However, the European Commission’s Circular Economy package is certainly not perfect. For example, its proposed approach to the calculation of reuse, recycling and recovery targets is seriously flawed as it is founded on the shaky premise of a

“final recycling process” which, if adopted, would force contradictions with existing legislation in trying to identify for each material what indeed is the final recycling process.

The European Commission package sets out an EU action plan for the Circular Economy and attention has now switched to the legislative process, during which European recycling industry officials will look to refine some of the proposals with an impact on our sector ahead of the possibly complex task of implementation throughout Europe. For example, the European Commission talks in the package

of establishing quality standards for secondary raw materials where needed. In the setting of any such standards, we would clearly want recyclers to play a pivotal role given their expertise and experience in the characteristics of their materials and processes.

Just as it did in 2015, this Circular Economy package will continue to occupy the attention of recycling industry representatives in 2016.





SPECIAL COMMITTEES

The BIR Special Committees deal with organisational and administrative matters concerning the general structure of the organisation.



Mark Sellier

OneSteel Recycling Hong Kong Ltd (CHN)

Chairman Convention Committee

CONVENTION COMMITTEE

2015 brought a change in helmsmen – not only for the organisation as a whole with new BIR President Ranjit Baxi leading us through these tempestuous market conditions, but also at convention level with Anja Wimmer assuming her role as Convention Director. The Convention Committee has benefitted greatly from her mature, professional and experienced contribution. She has immersed herself in understanding the product we offer delegates, leading to many visible and behind-the-scenes improvements. Conventions remain at the heart of BIR and we continue to attract many hundreds of delegates from across the global recycling industry. The decision by the BIR leadership to employ a full-time Convention Director is an endorsement of their significance...

... In May, we visited Dubai for a second time. There we said farewell to Francis Veys: this was the final event under his supervision as he ended his advisory role in June 2015. His contribution to our conventions has been immeasurable. Francis has guided, advised and assisted me hugely in my role as Convention Committee Chairman, as he had done for my predecessors. On behalf of every one of us, we wish him all the best in his retirement.

The Dubai convention was well attended and a great success thanks to our many sponsors and the support of the Dubai Department of Tourism and Commerce Marketing. Among 17 speakers, we were particularly fortunate to welcome highly-acclaimed Middle East expert Rami Khouri who presented the keynote address to our General Assembly. Few will forget the spectacular Welcome Evening held in the grounds of the Al Badia Golf Club while the “Meet the Exhibitors” party was a new addition to our

programme and proved to be a success, with many exhibitors and delegates making contact.

At our October convention in Prague, attendance was good despite a poor global picture for commodities. The programme was very crowded, with 16 speakers in two days. We received great support from the city of Prague with free public transport for registered delegates and use of the magnificent Municipal House for the Welcome Reception. We also trialled the BIR mobile convention app which received overwhelmingly positive feedback and a new, improved version will be offered at future events.

We also ran an exhibition at our October convention for the first time. The format of the stands, backdrop and open design without the usual shell booths offered exhibitors and delegates more visibility. Once again, feedback was very positive. We are continuing to develop a more detailed and dedicated package for our exhibitors through the work of

“We believe that, despite a crowded calendar of commercially-driven regional recycling events, BIR conventions continue to offer the best in global networking opportunities as well as informed industry commentary and discussion of global, recycling-specific issues relating to all elements of recycling.”

the convention task force and the Exhibitors Committee, including fully-branded stands allowing exhibitors to reduce shipment costs and stand preparation time.

2016 will see us visit Berlin in May and Amsterdam in October, both previously very successful convention locations. Our May 2017 gathering will take place in Hong Kong where we will move away from the usual convention hotel model to a convention centre. More information about future locations will be available following our meeting in Berlin.

We are continually striving to increase our value proposition in the convention offering, with a dedicated task force conferring regularly by telephone between conventions. We believe that, despite a crowded calendar of commercially-driven regional recycling events, BIR conventions continue to offer the best in global networking opportunities as well as informed industry commentary and discussion

of global, recycling-specific issues relating to all elements of recycling.

I would like to thank BIR's Immediate Past President Björn Grufman for his leadership and contributions to our conventions during his four years in office, as well as all the divisional presidents and committee chairmen for continuing to fill the programme with such valuable content.

A thank-you also to all those who attended our conventions. I look forward to welcoming you to future events; your support and feedback are important to us. If you have any questions or suggestions, the BIR secretariat in Brussels can put you in touch with me.

Finally, many thanks to the whole team in Brussels who work so hard on our behalf during the year and especially in the run-up to and during conventions. Without their commitment and dedication, our events would not be a success.





Kamiel van Wijk

Aurubis Netherlands BV (NLD)

Chairman Communications Committee

COMMUNICATIONS COMMITTEE

The main objective of our communications work in 2015 remained to provide valuable information to our members regarding BIR's programmes and membership services while at the same time improving the image of the recycling industry to the outside world, mainly via reinforced actions targeting the general and trade media...

... BIR has a wide range of information material that it makes available to its members, and maintaining this flow requires detailed research and professional delivery. Our market information in the form of, for example, statistics and World Mirrors has gained widespread recognition not only within our membership but also with the entire recycling and primary industry at large, the media and political decision-makers.

Last year saw the publication of the 6th edition of World Steel Recycling in Figures and the third edition of our paper statistics, both appearing in the BIR series "Global Facts and Figures". As far as the Mirrors are concerned, we published 22 in total and therein provided first-hand market information covering ferrous and non-ferrous metals, stainless steel & special alloys, paper and also plastics.

Every one of our conventions, meanwhile, represents a new

challenge and opportunity for the BIR Communications Department. Depending on the location and other recycling events either in that same region or at the same time, the quality and pace of the promotion of our conventions are very important. Efficient communication work encompasses: the preparation of an attractive programme; high-quality branding; the promotion of divisional initiatives and guest speakers to our members and the press; and production of a complex array of convention material to be made available during the event. Press targeting in every host country is one of our priorities because it gives BIR increased exposure in specific locations, thereby spreading our international reputation even wider.

We continue our efforts to promote BIR and the recycling industry in the trade press and the general media, with which we have established and maintain contact with the help of

“BIR has a wide range of information material that it makes available to its members, and maintaining this flow requires detailed research and professional delivery.”

well-respected PR agency Cambre. The agency provides invaluable assistance in inspiring the interest of journalists and local correspondents at our convention venues, as well as at events where BIR officers make presentations.

It is in the nature of the general press that, despite many efforts to spark their interest, the outcome is not guaranteed, and sometimes they shift their attention at the very last minute to another unrelated “scoop”. Keeping constantly in touch with key journalists is therefore of paramount importance in ensuring that they bear BIR in mind for background information and comment on recycling-related topics. Last year, we succeeded in securing coverage with The Economic Times, Bloomberg News Agency, Arabian Business, The Hindu Business Line and the American Journal of Transportation. Also, the BIR World President was interviewed

by the senior environment editor of Thomson Reuters in Brussels and by the BBC World Service, and Textiles Division President Mehdi Zerroug answered questions from a journalist at the Times of India. During our Prague Convention last October, some of the meetings were covered by a reporter from Germany’s international broadcaster Deutsche Welle and by a journalist from the Prague Post, one of the Czech Republic’s major weekly publications.

We must not forget to mention the invaluable work of our Ambassadors, divisional board members and the BIR leadership who represented our world recycling organisation throughout the year on many occasions and at many events, and who have been using the tools that the BIR secretariat puts at their disposal to spread our message and to strengthen the reputation of the international recycling industry.





Fadi Shahrour

Sharmetal Trading CO. S.A.R.L. (LBN)

Chairman Membership Committee

MEMBERSHIP COMMITTEE

In 2015, I had the honour of taking over the chairmanship of the BIR Membership Committee from Michael Lion, who had been at its helm for over 12 years. During his mandate, BIR saw its membership expand, diversify in terms of countries and also in terms of business types, and stabilise throughout quite a bumpy economic cycle. I would like to express my deeply felt thanks for his leadership and dedication...

... BIR has indeed been growing over the years, starting with a few companies based in Europe and growing gradually over time to include recycling industry members from all continents. BIR is the only international federation with such a big basket of diversified international members covering all sectors of the recycling industry.

BIR is looked upon as the international voice of our industry, taking the lead in defending the interests of all our companies, wherever they are.

This membership diversity gives our companies the advantage of easily communicating and trading with each other, with widespread business opportunities coming from all corners of the world. Our BIR conventions represent the perfect networking hub, providing our members with a global reach for reliable business partners. These conventions place our members in an enjoyable

atmosphere while at the same time enabling them to take a closer look at the latest recycling issues and matters, exchanging information and ideas about current developments and helping establish future plans for our businesses. BIR is in the perfect position to be aware of approaching difficulties and obstacles likely to hinder our members' activities in various areas and markets around the world.

The Membership Committee is devoted to continuously attracting new members from across the globe while maintaining the high standards and ethical requirements to ensure that membership obligations are met and that there is compliance with BIR rules and statutes. Respecting BIR's Code of Conduct is therefore a key condition for new members when they join our organisation. This builds trust among our members to communicate and trade safely with each other.

“BIR is looked upon as the international voice of our industry, taking the lead in defending the interests of all our companies, wherever they are.”

BIR had 803 members at the end of 2015 covering 68 countries, among which were 34 national federations. 130 new applications to join had been received, of which eventually 66 candidates fulfilled all the necessary requirements and were accepted into membership.

The Membership Committee is looking into new ideas to add value for members in 2016 while preserving the high standard of existing services. In light of the current difficult market conditions, we will focus on implementing a marketing plan that will attract an even wider range of companies to our membership roster. We will continue to ensure that BIR keeps offering the highest levels of quality in order to retain our current members and to enhance its appeal to other industry partners.





Rolf Gren

Pallmann Maschinenfabrik GmbH & Co. KG (DEU)

Chairman Exhibitors Committee

In June 2014 at the BIR Convention in Miami, it was decided to form what today is known as the Exhibitors Committee and I was honoured to be chosen to chair it...



EXHIBITORS

COMMITTEE

... In 2015, we achieved a lot. As a novelty, our Dubai Convention saw the creation of a “Meet the Exhibitors” reception, and if not 100% perfect first time it was one more way to attract the delegates into the exhibitor area. With our members’ input and suggestions, I am convinced this will be an absolutely excellent future venue for exhibitors. Moreover, we initiated the practice whereby the divisional luncheon desserts are served in the exhibition area, again ensuring that many more people were enticed to visit our stands. Also, the duration of the exhibition was changed from three to two days to make it more affordable and time-efficient for exhibitors.

In Prague, a big step forward was taken by upgrading the exhibition tables to proper stands, which provide a full key-in-hand service which facilitates the exhibitors’ logistics immensely. In general, the exhibitors’ profile was raised both in the convention programme and on the BIR website, with the exhibitors’ logos linking directly to our companies’ own websites.

BIR events have one major advantage over the many other exhibitions we all attend: the delegates are really interested in our type of services and products. Through the Exhibitors Committee, we the exhibitors now have a great opportunity to make our exhibition area even more attractive. Talk to colleagues in your field of services and products as well as to companies you think would be of interest to BIR delegates and please urge them to apply for BIR membership. The more stands we have in the area offering services and products, the more reasons there are for delegates to visit us.

We would not have achieved this without the input from our exhibitors and the BIR team, in which respect my special thanks go to Anja Wimmer and Antoine Breysens as well as to other BIR officials, especially Mark Sellier and Björn Grufman. Let me also thank all Exhibitors Committee members as well as all of you who have been helping with good ideas and suggestions; please make sure we get your input in 2016 too.



Graeme Cameron

Sims Metal Management Asia Ltd (CHN)

Chairman Young Traders Committee

YOUNG TRADERS COMMITTEE

This is the first time I have written a report on behalf of the Young Traders Committee, which represents a cornerstone of BIR activities. Interest in the BIR Young Traders Group (YTG) has continued to grow since our inception – even in 2015, which is quite astounding considering the condition of the markets in which we all operate. At each event I attend, I continue to hear positive feedback from leaders of our industry who all believe astutely that the Young Traders Group provides the foundation for the next generation of recycling industry leaders...



... We continue to attract a high attendance of young traders at our conventions in general as well as at our networking events. This fact alone is a great measure of the success of our initiatives given the many conflicting appointments during our biannual meetings that our young traders could be attending instead.

Representatives of the YTG now sit on most of the divisional boards and committees. These representatives are actively involved in the discussions, sharing their ideas and voicing the views of the younger generation. Many of these young traders, like those before them, will eventually graduate to being senior members of each of these boards and committees. This truly demonstrates the success of the Young Traders Committee in grooming the next generation of leaders within BIR and the greater recycling community.

The Committee continues to publish a biannual gazette which is aimed at promoting BIR and at welcoming younger members of the industry to the organisation and to its conventions. In addition, we have a dedicated page on the BIR website. The content of these media portals is created and updated by the committee with the help of the secretariat in Brussels.

This is my last year as President of this committee because, as much as I hate to admit it, at the end of this year I will fail to meet its essential requirement of being under the age of 35 and so will no longer be a “young” trader. I look forward with confidence to 2016 as being yet another successful year for our dynamic group. We continue to encourage all young traders participating in our conventions to attend the Young Traders networking events. Those interested in actively participating in the committee are welcome to express their interest to join.

GUEST SPEAKERS

AT BIR EVENTS IN 2015

DUBAI,
18-20 MAY 2015

Ferrous Division

- **Dr Edwin Basson**, *Director General*, World Steel Association (Belgium)
- **Ismail Al-Sulby**, *General Manager Long Products / Business Unit*, Metals SBU, Saudi Basic Industries Corporation – SABIC (Saudi Arabia)

Shredder Committee

- **Heiner Guschall**, SICON GmbH (Germany)

Stainless Steel & Special Alloys Committee

- **Markus Moll**, *General Manager*, SMR GmbH – Steel & Metals Market Research (Austria)

Keynote Session

- **Rami Khouri**, *Political Columnist, Book Author and University Lecturer*

Non-Ferrous Metals Division

- **Mohan Agarwal**, *Managing Director*, Century Metal Recycling PVT. Ltd (India)
- **Nasser Aboura**, *Managing Partner*, Aboura Metals (United Arab Emirates)

E-Scrap Committee

- **Andrea Sarudi**, *Program Manager Environmental Affairs, Central & South East Europe*, IBM (Hungary)
- **Klaus Hieronymi**, *Global Resource Efficiency Strategies*, Hewlett-Packard Company (Germany)

Plastics Committee

- **Katharina Goeschl**, *General Manager*, Emirates Environmental Technology LLC (United Arab Emirates)
- **Mahmoud Al Sharif Jr**, *Purchase Officer*, Sharif Metals Int'l LLC (United Arab Emirates)

Paper Division

- **Habiba Al Marashi**, *Chairperson*, Emirates Environmental Group (United Arab Emirates)
- **Atul Kaul**, *Director Pulp & Paper*, WARAQ (Saudi Arabia)

Textiles Division

- **Nohar Nath**, *Executive Director*, Kishco Group (India)

Tyres & Rubber Committee

- **Jacinto Alcazar Padilla**, *Ecija – Rubber Solutions* (Brazil)
- **Tony Hanouch**, *AP Hanouch t/a Rubber Resources* (South Africa)
- **Jeffery Kendall**, *Former CEO*, Libertytire (USA)
- **Harsh Gandhi**, *Executive Director*, GRP Limited (India)

PRAGUE,

26-27 OCTOBER 2015

Paper Division

- **Balázs Makó**, *Managing Director*, P.M.R. GmbH (Hungary)
- **Jaroslav Tymich**, *Executive and Managing Director*, EURO WASTE, s.r.o. (Czech Republic)

Tyres & Rubber Committee

- **Wilma Dierkes**, *Associate Professor Elastomer Technology and Engineering*, University of Twente | Faculty of Engineering Technology (The Netherlands)
- **Fazilet Cinaralp**, *Secretary General*, ETRMA- European Tyre & Rubber Manufacturers' Association
- **Dr. Valerie Shulman**, *Secretary General*, ETRA-European Tyre Recycling Association

Non-Ferrous Metals Division

- **Marek Zelazny**, *Commercial Director*, Baterpol S.A. (Poland)
- **Marek Orlicz**, *Commercial Director*, MetalCo Sp. z o.o. (Poland)

Plastics Committee

- **Dr. Li Shen**, *Assistant Professor, Energy & Resources*, Copernicus Institute of Sustainable Development (The Netherlands)
- **Manuel Burnand**, *Director Environment & Development*, Derichebourg (France)

Ferrous Division

- **Becky E. Hites**, *President & Founder*, Steel-Insights, LLC (USA)

Stainless Steel & Special Alloys Committee

- **Dr. Gerhard C. Pariser**, *Senior Consultant*, Heinz H. Pariser Alloy Metals & Steel Market Research (Germany)

Textiles Division

- **Hanna Ljungkvist**, *Climate and sustainable cities – Waste*, IVL Swedish Environmental Research Institute (Sweden)
- **Nicole Kösegi**, *Chief Operating Officer Collection & Procurement*, SOEX Textil-Vermarktungsgesellschaft m.b.H (Germany)

International Environment Council

- **Emmanuel Katrakis**, *Secretary General*, EuRIC AISBL
- **RNDr. Jindrich Petrlik**, *Executive Director/Co-chair of Dioxin, PCBs and Waste WG Toxics and Waste Programme*, Arnika Association (Czech Republic)
- **Ing. Jaromír Manhart**, *Director of the Waste Management Department*, Ministry of Environment (Czech Republic)

CALENDAR

OF FUTURE BIR CONVENTIONS

2016

(29) 30 May-1 June

Berlin, Germany
InterContinental Hotel

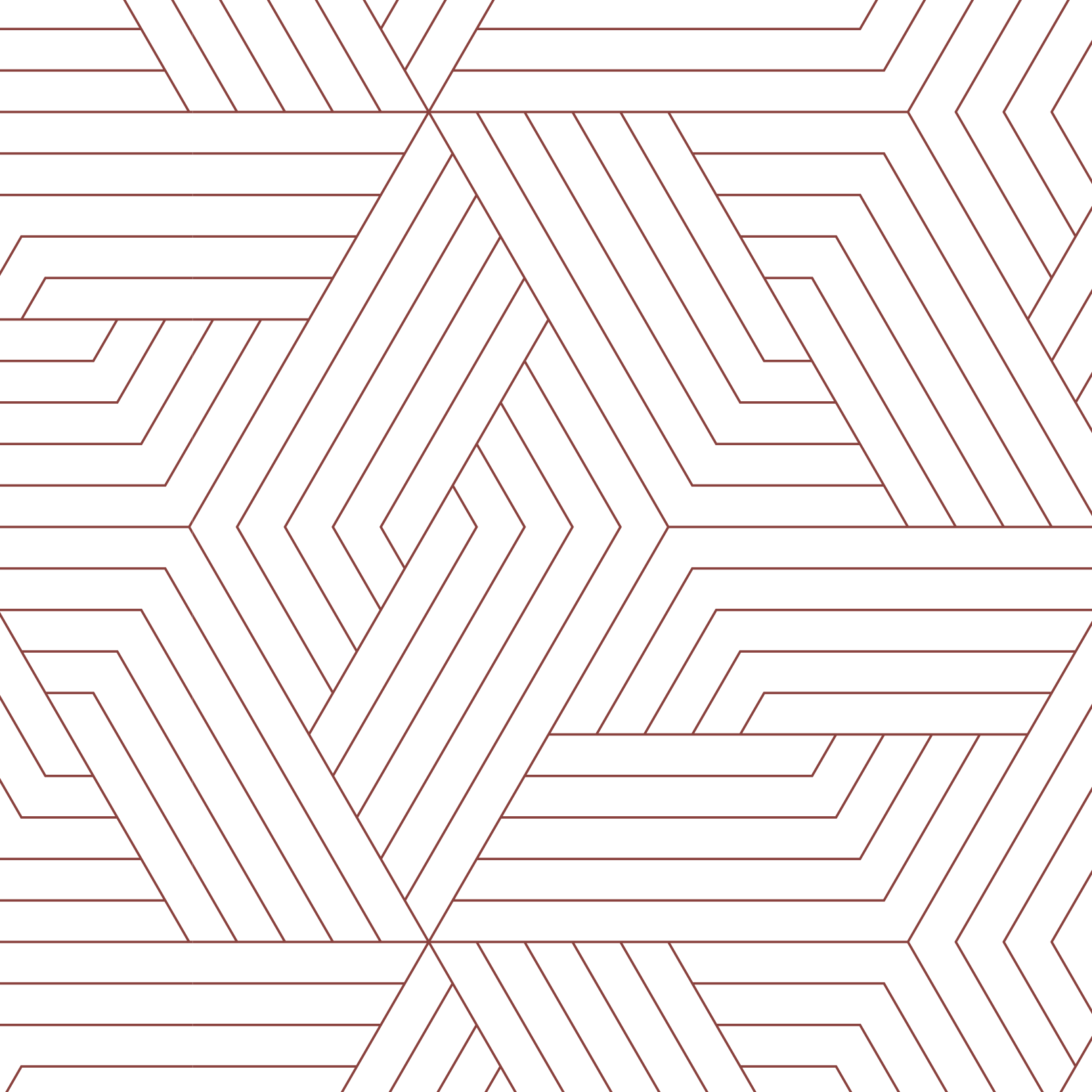
(23) 24-25 October

Amsterdam, The Netherlands
Okura Hotel

2017

(21) 22-24 May

Hong Kong, China
Hong Kong Convention & Exhibition Centre





BIR – REPRESENTING THE FUTURE LEADING RAW MATERIAL SUPPLIERS

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