

METALWORLD

Devoted to Foundry & Non-Ferrous Metals Industry

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Rahul Sharma
Chief Executive Officer
of Aluminium Business
for Vedanta Limited

■ India's construction and electricity transmission sectors to drive aluminium demand

■ "DIGITAL IS THE (NEW) NORMAL"
10 MISCONCEPTIONS WHEN IT
COMES TO DIGITALISATION OF
METAL CASTING OPERATIONS

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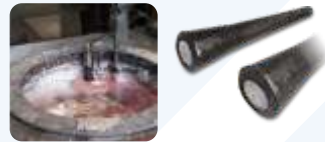
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D. A. Chandekar Editor

Dear Readers,

The present situation in Indian financial markets seem to be too good to believe. The sensex has jumped passed 60k mark and experts are pouring some more optimism in the environment. While we know that the share market is not the real barometer of the industry situation, it is a fact that the industry too is recovering well post covid. Of course this can not be a generalised statement and I do understand that many industry verticals such as tourism, hospitality etc., have suffered great losses and few companies, especially MSMEs, in these sectors have gone beyond recovery. Thus the share market boom and the industry recovery is selective and fortunately metals industry, being the core industry sector, has shown very fast (some say V shaped) recovery.

The metals production could come back to the normal levels because the production of raw materials like ore, coal, refractories too picked up and supported the growth curve. Also the disruptions in the process chain as well as the logistics were repaired quickly so as to achieve smooth flow of process and the materials. The metals industry not only healed itself but also played a

Editorial Desk



big crucial role in the pandemic recovery by providing oxygen to the patients and creating covid hospitals, recovery centres in record time and running them as seriously as producing metal. Great job indeed ! One factor which many of us tend to overlook is the mind blowing speed with which the Indian administration vaccinated its citizens. By the time this piece reaches you, more than 100 crore Indians would be vaccinated. This tremendously helped us to fight the (so called) third wave and normalise the industry operations. Now that we have successfully combated first two waves, we are now well prepared with respect to our health, resources and the mindset to fight the third wave if at all it reaches us.

One of many lessons learnt from covid is digitalization. We have started using more computers, internet, virtual meetings and conferences, as the travels were not possible. Industry 4.0 taught us the power of big data, analytics, cloud computing, remote factory monitoring etc. It reduced the cost and increased the efficiency, productivity and the quality of the enterprise. Now that the pandemic seems to be easing out and the life returning to the normalcy, we should not forget what we have learnt. 'Digitalization' should not be seen as a stop gap arrangement. It is a one way, irreversible process and cannot be called off abruptly. Believe me the future depends on how quickly and effectively you use digitalization in all the aspects of the operations. ■

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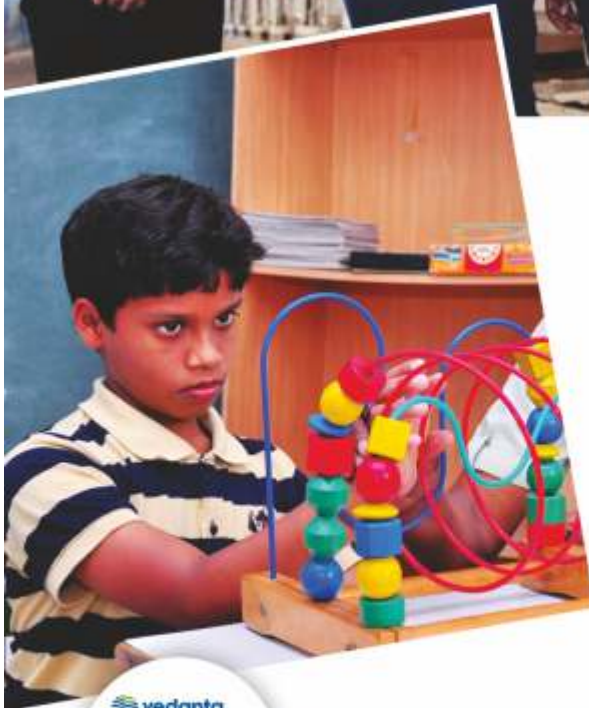
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Face to Face

Rahul Sharma is the Chief Executive Officer of Aluminium Business for Vedanta Limited. Prior to this role, he was the Chief Executive Officer of Alumina Business and Director – Corporate Strategy for Vedanta Limited. Sharma is an alumnus of IIM –Ahmedabad Executive General Management program, has an MBA in Marketing and a B.E. in Electronics and Communication.

Sharma has diversified experience of over 25 years and has held various leadership positions at Vedanta Limited and Sterlite Technologies Ltd. Prior to joining Vedanta he was the Chief Marketing Officer (Domestic and International) and Business Head of System Integration Business at Sterlite Technologies Ltd.

He is one of the principal figures of India's Metal & Mining industry and has been playing a significant role in driving various policies and creating a strategic framework for numerous government reforms for sustainable development of exploration, mining, and non-ferrous metal sector in the country. Sharma is also the office bearer of various eminent industry associations, including the current President of Aluminium Association of India (AAI), Chairman of Indian Captive Power Producers Association (ICPPA), and Co-Chair -Mining Committee Federation of Indian Chambers of Commerce and Industry (FICCI).

For his exemplary leadership he has been conferred with various awards and accolades including Greentech Leading Director Award 2021, People's CEO of the year award 2020 and `Business Leader of the year award at International Conference on Non-Ferrous Metals-2017 for his contribution to India's Metal and Mining industry.

India's construction and electricity transmission sectors to drive aluminium demand



D A Chandekar, Editor & CEO, Metalworld had a one-to-one discussion with Rahul Sharma, CEO - Aluminium Business, Vedanta Ltd. to under the present status of the Indian Aluminium Industry.

Excerpt

How is the present status of Indian economy and Aluminium industry in India, especially post covid ?

India is gradually realizing the potential of its minerals and metals sector. At the face of the pandemic, when most industry sectors were crippled, this sector continued to be productive. In fact, the GDP from mining in India increased to INR 913.03 billion in the first quarter of 2021 from INR 739.90 billion in the fourth quarter of 2020 as per data from the



Face to Face

Ministry of Statistics and Programme Implementation (MOSPI)

Post pandemic domestic demand is expected to grow

aluminium demand in the coming fiscal.

How do you see the future of Aluminium industry in the country? And how is Vedanta



at 10-12% this fiscal after contracting 10% to ~3.4 MT in the last fiscal. This growth will be supported by higher Aluminium demand with ongoing economic recovery and growing infrastructure, building & construction, automotive, power, consumer durables and packaging as compared to last fiscal crippled with depressed demand across major consumer sectors.

Globally, India is now at a formidable position in overall installed renewable energy capacity. With focus on renewable energy picking up strongly, construction and electricity transmission sectors will also drive

Aluminium positioned for the same?

India has all the right levers to emerge as the aluminium manufacturing and value-addition hub of the world – abundant bauxite and coal reserves for Aluminium production, availability of human capital, strategic geological location, and a progressive government with a vision for localization of supply chains for indigenous manufacturing. For an aspiring economy like India, the space exploration, defence, electrification, transportation, aviation, renewable power, building & construction, packaging – all of these are rapidly emerging

sectors. So, opportunities for global manufacturing leaders like Vedanta Aluminium are limitless.

The demand for aluminium and other minerals/metals is directly linked with the level of economic activity and MSME / industrial base in the country. Value-addition and innovation will play a key role in modernizing the landscape of domestic manufacturing, as India charges forward towards establishing its dominance as the global manufacturing hotspot.

This is why Vedanta Aluminium is increasing production capacity, developing downstream aluminium ecosystems, investing in R&D to develop high-quality products and product customizations perfectly tailored to current and emerging applications, in collaboration with globally reputed business partners. Among aluminium producers in India, we already offer the largest and most diverse product portfolio, which includes Billets, Wire Rods, Alloy Ingots (including Primary Foundry Alloy, Cylinder Head Alloy, etc.), Aluminium-Silicon T-Ingots, Sow Ingots, Flip Coils, Slabs, Rolled Products, Primary Ingots, as well as liquid metal. Vedanta Aluminium is India's largest producer of top-quality billets. We are also the largest producers of wire rods in the world, outside China.

We not only offer our customers the highest quality



Face to Face

of products, but also technical support and expertise, supply chain reliability as well as innovations and customizations perfectly tailored to their needs. Hawk-eyed quality assessment of raw material and finished products have made us one of the most preferred suppliers of aluminium to developed markets. In fact, we are also exploring e-commerce avenues to make aluminium purchase easier, real-time and seamless.

What support does the industry need from policy makers ?

To truly unlock the potential of Indian Aluminium Industry and make India the manufacturing and value-addition hub of the world, there are four key levers that the government must act upon:

- First, promotion of domestically produced aluminium usage in government projects should be a priority area. With the aim to make India a USD 5 trillion economy, the government is rolling out numerous high-impact projects, which have ample opportunities for consumption of India-made aluminium.
- Second, focus should be given to build domestic capability for emerging

applications of aluminium for critical and sunrise sectors under Make in India and Atma-Nirbhar Bharat campaigns. Aluminium has potential for myriad uses, majority of which are yet to be explored by the domestic downstream sectors.

- Third, the potential of aluminium industry should be unlocked by recognizing it as a Core Industry along with a National Aluminium Policy as recommended by various ministries that will encourage, more investments in the Indian

generating local employment, entrepreneurial opportunities, and social welfare programmes to bring remote areas into the mainstream. Such industry needs encouragement through progressive policies to contribute for overall socio-economic development of the nation.

Tell us about the future plans of Vedanta group in Aluminium sector. How can a sustainable and eco-friendly growth to be achieved ?

Our vision is to become the world's best, fully integrated and most sustainable



aluminium industry. Primary aluminium industry has strong output and employment multiplier effect (backward and forward linkages) on other key sectors. It is playing a major role in nation development by triggering economic activity in the hinterlands and under-developed areas by

Aluminium producer globally known for our ESG (Environmental, Social and Governance) excellence, technological prowess, exceptional product quality, customer-centricity. Our primary goal is to operationalize our assets of national importance to 100% capacity of 2.2 MTPA and we



Face to Face

are working towards this objective. While we intend to sweat our assets, we are also looking towards integrating our operations and with this philosophy, we have undertaken expansion of Lanjigarh Alumina refinery to 5 MTPA. We have also announced few projects to enhance our value-added product capacity, as well as setting up of an Aluminium Park near our largest



aluminium smelter at Jharsuguda, in Odisha.

Our sustainability priorities are mapped along the lines of – Environment (Air Quality, Water, Energy and Waste Management), Climate and Carbon Footprint, People Health & Well being, and Social Impact. Vedanta is among the signatories of the 'Declaration of the Private Sector on Climate Change'. Vedanta Aluminium is committed to decarbonization of operations in the long term.

How did Vedanta management help its

employees and the community during corona pandemic situation ?

Ensuring the wellbeing of all our employees while continuing production safely with a minimum number of people on the shopfloors was our biggest challenge.

However, a shared vision of staying resilient, empowered modes of working, transparent communication and a

staunch focus on employee wellness went a long way in pulling us all together at Vedanta Aluminium. The leadership team had frequent engagement and personal connect

sessions with the teams to check on them. Compassion and empathy took us a long way.

We marshalled all our resources across our operations, even in remote locations, to safeguard our people. We have ensured 100% first dose vaccination of all 34,000+ employees and business partners, and are striving for 100% double-vaccination at the earliest possible. We developed 550+ bedded COVID treatment and quarantine facilities at our operations, equipped with required infrastructure and medical personnel to care for

those affected by COVID. We had engaged COVID Task Forces in round-the-clock monitoring of the impact on the entire workforce and families of employees. Drones and CCTVs were used along with regular security patrols for enhanced surveillance of social-distancing compliance at plant and townships. To ensure social distancing at shops selling vegetables, milk, groceries, etc. in the township, an online timeslot-booking portal was developed inhouse to regulate the number of people and timings during which they can go to the shops to buy essentials.

To help the local state administration and communities in the fight against COVID-19, we dedicated three state-of-the-art COVID Care hospitals, with 400 beds, Intensive Care Units (ICU), High Dependency Units (HDU), Paediatric COVID ICUs, and a dedicated team of doctors and medical staff to render services to the patients. Besides that, we have provided thousands of oxygen cylinders, RTPCR kits, specialized PPEs and medical equipment, etc. to hospitals and state governments. We have distributed over 3 lakh masks, soaps and basic hygiene kits to local communities, provided meals and dry ration to the needy, conducted awareness sessions on COVID prevention and vaccination across hundreds of villages. ■



“DIGITAL IS THE (NEW) NORMAL” 10 MISCONCEPTIONS WHEN IT COMES TO DIGITALISATION OF METAL CASTING OPERATIONS

● **Misconception no. 6:**
The shop-floor doesn't need it!

In metal casting operations transparency is the key to success. Digital solutions and digital transformation concepts contribute for this. Now, in order to achieve any type of transparency you must collect data. This data must come – among others – from the predominant source where the data is created and that's the shop-floor.

Many metal casting operations however neglect the shop-floor data source thinking they don't need it in terms of feedback and in

return cutting off vital information for operational excellence. The shop-floor is the “treasure box” of metal casting operations data and the more precise this data is collected and used in integrated systems the more benefits will result from it. The motto should always be: In digitalisation projects involve your data source from day one, the operation and company results will be positively affected.

● **Misconception no. 7:**
BIG DATA is only for big companies

When it comes to the



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Pvt Ltd

concept of harvesting a company's biggest asset – its manufacturing data - and especially SME's or even M-SME's when they are moving into this direction a very important misconception has been seen in the past. The perception is that big data involves big companies.

The reality however is quite different and the actual contrary is the true reality. Any metal casting operation of any size – be it the 20 man “mom & pop” hand moulding show or be it the 3500 employee / 1500T a day automotive mass-producing casting operation – both produce “big data”. Maybe the latter one slightly more than the other but in quality

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Technology

and quantity of what you need to harvest the same there is no difference.

Digitalisation in metal casting operations means always big data and this big data represents big money too. So, a management team should define here the type of data they require in what format and whether it's in real time or not, then you will see very quickly what it means when "big data" is involved

- **Misconception no. 8: We have ERP means we are digital**

That's a classic one! It requires almost no further comments. Still many metal casting operations haven't understood that having an ERP system means you merely administrate your data flow, many times only in finance. So, what about operations, planning, controlling, WIP-reporting, rolling shop-floor inventory, consumables, etc. the list is endless. If MS-Excel prevails in any of these – and in many companies that's the case unfortunately – then you are NOT digital at all.

The digitalisation / digital transformation team must point out the areas where MS-Excel prevails and where it is destined to be eliminated via integrated system, real-time or on-time date collections and steady visualisation using

dashboards and other means.

- **Misconception no. 9: Foundry is dirty – dangerous and difficult, let's outsource**

Image of the industry! Legacy issues galore! Lack of adequate work-place design!

Do we need to say more? Foundry is indeed 3D = "dirty-dangerous-difficult" but foundry can also be D3 = "digital – dynamic – different".

Remember, we can't change the process as such as metal has to be molten into a liquid and poured under various process conditions into a mould of any kind. The shaping process itself is maybe sometimes "3D" but the planning – controlling and data collection / visualisation process can be very much "D3".

Here digitalisation must be monitored especially in order to lift up the image of the industry. And digital transformation means automatically productivity and image improvements. Some companies will then rather outsource than doing it yourself, as such that's an opportunity with those who are committed to the process and to the full understanding of benefits this process brings along.

- **Finally, misconception no. 10: Digitalisation and**

digital transformation is not for me

Another Classic One!

How many times have we heard this? Probably way too often. Despite "Industry 4.0" movements and many other initiatives the metal casting industry has yet to discover the great potential digitalisation and digital transformation entails.

It's all about your mind-set, your digital mind-set.

Once that is available the rest comes by itself. And by the way it is NOT, repeat NOT expensive to digitalise and it also not merely an IT project as stated earlier too. You start small and continue over time. Companies in Europe in the early / mid – 90's started on that journey and are today where many want to be, but they are ahead, no doubt about that.

Here we want to present here a small story from OHM & HAEHNER in Germany. A classical German SME with around 600 employees. The aluminium sand-casting foundry is the company's backbone, however operated at a level where in one plant roughly 800 metric tons / month are produced (from 20 gram to 2 ton single piece) however only involving around 35 staff in this plant.

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way to melting control, automatic pouring, automatic shake-out, fettling using minimal manual action and raw cast shipment are deployed.

start digital transformation and to be successful within an organisation and for resistance to be effectively overcome, it is



Information is available in real time and although 60% of castings are still of a “jobbing” nature and 40% are automotive, the delivery reliability stands at 99% throughout with strong tracking and tracing in place on 24/7 level. Productivity is in comparison even to other German / European foundries at its peak, with proven track record over many years.

SUMMARY

PLEASE REMEMBER!

- Digitalization and digital transformation is going far beyond the use of modern technologies in companies. It is a process that fundamentally changes structures and people's familiar working practices.

- In order for a FOUNDRY to

important to implement professional change management.

- This starts with the right selection of project managers, but also implies a change in the attitude of the management board and continuous communication of the necessity and objectives of the transformation.
- If this is successful, the process is not necessarily easier for those involved, but in the end the results will prove to be of benefit to all parties and worth the effort.
- Today, various foundries in India have now started

this process and are slowly but steadily moving into the digitalisation and digital transformation journey. They will be the front-runners when it comes to national and international competitiveness.

- Last but not least, many foundries still do not have a concept but there is a solution for them too: SFRI – Smart Foundry Readiness Index, a simple audit to check whether you are ready for digitalisation and digital transformation.

This audit service is available in India and can be done online too.

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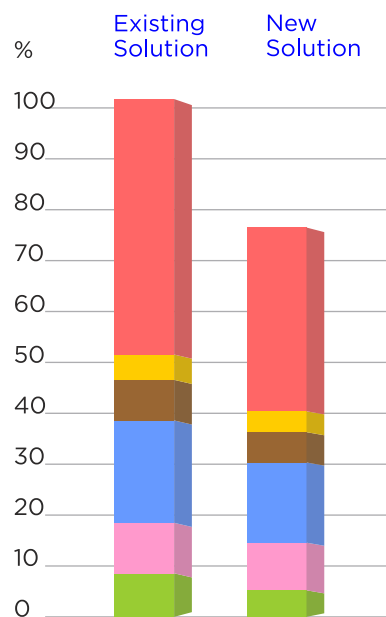
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News Update

Higher coal prices to impact Vedanta's profitability in 3rd quarter: Report



Higher cost of coal due to the ongoing shortage of the dry fuel in India will impact the profitability of Vedanta in the third quarter which is likely to be temporary, according to a report

Topics

Higher cost of coal due to the ongoing shortage of the dry fuel in India will impact the profitability of Vedanta in the third quarter which is likely to be temporary, according to a report.

Various power plants in the country are grappling with fuel coal shortages.

"While higher coal costs in India due to ongoing 'coal shortage' would impact Vedanta's (VEDL) profitability in 3Q, we expect it to be temporary," according to a report by Credit Suisse.

Ramp-up of captive coal mines would help reduce cost volatility in the medium term, it said.

"We note that coal costs in 2Q were USD 300 per tonnes lower than peak (US\$800 per tonnes), we may see peak costs in Oct. We believe Vedanta has scope to increase earnings further in FY23," it added.

Amid the low stock position at the electricity generating plants, state-owned CIL has asked its subsidiaries to refrain from conducting any further e-auction of coal, except special forward e-auction for the power sector, till the situation stabilises.

The development assumes significance as the supply of coal is being prioritised to the power sector to replenish the dwindling stock in the wake of reports of an electricity

crisis looming large.

The company had earlier said it is augmenting its production and off-take steadily. Once the situation stabilises, expectedly within a short time, and stock at coal-fired plants attains comfort level, other sectors will be brought back to their regular supply norm, the public sector firm said.

L&T completes Hindalco expansion project

The alumina production capacity of the refinery has been upgraded from 1.5 MTPA to 2 MTPA

The metallurgical and material Handling business of Larsen & Toubro has commissioned the 0.5 mtpa expansion project of Utkal Alumina International, a wholly-owned subsidiary of Aditya Birla Group company Hindalco Industries.

With this expansion, the alumina production capacity of the refinery has been upgraded from 1.5 mtpa to 2 mtpa. L&T MMH has executed this project in a time-bound manner ensuring the most critical process units of the refinery are ready.

The company overcame many difficulties at the remote location of the project including limited material availability, inadequate local skilled workmen, hilly terrain, and heavy rainfall with a prolonged rainy season.

Moreover, the challenging work was completed during the outbreak of Covid pandemic, with 2,000 workmen working at the site with precautions and safety measures.

L&T ensured utmost care for the workmen by providing not only basic amenities but also requisite medical facilities and timely payment of wages to maintain high morale of the workmen and to protect them from infections during this period.

Vedanta Group eyes buying govt stake in Hindustan Copper



Talking about the progress with regard to Konkola Copper Mines in Zambia, Agarwal said the government of this African country is in the process of working with the company on the

matter.

Mining giant Vedanta Group will look to bid for buying the government's stake in Hindustan Copper Ltd as when the



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News Update

state-owned firm is put up for privatisation, its billionaire founder Anil Agarwal has said.

He said that the company is doing its due diligence for the same.

"Yes we are looking (at) Hindustan copper. We are doing the due diligence...The dates have not come...As soon as they announce the date, things will be much more exciting and people will start believing that the process is going on in India," Agarwal said when asked whether he is looking at participating in the government's disinvestment process.

Talking about the progress with regard to Konkola Copper Mines in Zambia, he said the government of this African country is in the process of working with the company on the matter.

The previous government, a few years back, "has taken away this asset from us. They have already announced that they are in the process of working, because they want to have the best relationship with the Indian government...I hope that in very short time, we will get back this asset and we are going to invest a lot of money into this to make it modernise and create employment there," he told PTI.

Odisha's Nalco Achieves Highest Cast Metal Production In H1 FY22



The Odisha-based National Aluminium Company Limited (NALCO) has achieved the highest ever half-yearly production of cast metal in 2021-22 financial year.

Union Coal and Mines Minister Pralhad Joshi in a tweet on Tuesday congratulated the company on the achievement. "NALCO has yet again reached another milestone in its glorious journey of Business Excellence. The Navratna CPSE has achieved the highest ever half-yearly Production of Cast Metal since inception in H1 FY22," he said.

The Navratna CPSE under Ministry of Mines produced 22,6,028 tonne of cast metal in 2021-22 financial year so far compared to 20,4,143 of the previous fiscal, according to the tweet.

In the first quarter ended June 30, the company produced of 17.61 lakh tonne bauxite, 5.21 lakh tonne alumina and 1.14 lakh tonne aluminium respectively, compared to 17.10 lakh tonne, 4.65 lakh tonne and 0.98 lakh tonne in the comparative period of the last fiscal.

Vedanta Jharsuguda Wins Kalinga Environmental Excellence Award 2020



Vedanta Aluminium, India's largest producer of aluminium and value-added products, has been conferred the Kalinga Environment Excellence Award for exemplary environmental performance in the year 2020.

This prestigious and coveted award recognizes best practices in the field of environment sustainability, where industries are evaluated on parameters like water and waste management, energy conservation, environmental best practices, etc.

Receiving the award, Mr. Deepak Prasad, Dy. CEO – Vedanta Ltd., Jharsuguda, said, "At one of the world's largest aluminium smelters in Jharsuguda, we are committed to the principles of sustainable and environmentally-conscious growth, as we work towards fulfilling the needs of the nation through aluminium, the green metal of the future. Our business imperatives are fulfilled through an unwavering commitment towards adoption of the best technology, ensuring highest standards of process efficiency and resource utilization, and creating circular economy value-chains, to create a lasting positive impact. The Kalinga Environment Excellence Award is a testimony to our endeavours against those commitments."

Vedanta Jharsuguda's approach to environmental management includes a suite of best-in-class



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technologies and sustainability-focused operating procedures, with the underlying ethos of 'Zero Harm, Zero Waste and Zero Discharge'. Advanced pollution control technologies, robust processes, globally benchmarked best-practices, etc. are in place for air, water, land and waste management.

Few examples of environmental highlights:

- Deployment of cutting-edge technologies and advanced data analytics at smelters and power plants to enhance asset performance and energy efficiency, and reduce wastage.
- 354 Million Units of green power purchased in Q1FY22 for producing green metal aluminium; a milestone in green energy procurement and highest in India
- 3.32lakh trees planted in and around plant operations till date in FY22, as part of 'Vedanta Cares – Green Cover' initiative.
- 86 lakh litres of water were recycled in FY21 for further usage in various processes.
- 18.8% reduction in GHG emission intensity in FY21 from 2012 baseline.
- ~370800 GJ of energy conserved in FY21 alone, through numerous energy saving projects.
- 100% ash utilization in avenues such as cement production, brick manufacturing and backfilling of mine void, etc.

Vedanta is India's largest producer of the green metal, aluminium, operating a world-class 1.6 MTPA aluminium smelter and 3615 MW thermal power generation facility in Jharsuguda, Odisha. The only Indian smelter in the global '1 Million Tonne' production and export club, Vedanta Jharsuguda is a leader in value-added aluminium products that find critical applications across core industries. With its state-of-the-art facilities, unparalleled engineering prowess, R&D and innovation abilities, Vedanta Jharsuguda is working towards a sustainable and greener future for all by spurring emerging applications of aluminium, the 'Metal of the Future'.

Global energy crisis piles pressure on aluminium supply

Aluminium rose as much as 2.5% to \$3,040 a ton on the London Metal Exchange Monday, the highest since July 2008. Aluminium jumped to the highest since 2008 as a deepening power crisis squeezes supplies of the energy-intensive metal that's used in everything from beer cans to

iPhones.

Industry insiders like to joke that aluminium is basically "solid electricity." Each ton of metal takes about 14 megawatt hours of power to produce, enough to run an average U.K. home for more than three years. If the 65 million ton-a-year aluminium industry was a country, it would rank as the fifth-largest power consumer in the world.

That meant aluminium was one of the first targets in China's efforts to curb industrial energy usage. Even beyond the current power crisis, Beijing has placed a hard cap on future capacity that promises to end years of over-expansion and raises the prospect of deep global deficits. Now, with energy costs surging across Asia and Europe, there's growing risk of further supply cuts.

For investors looking to bet on a future price spike, LME options contracts offer a popular and low-risk way.

In recent weeks, investors have been buying calls with strike prices of up to \$4,000 a ton, according to traders active in the market -- effectively betting that prices could move significantly beyond that level to reach new all-time highs.

"It feels very much like a structural hedge-fund play," said Keith Wildie, head of trading at Romco Metals, who's been trading LME options for more than 20 years. "What they're positioning for is a significant market dislocation, and a sharp move higher in the price."

World Copper Mine Production Up 3.6% In First Seven Months Of 2021 Says ICSG



The International Copper Study Group (ICSG) released preliminary data for July world copper supply and demand in its October 2021 Copper Bulletin. It noted that preliminary data indicates world copper mine production increased by 3.6% over the first seven months of 2021, with concentrate production increasing by around 5.5% and solvent extraction-electrowinning (SX-EW) declining by about 4.3%. World mine production started to recover



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in June 2020 as lockdown measures eased and the industry adapted to stricter health protocols. However, government imposed restrictions related to COVID-19 and preventative measures implemented by the industry to mitigate the impact of COVID-19 have continued to constrain output in a few countries this year. Production in Chile, the world's biggest copper mine producing country, was down by 1% in the first seven months of this year with a 2.2% growth in concentrate production being more than offset by a 9.8% decline in SX-EW output mainly due to lower SX-EW output at the Escondida mine. World refined copper production increased by about 2.6% in the first seven months of 2021 with primary production (electrolytic and electrowinning) up by 1.8% and secondary production (from scrap) up by 7%. Preliminary official Chinese refined production data indicates growth of 7%. Chilean total refined copper production (electrolytic and electrowinning) declined by 6.3% negatively impacted by a 9.8% reduction in electrowinning refined production. The world apparent refined copper usage increased by 3.3% in the first seven months of 2021. The COVID-19 related global lockdown has had a notable negative impact on the world economy and subsequently on key copper end-use sectors in all regions ex-China. Although usage started to recover in the 2nd half of 2020, global demand remains below pre-pandemic levels in most countries. The ICSG noted that world refined copper balance in the first seven months of 2021 indicates an apparent deficit of about 138,000 t.

Copper set to rule around \$10,000 a tonne in the short-term

Copper prices are set to rule firm around \$10,000 a tonne in the short-term as inventories have hit a record low following production cuts in the wake of power crunch in Europe and China despite a drop in manufacturing activities.

In addition, China imported a record 4.06 lakh tonnes (lt) of unwrought copper and copper products last month after five months of continuous decline.

LME stocks

On the London Metal Exchange, copper for cash was quoted at \$10,500 a tonne during the weekend, while the three-month contract opened at \$10,325 on Monday morning. Other contracts - 1 month to six months- also

ruled at over \$10,000 a tonne, giving rise to fears that the metal will stay firm around these levels over the next couple of months.

LME stocks were at 1,81,400 tonnes with cancelled warrants, which means they have been earmarked for delivery, at 1,67,250 tonnes leaving live warrants at 14,150 tonnes. The stocks have nosedived to a 47-year low on the LME, while in Shanghai, they are down to their lowest in 14 years.

The metal – used in construction, electricity, electronics, automobiles and new energy products – has gained 36 per cent since the beginning of the year and 55 per cent year-on-year.

Commodities market likely to be volatile until early next year

Price outlook raised

According to ING Think, the economic and financial analysis arm of Dutch multinational financial and Banking Services firm ING, inventories are continuing to drop on fear that rising prices might lead to buyers pulling out the stocks.

Copper's surge has resulted in its price outlook being raised. Last month, Fitch Solutions Country Risk and Industry Research, a Fitch Group unit, increased its copper price forecast for this year to \$9,200 from its earlier projection of \$8,700. The increase has been made as copper prices "remain elevated over tight inventories despite having stabilised since reaching historical highs in May", it said.

Fitch Solutions said global copper inventories are tight and the situation could ease only a tad in the current quarter, if at all. "This is due to lower Chinese refined supply, with smelters halting production on the back of the Chinese government's power crackdown in order to cut emissions and ration power amid high coal prices ahead of winter," it said.

Aluminium at more than 10-year high as supply worries grow

ICSG data

According to the International Copper Study Group (ICSG), preliminary data indicate that world copper mine production increased by 4.9 per cent in the first half of this year and since June, output was up following the easing of Covid pandemic lockdowns.

ICSG said as per preliminary data global refined copper



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production increased by 3.2 per cent in the first half, mainly on the back of Chinese output rising six per cent. At the same time, refined copper usage was up by 3.8 per cent.

China energy crunch may boost overseas metal producers

The study group said the copper market was “essentially balanced”, though based on “apparent” China usage there was a 2,000 tonnes deficit. The Chinese bonded house stocks indicated a surplus of 58,000 tonnes in the first half, ICSG said.

By the end of August this year, copper stocks with major metal exchanges – LME, COMEX and Shanghai – were 3,81,210 tonnes, up 52 per cent compared with the volume held during the end of December 2020. Copper stocks were up 139 per cent on LME and 10 per cent on Shanghai, while dropping by 34 per cent on COMEX.

Supply woes

Fitch Solutions said “idiosyncratic” supply issues in Latin America continued to persist, keeping seaborne concentrate supply tight and preventing global copper mine output from reaching pre-Covid levels.

“For instance, in September, Chinese miner MMG announced it will likely halt operations at its Las Bambas copper mine (which accounts for 2 per cent of global copper concentrate production) in Peru as community protests in the nearby province of Chumbivilcas affected supply logistics,” the Fitch group unit said.

Supplies were also affected by strike over wage dispute in Chile over the last few months, resulting in lower production from the Escondida, Cerro Colorado and Andina mines. These issues have now been resolved, though.

ING Think said fears of inflation could increase the demand for metals as there is a perception that they are a hedge against inflation, which is especially true for copper.

Slowing growth

Fitch Solutions said curbs on power consumption in China will likely be eased once winter gets over. It will also result in smelters increasing production.

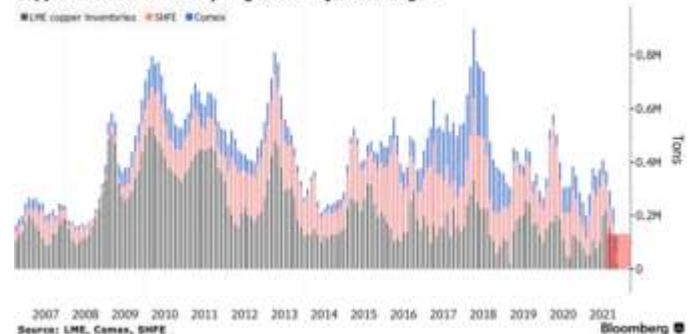
ING Think said increased electrification of industry and transportation will mean the need for further investment in the power grid, which will prove beneficial for aluminium and copper demand

Copper's Wild Week Throws Spotlight on Straining World Economy

For months, the copper market has been caught in a tug of war between steadily shrinking supplies on one side, and an increasingly strained global economy on the other. Buyers on the London Metal Exchange, caught off guard by a sudden emptying of available copper in its warehouses, drove spot prices to record levels over futures Monday, prompting the exchange to take emergency measures. Trafigura Group, which Bloomberg reported was responsible for much of the withdrawals that sparked the wild moves, said it ordered metal to ship to customers who need it in Europe and Asia -- supporting the argument that supply really is tight.

Futures tumbled by the most in four months, dropping with other industrial metals as investors focused on the potential hit to demand from weakness in China's economy and the looming debt crisis at China Evergrande Group.

Empty Sheds
Copper inventories have plunged on major exchanges



For anyone looking for clues on the world's economies, changes in the supply and consumption of copper can provide valuable insight into how much factories are producing and consumers are buying.

The metal's vast array of uses in all corners of manufacturing, construction and heavy industry mean that the market is highly sensitive to shifts in economic activity. And as the biggest consumer and producer, China is particularly key for copper.

Traders like Trafigura have been saying for months that the tight supplies could help push copper prices to fresh records. On the other hand, some investors and banks have turned on copper, as the threat of power shortages and factory slowdowns from the global energy crisis cast a pall over the outlook and weighed on prices.

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It's hard to overstate the drama that played out on the copper market this week, and while inventories have ticked up a little in recent days, they remain at critically low levels. It's not just the LME, supplies have shrunk too on rival bourses in China and the U.S.

Aluminium makers face 'precarious situation' on coal crunch

An acute coal crunch in India has created a "precarious situation" for aluminium producers as stockpiles of the fuel plummet to critical levels, according to the country's top industry group.



Most aluminium factories, which have their own power generation plants, have stockpiles for only one to two days, B.K. Bhatia, additional secretary

general at the Federation of Indian Mineral Industries said by phone. While aluminium output hasn't been affected so far, there may be production cuts by the end of the month if coal supplies don't recover, he said.

Tightening supplies of coal have triggered a power crisis in India as about 70% of the nation's electricity is fired by the fuel. A power cut of more than two hours at aluminium plants can cause the molten metal in the potline to become solid, forcing the smelting unit to shut down for at least six months, according to the Aluminium Association of India.

FIMI has written to India's coal ministry seeking restoration of coal supplies as soon as possible as aluminium and steel plants have "abysmally low critical coal stocks." The power plants are being forced to reduce generation and face a "huge risk" of shutdowns, it said.

The low supplies have "brought down the industry to almost standstill and left with no time to devise any mitigation plan to continue sustainable operations," it said in the letter.

India's aluminium companies, including Vedanta Ltd., Hindalco Industries Ltd. and state-run National Aluminium Co., have a combined annual capacity of about 4 million tons of the base metal.

Imports of coal, which makes for about 35% of the cost of producing the metal, are not a viable option to meet the shortfall as international prices have gone up exponentially and ocean freight is also at an all-time high, it said.

NALCO unveils its Lean Slurry Project at Angul



Company will ensure 100% utilization of ash generated at the Company's Captive Power Plant (CPP).

National Aluminium Company Ltd has informed that NALCO's Lean Slurry Project at Angul was inaugurated on October 20, 2021 marking a significant milestone in the Company's journey for business excellence and adopting outstanding practices in environmental management. Further, as per regulatory filing, completion of the Lean Slurry Project by the Company will ensure 100% utilization of ash generated at the Company's Captive Power Plant (CPP) and marks a big step forward in its commitment towards environment-friendly & sustainable operations.

Globitas acquires HEGO Stainless Steel & Aluminium company

The investment company, Globitas has announced it has successfully completed the acquisition of the company HEGO. The acquisition by Globitas gives a strong boost to HEGO's growth ambitions. With this new shareholder, the company is entering a new phase with a focus on innovation, digitization and new business models.

Since 1977, HEGO has been active as an international wholesaler and service center in the trade and processing of stainless steel and aluminum. HEGO has a wide range of stainless steel and aluminum sheets and coils in various sizes and alloys, which are available directly from stock.

Commercial Director, André van der Veen commented on this acquisition, Globitas is an investor aiming to help companies grow through entrepreneurship, a broad network of operational experts and creativity. Experiences from other markets are often applied to sectors that are more traditional and where there is room for innovation.



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Arthur Clement, partner of Globitas said, “We are very pleased with the successful completion of this transaction, where we have been assisted by Biesheuvel Jansen Advocaten. The acquisition of HEGO fits perfectly into our strategy of adding value with a lot of entrepreneurial spirit. We see many opportunities to help HEGO with this transition together with the management. We would like to thank the Gort family for trusting Globitas to lead HEGO to the next phase.”

Wim and Fabien Gort, the founders of HEGO BV, added, “We believe that Globitas has the resources, knowledge and experience to help HEGO move forward in this new phase. We did not act overnight and we have set tough conditions. Globitas complied with them. We handed over HEGO to Globitas with confidence and wish them every success with this purchase. We thank the firm Of Course and the law firm MA Law for their guidance in this process”.

Swisstek Aluminium switches to Green Energy through Mega Roof Solar Project

SwisstekAluminium Limited, an aluminium product manufacturer that has grown into an industry mainstay in Sri Lanka over the past 12 years, and caters to both local and international markets, announced its contribution towards the national sustainability drive through the installation of solar power generation facilities at its factory complex. This shift to renewable energy is expected to affect positively on its export share, considering the global shift towards cleaner production methods that is pushing suppliers to source materials from more eco-friendly manufacturers.

A rooftop solar panel array was chosen as the most feasible option owing to the factory's large area and roof capacity, and thus, a total of 3,340 photovoltaic panels were installed under the Ceylon Electricity Board's net plus scheme, with Swisstek making a significant investment of over Rs. 156.5 million in the project. This initiative contributes more than 2.1 million Kilowatt hours to the national grid annually, in a sustainable manner.

The rooftop solar array enables the generation of up to 30% of the factory's power consumption requirement through a renewable source, vastly reducing the carbon footprint generated by Swisstek's operations.

SwisstekAluminium further explained that the factory, which handles the powder coating and anodizing treatment processes of extruded aluminium products, was



recording heavy levels of energy consumption due to the resource-intensive processes being undertaken. With rising electricity rates and the globally increased demand for corporate sustainability, the management decided to implement renewable power generation facilities, thus bringing down the company's operating costs as well as its ecological impact.

While the company benefits from the reduced operating costs due to this on-site generation facility, the move towards solar power is also in line with the national goal of producing 70% of the national energy requirement from renewable sources by 2030, while marking SwisstekAluminium's products as being ahead of its competitors in yet another aspect, in the form of sustainable production. Further company produces and supplies a wide range of solar brackets and accessories to major solar installation companies and a leading partner.

Commenting on the achievement, SwisstekAluminium Chief Executive Officer TharinduAtapattu stated, “At SwisstekAluminium, our quality promise also comes with a commitment to becoming the most environmentally-friendly manufacturer for aluminium extrusions in Sri Lanka. Completing this renewable energy generation project marks a huge step towards ensuring sustainability, as we have reduced a large portion of our carbon footprint.

Indian electric vehicle firms running low on Lithium-ion batteries

For Indian automakers, this isn't really turning out to be an electrifying Diwali. First, a chronic chip shortage has forced fuel-based carmakers to skip production shifts. And now, even electric vehicle (EV) manufacturers are struggling to source lithium-ion batteries, prices of which



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are heading north even more quickly than Mumbai's record-setting equity gauges. At the heart of the supply constraint is surging global demand — and a definitive shift in favour of the EV powertrain in Western Europe and the US.

Additionally, factors such as production curbs in China due to a shortage of coal-fired power and congestion in shipping routes have hurt supplies to India from its northern neighbour.

China is a key supplier of lithium-ion cells to India apart from South Korea and Taiwan. Further more, cell manufacturers prefer supplying to markets such as the richer neighbourhoods in Europe and the US — or markets that guarantee higher volumes. To be sure, sales of EVs still remain negligible in India compared with more mature markets such as China, the US and some European countries.

SMEs fear huge losses due to aluminium industry's coal crisis

The Indian Industrial Value Chain Council (IIVCC), an organisation representing the interests of enterprises involved in the industrial production and consumption supply chain activities across the country. IIVCC has reported that more than 5,000 SMEs who are part of the aluminium value chain are at the risk of suffering huge losses, if the present coal crisis confronting the primary aluminium industry is not urgently addressed.

There are about 1,000 SMEs who are part of the supply chain and ancillaries of large aluminium producers and related input manufacturing industries, and about 4,000 SMEs who are involved in downstream aluminium manufacturing and distribution activities. Any major disruption in the market dynamics for aluminium in India will have an immediate severe financial impact on these smaller players. There is strong economic recovery and a sudden surge in demand across industries in the post pandemic period. At this juncture an acute shortage of coal on the back of supply constraints is hitting aluminium manufacturing hard and the industry is struggling to sustain operations with alarmingly depleted coal stocks of

only 1.5-3 days as compared to the prescribed level of 15 days.

The industry has no alternative means to meet its intense power needs and sustain plant operations. aluminium manufacturing is a highly power intensive and a continuous process-based industry which is not designed for ad hoc shutdowns. The industry is dependent on in-house captive power plants built at huge investments to keep the operations running. These captive power plants need steady supply of coal to supply power and sustain aluminium manufacturing.

A power outage of even two hours or more for aluminium plants would translate into a catastrophic event and a complete closure of plants. Once shut, it takes a minimum of 12 months for operations to be fully restored, which is akin to a 12-month long lock-down for the industry. If coal supply is not restored immediately, an irrevocable collateral damage at these manufacturing assets would be the outcome.

Aluminium is a sector of strategic importance and an essential commodity for diversified sectors crucial to the national economy.

The primary aluminium industry provides vital raw material to entire downstream industry comprising of ancillary industries associated with components of aluminium and steel along with other engineering products and caters to sectors such as automobile manufacturing, aerospace and defence, building & construction, electrical and transmission, consumer durables, chemicals, pharmaceuticals, packaging, utensils etc.

These ancillaries are producing diverse range of products and serving the needs of domestic as well as global customers.

Moreover, these SMEs are playing a crucial role in India by providing large employment opportunities at comparatively lower capital cost as compared to larger industries as well as helping with taking industrialization to rural and backward areas.

These SMEs are also very crucial for providing the overall thrust for the growth of the local industry and contribute to the socio-economic development of the people of the country. Indian SME sector is the backbone of the national economic structure and has provided the necessary resilience enabling V-shaped recovery of the Indian industry following the global pandemic, despite economic



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adversities.

Abhay Raj Mishra, National Convenor and Member, IIVCC, said: "Micro, small and medium enterprise sector is today key to India's vision of an Atmanirbhar Bharat. Efforts taken by our government to recognise MSME as a priority sector and providing a host of supportive measures are laudable. However, a large section of Indian SMEs whose businesses are intricately linked to the aluminium industry are today staring at a bleak future. An acute shortage of coal for the non-power players, particularly primary aluminium manufacturers puts these plants at the risk of a sudden closure, which can spell doom for more than 5000 SMEs dependent on them across the country.

Sibanye-Stillwater in talks to buy two Brazilian nickel-copper mines

South African Sibanye-Stillwater (JSE: SSW) (NYSE: SBSW) is in advanced talks to buy two Brazilian nickel and copper assets, as miners across the globe try securing supplies of the metals used in batteries for electric cars and are key for the transition to a green economy.

The precious metals miner confirmed on Monday negotiations with affiliates of funds advised by Appian Capital Advisory LLP, regarding a potential deal that would add the Santa Rita nickel-copper and the Serrote copper-gold mines to its portfolio.

While the company did not disclose the valuation under discussion, sources familiar with the matter told The Wall Street Journal the transactions could be valued at about \$1 billion, including debt.

The figure matches an estimate provided to MINING.COM last month, when news of Appian planning to sell Atlantic Nickel first hit the wires.

The Santa Rita mine, operated by Atlantic Nickel, is described as one of the world's biggest open-pit nickel sulfide assets. Located in the northeastern state of Bahia, it has an estimated annual production capacity of 16.5ktpa of nickel in sulphide concentrate.

Appian, which acquired it in 2018 as part of a bankruptcy process, says that open-pit operations are expected to last until 2028. Santa Rita will then be transitioned into an underground mining operation, extending the life of the mine from eight to 34 years, Atlantic Nickel has said.

Sibanye's other acquisition target is Mineração Vale Verde, which has just finished construction of the Serrote mine, located in Alagoas, eastern Brazil.

Battery metals boost

The deal would be Sibanye's fourth battery metal investment this year, following its acquisition in September of 50% of Pioneer Lithium (ASX: INR) lithium-boron project in Nevada. Earlier this year, the company bought a



30% interest in the Keliber lithium mine in Finland and purchased a nickel processing plant in Normandy from France's Eramet.

Nickel's usage has grown over the past two years in lithium-ion batteries. The accelerated roll-out of EVs is making certain types of the metal popular among investors, as it can be processed into battery precursor materials.

The more traditional use of nickel is in the processing of stainless steel for kitchen appliances and utensils. Analysts expect shortages of copper, cobalt, nickel and other industrial materials needed for the shift to a low carbon world, partly due to underinvestment in the mining sector and accelerating demand.

Rockingham's Castaways Sculpture Awards winners announced



Castaways Alcoa Major Award winner Mark Thompson with his winning entry Whale. Picture: City of Rockingham.

The winners were announced on Saturday at an awards presentation held at Churchill Park on the Rockingham Foreshore.

The City of Rockingham's 2021 Castaways Sculpture



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Awards officially opened on Saturday 23 October and will run through to Sunday 31 October.

Rockingham born, Bicton-based artist Mark Thompson won the \$10,000 Alcoa Major Sculpture Award for recycled sculpture with an aluminium component with his artwork *Whale*. Thompson's work consists of recycled off-cut aluminium, riveted together to form the shape of a sperm whale, the subject matter inspired by his daughter Clara's love of the species. It was the first time Thompson had entered Castaways.



Winner of the \$5,000 City of Rockingham Innovation Award for excellence in using recycled materials in an unexpected way was *Rag Doll* by Roleystone-based artist Jill Smith. The work is a life size figure of a girl, completely covered in recycled fabric and makes a comment about the disparity between fun on the beach, and the devastation

on sea life taking place in our oceans.

Chile, world's largest copper producer, inaugurates big mining fair



The Expomin fair, one of the main mining gatherings in Latin America, kicked off on Monday in Chile, the world's biggest copper producer, at a time when the industry is facing new challenges on environmental issues and just when the price of the "red metal" has been seesawing.

More ecological ore handling equipment, remote controls to operate the machinery from a distance and innovative

strategies to eliminate mining residues in a sustainable way are just some of the concepts being featured at the fair, which will run for five days in Santiago and is expected to welcome 50,000 invited guests.

"This is the world's second most important mining fair and takes account of the sophistication of an industry that, to continue being more competitive and sustainable, has to be more efficient and innovative," said Chilean Mining Minister Juan Carlos Jobet.

Participating in the event will be companies from more than 30 countries, investors, providers, mining authorities and key institutions, and the fair will be a forum for striking business deals valued at some \$1 billion, Expomin executive director Francisco Sotomayor said.

"The big challenges will be dealt with, along with the future development of mining 4.0, the new technologies for sustainable and green mining," Sotomayor said.

Other issues that will be discussed include the value of including and diversifying human capital and the role of women in mining, in which the participation of the Woman in Mining Chile organization will be featured.

On Tuesday, there will be a panel discussion among the four most prominent candidates in the Nov. 21 Chilean presidential elections with the aim of opening debate on the economic and environmental impact of mining on the country and on its future development.

In Chile, mining represents 10 percent of the GDP and big companies like BHP, Anglo American, Codelco and Antofagasta minerals – along with a host of small and medium firms – are integral to the sector.

The industry, which for decades has been considered a route toward Chile's economic development, is being pointed to more and more by the activities of environmentalists and experts as a focus of pollution and a squanderer of water in certain zones where that resource is scarce.

The fair is taking place just as the price of copper is relatively high, above \$4.50 per pound, but after several weeks of strong fluctuations.

The red metal, which is vital for energy transmission, is Chile's main product and accounts for almost 50 percent of the country's exports.



News Update



SENAF ACQUIRES THE ORGANIZATION OF METEF THE MOST IMPORTANT EXHIBITION ON PRODUCTS, TRANSFORMATIONS, DIE CASTING AND CASTING FOUNDRIES, PROCESSING, TREATMENTS, APPLICATIONS AND RECYCLING OF ALUMINIUM AND INNOVATIVE METALS.

THE STRATEGIC CHOICES IN TERMS OF INNOVATION, INTERNATIONALIZATION AND SUSTAINABILITY.

Starting from the 2022 edition, Senaf will organize Metef, the historic international exhibition dedicated to aluminum owned by Veronafiere and Bologna Fiere.

Metef will take place at the same time as Mecspe at the BolognaFiere exhibition centre to offer the manufacturing industry an increasingly rich offer of technological and ecosustainable solutions.

Aluminium – and innovative metals – find their right location at Metef to demonstrate that, with careful technical choices, it is possible to obtain advantages for the manufacturing industry, especially when it comes to making products lighter and protecting the environment, precisely because of their inherent reusability.

The transfer of Metef to the Bologna Exhibition Centre, to be staged at the same time as Mecspe, is a continuation of a process initiated by Senaf to further internationalize and enhance both events.

The organization of Metef will continue with the consolidated team who will be integrated into Senaf, while the ownership of the historic brand will remain with VeronaFiere and BolognaFiere.

“Aluminium is of fundamental importance for many sectors, today like never before its strategic role is even more evident, because this metal, together with its countless alloys, is proving to be the right material to meet the needs of the green transformation that Europe is moving towards and it is now indispensable – says Mario Conserva, President of Metef – Aluminium is today at the center of the international debate on sustainability, environment, circular economy and innovation and for this reason we are particularly satisfied with this new alliance between METEF and MECSPE which aims to further promote the image and knowledge of the Italian light metal system in the global market”.

“Our motto is “Come and find the idea you are missing” – comments Ivo Nardella, CEO of Senaf – at each edition

of MECSPE we represent the future of the industry through the many demonstration areas, in particular this year the Factory without limits is an example of the industry to come. The products and solutions that we will bring with Metef in 2022 are the natural completion of MECSPE’s offer. METEF, like MECSPE, will make use of the daily communication tools offered by the Tecniche Nuove Group which, with over 20 publishing platforms, updates the entire European manufacturing market”.

“In a world, European and Italian exhibition market in continuous evolution, building alliances between organizers is an asset that Veronafiere firmly believes in and has focused on among its objectives – underlines Giovanni Mantovani, General Manager of Veronafiere. A strategy that has already been actualized internationally and which aims to optimize and implement the role of exhibitions and events in the portfolio as a tool for business and knowledge for the sectors and communities they represent”.

“The international scenarios require the creation of highly specialized exhibition platforms, focused on spreading the culture of innovation and supporting the business strategies of companies – declares Antoni Bruzzone, General Manager of BolognaFiere -

Important objectives that the major trade fair players can achieve also through alliances and collaborations that enhance their respective know-how and their respective vocations at the service of national and international companies”.

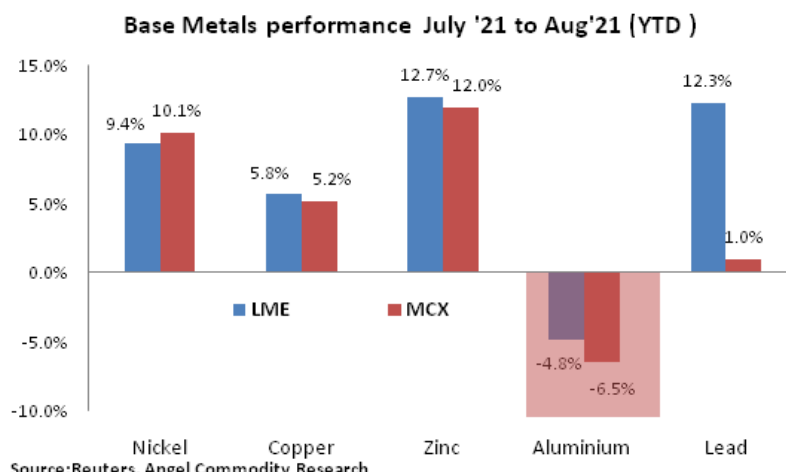
The two consolidated events in their respective reference markets will take place from 9 to 11 June 2022, at the Bologna exhibition center, to showcase the best in manufacturing and represent the most important Italian and international players. An important appointment for companies operating in the manufacturing industry to be able to exhibit their materials, products, and main applications at a one-of-a-kind, even larger, and more prestigious arena and where visitors will thus be able to take advantage of this occasion to learn about the novelties of both trade fairs and have an all-round view of all sectors.

The numbers of MECSPE PARMA 2019 135,000 square meters of exhibition space, 56,498 professional attendees, 2,306 companies present, 2000 square meters of Innovation Tunnel in collaboration with the Intelligent Factory Cluster, 67 special initiatives and conferences.

The numbers of METEF VERONA 2017 10,500 square meters of exhibition space; 400 exhibitors, of which 35% from abroad; over 11 thousand visitors, of which 40% from 63 countries (26% more than in the previous edition).



The fall in Aluminium prices



The rally in industrial metal prices which began in early October 2021 seems to be running out of steam towards the end of the month. Disrupted metal supply across borders amid resumption in global economic activities pushed Base metals prices to record highs in October 2021.

Easing pandemic forced curbs and travel related restrictions raised expectation of increase in global demand for industrial metals. That, coupled with widening supply side stress in the past couple of months further supported the industrial metal prices.

Aluminium outperformed most of its peers in 2021 powered by increasing demand and limited supply from major producer China. In 2021, Chinese officials imposed stern energy consumption norms in prime metal producing regions like the Yunan province located in southwest China in order to curb the nations carbon emission levels. Increasing energy usage limitation hampered China's Aluminium production activities.

In September 2021, China's Aluminium output slipped for the fifth consecutive as the stern power usage norms resulted in cutback on industrial production. As per data from the National Bureau of Statistics, China produced 3.08 million tonnes of primary Aluminium in Spetember'21, down from 3.155 million tonnes produced in August'21.

Adding to the woes were the recent spike in power prices which further hampered supply of Aluminium and other metal from around the globe. Revival in global economic activities led to a shortage of coal in major economies like India. Europe & China in the recent months which

pushed energy prices higher. The power crisis hampered production activities in China as well as other nations which ignited potential shortage concerns in the global markets.

Also, depleting inventories across exchange in the past months signaled towards a tight supply market which created a supportive environment for industrial metals.

However, the rally in Industrial metals was paused as coal prices began to ease last week in China after officials announced to intervene and pull back prices to previous range. China's state planner also stated that it plans on conducting a "clean up and rectification" work on coal storage areas and try to further cool down coal prices.

While the retreating Coal prices pressured all the industrial metals, Aluminium prices witnessed the largest fall. Aluminium, the light metal, plunged towards the end of the month following comments from Chinese officials as Aluminium production is an energy intensive process. Falling coal prices took some pressure of the disrupted Aluminium supply chain which led to the massive fall.

Outlook

Easing coal prices and uncertainties arising from the China, the largest metal consuming economy might continue to weigh on industrial metal prices in the days ahead. Also, the US Federal Reserve planning to begin with the withdrawal of the economic support is expected to further pressure Aluminium and other industrial metals.

We expect Aluminium prices to trade lower towards Rs.205 per kg in a months time. (CMP : Rs. 217 per kg)



SIAM Statistic

SIAM						
Summary Report: Cumulative Production, Domestic Sales & Exports data for the period of April-September 2021						
						Report I
						(Number of Vehicles)
Category Segment/Subsegment	Production		Domestic Sales		Exports	
	April-September		April-September		April-September	
	2020-21	2021-22	2020-21	2021-22	2020-21	2021-22
Passenger Vehicles (PVs)**						
Passenger Cars	574,189	861,847	506,367	681,130	100,509	182,268
Utility Vehicles(UVs)	378,813	760,866	337,831	653,549	54,393	101,521
Vans	33,040	54,044	35,768	52,893	252	885
Total Passenger Vehicles (PVs)	986,042	1,676,757	879,966	1,387,572	155,154	284,674
Commercial Vehicles (CVs)##						
M&HCVs						
Passenger Carrier	2,015	4,656	859	2,825	1,178	2,159
Goods Carrier	33,453	94,222	28,103	79,812	2,955	11,462
Total M&HCVs	35,468	98,878	28,962	82,637	4,133	13,621
LCVs						
Passenger Carrier	5,980	9,999	4,625	9,485	539	807
Goods Carrier	135,051	212,552	131,582	179,929	8,866	24,445
Total LCVs	141,031	222,551	136,207	189,414	9,405	25,252
Total Commercial Vehicles (CVs)	176,499	321,429	165,169	272,051	13,538	38,873
Three Wheelers						
Passenger Carrier	179,570	314,812	33,464	63,223	151,050	253,358
Goods Carrier	27,861	38,278	25,991	32,198	1,782	4,654
Total Three Wheelers	207,431	353,090	59,455	95,421	152,832	258,012
Two Wheelers						
Scoter/ Scooterette	1,576,833	2,161,702	1,686,349	1,927,943	66,420	185,461
Motorcycle/Step-Throughs	4,994,086	6,297,573	4,046,856	4,351,484	1,043,934	2,052,898
Mopeds	244,953	239,542	251,166	232,559	2,485	6,862
Electric Two Wheelers	802	5,404	703	5,630	-	-
Total Two Wheelers	6,816,674	8,704,221	5,985,074	6,517,616	1,112,839	2,245,221
Quadricycle	905	3,017	-27	6	985	3,329
Grand Total of All Categories	8,187,551	11,058,514	7,089,637	8,272,666	1,435,348	2,830,109
** BMW, Mercedes & Volvo Auto data are not available						
## Daimler & Scania data are not available and JBM Auto data available for Apr-June only						
Society of Indian Automobile Manufacturers (14/10/2021)						

SIAM						
Summary Report: Cumulative Production, Domestic Sales & Exports data for the period of July-September 2021						
						(Number of Vehicles)
Category Segment/Subsegment	Production		Domestic Sales		Exports	
	July-September		July-September		July-September	
	2020-21	2021-22	2020-21	2021-22	2020-21	2021-22
Passenger Vehicles (PVs)**						
Passenger Cars	497,783	426,229	426,316	343,939	68,636	102,892
Utility Vehicles(UVs)	313,598	420,013	269,806	367,457	42,686	54,370
Vans	29,610	29,856	30,110	29,904	213	297
Total Passenger Vehicles (PVs)	840,991	876,098	726,232	741,300	111,535	157,559
Commercial Vehicles (CVs)##						
M&HCVs						
Passenger Carrier	1,448	2,393	638	1,739	910	1,239
Goods Carrier	27,351	54,827	23,921	51,740	1,989	6,380
Total M&HCVs	28,799	57,220	24,559	53,479	2,899	7,619
LCVs						
Passenger Carrier	4,887	5,087	3,765	5,188	322	597
Goods Carrier	113,874	122,196	105,209	107,584	6,447	14,651
Total LCVs	118,761	127,283	108,974	112,772	6,769	15,248
Total Commercial Vehicles (CVs)	147,560	184,503	133,533	166,251	9,668	22,867
Three Wheelers						
Passenger Carrier	123,433	165,120	26,545	47,417	100,563	118,966
Goods Carrier	21,664	25,776	20,150	23,482	1,578	1,464
Total Three Wheelers	145,097	190,896	46,695	70,899	102,141	120,430
Two Wheelers						
Scoter/ Scooterette	1,418,602	1,468,442	1,347,341	1,335,498	51,724	95,316
Motorcycle/Step-Throughs	3,947,049	3,574,228	3,145,113	2,611,176	721,406	1,010,909
Mopeds	200,269	176,056	197,458	163,550	1,726	1,894
Electric Two Wheelers	722	3,201	653	3,691	-	-
Total Two Wheelers	5,566,642	5,221,927	4,690,565	4,113,915	774,856	1,108,119
Quadricycle	474	1,369	-	6	588	1,704
Grand Total of All Categories	6,700,764	6,474,793	5,597,025	5,092,371	998,788	1,410,679
** BMW, Mercedes & Volvo Auto data are not available						
## Daimler, JBM Auto & Scania data are not available						
Society of Indian Automobile Manufacturers (14/10/2021)						



Statistics

<i>SIAM</i>						
Segment wise Comparative Production, Domestic Sales & Exports data for the month of September 2021						
(Number of Vehicles)						
Category Segment/Subsegment	Production		Domestic Sales		Exports	
	September		September		September	
	2020	2021	2020	2021	2020	2021
Passenger Vehicles (PVs)*						
Passenger Cars	190,527	87,296	163,981	64,235	22,061	35,508
Utility Vehicles(UVs)	114,861	102,726	96,633	87,720	16,985	17,933
Vans	11,421	8,106	11,413	8,115	80	145
Total Passenger Vehicles (PVs)	316,809	198,128	272,027	160,070	39,126	53,586
Three Wheelers						
Passenger Carrier	51,571	58,188	11,663	20,357	41,727	38,020
Goods Carrier	7,405	9,022	7,313	8,828	883	498
Total Three Wheelers	58,976	67,210	18,976	29,185	42,610	38,518
Two Wheelers						
Scooter/ Scooterettee	612,257	554,351	556,205	517,239	29,305	27,182
Motorcycle/Step-Throughs	1,561,232	1,238,877	1,224,117	948,161	307,860	330,736
Mopeds	70,636	65,294	68,929	61,664	828	710
Electric Two Wheelers	328	1,012	295	1,408	-	-
Total Two Wheelers	2,244,453	1,859,534	1,849,546	1,528,472	337,993	358,628
Quadricycle	150	432	-	1	204	534
Grand Total of All Categories	2,620,388	2,125,304	2,140,549	1,717,728	419,933	451,266
* BMW, Mercedes, Tata Motors & Volvo Auto data are not available Society of Indian Automobile Manufacturers (14/10/2021)						

Rajesh Menon, Director General, SIAM



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