METALWORLD

Devoted to Foundry & Non-Ferrous Metals Industry

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Deepak Mathur, Sr. Vice-president Global Marketing and Sales, Jindal Aluminium

Cost-effective and light weight to enhance the demand of aluminium extrusion in India

- **Sanctions and supply side issue will have sizable impact on the metals complex**
- **Hitachi's high-performance metals analysis for metal manufacturers**
- **Material world- Shape of Things to Come: Recycling Industry**

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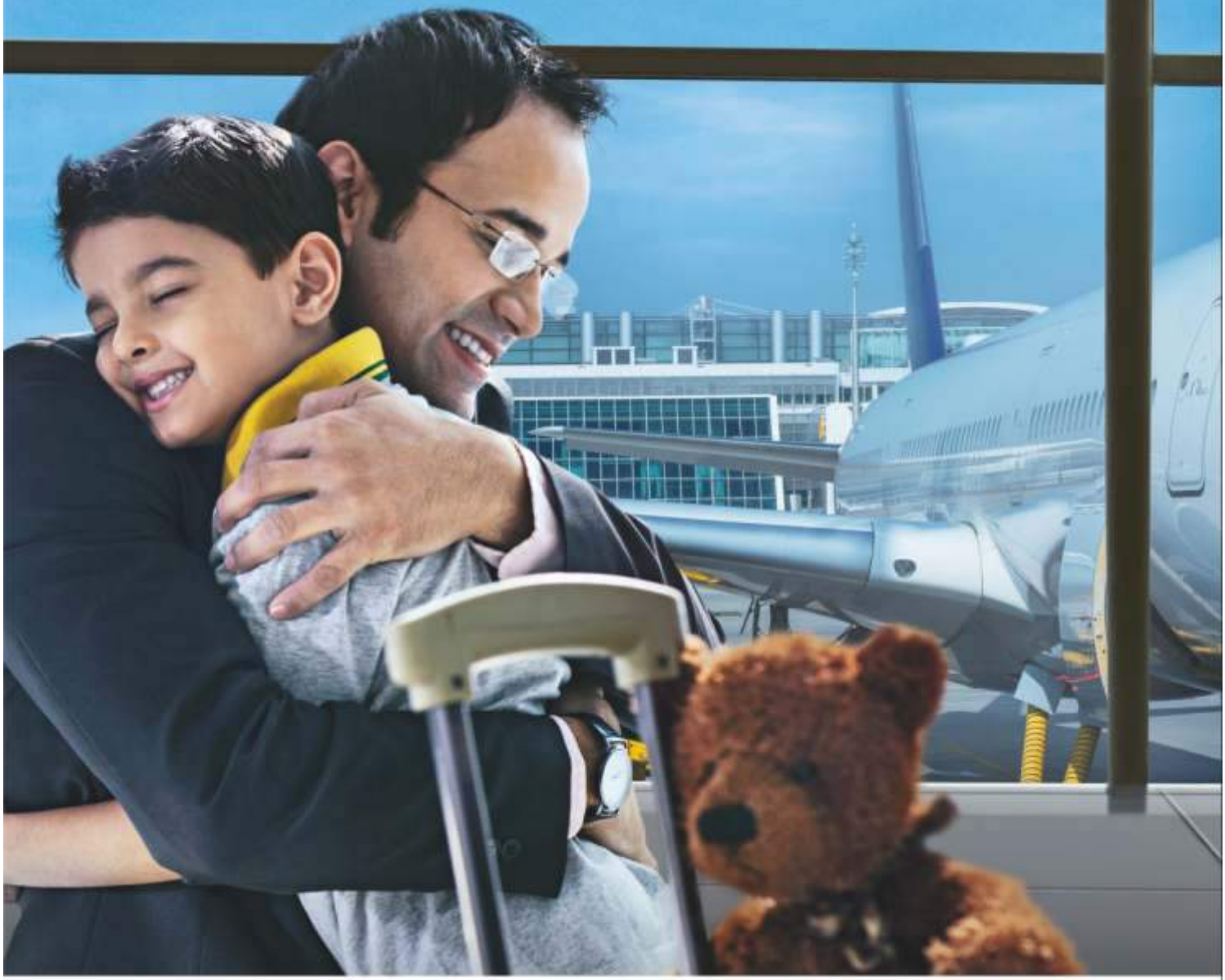

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D. A. Chandekar
Editor

Dear Readers,

In the last two decades or so, due to faster, seamless and smooth communication, the world has surely come closer. Thanks to internet and its various tools, we can know about almost everything about almost anywhere on this planet and even beyond. Great feeling !

Obviously this has translated in the business environment too and today international trade is not as difficult as it was in the last century. Of course, there are other challenges like quality, price etc. thus making the trade extremely competitive. The supply chain of most of the mega corporates is spread over not countries but various continents. Even the markets are truely global. This strategy surely helps in building world class products and also due to spread out markets, required sustainability is achieved. Stretching this logic further, the effect of one country's or region's economy, positive or negative, is bound to be felt in other nearby countries and regions. So to say, today no country can progress or go through a depression in isolation. Rest of the world would surely feel the tremors.

Presently, we are witnessing a war between Russia and Ukraine. It is going on for more than five weeks and there is a likelihood that it will not only extend but also spread elsewhere. As such the global situation remains quite delicate and the world leaders are busy trying to figure out a solution of this crisis. Since Russia and Ukraine are quite rich in metallurgical minerals, the supply chains of many products and companies are broken. Even the prices of almost all the raw materials have shot up since the outbreak of the war. How can the finished metal prices remain stable ? They are bound to surge. Also the hike in petrol / diesel prices will surely have a cascading effect on the industry, economy and finally on the consumer. The metal commodity markets and also the share markets across the globe have fallen due to the expected economic downturn due to this war. Thus along with the global economy, the fortune of metals industry too is tied up with such events and the whole world suffers from any irresponsible act by anybody in any corner of the world. This is the really the unfortunate part of globalization, the dark side.

Fortunately India is rich in mineral deposits and not too much dependent on other countries for the metal raw materials except for coking coal, nickel and few types of refractories. Also, most of the domestically produced metals are consumed in the country itself. Thus in my opinion, India would feel the heat of the war but in a milder way. Any way, let us hope this war crisis ends soon with a amicable solution and the world economy resumes its normal peaceful functioning ! ■

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Cost-effective and light weight to enhance the demand of aluminium extrusion in India

"India's downstream Aluminium sector is very fierce, especially in the international market. But, to make things better and put us on a solid footing, a dedicated policy for the downstream aluminium industry is much needed"

Deepak Mathur,

Sr. Vice-president – Global Marketing and Sales, Jindal Aluminium

Deepak Mathur is an Engineering Graduate from IIT, Varanasi and holds a Post Graduate Diploma in Business Management from IIM, Lucknow. In his career spanning over 33 years, he has worked with some of the leading names in Non-ferrous Metals (Flat and Long products), Capital goods and White Goods component industries. He has rich commercial experience in Industrial Marketing, Exports, Global Sourcing, Contracts and International Logistics.

India's flourishing automotive industry, especially stimulated by heightening EV production and rural segment demand is widening the prospects for aluminium extrusion.

Besides, rapid urbanisation and industrialisation are also enhancing thealuminium extrusion demand for residential construction as well.This is indirectly assisting in the growth of aluminium extrusion products to manufacture robust construction material.

Overall, the aerospace & defence, automotive, and construction industries are playing a crucial part in increasing the sales of aluminium extrusion. Moreover, construction activities are leading to the opening of material inflow for construction purposes.

While global aluminium extrusion market demand is likely to flourish nearly 2x from 2022 to 2032. As per global regulations, stringency for carbon dioxide standards and fuel economy has increased by 1.5% from model years 2021 to 2026. This is expected to boost the demand for various aluminium components in automobiles over the coming years.

Furthermore, low costs and weight of extrusion products are contributing to the rising demand of aluminium extrusion in various industrial applications.

D A Chandekar, Editor & CEO, Metalworld Magazine had an exclusive interaction with Mr. Deepak Mathur, Sr. Vice-president – Global Marketing and Sales at Jindal Aluminium to get more details about the present status of the extrusion industry in India.

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Excerpts :

1. What is the present status of the extrusion industry in the country? How would you compare it with the western world industry?

Over the last 8 years, the extrusion sector has been growing at around 8% year on year. But the next five years are set to witness consolidation, as well as operational, and manpower costs that the extrusion industry in our country has envisaged in recent years.

2. Most of the extrusion units in the country are small and are using outdated technology. How can we compete in the international market? What needs to be done?

The use of extrusions is growing multifariously. Its use can be seen in a range of applications in areas such as construction, transportation systems, automobiles, electric transmission lines, automation, solar, and medical equipment. The latest processes and technologies are available in India, and the next five years will witness more extensive adoption of technological apparatus. At Jindal Aluminium, we established India's first extrusion facility, and are today the largest manufacturer of aluminium extruded products in the country. We have a futuristic state-of-the-art facility, with an installed capacity of 1,25,000 mtpa of extrusions, commanding a 25-30 percent share in the domestic market.

In addition, we are expanding our capacity with the acquisition of the Indo Alusys manufacturing plant in Bhiwadi. We also export to over 42 countries including the US, UK, UAE, Canada, South Africa, and Australia. Our export operation has been registering a healthy and persistent growth continually. It has been our demand that a specific policy by the government be brought out so that it can help establish the sector much more competitively in the international market.

3. Jindal Aluminium is the biggest independent extrusion producer in the country. Please take us through the company's growth journey so far?

Jindal Aluminium has been spearheading when it comes to manufacturing aluminium products. The merit for corroborating the authoritative and exemplary foundation of Jindal Aluminium goes to our founder and CMD, Dr.Sitaram Jindal, who set up the

company's extrusion facility way back in 1968. Jindal Aluminium in a legacy stretching over 50 years has maintained its core business of

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being a leader in aluminium extrusions. We got into aluminium flat-rolled products manufacturing only in 2012 and are currently the second-largest manufacturer of Aluminium flat-rolled products in India. In 2020, we installed one of India's largest powder coating facilities at our Dabaspet Manufacturing facility. This one of its kind facility in India is not only environmentally friendly but also equipped with one of the fastest production lines.

Jindal Aluminium has the most modern tool shops, capable of producing high-quality and intricate dies, buttressed by an international quality billet casting facility. Our die library boasts the capacity of over 17000 dies, a foot unparalleled in Aluminium downstream industry. We have also led the industry in installing several technological and modern pieces of equipment in order to derive superior grade aluminium profiles. Underpinning this is a log casting foundry, capable of producing 1,40,000 MT per annum. We are meeting even the most detailed aluminium profiles possible in the shortest possible time with a capacity and capability that is unparallel in India.

4. What is the role of extrusions and flat-rolled products in our day-to-day lives?

Today, there are countless applications of Aluminium that benefit us by not just simplifying, but also enhancing the quality of our lives. Most products we use in our day-to-day lives consist of some percentage of aluminium. The fact that it is lightweight, recyclable and a highly-versatile material along with other properties make it relevant to use. It has resulted in Aluminium products application almost everywhere.

Aluminium extrusion and flat-rolled products play a big role in our everyday life. Building facades, aircraft, household appliances, beverage cans, and packaging are where flat-rolled aluminium products are widely used. Other products such as computers and electronics, automotive, and mass transit make use of aluminium extrusions in a big way too. However, both in the form of extrusion and flat-rolled products, aluminium's superior properties are what ensure that it fares well when it comes to design and sustainability. Electric vehicles, Automation, Defence, and Aviation are also areas where aluminium finds extensive application in modern India.

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Sanctions and supply side issue will have sizable impact on the metals complex

Metal market has been going through a lot of volatility amidst mixed set of news coming from the Russia – Ukraine war along with data points from the globe which indicates strong demand. To top it up, rate hike by US FED and expectations of further aggressive rate hikes have triggered a chaos in the currencies market which is likely to have an impact on metals as well. The war has stretched more than one had anticipated with a lots of ups and down over the last 40 days. We witnessed a lot of positivity coming in the metals space and that too amidst lockdown in China, and weaker set of data points.

On the data front, China's factory activity contracted in March as the economy faced renewed downward pressures from stringent COVID-19 controls. China's pledge to shore up its embattled property sector have done little to boost prospects for the sector. China will roll out policies to stabilize the economy as soon as possible as the downward pressure in the economy increases.

Nickel

Nickel headed towards its largest quarterly rise since 2003, helped by a short squeeze on the LME that caused a price spike this month to upwards of $100,000, after starting the month at $24,250.

Let us understand what happened and why it happened.

Nickel prices rallied by over 180% in 2 trading days. The LME exchange halted nickel trading and cancelled trades after prices rocketed to more than $100,000 per tonne in a surge sources blamed on short covering by one of the world's top producers. LME defended its decision to suspend nickel trading earlier when prices doubled within hours, saying the market had become disorderly, with prices not reflecting the physical market.

Navneet Damani,
Senior Vice President, Motilal Oswal Financial

Nickel crisis was triggered by the size of short positions - many of them structured in the over-the-counter shadows - held by Chinese steel and nickel giant Tsingshan Group Holding. Tsingshan has a standstill agreement on those positions with a group of banks, meaning they won't be closed out or margined while a standby liquidity facility is negotiated. They will probably be rolled forward to allow a phased reduction but while they exist, they have the potential to be disruptive. Hedge short positions are common price-offset strategies among producers and if they're ferro-nickel or nickel sulphate producers, they're in the same boat as the Chinese company with no option of delivering their product against the LME's high-specification nickel contract.

LME nickel warehouse stocks have continued to slide. LME warrant with open tonnage now at 55,488 tonnes,

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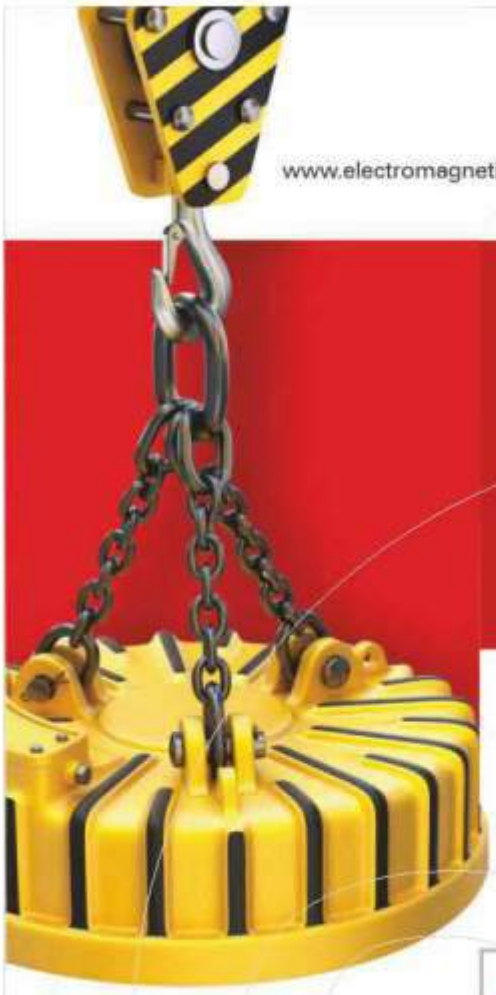

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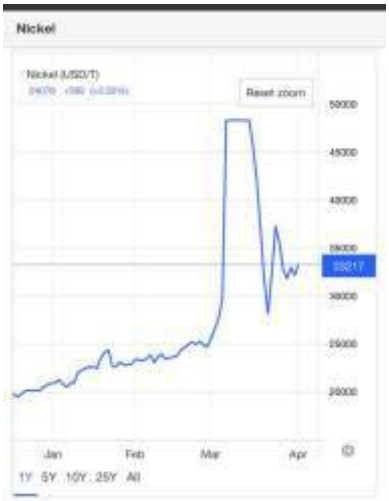

compared with an early March low of 36,522 tonnes. Shanghai registered stocks remain low at 7,415 tonnes and the forward curve is still heavily backwardated. The squeeze on Class I metal in the Chinese market predates this year's run on LME stocks and it shows no signs of being over any time soon.

Traders and investors are rapidly cutting exposure to the LME after this month's nickel-market chaos, driving open interest to a 15-year low and leaving key metals exposed to wild price swings as liquidity shrivels. Will Russian nickel manage to be delivered to European markets despite sanctions and logistics challenges? Will the LME actually implement its proposed ban on Russian brands of aluminum and nickel? There are a lot of buzz in the metals market, and many of them have surprisingly have been correct this time around. Hence it's wise to be light on metals till better clarity emerges.

Zinc

Zinc has been missing the action amidst mixed set of news. Production cuts in Europe, worries about supplies and shortages pushed zinc prices on the LME to a record high of $4,896 a tonne earlier this month. The restart of Auby allows Nyrstar greater flexibility to efficiently manage the group's production across its three European sites, with anticipated total production cuts of up to 50%. Electricity prices across Europe remain at historically high levels meaning it is not economically feasible to operate any of our sites at full capacity.

Zinc has rallied since 2020 over a long-standing mismatch between supply and demand, and despite global refined zinc output ramping up over recent months compared to 2020, it has been outpaced by demand. Metal prices are being bolstered by the energy crisis stemming from the ongoing Russian invasion of Ukraine that has led to many smelters halting or reducing zinc metal production. Production cuts due to high energy costs to keep prices elevated in 2022. On the demand side, strong consumption from the steel sector to continue boosting demand for zinc in the coming months, although demand growth will start to slow.

Zinc stocks are already very low and does not have much of a buffer. On-warrant inventories of zinc in LME warehouses fell to 78,125 tonnes, the lowest since May 2020 and down from about 130,000 tonnes in mid-March. High energy prices have forced some zinc smelters in Europe to curtail production and Russia's demand for payment for gas in roubles has raised fears of supply shortages or still higher prices. Overall momentum is strong and further upside cannot be ruled out.

Copper

We have seen a major upheaval in the metals market since the beginning of the war. Copper did join the party, but a little late and not to the extent compared to other metals. Overall consensus was that the war and sanctions on Russia would not have as big an effect on the copper price as on other commodities – and that has so far proved the case. The copper story lie far away – in China, Africa and the America. Copper's supply side issues doesn't seem to end soon. A Peruvian community has once again threatened to oppose the expansion of MMG Ltd's major Las Bambas copper mine, hinting at a new flashpoint for the project shortly after the state approved the increase in production.

In a latest development, LME copper committee recommended banning new supplies of Russian metal from the bourse, a move which would send shockwaves through the market if implemented. The committee, which only plays an advisory role at the LME, voted overwhelmingly to recommend

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that the exchange should not allow new deliveries of Russian copper into its warehouses.

China's inventories are at their lowest levels in four years, as are LME inventories, as is global visible inventory generally, suggesting strong support for current prices. Overall there was not movement in copper and minor metals is where the action was. We believe that it will be nature of the market for some more weeks and copper could consolidate within a broader range.

Aluminium

Aluminium continued to post yet another month of gain rising over 3% for the month, driven up by supply disruptions and increased production costs resulting from Russia's invasion of Ukraine.

Sanctions against Russia have cut or complicated supply routes and driven up the price of energy used to power smelters. High costs had already forced some aluminium and zinc smelters in Europe to reduce output. Stocks of aluminium in LME-registered warehouses have fallen to 755,950 tonnes from almost 2 million tonnes a year earlier. Under supply has pushed duty-paid physical premiums over the LME price sharply higher to $506 a tonne in Europe and $847 a tonne in the United States.

From the perspective of the supply side, the resumption of production at domestic aluminium smelters has accelerated. With the steady growth of domestic aluminium daily output in March, the aluminium output is expected to total 3.3 million mt, and the operating capacity in May is expected to return to the level in the same period of last year. The demand side was suppressed by high aluminium prices, and the inventory remained high. China will roll out policies to stabilize the economy as soon as possible as the downward pressure on the economy increases. China's factory activity slumped at the fastest pace in two years in March, as the domestic COVID-19 resurgence and the economic fallout from the Ukraine war triggered sharp falls in production and demand.

China is stepping up exports of aluminium to fill a widening supply gap in Western markets. They shipped out 26,378 tonnes of primary aluminium in February, the highest monthly total since 2010. Imports collapsed over the first two months of the year, with the result that China turned a net exporter in February for the first time since November 2019. This is a significant shift in trade patterns.

The Caixin/Markit Manufacturing PMI fell to 48.1 in March, indicating the steepest rate of contraction since February 2020, from 50.4 in the previous month. Most Asian factories saw activity slow in March, as slumping Chinese demand and rising raw material costs blamed on the Ukraine crisis added strains to firms already suffering from lingering supply chain disruptions. Overall, positive momentum is likely to continue in the near term.

Outlook

There are many uncertainties in the market, which makes the short-term outlook a bit murky. The potential for further sanctions against Russia, including sanctions on metal produced there or by its companies, has the market on tenterhooks. Overall, the metal trade is not as smooth as it was a few months ago. Sanctions to supply side issue, to cancellation of warrants are all having a sizable impact on the metals complex. Directional trend will not be clear, but it will be sharp. We expect aluminium to be firm and zinc to gain in short term and also, nickel could start to resume normal trading over the next few days.

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Entry Free

Primary Aluminium demand will increase over 40 pc by 2030 : IAI report

As per the International Aluminium Institute recent report predicted a jump of 40 percent in aluminium demand by the end of the decade, calculating that the global aluminium industry will need to boost overall primary aluminium production by 33.3 million metric tons per annum to keep pace with demand.

The report, entitled Opportunities For Aluminium In A Post-Covid Economy, says that demand is expected to increase the greatest in the transportation, construction, packaging, and electrical sectors. Those four sectors are likely to make up 75 percent of the growth of aluminium demand this decade, opines the report.

The People's Republic of China is expected to account for 2/3rds of the coming demand, with an expected need of 12.3 million metric tons per annum. The rest of Asia is expected to require 8.6 million metric tons of primary aluminium per year, while North America and Europe are expected to need 5.1 million metric tons and 4.8 million metric tons per annum, respectively.

IAI Secretary General, Miles Prosser said in a press release that the report helps shine a light on trends in the aluminium sector.

"The IAI commissioned this report to better understand the drivers of future aluminium demand and to ascertain what we need to do as an industry to meet consumer expectations on both demand and sustainability. The figures in today's report show that as society increasingly focuses on efficiency and sustainability, so are the market opportunities for aluminium. Within each of the sectors, key drivers of demand are linked to sustainability and climate change issues."

CRU's Head of Aluminium, ZaidAljanabi said that sustainability will continue as a prime concern for consumers in the coming years.

"The aluminium industry has an opportunity to continue to advance its sustainability credentials; listen and respond to consumer expectations; and work along the value chain to deliver more sustainable products and services to consumers. CRU Consulting has been advising clients in the aluminium industry for more than four decades, providing independent and proprietary advice to clients across the value chain"

"As we seek a sustainable future in a decarbonised world, aluminium has the qualities that consumers seek – strength, lightweight, versatile, corrosion-resistant, a good conductor of heat and electricity and is recyclable," concluded Prosser. "Around 75% of the almost 1.5 billion tonnes of aluminium ever produced is still in productive use today. This metal has been at the forefront of many industrial and engineering innovations of the 20th century and continues to power a sustainable future. Meeting growing demand sustainably is a challenge for the entire value chain but the industry has the expertise and passion to find the solutions needed to reduce the carbon intensity of our primary metal."

The Net-Zero shift starts with Low Carbon Aluminium

2020 was supposed to be "year of climate action", with the Glasgow COP26 acting as a major milestone for both businesses and policymakers to accelerate decarbonization efforts. However, with COVID-19 disrupting lives and economies in an unprecedented manner, countries across the globe are grappling with the immediate need to protect lives and livelihoods, challenging the urgency of the climate agenda.

In the seminal 1962 book The Structure of Scientific Revolutions, American philosopher Thomas Kuhn cut to the heart of *how* scientific change happens: not incrementally, through piecemeal tweaks to existing structures and modes of thinking, but in one fell swoop, through what he famously called "paradigm shifts". When dominant assumptions are no longer fit for purpose, research kicks into overdrive, ushering scientific revolutions that topple the status quo.

The world economy is now standing on the cusp of such a paradigm shift. Amidst a growing realization that the coronavirus pandemic is a "once-in-a-lifetime opportunity" to build a truly sustainable, resilient global infrastructure, thousands of companies around the globe are now focusing on net-zero goals. So far in June, BP announced it will cut $17.5 billion from its assets by adjusting the carbon price estimate, Unilever urged the Australian government to target net-zero emissions from all products by 2039 (a full 11 years ahead of the Paris Agreement deadline), two hundred UK firms and investors called on the government to deliver a Covid-19 recovery plan that prioritises the environment; and software giant SAP launched a new tool to help firms track emissions across the entire supply chain. These developments will have ripple effects across multiple industries and are nothing short of an ominous sign for companies that have not taken steps to dramatically slash their CO2 footprints.

Set against this backdrop of systemic change, hard-to-abate industries are expected to double down on their efforts to adapt to the green economy. Take the aluminium industry for example, which is responsible for up to 4 % of global CO2 emissions. Now, after years of technological breakthroughs seeking to reduce the CO2 footprint of aluminium products – but with little commercial viability due to excess supply and lax regulations – 2020 could to be the year where demand for low-carbon aluminium goes mainstream.

At the same time, the global aluminium industry is facing a

widening schism between producers who are putting sustainability at the core of
their business, and carbon-spewing smelters, mostly in China, with little plans to move towards more sustainable alternatives. Given that climate-friendly innovations will be ever more favoured by investors and consumers in the era of coronavirus recovery, those who fail to rethink production will soon perish – a valuable incentive animating the industry's leading producers today.
Indeed, such innovations are already in progress, both in terms of production processes and the way the industry seeks to establish checks on itself. For example, EN+ last year called on the London Metal Exchange (LME) to introduce new disclosure rules on emissions, according to which each company must be transparent about its carbon footprint. Then, in June this year, the LME announced a spot-trading platform for low-carbon aluminium, which it expects will commence trading next year.
The idea at the heart of these developments is transparency in production and supply-chains, the need for which was recognized well-before the pandemic. However, it has gained much more urgency in the wake of it. At the CRU Group's Aluminium Matters virtual event in early June, executive chairman of the EN+ board of directors Lord Barker of Battle stressed that the industry's carbon emission must be put under control, which means speaking clearly about the distinction between low-carbon and higher carbon aluminium, itself a representation of the disparity between producers.

IAI release study on Aluminium's Significant Contribution to a Circular Economy

Industry trade group International Aluminium Institute (IAI) released a report this week detailing a study that shows aluminium beverage containers promote a circular economy better than any other material currently in use.

According to the study, which looked at aluminium, glass, and polyethylene terephthalate (PET) plastic containers, aluminium is reused at about double the rate of glass or plastic, with 70 percent of aluminium can material finding its way into new aluminium cans after use.

The study also found that more glass and plastic beverage containers end up in landfills due to a lack of collection for recycling. Furthermore, even when recycled, losses in the process for glass and plastic are three times higher than those for aluminium.

Ramon Arratia, Vice President Global Public Affairs at Ball Corporation, put the study's findings into perspective.

"While no drinks container has achieved its full circularity potential yet, aluminium outperforms glass and plastics (PET) at all stages of the waste management system. Today, aluminium cans are the most recycled beverage containers globally. Once the aluminium can is collected from the consumer, it has an unrivalled sorting, reprocessing and remelting efficiency rate of 90% compared with glass (67%) and PET (66%). On this basis, aluminium can be described as a material of choice for a circular economy. This is especially important when we look at the carbon reduction potential of recycling."

"The number of aluminium cans collected at the end of their life is about 18% higher than PET bottles and 28% higher than glass," noted Andrew Wood, Group Executive Strategy & Business Development at Alumina Limited. "A greater proportion of PET and one-way glass bottles end up in landfills or waterways because they are not collected. In a decarbonising world, this is likely to contribute to higher demand for both recycled and primary aluminium."

Marlen Bertram, IAI's Director, Scenarios & Forecasts, said the study is a first for the aluminium industry.

"As the Institute celebrates its 50th anniversary this year, we have been reflecting on our organisation's long history of data collection, analysis and modelling. Aluminium is one of the most recyclable materials on the planet and the IAI is campaigning to ensure end-of-life products are returned into the recycling loop given the economic and environmental benefits of the metal in our global economy. Comparing recycling rates of different materials is meaningless if you don't know how the rate is measured and into what products the material is recycled back to. This study is the first public study that comprehensively analyses the extent of recycling and losses of three beverage containers in different regions. By increasing the precision of identifying where major losses occur, the study could provide solutions to improving the rate of recycling for all materials. We are clearly in a new era in circularity transparency."

"Collection and sorting systems are essential to increasing circularity and to unlocking the full potential of infinitely recyclable materials," opined Emilio Braghi, EVP Novelis& President Novelis Europe. "We need a policy framework that incentivises true recycling and circular systems, where at the end of their life, beverage containers are recycled again and again – without loss to quality. Aluminium is perfectly suited for multiple product-to-product recycling. We need to move our thinking from waste to valuable resource – reusing existing material to produce new packaging and thereby saving precious natural resources, energy, and lowering emissions."

Novelis Aluminium Beverage Can Recycling Plant achieve milestone in Korea

Atlanta's rolled aluminium firm Novelis announced that its subsidiary Novelis Korea has reached the milestone of recycling 2 million short tons of aluminium beverage cans at its recycling center in Yeongju, Republic of Korea.

The Yeongju Recycling Center, which has been open for a decade, has recycled 133.3 billion aluminium cans since its commissioning. The closed-loop recycling system in place at the plant has saved about 20 million short tons of carbon from entering the atmosphere as a result.

SachinSatpute, President, Novelis Asia, said in a press release that the firm plans for even more aluminium beverage can recycling in the coming years at the plant.

“Aluminum is an ideal material for the low-carbon circular economy since it is infinitely recyclable and therefore eco-friendly. Novelis will develop more technologies and spur investments to achieve carbon neutrality by 2050.”

The Yeongju Recycling Center recycles over 18 billion beverage cans per annum and boasts an annual production capacity of 340 thousand short tons of low-carbon aluminium sheet ingot. The plant and it's sixty-day turnaround cycle is fully certified under the Aluminium Stewardship Initiative's (ASI) certification for sustainable aluminium production.

Novelis is a subsidiary of Mumbai's Hindalco Industries Ltd. Based in Atlanta, the firm accounts for almost half of Hindalco's consolidated revenue. The world's largest recycler of aluminium, Novelis conducts operations in ten different countries, employs around eleven thousand people, and reported US$11.2 billion in net sales for the most recent fiscal year.

Aluminium Stewardship nitiative Certifies Magna BDW Die Cast Plant In Germany

Trade group Aluminium Stewardship Initiative announced this week the certification of the Magna BDW technologies GmbH MarktSchwaben plant in Germany under the ASI's Performance Standard Certification with a focus on Material Stewardship.

The ASI certification covers the plant's light metal vacuum die casting development and manufacture of modules and systems for the automotive industry. The plant's primary activities include high pressure aluminum casting of automobile body structure components, such as pillars, shock towers, and floor rails, among others. Magna uses the high-pressure casting process to produce complex shapes with a high product durability and efficient integration with mating components.

Fiona Solomon, Chief Executive Officer at ASI said in a press release that the plant was an example of aluminium's contribution to a circular economy.

“We warmly congratulate Magna BDW technologies on achieving ASI Performance Standard Certification at its MarktSchwaben plant. In contrast to traditional automotive body structure design and manufacture, the castings produced here accomplish the same function with less variability and mass, along with light weighting, and quality advantages. The ASI Performance Standard Certification demonstrates that the company uses its product design, scrap management and recycling strategy to maximisealuminium's circularity properties.”

ASI's Performance Standard is the product of consultations with a multitude of stakeholders throughout the aluminium value chain, which ASI asserts is the sole comprehensive voluntary sustainability standard initiative in the aluminium sector. The certifications, which each last for three years, were audited by SZI GmbH.

Markus Wimmer, General Manager at Magna BDW technologies said the certification was part of the firm's

larger commitment to responsible production.

“We want to produce our products responsibly and conscientiously, so sustainability is an integral part of our business strategy. With the successful ASI certification we have an additional confirmation that we are taking the right actions.”

The ASI is a worldwide organization dedicated to setting industrial standards and certifications in the aluminium industry. The association brings together the various stakeholders in the aluminium industry in order to achieve objectives including sustainable production methods, material chain-of-custody procedures, recycling, social impacts related to aluminium production, and production standards.

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Visitor target groups

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- Iron, steel and non-ferrous metal industry
- Electrical industry
- Construction and Infrastructure Industry.
- Measuring and control technology
- Chemical industry
- Trade, technical specialist retail trade
- Skilled trades
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HIGHLIGHTS

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Technical Conferences

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Govt recommends continuation of anti-dumping duty on Chinese Aluminium foil

The commerce ministry has recommended the continuation of anti-dumping duty on Chinese aluminium foil, used in food and pharma sectors, for five years to guard domestic players from cheap imports.

The commerce ministry has recommended the continuation of anti-dumping duty on Chinese aluminium foil, used in food and pharma sectors, for five years to guard domestic players from cheap imports.

In a notification, the ministry's investigation arm Directorate General of Trade Remedies (DGTR) has said there is continued dumping of the foil from China, and the imports are likely to enter the Indian market at dumped prices in the event of expiry of the duty.

"The authority recommends continued imposition of anti-dumping duty...so as to remove the likelihood of dumping and injury to the domestic industry," the directorate said.It has recommended the duty in the range of USD 469 and USD 1,106 per tonne.

The finance ministry takes the final decision to impose this duty. The duty was earlier imposed by the ministry in May 2017.

Hindalco Industries, Raviraj Foils, Jindal India jointly filed an application before the DGTR for the initiation of sunset review investigation concerning imports of 'Aluminium Foil 5.5 Micron to 80 Micron' originating in or exported from China.

The applicants sought the continuation of the anti-dumping duty.The request was based on the ground that the expiry of the anti-dumping duty was likely to result in continuation/recurrence of dumping of the foil and consequent injury to the domestic industry, the notification has said.

In international trade parlance, dumping happens when a country or a firm exports an item at a price lower than the price of that product in its domestic market.Dumping impacts the price of that product in the importing country, hitting the margins and profits of manufacturing firms.

According to global trade norms, a country is allowed to impose tariffs on such dumped products to provide a level-playing field to domestic manufacturers. The duty is imposed only after a thorough investigation by a quasi-judicial body, such as DGTR, in India.

Imposition of anti-dumping duty is permissible under the World Trade Organization (WTO) regime. India and China are members of this Geneva-based organisation, which deals with global trade norms. China is a key trading partner of India.

The duty is aimed at ensuring fair trading practices and creating a level-playing field for domestic producers vis-a-vis foreign producers and exporters.

Rising energy cost and supply disruption impact on aluminium prices: Icra

Global aluminium prices have jumped a sharp 18% in March so far compared to those at the end of January, fuelled by rising geopolitical risks amid the ongoing Russia-Ukraine war, rating agency Icra said. Prices touched an all-time high of $3875 per tonne in the first week of March 2022 and are currently at $3320, indicating severe tightness in global supply, the report added.

In a note on the global primary aluminium industry, Icra said, given a tight demand-supply balance and low inventory level of aluminium worldwide, any sanction on Russian aluminium exports will aggravate the metal availability in the rest of the world, keeping prices at a high level till normalcy is restored. Russia contributes almost 12% to global trade in aluminium with exports primarily diverted to Europe.

Another major factor contributing to the aluminium price rise is the elevated power cost in the European countries, the ratings agency said.The energy exchange rates have increased by almost 3 times in Europe since September 2021, resulting in significant smelting cost pressures. At the current power tariff at energy exchanges, the power costs to produce one tonne of aluminium are even higher than the current LME spot aluminium prices, the Icra note said.

Consequently, almost 0.7 mtpa of capacity (15% of installed capacity in Europe) has already been shut down since Q4 CY2021. Since Russia is the major exporter of natural gas (41%) to Europe, any restriction in gas supply could further aggravate the energy crisis situation in Europe.

Given the elevated power costs, aluminium production in Europe will remain severely impacted, which is also reflected in month-on-month decline in production in recent months, the note said. Disruption in alumina supplies from Ukraine, faced by leading Russian producer Rusal, and aluminium capacity cuts effected by Chinese authorities in CY2021 to the tune of 2.0 million MT (mmt), are expected to keep aluminium supply constrained, and therefore keep prices elevated in the near term.

Jayanta Roy, senior vice-president and group head, corporate sector ratings, ICRA said, “Domestic primary aluminium producers are better placed as their energy requirements are met primarily through coal-based captive power plants, and over 2/3rd of their overall coal requirement is met through captive mines/linkage coal from Coal India. Consequently, favourablealuminium prices would strengthen profitability and coverage indicators of domestic players in FY2023. Besides the favourable domestic demand, the export prospects too remain bright, given the global supply tightness."

Antofagasta expects high copper prices for next 12 months, CEO says

The copper market has solid fundamentals despite current market volatility and will maintain high prices for at least the next 12 months, Ivan Arriagada, CEO of Chile's Antofagasta, forecast.

In an interview with Reuters during the CRU-CESCO World Copper Conference in Santiago, Arriagada also said the company is still looking to develop its Twin Metals project despite the Biden administration's refusal to renew its licenses.

And although the company is on the lookout, it sees few options for copper deals on the market.

When it comes to copper prices, Arriagada said he based his forecast on the key role that copper plays in energy transition, especially with electric cars.

"In the short term, in the next 12 months, the important thing is that we have a market with solid fundamentals," Arriagada said. "There is a context of relative tightness due to supply chain conditions, inflation, and all that means we expect prices to remain at levels that they have been at recently, which are good prices."

However, he said the world economy is entering a phase of lower growth in the midst of the Ukraine conflict and that will have to be considered going forward, particularly in 2023.

The company maintains its goal of producing 660,000-690,000 tonnes this year. This factors in the impact of a drought at its flagship Los Pelambres mine, which the company plans to offset with a desalination plant in the second half of the year.

Arriagada reiterated Antofagasta's intention to reach a production level of 900,000 tonnes by 2026, citing the company's deposits.

"We have the mining resources to sustain that projection and a plan that contemplates making those investments, if the conditions exist and we obtain the permits," he said.

The Antofagasta board of directors must decide whether to go ahead with a plan for a new concentrator at its Centinela mine by the end of the year during a time of political uncertainty due to a new leftist government and the drafting of a new constitution.

We hope to have "a horizon of certainty regarding the prevailing conditions to make that investment and we therefore hope that by that time the processes that are under way will be at a degree of progress" to decide, Arriagada added.

Additionally, a plan for a mining royalty to raise revenue for social programs is currently under way in Chile's Congress.

"In tax decisions, a balance between contribution through taxes and industry competitiveness should be maintained and we think that's something extremely important that should be weighed," he said.

BHP eyes US$10bn copper investment in Chile

Australia-based mineral resources group BHP has outlined its ambitions to invest US$10bn in its mining business in Chile, with the country set for a major role in meeting surging copper demand in the push toward a low-carbon economy.

However, the mining giant warned that this spending will only be achievable if the country ensures a viable environment for investment.

Proposals to nationalize mining and raise royalties have raised industry concerns over Chile's attractiveness for

mining investment.

"At BHP we want to grow in Chile and we're accelerating studies to do so," RagnarUdd, president of the company's Minerals Americas division, told the CRU World Copper Conference 2022 in Santiago, Chile.

Investments under consideration include a new concentrator and leaching processing facilities, developing new mining areas and investments in decarbonization measures to reduce scope 1 emissions, which relate mainly to diesel mining fleets, Udd said.

The company is evaluating potential expansions or extensions of its massive Escondida (pictured) and Spence mines in the country, officials confirmed recently.

The company has a 57.5% stake in the world's biggest copper mine, in Chile's Antofagasta region, with Rio Tinto and Japan-based JECO Corp holding 30% and 12.5%, respectively.BHP has had tremendous success in Chile, which has been achieved through a close working relationship with authorities, Udd said, and he expressed hope that this will continue in the future.Chile is the world's largest copper producer and has extraordinary endowment of resources, Udd told the conference.

This could give the country a major role in meeting the forecast boom in global copper demand, which is being driven by a surge in renewable energy, electrification and electric vehicle industries, but only if these investment conditions are met.

Vanessa Davidson, CRU's director of base metals research and strategy, said the green energy transition is already helping support higher copper prices of around US$10,000/t which have transformed profitability in the sector.

Vedanta Debuts New Low-Carbon Aluminium Restora

India's leading aluminium producer Vedanta Aluminium last week debuted its new low-carbon aluminium product, making it the first Indian non-ferrous metals producer to market a low-carbon alternative for export.

Dubbed "Restora," Vedanta's new low-carbon aluminium line will come in two offerings, Restora and Restora Ultra, the latter having a lower carbon output in production than the former.

Vedanta said the new low-carbon offering is in response to consumer demand for raw and value-added materials that are more "green" than the current industry standard.

Restora will be produced at Vedanta's aluminium smelter, which operates at lower than the 4 metric tons of $C0_2$ equivalent per metric ton of aluminium, the current standard separating low-carbon aluminium from standard aluminium.

Restora Ultra, which will be made in partnership with Runaya Refining, will be produced using aluminium dross from Vedanta's plants using proprietary technology developed by TAHA International S.A.

Rahul Sharma, CEO – Aluminium Business, Vedanta Ltd, said in a press release that this product debut represented a major step forward for the firm.

"The launch of Restora, marks a proud moment in our commitment to decarbonize our operations as well as provide our customers an unmatched competitive advantage with sustainable aluminium products. Our holistic solutions are market-responsive and tailored to support evolving needs of customers. Restora has a GHG emission intensity which is almost half of the global threshold for low carbon aluminium. With consumers becoming increasingly conscious of the provenance of the products they use, Vedanta's Restora will provide them the assurance that the aluminium they purchase has amongst the lowest carbon footprints in the world."

Apple will make iPhone SE using aluminium created from greener smelting tech

Apple has been using recycled aluminium for years and is looking to expand the scope of aluminium that's smelted using hydropower instead of fossil fuels. Apple will start using the world's first direct carbon-free aluminium in its iPhones beginning with iPhone SE, Apple has said, describing the change as part of the Green Bonds allocation. The aluminium that'll be used in the manufacturing of the iPhone, had been produced by aluminium supplier ELYSIS, at its Industrial Research and Development Centre in Quebec.

Direct carbon-free aluminium is the result of improvements in smelting technology to reduce emissions. This aluminium is the first to be manufactured on an industrial scale outside of a laboratory and does not create any direct carbon emissions during the smelting process.

Hydropower was used in the process of making this aluminium. As a result, the process to make this aluminium produces oxygen, instead of direct greenhouse gas emissions that emerge from the traditional methods. ELYSIS earlier confirmed that its commercial-scale prototype is ready. This will make the Apple iPhone SE the first smartphone ever to be made using direct carbon-free aluminium.

"This is the first time aluminium has been produced at this commercial purity, without any greenhouse gas emission and at industrial scale," said Vincent Christ, CEO of ELYSIS, in a statement."The sale to Apple confirms the market's interest in aluminium produced using our breakthrough ELYSIS carbon-free smelting technology."

ELYSIS is a joint venture between aluminium companies Alcoa and Rio Tinto, which have both received investments from Apple in the past, as well as the governments of Canada and Quebec.

Titagarh Wagons launches its first aluminium train for Pune Metro

Titagarh Wagons is working towards becoming a fully integrated metro and modern passenger train manufacturer catering to the Indian and international markets. It is the first aluminium metro train manufactured by Titagarh Wagons at its West Bengal plant for Pune Metro rail project was launched by Manoj Joshi, secretary of Ministry of Housing and Urban Affairs (MoHUA) and chairman of Maharashtra Metro Rail Corp. Titagarh Wagons was awarded the order for designing, manufacturing and supplying 102 metro coaches for Pune Metro project in 2019. Under the terms of the contract, the company will supply three trains from its plant in Italy and the remaining 31 trains from its Indian facilities. The total contract for 34 trains is valued at nearly Rs 1,100 crore and is scheduled for completion by 2022-23 fiscal. Following the conclusion of its acquisition of Italy-based FiremaTrasporti in 2015, Titagarh Wagons has become an active player in metro coach and high-speed train manufacturing in India. The first train manufactured at the company's Italian facility was launched from the Garware station of the Pune Metro project.

After bagging the Pune Metro order, Titagarh Wagons upgraded its manufacturing facility in Uttarpara near Kolkata to make modern metro coaches incorporating the latest features, highest safety standards and comfort running at 90 kmph. The state-of-the-art Industry 4.0-compliant plant has also enabled the company to successfully indigenise several critical components such as bogie frames, interiors and brake systems for these trains.

Ind-Ra upgrades Vedanta's long-term issuer rating to 'AA' with stable outlook

India Ratings and Research (Ind-Ra) on Tuesday said it has upgraded mining giant Vedanta Limited's long-term issuer rating to 'AA' with a stable outlook.

AA-rated instruments are considered to have a high degree of safety regarding timely servicing of financial obligations.

In a statement, the ratings agency said it has "upgraded Vedanta Limited's (VDL) long-term issuer rating to 'IND AA' from 'IND AA-' and the outlook is stable".

The rating upgrade reflects the group's continuous deleveraging and expectation of an improvement in the consolidated operational cash flow in FY22 and FY23, following a significant increase in the operating profitability, led by high metal prices partly offset by raw material input inflation, Ind-Ra said.

Water scarcity to hits Chile copper mines

With no letup in Chile's years-long drought, Anglo American Plc is looking at developing a desalination project in partnership with state-owned Codelco, Japan's Mitsui & Co. and a local water utility.

The proposal is to build a plant on the coast of the Valparaiso region that would produce drinking water for residents in exchange for access to waste water that could be used at mines, said Anglo's Chile manager Aaron

Puna.

"All roads lead to desalination," Puna said in an interview Monday from London. "We would expect to have something firm on that in the next 12 months."

Such a project offers a longer-term solution to Anglo's Los Bronces mine that neighbors Codelco'sAndina in the mountains above Santiago. Giant copper mines in the desert to the north have turned to seawater amid depleting freshwater reserves that have triggered an overhaul of the country's water-rights system and greater protections for glaciers.

At a cost of $500 million to $1 billion, the desalination project probably wouldn't be ready for another four or five years. For now, Los Bronces is shifting away from freshwater by recycling from tailings dams and using local industrial water.

That solution will allow Los Bronces to come in 3%-5% ahead of first-quarter production guidance, although output would have been higher without water restrictions, Puna said. At Anglo's Collahuasi partnership with GlencorePlc, rains generated by the so-called Altiplanic winter have had a bigger-than-normal impact on output, he said.

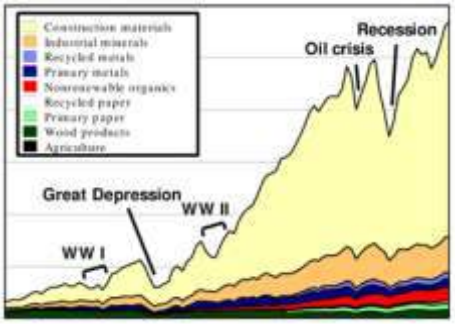
Besides a possible desalination plant, Anglo plans to invest about $3 billion this decade to maintain annual output at Los Bronces at about 350,000 metric tons. Another $3.5 billion is being spent at Collahuasi.

Anglo hasn't halted any investments and is "committed to Chile," though it's keeping close tabs on a process to write a new constitution along with government plans to raise taxes, Puna said. The writers of the new charter are weighing radical proposals including redesigning private property rights and even nationalizing mines.

While the company has "a lot of confidence in the political institutions and processes," the challenge will be to strike the right balance between what's best for Chile while maintaining incentives for investments, he said.

Material world- Shape of Things to Come: Recycling Industry

History says that each major step in human evolution is accompanied by the advent of the materials humans used; and the 'ages' of growth are known by the materials, such as the stone age, iron age, copper age, bronze age, etc. The data on 'how much materials do we consume?' is available only in a cursory manner. As shown qualitatively in Fig 1 here; it brings out a few startling observations: there is a steady increase in per capita material consumption by humans as we grow; the



consumption follows the state of growth of the country and the economy; that there is a dip in the per capita material consumption when there is an economic depression, such as during WWI, WWII, and the economic depression in 2008. As the consumption of a particular material goes up, covering multiple applications, the demand for the same peaks. We search for more and more sources of that material until the demand exceeds the supply, and the search for an alternative material Ref: Measurement of the per capita raw materials consumed in the US- Qualitative Representation by Randolf E Kirchain et al)

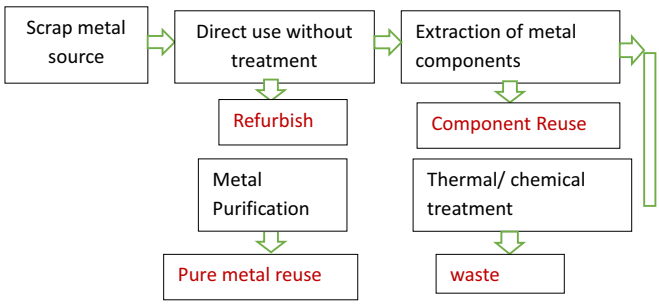
with compatible properties starts. Thus, copper got partially substituted by steel and by aluminum; wood got replaced by plastic and metal; river sand for concrete got partially replaced by synthetic sand, and partially by design change with brick walls being replaced by the glass; paper got foils. It is worth noting that it is the demand-supply imbalance that often drives the technology to search for alternatives. In recent times, such imbalance is also reinforced by external, social pressures, such as global warming, greenhouse gas emission, cost and availability of energy, speed of communication, etc.

These pressures have resulted in the global material industry adapting multiple approaches to address the issue and build on the opportunity. These include:

- Recycling technologies,
- Process changes to minimize rework; near-net-shape production,
- Material Genomics- Rational design of materials with superior properties
- Nano-technology- bottoms up material design
- 3D printing to enable direct product creation with novel constituents etc

In this issue of Metalworld™, we plan to discuss 'recycling', with the case of smart phones recycling. as a sample, case to discuss the challenges.

The 'end-of-life' condition of most items made upon metal or containing metal in some form or the other does leave the metal in a reasonable material form. Thus, for example, steel scrap with a little rust/ iron oxide forms an essential input to the raw material of steel mills, and 34% of iron comes from recycled scrap. For aluminium, while the potential is huge, the scrap collection system and end-of-life availability of aluminium scrap are both limiting the recycle. For other commodity metals like zinc, copper and lead are recycled without degradation. This recycling takes place with minimal pre-processing. For precious metals like gold, silver, platinum, etc., recycling by pyrometallurgical processing is an established practice. For other middle-value metals like nickel, cobalt, vanadium, tellurium, bismuth etc processes are evolving for wet chemical processing of various scraps, from automobiles, electronics, spent catalysts, etc. The general recycling process followed consists of a stepwise downgrade as shown below:



The establishment of commercially used recycling technologies is growing at 5.2% per annum, and the global recycling metal industry is already over USD 200 billion.

S. M. Kulkarni
Business Head - TecTrans Associates
Former President - Technology & Tech Services, Hindalco Industries Ltd.
Former Principal Scientist - Hindustan Unilever Research Centre

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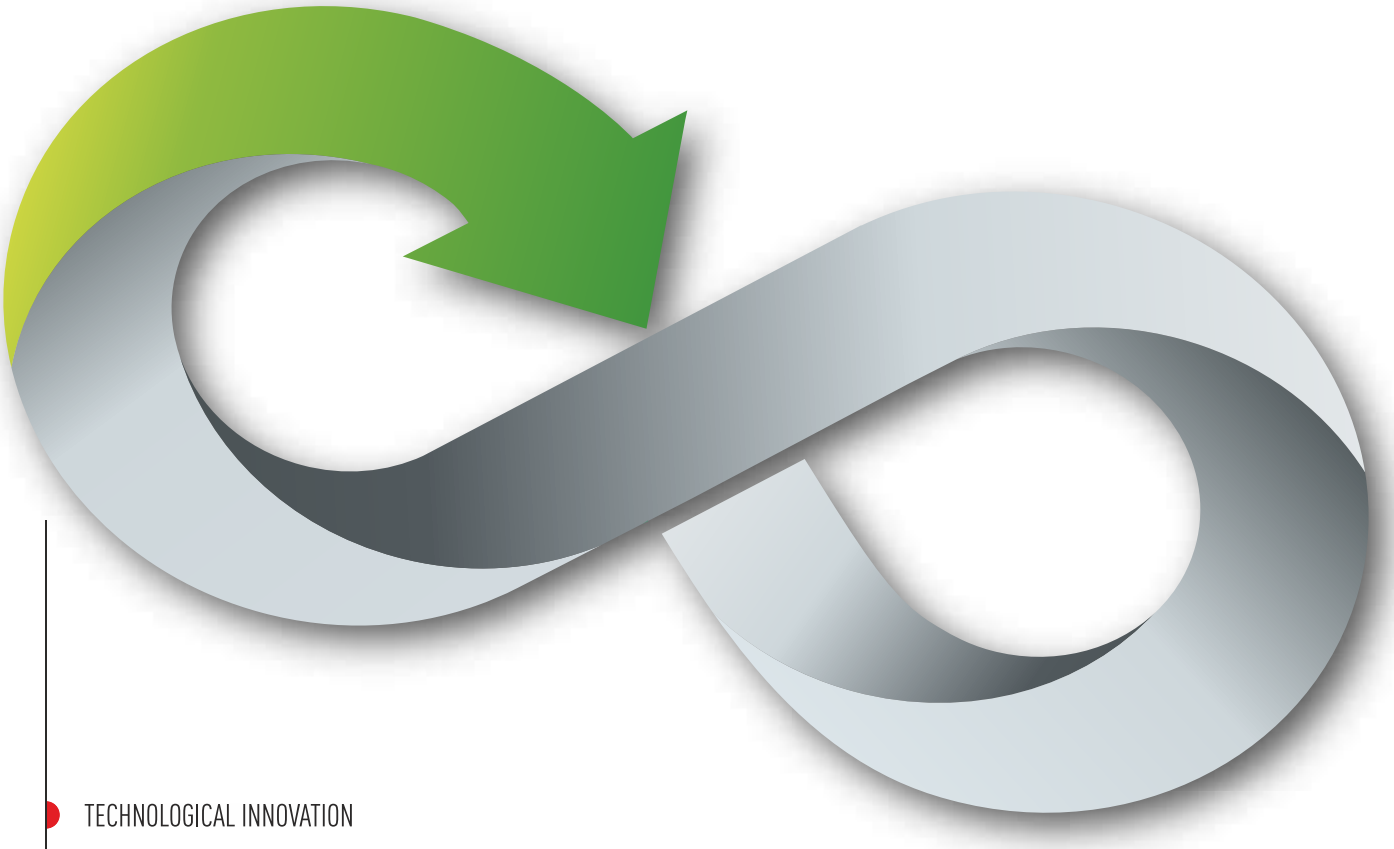
9/11 JUNE 2022 BOLOGNA ITALY

EXPO OF CUSTOMIZED TECHNOLOGY FOR THE ALUMINIUM, FOUNDRY CASTINGS & INNOVATIVE METALS INDUSTRY

12th edition. In conjunction with **MECSPE**

ALUMINIUM FOR THE GREEN TRANSITION



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- CIRCULAR ECONOMY
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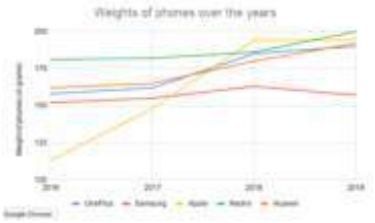
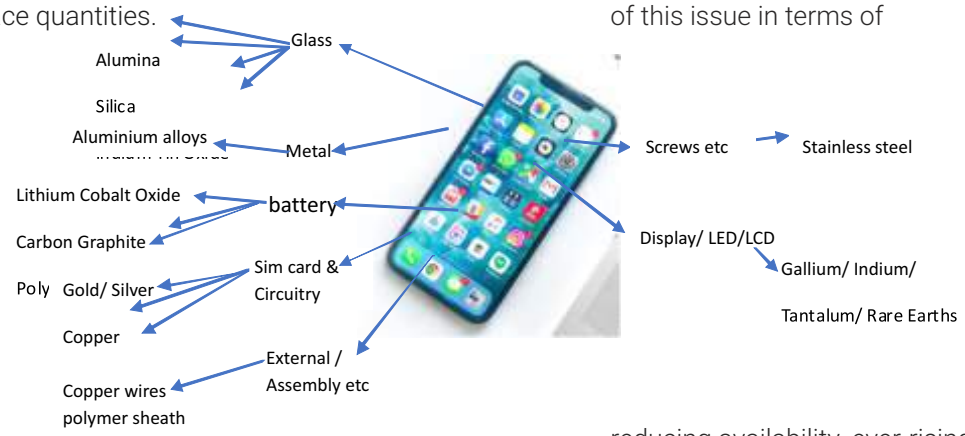
The major advantages are conservation of the primary metal resources, reduced cost of recovered metal, and extended availability.
As a sample case, let us look at the status of materials

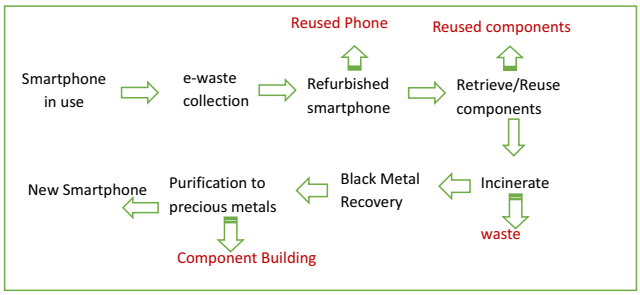


used in mobiles, phones, and the communication industry- which has been one of the fastest-growing sectors over the last two decades with no sign of slowing down. The communication system includes a smartphone, power supply, hardware for wired or wireless signal transmission, etc. Of these, the smartphone of 2021-22 has an average weight of 190-191 gms; (Ref: https://in.mashable.com/tech/7970/) and a worldwide number of smartphones (or at least smartphone users) is estimated to be about 7 billion! That makes it at a whopping 1330 T of smartphones globally!
Now, these smartphones contain a variety of material: The building blocks of a smartphone includes the glass/ Gorilla glass, lightweight metal casing, battery, internal circuitry/ sim card/ storage card, the adhesives used in the assembly, and external materials used for charging, power connection, etc.
While the composition has varied with the technology, on average, the 24% silicon, 23%v polymers/ plastic, 20% steel, 14% aluminum, 7% copper, and a percentage or lower of zinc, tin, lead, barium, etc. Rare earth materials like Gallium, Indium, etc which are at the heart of the LED /LCD displays, etc, are present in trace quantities.



The usage of over 7 billion smartphones, and supporting infrastructure for communication through transmission towers, broadband cable connectivity, routers, etc., all of which consume a significant quantity of similar materials, loaded proportionate to the customer base add at least 20% more material consumption per smartphone. A simple calculation shows that at today's consumption rate, we require 13 T of purified lithium, which is a specialty metal available in select locations in the world and over eighty percent of this is controlled by China. The same story goes for most other materials, other than the commodities like aluminum, carbon, and steel. Also note that not all these rare materials are available only for smartphones, with a lot going into applications like computers and laptops, medical electronic devices, solar applications, etc. Conserving the available rare materials is therefore imperative. At the present rate of consumption of these materials prepared via the mining route, the world risks running out of stock of some of these key components in the next 2/3 decades.

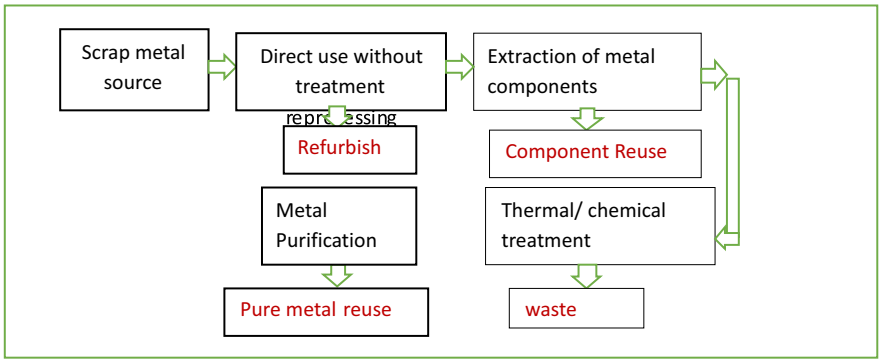
The electronic and smartphone industry has already taken note of this issue in terms of reducing availability, ever-rising cost, and the socio-political threats to these materials and has taken up recycling as a technology-based solution. Recycling thus forms an important pillar of the supply chain for the smartphone and electronic industry.



Smartphones out for replacement are collected through an MSME-based e-Waste collection system. An estimate from a global smartphone manufacturer says that only 17 to 24% of the phones in use are collected in this manner.
The recycling of smartphones thus involves multiple faculties and technologies, including the supply chain for collection, the economy of scale, manufacturing capabilities for disassembly, quality cheque, correction and re-assembly, the chemical or pyrometallurgical process for crude metal recovery in an environmentally friendly

manner (accounting for the presence of polymers, the potential formation of dioxins, safe disposal of process waste, etc), and cost-effective, efficient technology for separation of pure metals for recycling in place of freshly generated precious metals.
Companies in the EU, and eastern Europe, with earlier established expertise in copper and precious metal processing, as well as technology suppliers in metallurgy have now focused on metal recycling technologies.

processing industry will gradually move from being dependent on primary metal production to a total, cost effective, environment friendly reprocessor/ recycler industry, that is often local, cleaner and economical. This is what Recycling has to offer to shape the future.
Metalworld plans to continue the review of other technology challenges and opportunities in further articles on Material World- 'Shape of things to come over the coming months.



A review of the patents filed with WIPO on the subject of metal recycle process shows an exponential increase in the patents being filed. Exponential increase in no of patents in recycling technologies in Asia, EU and USThe applications cover a wide range of topics including source, non-metal portion removal, metal dissolution & recovery chemistry, separation technologies, recovery of valuable trace metals like Indium, mercury, Gallium, Tantalum, Titanium, environmentally safe processes etc. The technologies appear to be in expansion mode and no universal technology for metal recovery appears to be imminent as yet.
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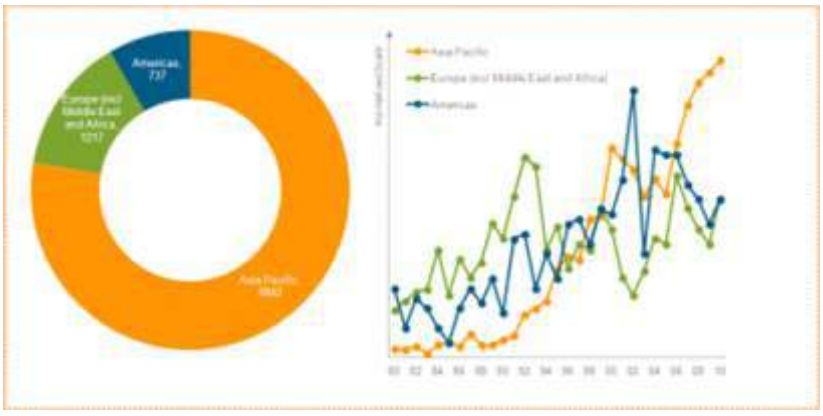

Exponential increase in no of patents in recycling technologies in Asia, EU and US

Automobile Statistics

Automobile despatches dip 23% in February as supply-side challenges continue: SIAM

Automobile dispatches from factories to dealerships across the country declined 23% in February, as various supply-side challenges, including semiconductor shortage, and rise in vehicle prices due to the implementation of new regulations continued to impact demand scenario, industry body SIAM said on Friday.

Wholesales of domestic passenger vehicles, two-wheelers and three-wheelers declined 23% to 13,28,027 units last month, compared with 17,35,909 units in February 2021.

Overall, passenger vehicle dispatches in February 2022 declined 6% to 2,62,984 units, compared with 2,81,380 units in the same month of last year.

India's major automobile companies reported decline in sales for the month of February 2022. Maruti Suzuki India reported that its total sales last month inched lower on a year-on-year basis to 1,64,056 units from 1,64,469 units sold in February last year.

Microchip shortages, along with high acquisition cost, subdued sales of key automobile players in February 2022. On Tuesday, auto major Maruti Suzuki India reported that its total sales last month inched lower on a year-on-year basis to 1,64,056 units from 1,64,469 units sold during the same period of the corresponding year.

Domestic sales were at 1,37,607 units, and sales to other original equipment manufacturers stood at 2,428 units. The automaker reported its highest ever monthly exports of 24,021 units.

"The shortage of electronic components had a minor impact on the production of vehicles which are primarily sold in domestic market. The company took all possible measures to minimise the impact," it said.

The shortage has impacted production of vehicles, consequently, elongating waiting periods and escalating cost.

Similarly, Hyundai Motor India reported lower cumulative sales on YoY basis. The cumulative sales last month fell to 53,159 units down from February 2021 off-take of 61,800 units.

The company's domestic sales declined to 44,050 units from 51,600 units sold during the corresponding period of last year.

"As the industry continues to grapple with semiconductor shortage situation, Hyundai along with its partners is continuously exploring alternatives to ensure customers can take delivery of their most loved Hyundai cars at the earliest," Hyundai Motor India said.

On the other hand, Tata Motors reported a 27 per cent rise in its overall domestic sales for February on a year-on-year basis to 73,875 vehicles sold, compared to an off-take of 58,366 units during the corresponding period of last year.

The company's passenger vehicle domestic sales rose by 47 per cent to 39,981 units from 27,225 units off-take in February 2021.

In terms of commercial vehicles, the domestic sales were higher by 11 per cent, at 37,552 units from 33,859 units off-take in February 2021.

Another auto giant, Mahindra and Mahindra reported a rise in its overall sales during last month. The company reported a rise of 89 per cent growth in its vehicle sales to 54,455 vehicles on a year-on-year basis.

"With an overall sale of 54,455 vehicles, we have achieved a growth of 89 per cent in February 2022. All segments showed robust growth including SUVs at 79 per cent, which registered the highest ever monthly volume," said VeejayNakra, Chief Executive Officer, Automotive Division, M&M.

"We expect demand to continue to remain strong as the Covid situation eases further. We continue to closely monitor the semi-conductor related parts supply and take corrective action as appropriate."

In terms of two-wheeler sales, rural distress as well as inventory correction efforts continued to dent sales.

Two-wheeler major Hero MotoCorp sold a total of 358,254 units of motorcycles and scooters in February 2022, lower than 505,467 units off-take during the corresponding

month of 2021.

Additionally, Honda Motorcycle and Scooter India reported total sales of 312,621 units in February 2022 down from 442,740 units sold during the corresponding period last year. Honda's exports for the month stood at 26,944 exports.

"Passenger vehicle sales are showing some signs of recovery as semiconductor issues ease out but one will have to look at geo political tensions very closely as a prolonged issue on the geopolitical side could pose challenges to the supply chain especially looking at the importance of Russia and Ukraine in the semiconductor manufacturing process value chain," said Hemal Thakkar, Director, Crisil Research.

"Two wheelers the current inventory levels are still high and the OEMs are in correction mode which is why we are seeing a sequential correction in inventory every month since October or November 2021."

Shamsher Dewan, Vice President & Group Head - Corporate Ratings, ICRA, said: "Semiconductor shortage was easing gradually. However, recent geopolitical developments are likely to derail the industry again as both Russia and Ukraine are suppliers of key inputs."

Commenting on February 2022 sales data, Mr Rajesh Menon, Director General, SIAM said, "Sales in the month of February 2022 has declined compared to February 2021, across Passenger Vehicle, Two-Wheeler and Three-Wheeler categories. Continuing supply side challenges like Semiconductor shortages, increase in cost due to new regulations, higher commodity prices, higher logistics cost etc. have impacted overall sales in the auto industry. Industry is closely watching the possible impact of the on-going conflict in Ukraine, as Global Supply Chains could come under stress."

SIAM

Segment wise Comparative Production, Domestic Sales & Exports data for the month of February 2022

(Number of Vehicles)

Category	*Production*		*Domestic Sales*		*Exports*	
Segment/Subsegment	*February*		*February*		*February*	
	2021	*2022*	*2021*	*2022*	*2021*	*2022*
*Passenger Vehicles (PVs)**						
Passenger Cars	*181,247*	*170,428*	*155,128*	*133,572*	*23,230*	*33,515*
Utility Vehicles (UVs)	*129,373*	*133,246*	*114,350*	*120,122*	*11,891*	*17,623*
Vans	*12,135*	*9,368*	*11,902*	*9,290*	*224*	*75*
Total Passenger Vehicles (PVs)	*322,755*	*313,042*	*281,380*	*262,984*	*35,345*	*51,213*
Three Wheelers						
Passenger Carrier	*60,469*	*55,095*	*18,617*	*19,369*	*40,587*	*34,820*
Goods Carrier	*9,887*	*8,834*	*9,039*	*7,670*	*589*	*1,177*
Total Three Wheelers	*70,356*	*63,929*	*27,656*	*27,039*	*41,176*	*35,997*
Two Wheelers						
Scooter/ Scooterettee	*495,896*	*381,510*	*465,097*	*344,137*	*28,887*	*24,830*
Motorcycle/Step-Throughs	*1,299,778*	*998,438*	*910,323*	*658,009*	*335,407*	*349,221*
Mopeds	*63,663*	*38,455*	*51,445*	*35,848*	*352*	*1,638*
Total Two Wheelers	*1,859,337*	*1,418,403*	*1,426,865*	*1,037,994*	*364,646*	*375,689*
Quadricycle	*793*	*140*	*8*	*10*	*630*	*126*
Grand Total of All Categories	*2,253,241*	*1,795,514*	*1,735,909*	*1,328,027*	*441,797*	*463,025*

** BMW, Mercedes, Tata Motors and Volvo Auto data is not available*

Society of Indian Automobile Manufacturers (11/3/2022)

SIAM

Summary Report: Cumulative Production, Domestic Sales & Exports data for the period of April - February 2022

Report I

(Number of Vehicles)

Category	*Production*		*Domestic Sales*		*Exports*	
Segment/Subsegment	*April-February*		*April-February*		*April-February*	
	2020-21	*2021-22*	*2020-21*	*2021-22*	*2020-21*	*2021-22*
*Passenger Vehicles (PVs)**						
Passenger Cars	*1,533,652*	*1,637,364*	*1,336,473*	*1,290,030*	*238,813*	*334,469*
Utility Vehicles (UVs)	*1,004,685*	*1,456,164*	*902,951*	*1,273,090*	*123,656*	*179,822*
Vans	*94,227*	*104,638*	*96,384*	*102,989*	*1,233*	*1,746*
Total Passenger Vehicles (PVs)	*2,632,564*	*3,198,166*	*2,335,808*	*2,666,109*	*363,702*	*516,037*
Three Wheelers						
Passenger Carrier	*460,588*	*607,967*	*113,635*	*160,596*	*348,630*	*451,318*
Goods Carrier	*79,877*	*78,042*	*73,501*	*68,311*	*4,599*	*9,877*
Total Three Wheelers	*540,465*	*686,009*	*187,136*	*228,907*	*353,229*	*461,195*
Two Wheelers						
Scooter/ Scooterettee	*4,040,161*	*3,960,520*	*4,024,183*	*3,648,994*	*204,137*	*328,488*
Motorcycle/Step-Throughs	*11,772,876*	*11,754,996*	*9,027,235*	*8,197,707*	*2,715,106*	*3,753,043*
Mopeds	*586,083*	*438,622*	*572,559*	*435,501*	*7,371*	*10,246*
Total Two Wheelers	*16,399,120*	*16,154,138*	*13,623,977*	*12,282,202*	*2,926,614*	*4,091,777*
Quadricycle	*3,500*	*4,038*	*(19)*	*75*	*3,259*	*4,314*
Grand Total of All Categories	*19,575,649*	*20,042,351*	*16,146,902*	*15,177,293*	*3,646,804*	*5,073,323*

** BMW, Mercedes, Volvo Auto data is not available and Tata Motors data is available for Apr-Dec only*

Society of Indian Automobile Manufacturers (11/3/2022)

Source SIAM

10th International Bauxite,Alumina & Aluminium Conference & Exhibition

IBAAS-JNARDDC 2022

NEW DATES

September 14-17, 2022

Courtyard Marriott, Raipur, INDIA

- Participation by more than 50 companies
- Over 200 delegates expected to attend
- Over 40 abstracts received
- Non-Ferrous metal recycling sessions by JNARDDC
- Aluminium Sustainability sessions by ASI

Special Sessions

Sustainability by Aluminium Stewardship Initiative ASI (September 16)

One day brainstorming on Non-Ferrous Metal Recycling in India to be organized by JNARDDC (September 17)

Co- Organizer	Associated Organizer	Gold Sponsor	Co-Supporter
Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC), India	Aluminium Stewardship Initiative (ASI), Australia	Tokai COBEX GmbH, Germany	Bokela GmbH, Germany

For participation and further details, please contact the IBAAS Office, India

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