LEAD AND ZINC FORECASTS

The outlook for World supply and demand for lead and zinc was presented during the ILZSG 57th Session held in Lisbon on 11-12 October 2012. Highlights include:

- The global usage of refined lead metal is expected to increase by 3.4% to 10.80 million tonnes in 2012 and by a further 3.3% to 11.15 million tonnes in 2013. In China, lead-acid battery production and exports have recovered strongly after the environmentally motivated cutbacks in 2011 and lead metal usage is expected to grow by 4.8% in 2012, and 4.7% in 2013.

- Global lead mine production is forecast to increase by 10.9% in 2012 to 5.21 million tonnes and 2.8% in 2013 to 5.36 million tonnes due to increased production in China. Output in the rest of the world will be relatively stable as increases in Mexico, Peru and Russia are offset by a reduction in Canada.

- Global production of refined lead metal in 2012 is expected to increase by 2.9% to 10.90 million tonnes. In 2013 a further rise of 3.8% to 11.32 million tonnes is expected with opening of both new capacity and reopening of capacity placed on care and maintenance in recent years.

- The forecast is for the global supply of refined lead metal to exceed demand by about 108,000 tonnes in 2012 and by 174,000 tonnes in 2013.

- Global refined zinc usage is forecast to decline slightly by 0.3% in 2012 to 12.71 million tonnes followed by a 3.8% increase to 13.19 million tonnes in 2013. Chinese demand is expected to grow by 0.5% in 2012 and by 5.6% in 2013. European demand in 2012 is predicted to fall by 5.5% and then rise by 2.5% in 2013.

- Global zinc mine supply is forecast to increase 5% to 13.60 million tonnes in 2012, due largely to increases in China, where output is forecast to rise by 13.7%. In 2013, global production is anticipated to grow 2.7% to 13.96 million tonnes, with additional output from Australia, Burkina Faso, Kazakhstan, Mexico, Portugal and the United States.

- Global refined zinc production is forecast to fall by 2% to 12.86 million tonnes in 2012, and then rise by 4.8% to 13.48 million tonnes in 2013. An anticipated 5.2% fall in Chinese production in 2012 will be the first reduction for 23 years, however in 2013 a rise in output of 9.1% is expected in China.

- The latest forecasts supplied by the Group’s member countries indicate that global supply of refined zinc metal will exceed demand by 153,000 tonnes in 2012 and by 293,000 tonnes in 2013.

For further details of the outcomes of the ILZSG meetings or questions on the market outlook please email Paul White at paul_white@ilzsg.org

NEXT STUDY GROUPS’ MEETING DATES

The dates for the next International Study Groups’ meetings are:

INSG: 22-23 April 2013, Lisbon, Portugal
ILZSG: 24 April 2013, Lisbon, Portugal
ICSG: 25-26 April 2013, Lisbon, Portugal

Joint Seminar 2:00 pm on 24 April 2013:
COPPER FORECAST

During the 40th Regular Meeting of the International Copper Study Group Statistical Committee in Lisbon on 8-9 October 2012, ICSG member countries reviewed the current outlook for trends in World supply and demand for copper during 2012 and 2013 and issued the following forecast:

- ICSG expects world apparent refined usage in 2012 to grow by 2.6% from that in 2011 to 20.4 Mt (million tonnes). World usage without China is expected to decline by 1%. For 2013, global copper demand is expected to increase slightly. Although industrial demand for copper in China is expected to increase by about 5% in 2013, apparent usage in China, which exceeded industrial demand in 2012, is expected to decrease. Usage in the rest of the world is expected to increase by 3.4%.

- In 2012, world refined copper production is expected to remain constrained by a shortage of concentrates and maintenance shutdowns and is projected to increase by only about 1.5% to reach 20 Mt. In 2013, with the restoration of production at existing plants and start-up and expanded capacity at SX-EW plants in Africa and electrolytic plants in China, refined copper production is expected to grow by 6% to 21.2 Mt. Primary copper production and secondary refined production are expected to grow by about 5% and 11%, respectively.

- Global copper mine output is anticipated to grow by only 2.9% in 2012 as operational problems, lower head grades, adverse weather conditions and labor unrest combine to constrain production. With some expansions and project startups occurring in 2013, mine production is expected to increase by around 6.4% to 17.5 Mt (million tonnes), although deferrals and delays in projects have postponed most of the anticipated new supply to 2014 or later.

- ICSG anticipates that the refined copper market balance will show a deficit close to 426 Kt in 2012 and a surplus close to 458 Kt in 2013.

- For further details of the outcomes of the ICSG market outlook please e-mail ICSG Chief Statistician Ana Rebelo at rebelo@icsg.org

NICKEL FORECAST

The International Nickel Study Group (INSG) met on 8-10 October 2012 in Lisbon and reviewed the current outlook and trends in World nickel supply and demand. The following forecast was issued:

- Global primary nickel usage (consumption) was 1.59 Mt in 2011 and is estimated at 1.64 Mt in 2012. For 2013 a further increase to around 1.71 Mt is expected.

- World primary refined nickel production was 1.60 Mt in 2011, and is anticipated to grow to 1.69 Mt in 2012. In 2013 production is forecast to increase to 1.78 Mt. The 2013 figure does not include any adjustment factor for possible production disruptions.

- The current INSG view is for a stock build up for 2012 and for 2013 which could grow if projects ramp up faster than estimated in the forecast.

- INSG members also discussed market trends and noted that 2012 started well with high production of stainless steel and good demand for primary nickel as well as recycled nickel products such as stainless steel scrap. Production has been flat in the second half and this could continue for the full year.

- INSG recognizes the significant impact of the current financial and economic uncertainty in many parts of the world. The effects of the above on both the supply and demand for nickel are not fully known. The Study Group cautions that future market developments could alter the forward-looking market balance.

For further details of the outcomes of the INSG meetings or questions on the market outlook please email Sven Tollin at sven.tollin@insg.org
JOINT SEMINAR ON INDIA

A Joint Study Groups' Seminar on the topic of "The Growing Importance of Mining and Metals in India" was held on 10 October 2012 in Lisbon with the involvement of the three Study Groups and the Government of India. The opening address was given by Mr. Brij Tyagi, Ambassador of India in Lisbon. In his remarks he highlighted the US$1,000 billion infrastructure program recently introduced by the Indian government. The first presentation was by Ms. Rebecca Gordon, Managing Consultant of CRU Strategies, who gave a presentation on 'Base Metals in India: An Overview of Challenges and Opportunities'. This was followed by Mr. Sundeeep Prasanna, representing Vedanta/Hindustan Zinc Ltd, who delivered a presentation on 'Indian Lead and Zinc Output – A Growth Story'. Mr. L Pugazhenthy, Executive Director of ILZDA, then spoke on the topic of 'Lead and Zinc Markets in India - Unfolding Scenario', in which he described the demand drivers of lead and zinc in India. This was followed by a presentation on the 'Indian Stainless Steel Industry' made by Mr. Wolfgang Lipp, Managing Director of SMI in Austria. Mr. Lipp gave his views on the structure of both production and consumption and the distribution of different types of stainless steel. Next Mr. K D Diwan, Chairman and Managing Director of Hindustan Copper, gave a presentation on 'Copper Mining in India – Issues and Concerns'. He provided details of upcoming infrastructure spending plans and the outlook for copper consumption. Mr. Dilip Gaur, Group Executive President from Hindalco/Birla, gave a presentation on 'Copper Custom Smelting in India – Challenges'. He was followed by Dr D De Sarka, CEO of the Indian Copper Development Centre, who gave a presentation on 'End-use Prospects for Copper – An Overview'. The presentation highlighted what are expected to be the main drivers of copper consumption in coming years.

The Seminar concluded with a panel discussion with participation by industry associations and government representatives. The opening question was directed at the copper presenters and focused on by-products in the copper projects in India, such as selenium. The panel replied that some by-products are included in new copper projects and that efforts are being made to improve the refining process. A question was then posed as to why the development of the copper industry in India has been so slow in the past. In reply to this question, panel members suggested that it took some time for people to recognise the importance of the exploration and mining sector to the economy, and that in practical terms there are many steps before a project can reach production. This was followed by some questions on the outlook for growth in India. It was noted that forecast growth is in the range of 6-8% towards 2020 and this is similar to China pre-takeoff. It was asked what constraints need to be overcome to see this growth occur. The response from one panel member was that growth is expected to be higher in the later years. A major difference between India and China is that Indian companies do not invest unless they get approvals and the speed of obtaining approvals is slow. A second panel member noted that the Indian copper mining industry has been a state sector. In comparing the governments, in China it is easy to get things done but in India projects may be delayed because the political structure is democratic. At the same time it was noted India is anticipating 9% GDP growth in coming years and things are changing.

Finally, there was a question related to lead – was it likely that E-bikes using large lead-acid batteries would become more popular in India? It was suggested that it was unlikely the Chinese story of E-bikes would be repeated in India because a shortage of power is still a critical problem in India. Nevertheless E-bike demand will grow; at the same time it was unclear whether electric vehicles would become a big trend in India.

For further details about the Seminar, please email paul_white@ilzsg.org (for lead and zinc), curtis_stewart@ilzsg.org (nickel) or rebelo@icsg.org (copper). The presentations given at the Seminar may be viewed by visiting each Study Group’s website.
Mr. Stewart also provided delegates with a status report on the Environmental and Economics Work Program.

The Statistics Committee reviewed and discussed the latest statistical data. The Committee also received valuable input to its work through presentations and discussions. Mr. Benno Kratz, Managing Director, ELG Haniel Trading, Germany, spoke on the latest world trends in the supply and demand for stainless steel scrap from the point of view of a large processor. Mr. Jim Lennon, Director, Macquarie Research, London, made a presentation on “The Nickel Market in 2012 and 2013”. Mr. Peter Kaumanns, ISSF, Belgium, provided a presentation on the latest developments in stainless steel and its markets, which was presented by the Chief Statistician. Ms. Li Lan, Head of Marketing Research, BGRIMM, China, made a presentation on the study they are undertaking for INSG on “Chinese Nickel Usage in Stainless Steel Production”. Finally, Mr. Ulrich Meyn, Technical Director, MKN Technologies GmbH, Germany, made a presentation “Nickel Alloying Alternatives in Steelmaking”.

The INSG Industry Advisory Panel, comprised of representatives from the world's nickel producing, using and recycling industries, again provided valuable input on the Study Group’s work program priorities. Mr. Grant Wu, Secretary General, Asian Pacific Organization for Lateritic-Nickel-Ore (APOL), made a presentation on “A Low Cost Approach to Reduced CO2 Emissions in Vehicles Using lead-Acid Batteries”; Mr. Jonathan Bates-Kawachi, Research Analyst at Fidelity Management and Research presented a paper which assessed the zinc market from an investment manager's perspective; and, Mr Hu Yongda, Manager of the Lead and Zinc Department of Antaike, China, spoke on the medium term outlook for the Chinese economy and its projected impact on the base metals sector. Copies of these presentations are available on the ILZSG website.

The Mine and Smelter Projects Committee was convened on 11 October. Delegates received a presentation from Mr. Stephen Whitehead, General Manager, Marketing, MMG, Australia on “MMG Beyond Century” which provided an overview of the activities of MMG and how the company would cope with the closure of the large Century mine in 2016. This was followed by a presentation by Mr. Chris Parker, Principal Zinc Analyst, Wood Mackenzie, on “Lead and Zinc Treatment Charges – Trends and Possible Alternatives”.

The Study Group’s Economic and Environment Committee met on 12 October. Mr. Curtis Stewart, Head of Economics and Environment, presented the work program, reporting on activities undertaken in 2012 and those proposed for 2013. This was followed by a presentation on the results of the Study of By-Products of Copper, Lead, Zinc and Nickel. Delegates were invited to suggest further work on this topic and it was agreed the secretariat will coordinate recommendations for the next steps. Mr. Huw Roberts, CHR Metals, UK, gave a presentation on The Global Economic Outlook and Implications for the Mining and Metals Industry in which detailed information was provided on economic trends as well as specific information on nonferrous metal production and use. Mr. Stephen Wilkinson, Executive Director of the International Zinc Association, presented details of projects in India and Africa promoting the use of zinc and funded by the UN Common Fund for Commodities (CFC). ILZSG is the CFC-designated International Commodity Body and IZA is the Project Executing Agency for these projects. Mr. Salim Bhabhrawala of the U.S. Department of Commerce briefed delegates on U.S. Government Initiatives on Critical Minerals Research including plans for an Energy Innovation Hub which outlook for 2013 at the meeting of the ILZSG Statistical and Forecasting Committee (See details on page 1). Meetings of the Standing Committee, Economic and Environment Committee, Mines and Smelter Project Committee and the ILZSG Industry Advisory Panel were held.

The Industry Advisory Panel met on 11 October and provided an opportunity for members to comment on the latest developments in the lead and zinc market. Three presentations were received: Mr. Allan Cooper, Projects Coordinator at the Advanced Lead Acid Battery Consortium, spoke on ‘A Low Cost Approach to Reduced CO2 Emissions in Vehicles Using lead-Acid Batteries’; Mr. Jonathan Bates-Kawachi, Research Analyst at Fidelity Management and Research presented a paper which assessed the zinc market from an investment manager’s perspective; and, Mr Hu Yongda, Manager of the Lead and Zinc Department of Antaike, China, spoke on the medium term outlook for the Chinese economy and its projected impact on the base metals sector. Copies of these presentations are available on the ILZSG website.

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will advance green energy technologies relying on critical mineral resources. Dr. Andrew Bush, Executive Director of the International Lead Association (ILA), gave a presentation on *The Lead Industry: Overview of Recent Developments* and provided information on the regulatory trends around the world which are having an impact on the lead industry. He gave particular focus to EU regulations.

Mr. Brian Wilson, Program Manager at the International Lead Management Center (ILMC), gave a presentation on *Success of a Public-Private Sector Partnership on ESM of ULAB: the Case of Central America and the Caribbean*. This presentation had been prepared by Mr. Miguel Eduardo Araujo Padilla, of the Basel Convention Regional Centre for the Central America Sub-region, including Mexico (BCRC-CAM) and reported on the success of programs to recycle used lead acid batteries in the region.

Copies of the presentations are available on the ILZSG website.

**Copper in use at home**

**ICSG 40th MEETING 8-9 OCTOBER 2012**

Representatives from ICSG member governments, industry associations, companies and observer governments attended the International Copper Study Group’s 40th Regular Meeting at ICSG Headquarters in Lisbon.

At the ICSG Environmental and Economic Committee meeting Ms Li Lan of BGRIMM presented progress in a survey of copper use in Chinese wire rod plants and on the fast growing secondary copper smelter capacity. She presented an overview of the difficult situation of some semi-fabricators and the falling copper scrap use in Chinese semis production this year. Then Mr. Daniel McConvey, Head, Rossport Investments, U.S.A., presented his views on global investors demand for copper. Mr. Carlos Risopatron, ICSG Head of Environment and Economics, presented the 2012 Edition of ICSG Copper First Use Capacity Directory, trends for industrial copper use and recycling, and advances on research projects relating to Europe and China.

Representatives from the European Union supported more ICSG research on semis capacity, use and scrap trade, in particular to continue looking at the discrepancy between scrap imports and exports and its linkage to copper scrap theft. The EU and France delegates expressed support to continue working on specific by-products of copper.

At the Statistical Committee meeting, ICSG Chief Statistician Ms Ana Rebello presented the results of the preliminary forecast of mine production, and refined copper balance. Dr Mark Loveitt, Secretary General of the International Wrought Copper Council, made a presentation on the EU-27 refined copper demand. Dr Loveitt pointed out that EU refined demand reached a peak in 2006, declined sharply in 2009 impacted by the credit crisis, then rebounded in 2010 for a short period only to decline again with the European debt crisis. Dr Loveitt also highlighted the fact that even though the EU percentage share of world refined copper demand shrank from 30% to 16% in 20 years, in volume terms EU demand declined by only 250,000 t (tonnes).

Ms Li Lan of BGRIMM spoke about the current situation and outlook of refined copper usage in China. Ms Li Lan anticipates that copper usage (industrial demand) in China could increase by 2.9% in 2012 and 4.2% in 2013. The BGRIMM representative stressed that the power industry will continue to be one the driving forces for China’s copper usage this year increasing by 4% in 2012; but copper use in consumer goods might fall by 8% this year and recover by 3–5% in 2013. Wire rod production in 2012 might increase by 2.5% (increased demand for power cables offset falling demand for magnet wire) and refined copper tube production might fall by 8% due to falling demand from the air conditioner and export markets. She also highlighted the current over capacity of wire rod production in China (capacity utilization rates lower than 60%) and noted fabricators’ difficulties with low margins and over capacity.

The ICSG Industry Advisory Panel met on 18 October in London. Industry advisers from Australia, Belgium, Brazil, Chile, China, Germany, Italy, Japan, Portugal, Spain, United Kingdom and the United States were present along with industry association and Study Group representatives. Topics discussed included the latest copper forecast, the ICSG work program, the latest studies on scrap, the Joint Study of By-products of Copper, Lead, Zinc and Nickel, ICSG Directories, the 2012 Survey of Regulatory Developments Affecting Copper, Chinese copper usage and the guidelines recently adopted by the International Maritime Organisation (IMO) for the implementation of MARPOL Annex 5 (regulating the disposal of wastes by ships at sea).
ICSG PRESENTS AT THE 2012 CHINA INTERNATIONAL COPPER CONFERENCE

ICSG Statistical Analyst/Economist, Ms. Susanna Keung, delivered a presentation on “Future Copper Mine and Plants Capacity” at the China International Copper Conference in Xiamen, China in October 2012, organized by the China Non-ferrous Metals Industry Association (CNIA)/Antaike. She also visited the nearby Zijinshan mine and smelter. For more information, please contact the ICSG secretariat at Keung@icsg.org

ICSG 2012 SURVEY OF REGULATIONS AFFECTING COPPER PRODUCTS

ICSG launched the 2012 Edition of ICSG Survey of Regulations Affecting Copper Products and presented a summary to ICSG member countries in October 2012. The survey describes recent regulations affecting the industry ranging from mining codes and taxes to regulation of copper intensive products and environmental regulations.

ILZSG LAUNCHES NEW INTERACTIVE STATISTICAL INTERFACE ON THE ILZSG WEBSITE

ILZSG’s new Interactive Statistical Interface, located in the statistics section of the ILZSG website, was launched at the beginning of October. The new interface allows users to access substantially more historical information than was previously available. Improvements include a choice of four reporting formats, monthly series, detailed trade data with partner countries, new stocks and prices series, an increased number of countries per report, a user-friendly interface and the ability to export to Excel and pdf files.

Users will initially be able to access data back to 1995. Additional information for earlier years will be added in the near future after this has been processed and checked. The secretariat would welcome any feedback on this service regarding possible future improvements. This should be addressed to paul_white@ilzsg.org or joao_jorge@ilzsg.org.

STUDY GROUPS COOPERATE WITH INTERGOVERNMENTAL FORUM

The secretariat continued its engagement with the Intergovernmental Forum on Mining, Metals and Sustainable Development by preparing a presentation for the November 2012 meeting of the Forum which was held in Geneva. The presentation was delivered on behalf of the Study Groups by the representative from Natural Resources Canada, Mr. Patrick Chevalier. The ILZSG/INSG Head of Economics and Environment, Curtis Stewart, is the contact point for the Intergovernmental Forum.

ILZSG/CNIA LEAD AND ZINC SEMINAR, NANJING, CHINA

The ILZSG and the China Nonferrous Metals Industry Association (CNIA) hosted a half day lead and zinc seminar during the afternoon of 8th November 2012 in Nanjing, China. This event was held in conjunction with the annual CNIA/Antaike China International Lead and Zinc Conference which took place on 7th November and the morning of 8th November.

Papers presented at the ILZSG/CNIA Seminar included an overview of future global mine and smelter capacity developments by Don Smale, Secretary-General of ILZSG, the impact of future infrastructure development in China on lead and zinc demand by Bonnie Liu of Macquarie China, the outlook for the e-bike sector in China by Guo Haiyan, General Secretary of the China Bicycle Association, the longer term lead and zinc supply outlook by Giles Lloyd, Senior Analyst at CRU, and IZA activities in China by Annette Huang of IZA China. In addition, Paul White, Head of Forecasting and Statistics at ILZSG, made a presentation on the Global Outlook for the Lead and Zinc Market during the CNIA/Antaike conference on 7 November.

The Seminar continues the long-standing cooperation between the ILZSG and CNIA which has included the holding of joint lead and zinc events in Beijing in 1996, in Stockholm in 2002 and in Lisbon in 2008 and 2011.

SECRETARY-GENERAL ACTIVITIES

In May the Secretary-General participated in the annual Common Fund for Commodities/International Commodity Bodies meeting and also the annual Bureau of International Recycling conference, both held in Rome, Italy.
In June the Secretary-General made an opening presentation at the Intergalva 2012 galvanizing conference setting the scene with coverage of zinc reserves, current mine and smelter output, and the longer term zinc supply outlook.

In July the Secretary-General made a keynote presentation at a major ILZDA “International Lead and Zinc Conference – Opportunities Unlimited” in Delhi, India and met with Indian government officials and industry representatives.

INSG PARTICIPATION IN CHINA INTERNATIONAL NICKEL AND COBALT INDUSTRY FORUM

From November 12-14 2012 the China International Nickel & Cobalt Industry Forum was held in Wuhan, China, hosted by the China Non-ferrous Metals Industry Association (CNIA) and organized by Beijing Antaike Information Development Co. The INSG Chief Statistician, Mr. Sven Tollin, attended and made a presentation “The Outlook for the 2013 Global Nickel Market”. For copies of the presentation please contact sven.tollin@insg.org

Forthcoming Events

MEETINGS, CONFERENCES and SEMINARS

A major new copper-related event, CESCO Asia Copper week, will be held in Shnaghai, China, from 26 to 30 November, comprising the 9th Asia Copper Conference on 28-29 November hosted by CESCO/Metal Bulletin/Minmetals, a CEO Summit, the 1st Asia Copper Dinner, and the following two copper conferences. www.asiacopperweek.com

The 2012 China International Copper Fabricating Forum hosted by CNIA will be held on Nov. 28-29 in Shanghai, China. Antaike, the information provider and consulting company, will organize the event. The forum aims at promoting cooperation and communication between copper industry participants inside and outside of China. The forum is expected to become a new platform for cooperation and communication between Chinese copper fabrication enterprises and overseas companies. ICSG will deliver the introductory presentation on global semifabrication trends. For further details contact: www.metalchina.com//2012conference/tjg11/en.html

Wire and Cable Asia 2012 will be held on Nov. 27-28 in Shanghai, China. The conference will consider new investment opportunities in Asian wire and cable markets. The conference will bring together senior executives from across the global wire and cable supply chain. ICSG will deliver a presentation on perspectives for the copper market. Further details at: http://www.integer-research.com/wac-asia/

2013 International Zinc Conference and 2012 International Zinc Oxide Industry Conference will be held at the JW Marriott Cancun Resort and Spa Cancun, Mexico, February 24-27, 2013. The 2013 International Zinc Conference and Conference is being held in conjunction with the International Zinc Conference, providing a unique opportunity to learn about new research and market trends. These are two separate conferences, however, a special package rate will be granted to those attending both conferences. Further details are available at http://www.zinc.org/about/zn_zno_conference

JOINT STUDY GROUPS’ PROJECTS UPDATE

NEW JOINT STUDY GROUPS’ PROJECT ON TAXATION AND FISCAL MEASURES

At the October 2012 meetings, approval was given for a new Joint Study Groups’ project on taxation and fiscal measures. The secretariat is now in the process of selecting a contractor for the project. The final report is expected to be available in the first half of 2013.

NON FERROUS METALS BY-PRODUCTS: JOINT STUDY GROUPS’ RESEARCH PROJECT

The study across the three Study Groups to generate information on the by-product metals of copper, lead, zinc and nickel was recently completed. The project gathered information on a number of minor metals which are produced as by-products. Data was compiled on the production, usage, trade, and REACH status on these metals. Outputs of this study included two publications – Study of By-Products of Copper, Lead, Zinc and Nickel and, A Directory of Producers of By-Product Metals of Copper, Lead, Zinc and Nickel. The publications have been distributed to members and have also been offered for sale through the websites of the Study Groups.
PUBLICATIONS

*******AVAILABLE NOW********

NEW

**INSG World Directory of Nickel Production Facilities 2012**
Comprehensive directory lists nickel mines, smelters and refineries as well as new nickel industry developments (committed, likely and potential) together with recent closures in more than twenty countries. Published September 2012.

NEW

**By-Products of Copper, Zinc, Lead and Nickel**
A joint report of the three Study Groups on the production, usage, trade and outlook for by-products metals. Information on common sources of by-product metals, refinery processes, recycling, markets, contracts, historic process and pricing mechanisms, uses, government regulations, REACH status of compounds, government stockpiles and trade restrictions is provided. A Directory of mining and producing companies with capacities is also included. The 216 page Report and 86 page Directory are offered together. Published September 2012.

NEW

**Directory of Copper & Copper Alloy Fabricators (First Use) 2012**
This directory provides a systematic global overview of companies and plants involved in the first use of copper. First users are mainly semis fabricators that process refinery shapes into semi-finished copper and copper alloy products. The Directory covers wire rod plants, ingot makers (for castings), master alloy plants, brass mills, and electrodeposited copper foil mills. Includes a complete update of the new plants operational in China in 2011. Published July 2012.

NEW

**Study on Chinese Zinc First Use Market 2012**
This study comprises a detailed examination of the recent evolution of the zinc first use market in China and discussion of likely future trends. The work was undertaken on behalf of ILZSG by the highly regarded Beijing General Research Institute of Mining and Metallurgy (BGRIMM) and includes in depth analysis of all the major first use sectors. The majority of information contained in the report is based on extensive direct contact with industry experts, zinc users in the different sectors and the relevant Chinese associations. 87 pages. Published June 2012.

NEW

**ICSG Directory of Copper Mines and Plants**
The Directory of Copper Mines and Plants highlights current capacity and provides a five year outlook of forecast capacity for over 1,000 existing and planned copper mines, smelters and refineries on a country by country basis, including separate tables for SX-EW plants. Salient details for each operation are included and the Directory separates operations between Operating & Developing and Exploration & Feasibility stages. Published March 2012.
NEW

**INSG China Nickel Pig Iron Market Study**

This study, carried out by Shanghai Metals Market for INSG, provides an overview of the rapidly changing nickel pig iron market in China. NPI has become the major nickel source in China and accounts for a growing share of global production. The report looks at evolving trends in production and ore supply as well as furnishing information on major NPI producers and stainless steel producers. *Published in May 2012.*

NEW

**The World Copper Factbook 2012**

A comprehensive overview of copper, with statistics, graphs, flowcharts and other information providing details on production, usage, recycling, definitions and history. *Published July 2012.*

NEW

**Joint Study Groups’ Survey of Semifabricators in China.** This report was undertaken jointly by the three Study Groups and is based on a survey which measured scrap and refined use of copper, zinc, nickel, lead and tin by Chinese fabricators of copper and copper alloys, including brass. It validates and improves the ICSG Recyclables Survey for China and in cooperation with ILZSG and INSG provides data on nickel and zinc recycling and use in China. While focusing on refined and scrap copper use, the report provides useful information on quantities and trends in zinc and nickel usage for alloys in China. *Published April 2012.*

NEW

**ILZSG Investigation of the Indian Lead Market**

This report was prepared for ILZSG by the Indian Lead Zinc Development Association (ILZDA), an organisation that has been closely involved with the Indian lead and zinc sectors for the past 50 years. It provides an up-to-date analysis of trends and developments in the rapidly expanding Indian lead market. A high proportion of the information provided in the report was obtained via direct contact with lead producers and recyclers, consumers, traders and relevant authorities. 92 pages. *Published February 2012.*

NEW

**Copper Scrap Supply Survey in China**

This report describes the findings of a survey of key copper recyclers in China and includes copper scrap stocks and flows. The survey covers three groups of scrap importers and two groups of scrap dismantlers. Scrap importers include scrap traders, industries importing for internal use and scrap yard owners importing scrap. The sample of scrap dismantlers includes companies specialized in dismantling domestic scrap and companies dismantling imported scrap. More than one million tonnes of copper and copper alloy scrap traded in 2011 are included in the survey sample. *Published May 2012.*

NEW

**Study on Chinese Zinc First Use Market 2012**

This is a detailed examination of the recent evolution of the zinc first use market in China and discussion of likely future trends. The work was undertaken on behalf of ILZSG by the Beijing General Research Institute of Mining and Metallurgy (BGRIMM) and includes in depth analysis of all the major first use sectors. The information in the report is based on extensive direct contact with industry experts, zinc users in the different sectors and relevant Chinese associations. 87 pages. *Published June 2012.*
NEW Copper Scrap Recovery in NAFTA
This report analyses the organisation of the copper recycling industry in the United States, Canada and Mexico. A database with over 500 plants recycling scrap is included and used to describe industrial organization, technologies used to recover old scrap, and yard management practices and inventories. The report on recyclers in the NAFTA region includes findings from interviews on factors driving the inventory decisions and outlines concerns of recyclers including theft, trade and environmental restrictions. Published May 2012.

Lead and Zinc New Mine and Smelter Projects 2012
This 69 page report covers lead and zinc mines and smelters opened or closed during 2011, firm projects currently committed and other projects under consideration. Developments in 46 countries spread throughout all the continents are covered with a total of over 200 separate entries. In addition, where available, estimates of ore reserves and the percentages of the metals they contain are also given. Published January 2012

Comprehensive 61 page analysis of the world lead market. The report analyses the structure of mine and refined world lead production and identifies actual and future trends. It assesses lead usage patterns in the main market sectors and the impact of environmental regulations on the metal's usage. It also discusses international trade or concentrates and refined metal as well as the impact of the Basel Convention and other regulatory initiatives on the secondary lead industry. A special section is dedicated to the growing importance of China in the world lead market. Published March 2012

World Directory 2011: Primary and Secondary Lead Plants
An overview and full detailed listing of over 270 primary and secondary lead smelters and refineries in 66 countries showing addresses, telephone and fax nos., e-mail, web addresses, types of plant operated and current capacities. Also includes, summary tables and graphs. 105 pages. Published May 2011.

Environmental and Health Controls on Zinc: 2011
A review of current and proposed regulations controlling zinc in works, zinc in the atmosphere, zinc in water and recommended daily dietary allowance for humans and animals. Available in PDF or spreadsheet form. Published June 2011.

Environment and Health Controls on Lead: 2011
A review of current and proposed regulations controlling lead in works, lead in the atmosphere and lead in water in 34 countries. Available in PDF or spreadsheet form. Published June 2011.

INSG Environment, Health and Safety (EHS) Regulations Relating to Nickel 2011
An update of the annual compilation of environmental, health and safety regulations affecting nickel. The listing of regulations is provided by country, state or province as well as separately for international organizations. The report is presented in a spreadsheet format and contains web links to regulations in various jurisdictions. 42 pages. Published June 2011.

Final Report of the ICSG Copper Scrap Project
Synthesizing the findings of an ICSG research project on the copper and copper alloy scrap markets approved by ICSG members and initiated in October 2007, this report presents a comprehensive picture of the global copper scrap market and its determinants. Published August 2010.
China Lead Acid Battery Market
This detailed study, prepared for ILZSG by the Beijing General Research Institute of Mining and Metallurgy (BGRIMM) provides an overview of current production and usage of lead-acid batteries in China together with a summary of likely rates of growth over the period 2009 to 2014. Much of the information contained in the report has been sourced directly from battery manufactures, e-bikes producers and experts in renewable energy. 60 pages. Published June 2010.

China Zinc Recycling Industry
Prepared for ILZSG by the Beijing General Research Institute of Mining and Metallurgy (BGRIMM), this report provides a comprehensive assessment of the volume of zinc recovered from scrap in China. It also provides information regarding the main sources of secondary zinc material and likely future trends. Much of the data contained in the report has been sourced directly from zinc producers, consumers, traders and scrap dealers. 44 pages. Published June 2010.

Nickel Heap Leaching Study – 2010
A comprehensive analysis of heap leaching in nickel production prepared for INSG by consultants, this report provides up to date information on all aspects of heap leaching. It examines the various hydrometallurgical processes applied to nickel leaching. It also covers the economic and environmental impact of the use of heap leaching, including on CO2 emissions. 72 pages. Published April 2010.

ILZSG World Directory: Continuous Galvanizing Lines 2010
A full listing of continuous galvanizing lines with information from 62 countries. The Directory includes data on plant locations, annual capacities, annual zinc consumption and contact information. 95 pages. Published in January 2010.

Nickel Pig Iron Study - 2010
The report analyzes the driving forces behind the increasing use of nickel pig iron in China. Identifies current and new projects totalling over 150 000t per annum. Highlights possible substitution among nickel pig iron, ferro-nickel, stainless steel scrap and nickel metal. It also reviews the most important cost factors. 70 pages. Published in May 2010.

Chinese Primary Nickel Stocks Study - 2010
A comprehensive study of Chinese primary nickel stocks providing data and information on nickel stocks held by first users such as stainless steel, specialty steel, battery materials producers, galvanizers and foundries, refined nickel producers, nickel pig iron producers, traders, exchanges and others. It identifies key factors impacting on market stock levels, such as price expectation and financing costs. The report also estimates stock changes taking place between 2009 and 2010. 40 pages. Published December 2010.

Copper Scrap Market in Japan, China’s Scrap Usage Survey and Domestic Copper Scrap Generation in China, 2010-2015
Adding to ICSG’s expanding body of research on scrap, ICSG commissioned three reports about scrap that provide information on two critical copper markets: Japan and China. The Japanese Report, prepared by MERI/J, provides a comprehensive overview of the refined copper and copper scrap markets and also covers Japanese copper scrap trade, material flows, how scrap is categorized and relevant regulations. The Chinese Reports, prepared by BGRIMM, provides insight into scrap usage in China at the smelters/refineries and fabricators and forecasts domestic scrap generation in China. Published October 2009.
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**ICSG Directory of Copper Mines and Plants**
The Directory of Copper Mines and Plants highlights current capacity and provides a five year outlook of forecast capacity for over 1,000 existing and planned copper mines, plants and refineries on a country by country basis, including separate tables for SX-EW plants. Salient details for each operation are included and the Directory separates operations between Operating & Developing and Exploration & Feasibility stages. *To be published in December 2012.*

**Lead and Zinc New Mine and Smelter Projects 2013**
This report covers lead and zinc mines and smelters opened or closed during 2012, firm projects currently committed and other projects under consideration. Developments in countries spread throughout all the continents are covered with a total of over 200 separate entries. In addition, where available, estimates of ore reserves and the percentages of the metals they contain are also given. *To be published January 2013.*

**World Directory of Lead and Zinc Mines 2013**
A global directory of mines located with information on ownership, type of mine and start-up date. Information on daily mill capacity and annual production capacities for lead and zinc will be included as well as information on other metals produced by lead and zinc mines, often with typical annual production. *To be published 2013.*

**World Directory of Primary and Secondary Zinc Plants 2013**
An overview and detailed listing of primary and secondary zinc plants showing processes used, current capacities and contact information. Plants recovering zinc from steel plant flue dusts are covered. A Google Earth digital mapping product allows the exact location of most of the plants listed to be determined. *To be published 2013.*

**Report on World Zinc Oxide and Zinc Dust Production and Usage**
The report will analyze the zinc oxide and zinc powder and dust sector. It is intended to list the location of major zinc oxide producing plants and zinc dust and powder producing facilities together with estimates of capacities. *To be published 2013.*

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