Since 2001

METALWORLD

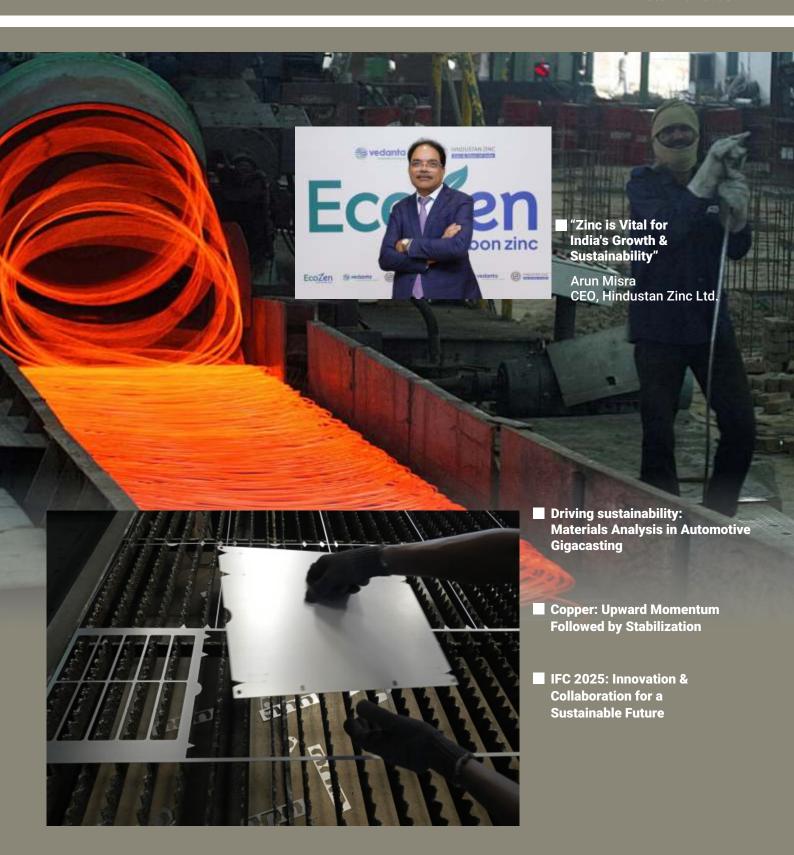
Devoted to Foundry & Non-Ferrous Metals Industry

Vol. 24 No. 02

February 2025

Registered-RNI No. MAHENG/2002/7908

www.metalworld.co.in



Foundry Products for Non-Ferrous Metals

Since 1856, Morgan Molten Metal Systems is a pioneer and a global leader in supplying technically advanced range of foundry products to Non-Ferrous Foundries.



Syncarb Z2e²



Suprex-E Plus



BNI



Degassing Rotor & Baffle Plate



Degassing Tube



Blue Lightning

Complete Degassing Solution

Morgan has introduced a complete solution to degassing needs of the foundries.



Mobile Degassing Unit



Hoist-Able Degassing System



Reduced Pressure Tester



Density Index Measuring System



Morganite Crucible India Ltd. (ISO 9001 Company) B-II, M.I.D.C, Waluj, Aurangabad - 431136 Maharashtra, India Contact:

vikramsinh.nalawade@morganplc.com +91 93705 91146 **Web:** www.morganmms.com

METALWORLD Devoted to Foundry & Non-Ferrous Metals Industry

EDITOR

D. A. Chandekar B.E. (Met.) DBM, DJMC

EDITORIAL BOARD

Amit Majumdar R.T.Kulkarni Sadguru Kulkarni

EDITORIAL ASSISTANCE

Tanaya Dandavate

PRODUCTION

Anita Chandekar

DESIGN & LAYOUTAce Graphics

MARKETINGPrachee More

Administrative Office

1, Alpha, M. G. Road, Vile Parle (E), Mumbai - 400 057. India **Tel.:** 91-22-2619 2376, 2617 1575 / 2617 1866

Email:

info@metalworld.co.in **Editorial :** editorial@metalworld.co.in **Website :** www.metalworld.co.in







(in) linkedin.com/company/13450168





D. A. Chandekar Editor

Dear Readers,

ndia's economic development is intricately linked with its infrastructure growth, and the nonferrous metals sector is poised to play a vital role in this journey. As the country continues to invest heavily in construction projects, transportation networks, and energy infrastructure, the demand for non-ferrous metals such as aluminum, copper, zinc, and lead is expected to surge.

The infrastructure sector is a significant consumer of non-ferrous metals, with applications ranging from electrical wiring and plumbing to building facades and structural components. As India's infrastructure development gains momentum, driven by government initiatives and private sector investments, the demand for non-ferrous metals is likely to increase substantially.

International agencies such as the International Monetary Fund (IMF) and the World Bank have predicted decent growth for India's economy, which is expected to have a positive impact on the non-ferrous metals sector. A growing economy typically leads to increased infrastructure spending, urbanization, and industrialization, all of which drive demand for non-ferrous metals.

The Indian government's focus on infrastructure development, including initiatives such as the Smart Cities Mission, the Swachh Bharat Abhiyan, and the Bharatmala Pariyojana, is expected to boost demand for non-

Editorial Desk



ferrous metals. Additionally, the government's push for renewable energy and electric vehicles is likely to increase demand for specific nonferrous metals such as aluminum and copper.

The non-ferrous metals sector in India is expected to benefit from these trends, with many companies investing in capacity expansion, modernization, and technology upgradation. The sector is also witnessing a shift towards more sustainable and environmentally friendly practices, driven by government regulations and consumer demand. To fully capitalize on these opportunities, the Indian non-ferrous metals sector needs to focus on improving its competitiveness, reducing costs, and increasing efficiency. This can be achieved through investments in research and development, technology upgradation, and human resource development.

Moreover, the government can play a crucial role in supporting the growth of the non-ferrous metals sector by providing incentives, subsidies, and trade facilitation measures. This can help to increase domestic production, reduce imports, and promote exports.

In conclusion, the non-ferrous metals sector in India is poised for significant growth, driven by infrastructure development, economic growth, and government initiatives. With the right policies and investments, the sector can capitalize on these opportunities and play a vital role in India's economic development. As the country continues to grow and develop, the demand for non-ferrous metals is likely to increase, making this sector an exciting and growth-oriented space.

Write your comments:

https://metalworlddac.wordpress.com

Content

Face to Face



"Zinc is Vital for India's Growth & Sustainability" Arun Misra CEO, Hindustan Zinc Ltd.

Technology



12 Driving sustainability: Materials Analysis in Automotive Gigacasting

Michael Molderings

Industry Update

20 Copper: Upward Momentum Followed by Stabilization

Aurobinda Gayan

24 IFC 2025: Innovation & Collaboration for a Sustainable Future

News Update

27 Trump Holds Firm on Steel & Aluminium Trade Barriers



Vedanta & NABARD Partner to Empower Rural Livelihoods



Green Energy Boost:
Hindustan Zinc &
Serentica Scale Up to
530 MW



AT&S Drives Sustainability with Advanced Recycling Methods

News Update



29 Aluminium Industry
Seeks RoDTEP
Extension



European Aluminium Urges Quick Implementation of EU Metals Plan



Copper Surges Above \$10,000 on Trade Uncertainty



30 Indian Aluminium
Producers Push for
Urgent Tariff Reforms



31 Transforming
Manufacturing: Hindalco's
New Vision



33 IBAAS: Pioneering the Future of the Bauxite, Alumina & Aluminium Industry

Statistics

37 Passenger Vicle Sales increase to All-time High in February 2025: SIAM

Disclaimer:

The views and opinions expressed in the articles are solely of the authors.

The Editor may not subscribe to these.

Feedback:

Your feedback / suggestions regarding the content will be appreciated editorial@metalworld.co.in



PRODUCT RANGE

- > Fluxes
- > Granular Fluxes
- > Tablet Grain Refiner
- > Tablet Degesser & NT Based
- Master Alloy Ti, B
- Mag Remover
- > Phosphoreus Copper
- > Coating G.D.C.
- Die Release Agent H.P.D.C.
- > Plunger Lubricant
- Copper & Brass Fluxes
- > Teeming Compound
- > Fluxes of Copper, Brass,Lead, Mg, Ferrous &Non Ferrous Metal

ABOUT US

- > Long Term Support
- > Strong R & D
- > Prompt Delivery
- > Consistent Quantity
- > 80 Years of Experience
- > Export to More than 25 Countries





- · Sales & Distribution with M/s JS Chemical INC, USA
- · Technical Collaborations with NTC Japan



SARU AIKOH CHEMICALS PVT. LTD.

A-2 INDUSTRIAL ESTATE, PARTAPUR, MEERUT - 250 103 INDIA

Tel: 0121-2440636, 0121-2440641, +91-7302000869, Fax: +91-121-2440644

E-mail: info@saruaikoh.com, customer.support@saruaikoh.com, Website :- www.saruaikoh.com



"Zinc is Vital for India's Growth & Sustainability"

Arun Misra
CEO, Hindustan Zinc Ltd.



Arun Misra is the CEO of Hindustan Zinc
Ltd., a subsidiary of Vedanta Limited and India's
largest integrated zinc-lead-silver producer.
With decades of experience in the mining and
metals sector, he has played a pivotal role in
driving sustainable mining practices,
technological advancements, and operational
excellence. Under his leadership, Hindustan
Zinc has strengthened its position as a global
leader in zinc production while emphasizing
ESG (Environmental, Social, and Governance)
initiatives and innovation in the industry.

D.A.Chandekar, Editor & CEO of Metalworld magazine had an exclusive interaction with Mr. Arun Misra CEO of Hindustan Zinc Ltd., to get insights into present situation in the global and Indian zinc markets, the future of zinc market in India, How do global economic trends impact Hindustan Zinc, etc

1. How is the present situation in the global and Indian zinc markets?

Globally, zinc production was flat in the last 5 years. However, the growth of Indian demand and production was at CAGR 5% on the back of country's massive infrastructural push and strong rebound post covid restrictions removal. Steel, a major raw material in India's infrastructure push

witnessed the highest growth in terms of percentage increase making our country the second largest steel producer worldwide as per Ministry of Steel. Zinc is primarily used for steel galvanization, that protects steel from corrosion - a significant issue costing India up to 5% of its GDP annually. The global refined zinc market is forecasted to remain in deficit in 2025

while Indian markets will witness a healthy demand for zinc. At present zinc is fetching high premiums due to supply shortfalls and rising demand as the production is forecasted to be in deficit. In India, Hindustan Zinc has maintained production in alignment with the Indian demand with an unmatched competitive advantage as an integrated producer of this critical metal.



2. How do you see the future of zinc market in India?

In 2025, global steel demand is expected to grow by 0.5-1.5%, whereas India is expected to lead the steel demand growth underpinned by its expanding infrastructure and construction projects, eventually increasing the demand for zinc and making India the third largest zinc consumer globally.





KELSONS METALLURGICAL EQUIPMENT.



KELSONS TESTING EQUIPMENT



EXPORTS: Malaysia, ,Syria, Dubai, Iran, Saudi Arabia, Thailand, Egypt, Uganda, Germany, Baharin, Turkey, South Korea, Bangladesh, Nigeria, Oman, South Africa, Croatia, Finland, Vietnam

E-22, G-35, M.I.D.C. Shiroli, Kolhapur - 416 122 Maharashtra. (INDIA) Cell: +91 9822112162 / 9422582869 E-mail: mkt.kelsons@gmail.com/sales@kelsonslab.com Website: www.kelsonsgroup.com



Face to Face

The demand will be driven by key sectors like infrastructure, automotive and emerging applications

Vedanta Metal Bazaar. Vedanta Metal Bazaar, an innovative e-commerce platform offers one of the



such as energy storage, defence and renewable energy. The infrastructure sector, particularly in emerging economies like India, will remain the largest consumer of zinc due to increasing investments in ambitious projects such as roads, railways, public infrastructure and smart cities

India's growth and infrastructure development rely heavily on metals like zinc. Its use in galvanization will ensure durability and longevity of public infrastructure ensuring that it will last for generations, while its role in clean technologies and energy storage highlights its importance in the nation's progress.

3. What are the new-age initiatives of Hindustan Zinc in digitalization and product development?

Hindustan Zinc has ushered into a new era of online metal buying through world's largest zinc product portfolios online and brings ease of doing business for customers on their fingertips. The platform hosts several industry-first features globally such as, live shipment tracking, financial ledger reconciliation, online price discovery and many more.

Traditionally, zinc procurement process involves customers to keep track of price movement, discuss on various parameters which is often complex and time consuming, plan metal buying in advance with no visibility of pricing opportunities. Vedanta Metal Bazaar simplifies this process, providing a streamlined, digital-first solution that enables businesses to procure zinc efficiently and costeffectively.

As the world's secondlargest integrated zinc producer, Hindustan Zinc is committed to sustainability and innovation. We have launched Asia's first low-carbon zinc, EcoZen, offering customers a competitive edge in decarbonizing their own value-chain. Produced using renewable energy, EcoZen has a carbon footprint 75% lower than the global average and supports the transition to a low carbon economy.

Zinc is expanding its role beyond traditional steel applications, demonstrating its versatility across various industries. It is gaining traction in the energy storage sector, and Hindustan Zinc is also exploring the application of zinc in the battery ecosystem. These batteries offer a safer, more stable alternative to lithium-ion batteries. Unlike lithium, which is expensive and imported, zinc is abundant in India, making zinc-based energy storage solutions more cost-effective and locally viable. Zinc-based batteries provide long-duration storage,



enhanced energy performance, lower ownership costs, and reliable operation in all weather conditions, making them highly versatile.

4. How do global economic trends impact Hindustan Zinc?



INDIA

sales@vasbharat.com





The global economy remains volatile due to monetary tightening, supply chain disruptions, and geopolitical tensions. A slowdown in China's economic recovery has contributed to a dip in global zinc demand, while crises in the US banking sector have impacted construction and automotive industries.

Despite these headwinds, Hindustan Zinc's strategic focus on cost optimization, operational efficiency, and volume expansion has ensured strong financial and operational performance. The company's resilience and dynamic decisionmaking have enabled it to meet annual targets and achieve record cash flows, reinforcing its leadership in the industry.

5. What does the zinc producing industry expect from policy makers?

The zinc producing industry expects the sector to not overly rely on imports of scrap & waste metals & minerals owing to questionable quality. Historically, global manufacturers tend to dump low-quality scrap and waste

in developing economies leading to poor quality of enduse products. To avoid such issues, the government should introduce quality standards linked to the specific end-use of the critical minerals on this list. This will help create a sophisticated production ecosystem that promotes high-quality end products through the use of high-quality raw materials.





Innovative Foundry Solutions

Modern castings need cores of all complexity. **Gargi Hüttenes-Albertus** products combine excellent performance, consistency and environmental compatibility to add value to your casting.



Our goal is to minimize foundry environmental impact throughout our product's life cycles, with an ongoing commitment to continuous improvement.

Gargi Hüttenes-Albertus Private Limited

1502 Vikas Centre, 15th Floor, Dr. Choitram Gidwani Road, Chembur, Mumbai - 400074. Maharashtra. India. ♦ +91 (022) 68785656 gargiha@ha-group.com www.ha-group.com HuettenesAlbertusGroup #hüttenesalbertus







Driving sustainability: Materials Analysis in Automotive Gigacasting

Each year, the automotive industry produces around 80 million vehicles, using 112 million tons of materials and causing over 10% of the world's carbon dioxide emissions. With climate change now a priority for governments and businesses alike, driving sustainability is high on the agenda.

Beyond government action, leading automotive companies are driving progress by prioritizing vehicle electrification and decarbonizing their supply chains – critical steps towards a more sustainable

future.

Producing recycled aluminum emits only about 3-5% of the CO₂ compared to primary aluminum production. This striking fact highlights the significant environmental benefits of using recycled materials in manufacturing processes like giga casting.

Giga casting (or mega casting) is transforming automotive production, offering significant cost and efficiency benefits. While aluminum alloys are the most used material due to their lightweight and durability, other materials like



Michael Molderings Product Manager OES Hitachi High-Tech Analysis Corporation

magnesium or composites may also be considered for specific applications. However, achieving defect-free, single-cast components requires precise melt chemistries and exacting quality control – leaving no room for error.

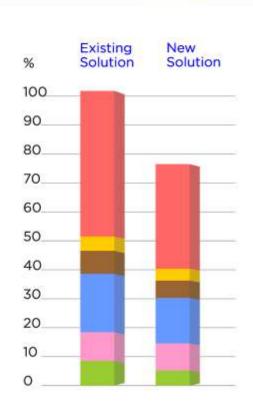
When combined with a high percentage of recycled feedstock, gigacasting has the potential to advance circular economy goals by increasing the use of recycled content in vehicle production. Yet, the balancing act between adopting efficient processes and maintaining the required material quality often pressures manufacturers to

"WE PACK



ANY THING, ANY SIZE, ANY SHAPE

SOLUTIONS TO REDUCE YOUR TOTAL COST & ENVIRONMENTAL IMPACT



TOTAL COST APPROACH

TRANSPORT

Optimize packaging size and weight to increase transport efficiency (cost and CO²).

ADMINISTRATION

Reduce costs for order administration by EDI & VMI solutions. Delivery of complete packaging sets.

WAREHOUSING

Reduce need for storage space and capital costs for finished goods as well as packaging stock.

PRODUCT PROTECTION

 Optimize packaging solutions in terms of cost for product protection in relation to cost for damages.

HANDLING

Reduce packing time and improve ergonomics.

ENVIRONMENT

Improve or eliminate waste handling, and increase reusability.

Our TOTAL COST APPROACH ensures that packaging is optimized, reducing total cost in your supply chain.

we are sure to invite us for reducing total packaging cost. PLEASE FEEL FREE TO CONTACT US

NEWEL PACKAGING PVT LTD

UNIT 1

Plot No. 203, Vasantdada Industrial Estate, Sangli 416416.

UNIT 2

Plot No. 109, 110, 111, Vasantdada Industrial Estate, Sangli 416416.

(+91) 233 2310424

(+91) **905 957 1111** (+91) **942 125 4097**

NEWEL

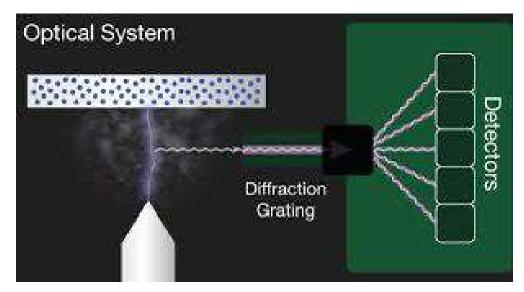
- piyush@newelpackaging.com nitin@newelpackaging.com sales@newelpackaging.com
- www.newelpackaging.com



Technology

rely on newly extracted materials.

The Role of Material Analysis in Gigacasting Ensuring the quality of gigacasting and minimizing scrap hinges on precise melt chemistry. Each widely regarded as one of the most effective methods for melt analysis in aluminum gigacasting. It enables precise measurement of key trace, tramp, and treatment elements in non-ferrous



manufacturer has unique, closely guarded melt characteristics. Typically, the long flow lengths needed for gigacasting are achieved with near-eutectic and hypereutectic aluminumsilicon alloys, which may include magnesium for strength, manganese to reduce die soldering, and strontium for eutectic modification.

Using strontium or sodium as modifiers in the aluminum alloy melt requires careful control of phosphorus, antimony, calcium, and bismuth. For instance, to avoid negative impacts on the aluminum casting's physical properties, calcium levels must be kept below 20 to 40 ppm.

OES Analysis for Melt Control Optical emission spectroscopy (OES) is melts and cast products, ensuring quality and consistency in the manufacturing process.

OES offers several practical advantages. It provides accurate detection of low-level elements essential for aluminum melt control and features rapid measurement cycles for efficient process monitoring. The spectrometers require straightforward sample preparation and is userfriendly, needing minimal specialized training. Additionally, its compact and durable design makes it suitable for placement near production lines.

OES works by comparing the intensity of emitted light to the concentration of the substances being analyzed. The spectrometer uses preprogrammed calibration curves to match light intensity with known concentrations, allowing for accurate composition analysis of unknown samples. Ensuring the analyzer is correctly calibrated is essential for reliable results.

The Critical Role of OES Analyzers Not all OES analyzers are created equal. It is necessary to verify that the analyzer meets the required specifications due to the demanding nature of aluminum alloy melt characteristics for gigacasting. The analyzer should be able to detect extremely low levels of phosphorus, antimony, calcium, and bismuth in neareutectic and hypereutectic Al-Si alloys. It should also have fast start-up times to keep pace with high production throughput and use argon efficiently to help manage costs.

Aluminum alloys pose unique challenges when obtaining accurate measurements. Like other nonferrous melts, aluminum alloys tend to segregate on solidification, leading to uneven concentrations of elements. For sampling, this means that the measurement may not accurately represent the melt. In practice, it is just a matter of following some simple instructions: pour the sample with a single drawing process, cool the sample quickly, and keep molds and other equipment scrupulously clean.

By following these steps, the risk of contamination or inaccurate measurements due to segregation can be



IBAAS-IMMT-IIM 2025

Organizer

Co-Organizers







October 8-10, 2025

BHUBANESWAR INDIA

EVENT HIGHLIGHTS

- * TECHNICAL SESSIONS ON BAUXITE, ALUMINA, SMELTING, AND ALUMINIUM DOWNSTREAM.
- * EXPERT PRESENTATIONS FROM TOP GLOBAL COMPANIES.
- * NETWORKING WITH 300+ DELEGATES WORLDWIDE.
- * EXHIBITION OF CUTTING-EDGE INDUSTRY INNOVATIONS.
- * EXPLORE BHUBANESWAR, INDIA'S ALUMINIUM HUB.

WHY IBAAS MATTERS

- * GLOBALLY RECOGNIZED PLATFORM FOR THE BAUXITE, ALUMINA, AND ALUMINIUM INDUSTRY.
- * FOCUSED ON DECARBONIZATION, SUSTAINABILITY, AND DIGITALIZATION.
- * Drives collaboration, innovation, and business opportunities.
- * SHOWCASES LATEST TECHNOLOGIES, PRODUCTS, AND SOLUTIONS.
- * SUPPORTED BY LEADING GLOBAL ORGANIZATIONS.

Media Partners





WWW.IBAAS.INFO INFO@IBAAS.INFO +91 9373818839



Technology

significantly reduced, ensuring reliable analysis for aluminum megacasting processes.

OES also requires a flat, planar surface of the sample for accurate readings. This means the surface must be machined with a lathe or milling machine prior to analysis. The process must remove any oxides or other inclusions, and there must be a certain degree of surface roughness to aid the measurement. However. contamination should be avoided, and no single hard grains should be torn from the microstructure. Trial and error with the first samples may be necessary to optimize the process.

Scrap Recycling and the Role of Material Analysis to Source Feedstock from Endof-Life Vehicles With over 30,000 components in a typical car, recycling end-of-life vehicles presents a significant challenge. Regulations now mandate that at least 85% of materials in light vehicles should be reused or recycled. This shift is crucial for achieving sustainability goals and reducing the automotive industry's carbon footprint.

Gigacasting could revolutionize automotive recycling. By using a large single alloy material, gigacasting simplifies the recycling process for scrap yards. This method drastically reduces the number of components, making it easier to recycle vehicles. Although it will take

several years for gigacasted vehicles to become commonplace in scrapyards, material analysis is already playing a crucial role in the automotive recycling supply chain.

Recycling centers face unique challenges, including high volumes of scrap, a wide range of materials, and the need to deliver highquality feedstock. The material analysis methods used must be fast, accurate, and capable of handling diverse chemical compositions. Three primary methods stand out: handheld X-ray fluorescence (XRF), laser induced breakdown spectroscopy (LIBS), and OES.

gigacasting and helps recyclers sort and sell valuable end-of-life metals.

Future Trends in Gigacasting and Recycling

As we continue to move towards the ultimate phasing out of ICE-powered cars, and EVs become the dominant technology, we will see more manufacturers investing in gigacasting equipment. Also, as the technique matures and issues around waste and yield are overcome, the cost benefits of gigacasting will be easier to realize and smaller automotive manufacturers will be able to justify the investment.

Material research will focus on developing new alloys that can meet both strict material



Material analysis is essential for driving the circular economy in the automotive industry. With raw materials becoming harder to extract and recycling targets becoming more stringent, accurate chemical compositions are crucial. Material analysis enables the use of a higher proportion of scrap in

characteristics requirements and reduce casting defects. While the focus is on aluminum alloys, magnesium is also a good candidate for gigacasting and we expect to see ongoing development in both these areas.

It is also likely that future collaborations between





INTERNATIONAL CONFERENCE ON GALVANIZING & ZINC SPRAYING



- Technology, Environment & Markets
5 & 6 May 2025, Pride Hotel, Nagpur
(Plant visit for ILZDA Member Delegates



Association Partners

Media Partners









INDIA LEAD ZINC DEVELOPMENT ASSOCIATION

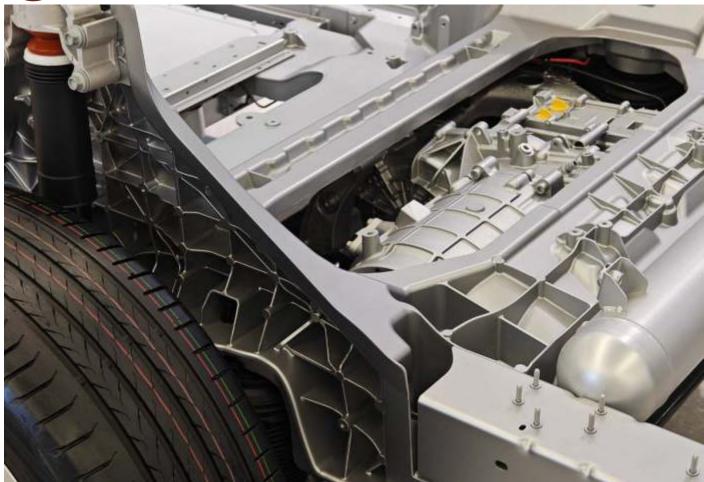
For Sponsorship, Advt in Souvenir, Registration etc.,

Contact: Mobile: +91 9871300929, 9873058907

Email: ilzda.info@gmail.com; Event Website: www.ilzda.com



Technology



automotive manufacturers, giga press providers, and material suppliers will necessitate the need for a new set of industry standards, with classes of alloys suitable for gigacasting, much as we have seen in the steel industry.

Up to now, the driving force of EV development has been to move away from ICEs and fossil fuels. This has been extremely successful, however there is still room for improvement in the sustainability of production materials. As it stands, EV manufacturing has tended to move away from using the secondary alloys used extensively in ICE-powered vehicles, with more reliance on virgin aluminum

environmental impact by lowering CO₂ emissions associated with primary aluminum production.

The integration of recycled



materials and the development of new alloys will be crucial in meeting stringent sustainability goals as the industry continues to

evolve. The collaboration between automotive manufacturers, giga press providers, and material suppliers will likely lead to new industry standards, further promoting the use of recycled content in vehicle production. Ultimately, the advancements in material analysis and gigacasting techniques will pave the way for a more sustainable and circular automotive industry, contributing to the global efforts in combating climate change.

CASTINGS&
FOUNDRIES
EXP® INDIA
Promoting Foundries

3rd to 7th DEC, 2025

Helipad Exhibition Centre, Gandhinagar



CONNECTING EQUIPMENT AND MACHINE MANUFACTURERS WITH CASTINGS & FOUNDRY INDUSTRY

CONCURRENT WITH

"ENGIMACH

You won't find such a platform anywhere...

More than

700 castings buyers in the same venue as exhibitors in 17th ENGIMACH

from Engineering, Machine Tools, Energy, Auto and Tractors, Railways and other sectors.

66 Our mission is to introduce major Castings buyers to Foundry Industry. 29





SUPPORTED BY





SUPPORTING MEDIA





EALS & N

For Booking Contact

Copper: Upward Momentum Followed by Stabilization

Copper: A Volatile Yet Compelling Q1 Performance

As the first quarter of 2025 ends, copper has remained one of the most global counterparts. This is evident in both price performance and premiums-CME benchmarked copper in the U.S. has skyrocketed by 26%





Aurobinda Gayan Director Pvt .LTD

volatile and closely watched commodities. Its performance has mirrored that of gold in terms of returns. However, unlike gold, copper is a nonyielding investment asset, making its impressive 13% year-to-date (YTD) gain a clear indication of supplydemand imbalances. This shift has had significant implications for various industries, impacting both suppliers and consumers.

While copper prices have broadly surged this year, regional price premiums have fluctuated, creating disparities in costs across different markets. Notably, U.S. consumers currently face the highest copper costs compared to their

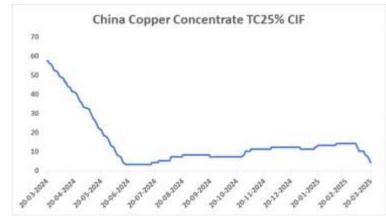
YTD, with Midwest premiums at record highs. In contrast, LME copper has risen by 14%, with a relatively smaller increase in premiums, while SHFE copper has gained 10%, with premiums remaining stable.

A key driver behind this volatility has been tariffrelated developments,

especially following Donald Trump's return to the U.S. presidency. His recent policy decisions have added uncertainty to the market, making copper prices increasingly unpredictable. One indicator of this impact is the increased flow of copper inventory into the U.S., driven by rising CME copper prices. Economists and analysts suggest that if copper prices continue their upward trajectory, inflationary pressures may rise, potentially influencing Federal Reserve policy decisions on interest rates and delaving key macroeconomic moves.

On the fundamental supply Bluglance Counsulting side, tightness in raw material availability is evident, particularly in the supply chain from miners to smelters, as reflected in declining TC/RC charges. This has further strained downstream industries. However, muted cyclical demand growth has provided some relief, as demand remains steady with no immediate signs of a sharp recovery.

> According to the International Copper Study Group (ICSG), copper mine supply and demand were largely balanced in 2024. However. projections for 2025 suggest a potential supply shortage on the raw material











Venue : Hall N1-N4, Shanghai New International Expo Center

> Asia's premier trade show & B2B platform for the Aluminium industry

Aluminium Materials | Equipment & Auxiliaries

32000+ Visitors | 600+ Exhibitors

Join The Indian Delegation with ALEX to Visit Aluminium China 2025.

SPECIAL HIGHLIGHTS

- Travel to China as an Indian Delegation with other members of the same Industry.
- ✓ Stay in a 4 star hotel with daily breakfast.
- ✓ Enjoy packed lunch (provided by the Organizers, 09-11 July).
- ✓ Daily Indian dinners in restaurants.
- ✓ Fly on Singapore Airlines to Shanghai from/to Mumbai.
- ✓ Sightseeing tours in Shanghai and free time for shopping.
- Group airport transfers & daily group transfers to the exhibition centre.
- ✓ China single entry visa fees and cost of Overseas Mediclaim policy included for the number of days of the tour.
- ✓ Services of Professional Tour Manager throughout the tour.
- ✓ Customary gratuities to be paid to the local guide and driver.

ABEONA TOURS PVT. LTD.

Mumbai | Gurgaon | Chennai | Bangalore | Coimbatore

hoshangb@abeonatours.com

BOOK

NOW

www.abeonatours.com

Hoshang Bhesania

9167254213



Industry Update

front, while demand is expected to remain subdued. If China's economy shows signs of revival, a gradual cyclical growth in demand could emerge, further influencing the market outlook.

Q2 and way forward: Upward Momentum Followed by Stabilization Q2 2025 will be a pivotal period for copper, with multiple key factors and events in focus. Nonetheless, we maintain a constructive outlook, expecting copper to remain near \$10,000 per metric ton, supported by strong U.S. import demand and tightening supply in both concentrates and scrap.



The first quarter has been marked by volatility, with investors still seeking greater clarity on tariffrelated policies. Potential increases in U.S. trade tariffs remain a primary concern, alongside expectations for U.S. trade policy developments, further Chinese policy easing, and the scale and timing of U.S. Fed rate cuts in 2025. A strong U.S. dollar, hawkish Fed commentary, and ongoing tariff uncertainty have weighed on the base metals complex. However, as previously noted, speculative activity has driven copper prices sharply

We believe the early part of

Additionally, we anticipate that supply constraints in the ex-U.S. physical market will persist through the second month of Q2, temporarily offsetting downward price pressures from broader U.S. tariff announcements starting April 2 and extending into late Q2 2025. However, beyond this point and into the second half of the year, we expect a retreat in ex-U.S. copper prices as U.S. import demand moderates, while both physical consumption and market sentiment soften amid the wider implementation of U.S. tariffs.

From a technical analysis perspective, our base model suggests that copper prices

could rally until mid-April, driven by tighter ex-U.S. physical supply. However, price risks are expected to become more balanced in the latter half of April as renewed tariffrelated pressures counter the sustained strength in U.S. copper import demand, which we anticipate will persist through much of Q2 2025. Additionally, we believe the impact of U.S. reciprocal tariffs on copper's physical consumption will likely lag the April 2 tariff announcements by one to two months.

In the second quarter of 2025, LME cash copper is expected to trade within a range of \$9,400 to \$10,300 per metric ton. While copper may remain buoyant through April, prices are likely to stabilize thereafter.

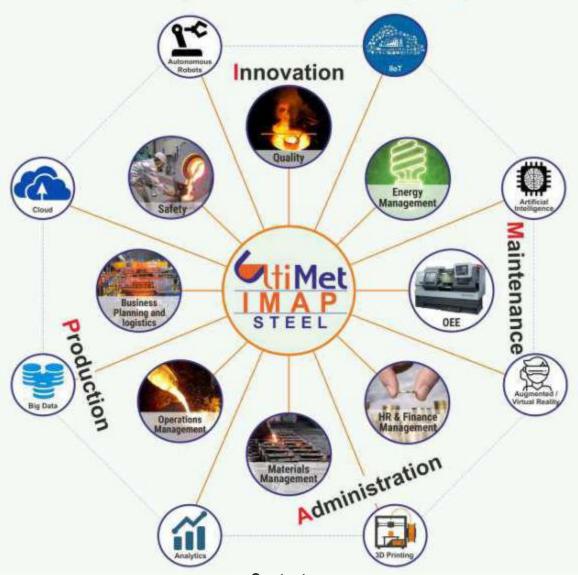
The regional premiums are expected to remain mixed wherein the US Midwest may continue to be overpriced vis-àvis Europe and Asia.

Make your Steel Plant future-ready

End-to-End Industry 4.0 Smart Solutions from



Facilitating Metals Industry to go Digital



Contact us

Ulti-Met Technologies Pvt. Ltd.

Facilitating Metals Industry to go Digital

Tel: +91-22-2619 2376 / 2617 1575 / 1617 1866 Email: info@ulti-met.com / rajesh@ulti-met.com

Web: www.ulti-met.com



IFC 2025: Innovation & Collaboration for a Sustainable Future

73rd INDIAN FOUNDRY CONGRESS & IFEX 2025 8, 10, 11 FEBRUARY 2025 RISWA BANGLA MELA PRANGAN, KOLKATA















Conference Secretariat: Mobile: +91 62911 96579 Email: secretariat73rdifc@ifcindia.net

The 73rd Indian Foundry Congress (IFC), organized by the Institute of Indian Foundrymen (IIF), was held from February 9-11, 2025, at Biswa Bangla Mela Prangan, Kolkata. Themed "Casting for a Better Future -Innovate. Collaborate. Perpetuate", the event brought together prominent figures from the foundry industry, government officials, and technical experts to deliberate on the latest advancements. challenges, and opportunities in foundry technology, automation, and sustainable manufacturing. Inaugural Ceremony and **Key Speeches** The grand inauguration of the event took place on February 9, beginning with the traditional lighting of the Holy Lamp. The ceremony was led by Padma Bhushan Babasaheb N. Kalyani, Managing Director of Bharat Forge, who served as the Chief Guest. He was accompanied by several distinguished guests, including Mr. Om Prakash Jalan of Bengal Energy Ltd., who was the Guest of Honour, and Dr. Shashi Panja, Hon'ble Minister of Industries, Commerce & Enterprises, West Bengal.

During his keynote address, Mr. Kalyani emphasized the necessity of research and development (R&D), investments in emerging technologies, and digital transformation as vital components for maintaining a competitive edge in the foundry sector. He further stressed the importance of adopting renewable energy solutions to ensure a more sustainable future for the industry. Mr. Jalan, in his speech, provided insights into the current growth trajectory of the foundry sector, while Mr. Vijay S. Beriwal, Chairman of the Organising Committee, 73rd IFC, highlighted the role played by IIF in shaping the future of the industry.



Additionally, Mr. Navneet Agarwal, President of IIF, underscored the urgent need

for governmental support to help MSME foundries remain competitive in the global market. Mr. Ravi Sehgal, Chairman of IFEX 2025, shared an optimistic outlook, predicting substantial growth in manufacturing and related industries post-IFC. Other key speakers included Mr. Pradeep Kumar Madhogaria, Co-Chairman, 73rd IFC, and Mr. Anil Vaswani, Co-Chairman, IFEX 2025, who provided additional perspectives on the conference's objectives. Technical Symposiums and Thematic Sessions The technical discussions and symposiums covered a wide range of critical topics, including:

- · Water Management & Sustainability Initiatives Focus on the Har Ghar Jal mission and Amrut 2.0, with discussions on ensuring clean water supply and effective water resource management.
- Advancements in Foundry Materials Exploration of the potential of Ductile Iron, Aluminium recycling, and the impact of electric vehicle expansion on metal demand.
- Railway & Automotive Sector Innovations – Analysis of the latest technological advancements in railway infrastructure and automotive

Networking Steel & Metal Industry - Worldwide



Monthly Publication **Trade Shows B2B Industry Portal Industry Research** Strategic Consultancy

Complete Visibility in Global Iron & Steel Sector

Chandekar Business Media Pvt. Ltd.

A Knowledge & Networking Company

1, Alpha, 1st Floor, M.G. Road, Vile Parle (East), Mumbai - 400 057. INDIA,

Tel: 91-22-26171575 / 26192376 / 26171866 Email: info@steelworld.com | info@metalworld.co.in

Website: www.steelworld.com | www.metalworld.co.in



Industry Update

components.

- · Industrial Robotics & Automation – Insights into the integration of robotics in manufacturing and how automation is shaping the future of the foundry industry.
- · Circular Economy & Sustainable Manufacturing – Examination of zero-waste management practices, the role of technology in sustainability, and India's evolving vehicle scrappage policy.
- · Global Trade & Export Potential – Expert discussions on India's position in the international foundry market and strategies to enhance export capabilities.

Special Programs & Industry Engagement Initiatives

In addition to the main sessions, the 73rd IFC featured several noteworthy programs designed to provide networking and learning opportunities for industry professionals and students alike.

showcases.

- · Young Engineers' Forum -A dedicated session aimed at inspiring the next generation of engineers, featuring participation from over 450 students from reputed institutions, including Aliah University, MCKV Institute of Engineering, and Swami Vivekananda Institute of Science and Technology. A distinguished panel of experts, including industry leaders and academicians, engaged with students to discuss career paths and emerging industry trends.
- B2B Meetings & Vendor
 Development Programs –
 The event facilitated
 business networking and
 knowledge-sharing among
 industry professionals,
 suppliers, and government
 representatives. Mr. P.K. Das,
 Joint Director and Head of
 MSME-DFO Kolkata,
 addressed the Vendor
 Development Program,
 elaborating on government
 schemes and initiatives
 available to MSMEs in India.

leadership in the foundry sector.



Closing Ceremony & Future Prospects

The three-day conference concluded with a Valedictory Function on February 11, marking the successful completion of the 73rd IFC and IFEX 2025. The event reaffirmed the commitment of the Indian foundry sector to embrace innovation, promote sustainable manufacturing, and strengthen its position in the global market. With collaborative efforts from industry stakeholders, policymakers, and researchers, the Indian foundry industry is set to scale new heights in technological advancements and sustainable growth.



· IFEX 2025: A Showcase of Innovation – The exhibition included live demonstrations of robotics, cutting-edge foundry equipment, and various industrial product

· Awards & Recognition – The event celebrated the contributions of industry professionals through fellowship honors and excellence awards, recognizing innovation and



Trump Holds Firm on Steel & Aluminium Trade Barriers

President Donald Trump has reinforced his commitment to imposing tariffs on steel and aluminium imports without any exceptions, emphasizing his firm stance on trade policy.

Confirming the decision, Trump announced that sectoral and reciprocal tariffs would take effect on April 2, with no exemptions granted to any country. Last month, he had raised import tariffs on steel and aluminium to a uniform 25%, a move aimed at strengthening domestic industries while escalating tensions in global trade.

During a discussion with reporters aboard Air Force One, Trump reiterated that these tariffs would be applied alongside additional levies on the automobile sector. When asked about the scope of the tariffs, he clarified, "In some cases, both sectoral and reciprocal tariffs will be implemented. If they charge us, we charge them. Beyond that, there will be additional duties on steel, aluminium, and automobiles."

The decision underscores Trump's "America First" economic agenda, prioritizing domestic manufacturers and reducing the US trade deficit. However, this aggressive tariff policy has drawn sharp criticism from trading partners, including the European Union, Canada, and China, who have warned of potential retaliatory measures. Experts predict that these tariffs could disrupt global supply chains, increase costs for US industries reliant on imported raw materials, and spark trade disputes with key allies.

Despite opposition from some US lawmakers and business leaders, Trump has remained steadfast, arguing that the tariffs will protect American jobs and industries from unfair competition. As the April 2 deadline approaches, the global market is bracing for potential economic and diplomatic fallout from these sweeping trade measures.

Vedanta & NABARD Partner to Empower Rural Livelihoods



Vedanta Aluminium, India's largest aluminium producer, has partnered with the National Bank for Agriculture and Rural Development (NABARD) to launch a ₹1 crore rural development initiative in Odisha's Kalahandi district. This collaboration focuses on workforce skilling, water

resource management, and agricultural diversification to drive economic growth in resource-rich yet underserved areas. The partnership was formalized through the exchange of a sanction letter, highlighting a joint commitment to strengthening rural livelihoods.

As part of the initiative, a range of interventions will be introduced to boost employment and ensure agricultural sustainability. Sixty rural youth will receive training under the 'Food and Beverage Steward Course' at Vedanta's skill training centre in Lanjigarh, equipping them with industry-



relevant expertise. This effort builds on the success of the project's first phase, which has already trained 210 youth. Additionally, the initiative will focus on improving agricultural infrastructure by developing 275 water structures, including community ponds, farm ponds, and check dams, to enhance water security for local farmers. Furthermore, high-value crops such as turmeric, ginger, and marigold will be cultivated across 2,380 acres, encouraging the growth of local micro-enterprises. The agreement was signed by Pranab Kumar Bhattacharyya, CEO of Vedanta's Alumina Business, and Dr. Sudhanshu K K Mishra, Chief General Manager of NABARD's Bhubaneswar Regional Office. The collaboration aligns with India's broader goals of rural self-reliance and economic diversification, reinforcing Vedanta Aluminium's mission to leverage industrial expertise for regional development.

Commenting on the partnership, Sunil Gupta, Chief Operating Officer of Vedanta Aluminium, highlighted its far-reaching impact: "At Vedanta Aluminium, we believe that empowering communities is key to sustainable development. Our collaboration with NABARD is a step toward fostering a self-sufficient rural economy by equipping youth with industry-ready skills and promoting innovative agricultural practices."

Dr. Sudhanshu K K Mishra emphasized the role of strategic collaborations in rural development: "NABARD is dedicated to fostering sustainable rural growth through innovative partnerships. Our association with Vedanta Aluminium exemplifies how industry-led initiatives can drive meaningful change. By leveraging our combined expertise, this program will create long-term economic opportunities for farmers and youth in Odisha, equipping them with the skills and resources necessary for a more prosperous future."

Vedanta Aluminium, a business of Vedanta Limited,



produces over 2.37 million tonnes of aluminium annually, contributing more than half of India's total output in FY24. The company is a leader in value-added aluminium products used across various industries. It ranks second in the S&P Global Corporate Sustainability Assessment 2024 for the aluminium industry, reflecting its commitment to sustainable development. With its state-of-the-art smelters, alumina refinery, and power plants, Vedanta Aluminium is at the forefront of promoting aluminium as the 'Metal of the Future' for a more sustainable world.

Green Energy Boost: Hindustan Zinc & Serentica Scale Up to 530 MW



Hindustan Zinc, India's largest integrated zinc producer, has strengthened its partnership with Serentica Renewables by increasing its round-the-clock renewable power capacity from 450 MW to 530 MW. This move will enable over 70% of the company's total power requirements to be met through renewable sources. The agreement guarantees a minimum of 315 MW of uninterrupted power in every 15-minute block, ensuring reliable and stable energy supply through a mix of solar, wind, and advanced storage solutions.

The project, set to be fully operational by 2027, will eliminate dependence on conventional power sources and support Hindustan Zinc's decarbonization strategy. The company has already started receiving renewable energy from Serentica's 180 MW solar park, which was instrumental in producing Asia's first low-carbon zinc, EcoZen.

CEO Arun Misra emphasized Hindustan Zinc's commitment to sustainability, targeting a 70% reduction in carbon emissions on its path to net zero by 2050. Serentica's CEO, Akshay Hiranandani, highlighted the breakthrough nature of the agreement in providing firm renewable energy for industrial operations. Hindustan Zinc, a Vedanta Group company, holds a 75% market share in India's primary zinc industry and has been recognized as the world's most sustainable metals and mining company by the S&P Global Corporate Sustainability Assessment 2024. The company continues to lead in sustainable mining, water conservation, and environmental responsibility, reinforcing its role in the global energy transition.

AT&S Drives Sustainability with Advanced Recycling Methods



On World Recycling Day (March 18), Austrian microelectronics leader AT&S shared an interim report on its sustainability initiatives, highlighting significant advancements in resource recycling across its global production sites. In the 2024/25 financial year, AT&S successfully recycled 268 tons of copper, 170 kg of gold, 35 kg of palladium, 16 kg of silver, 284,000 liters of iron(III) chloride, 984,000 liters of hydrochloric acid, and 1.5 million m³ of water. These efforts not only reduce procurement costs but also significantly cut energy consumption and lower the company's carbon footprint. Driving Sustainability Through Innovation AT&S has long been committed to minimizing the environmental impact of its operations, investing in advanced wastewater and waste treatment technologies. These enhancements have led to substantial waste reduction, particularly in wastewater sludge, which would otherwise require costly disposal. With continued improvements, these recycling figures are expected to rise further in the coming years. "As part of our sustainability strategy, we constantly explore ways to improve energy and raw material efficiency. Our expert engineers develop innovative solutions that are first tested at select sites before being scaled globally. Our enhanced treatment plants for metals, chemicals, and water demonstrate that we are on the right track. Moving forward, our production will become even greener," said Marina Hornasek-Metzl, VP Corporate ESG and Quality at AT&S.

Reducing Environmental Impact Across the Supply Chain By implementing cutting-edge recycling technology, AT&S is not only optimizing its own sustainability performance but also minimizing the environmental impact of its supply chain. For instance, the reuse of ferric chloride and hydrochloric acid has eliminated the need for 84 chemical tanker deliveries, each carrying 15,000 liters. Additionally, the amount of recycled copper would be enough to manufacture a 6,700 km-long cable with a cross-section of 3 x 1.5 mm. These achievements highlight AT&S's commitment to sustainable industrial practices, reinforcing its role in shaping a greener future.



Aluminium Industry Seeks RoDTEP Extension



India has solidified its position as the world's secondlargest aluminum producer, boasting an annual production capacity of 4.1 million tonnes, according to the Aluminium Association of India (AAI). The country has invested over \$20 billion to enhance domestic production, ensuring a robust supply chain. Notably, approximately 45% of India's aluminum exports come from units operating within Export-Oriented Units (EOU), Special Economic Zones (SEZ), and other authorized agencies. AAI further cautioned that any prolonged delay in addressing key industry challenges could expose Indian manufacturers to global trade disruptions. Such vulnerabilities could lead to significant production slowdowns, workforce reductions, and hindered economic growth. In the face of increasing geopolitical tensions, fluctuating raw material prices, and evolving trade policies, India's aluminum sector must adopt strategic measures to maintain its competitive edge in the global market.

European Aluminium Urges Quick Implementation of EU Metals Plan



European Aluminium has welcomed the European Commission's EU Steel & Metals Action Plan, recognizing it as a crucial step toward tackling the pressing challenges facing the aluminium industry. As a vital raw material, aluminium plays a key role in the green and digital transitions, as well as in defence and other strategic sectors. However, the introduction of new U.S. tariffs on aluminium has heightened the urgency for Europe to act swiftly in securing the future of its aluminium sector.

"We appreciate the increased attention on our industry, and it's clear that policymakers are beginning to grasp the severity of the crisis we face," said Paul Voss, Director General of European Aluminium. "The Action Plan contains promising elements, but a strategy alone won't keep our factories running. Immediate action is required to curb the export of valuable aluminium scrap to other regions, a problem worsened by its exclusion from the recent U.S. tariffs. Additionally, reducing energy costs and preventing carbon leakage must be top priorities." While the Action Plan sets a clear direction, its success will depend on how quickly and effectively it is implemented. European Aluminium warns that failure to act could lead to devastating consequences beyond the industry itself, affecting jobs, supply chains, and critical sectors such as automotive, aerospace, defence, and renewable energy. Such a setback would weaken Europe's global competitiveness and threaten its strategic independence at a time when both are more vital than

"The global market is evolving rapidly—competitors are making strategic moves today that will shape the industry's future for years," Voss added. "Europe must act now with targeted interventions, starting with energy cost relief and scrap export controls, while also implementing long-term reforms to ensure aluminium production remains a cornerstone of Europe's industrial base." European Aluminium remains committed to collaborating with policymakers at all levels to ensure the Action Plan translates into concrete, impactful measures in the immediate future.

Copper Surges Above \$10,000 on Trade Uncertainty



Copper prices surged past \$10,000 per ton on Thursday as speculation grew that the U.S. may include copper in its list of metals subject to tariffs.

Last month, former President Donald Trump directed the Commerce Department to review copper imports, a move widely seen as a step toward imposing new trade duties. In response, U.S. copper prices have climbed sharply, prompting traders to rush shipments into the country ahead of potential tariffs. This surge in demand has led to



a tighter global supply, reducing copper availability in other regions.

On the London Metal Exchange (LME), copper rose as much as 0.6% to \$10,046.50 per ton—its highest level since October. Meanwhile, prices on New York's Comex neared a record high, according to Bloomberg. By 11:32 a.m. Shanghai time, copper was trading at \$10,013 per ton on the LME. Other base metals showed mixed movements, with aluminum and zinc slightly up while nickel declined. The LMEX Index, which tracks six major base metals, hit a five-month high on Wednesday. Since Trump's election victory in November, CME copper stockpiles have steadily increased, while LME inventories have seen modest declines. Analysts at ING noted that copper warrant cancellations on the LME have surged since late February, with the largest stock drawdowns occurring in Asia, followed by Europe. Orders for metal withdrawals from LME warehouses in Asia have now reached their highest level since August 2017. Analysts suggest that copper prices will likely remain strong in the near term as traders continue front-loading shipments ahead of potential U.S. tariffs. Additionally, Washington's ongoing investigation into copper imports is tightening supply outside the U.S., further supporting prices.

Indian Aluminium Producers Push for Urgent Tariff Reforms



As the global metals landscape continues to evolve, India's aluminium sector finds itself at a crucial turning point. The Aluminium Association of India (AAI) has formally urged the government to reinstate the Remission of Duties or Taxes on Export Products (RoDTEP) scheme for aluminium-producing units operating under Advance Authorisation (AA), Export Oriented Units (EOUs), and Special Economic Zones (SEZs). Industry leaders emphasize that this support is critical for maintaining India's export competitiveness and ensuring sustained domestic manufacturing growth. India, the world's second-largest aluminium producer, has an annual production capacity of 4.1 million tonnes

and has seen over \$20 billion in domestic investments. Notably, nearly 45% of the country's aluminium exports originate from AA, EOU, and SEZ units. However, the withdrawal of RoDTEP eligibility in February 2024 has raised alarms over increasing production costs and declining market share in global trade.

In a formal representation to Finance Minister Nirmala Sitharaman, the AAI highlighted the compounded tax burden faced by aluminium producers in export-driven zones. Central and state taxes together contribute nearly 10% of total production costs, significantly affecting their ability to compete internationally.

"Without RoDTEP benefits, Indian producers risk losing both market share and crucial employment opportunities, which could have serious consequences for the broader manufacturing sector," AAI warned. Industry experts and trade analysts echo these concerns, emphasizing that delays in restoring the scheme could further weaken the sector's global standing. Market trends show that global aluminium prices have remained volatile over the past two years, making cost efficiency vital for exporters. Data from the International Aluminium Institute reveals that countries with strong tax relief mechanisms have successfully maintained or expanded their market share despite fluctuating prices. Moreover, export-focused aluminium units contribute significantly to domestic value addition. The loss of RoDTEP benefits could not only reduce export volumes but also slow down investments in modernization and sustainability initiatives. With growing international demand for eco-friendly production methods, India risks falling behind in the global aluminium trade if competitiveness declines. Industry experts stress that ensuring financial incentives for aluminium exporters is essential to drive investments in green technologies and keep India's aluminium sector at the forefront of global





Transforming Manufacturing: Hindalco's New Vision

Transforming from a Materials Supplier to an Engineered Solutions Provider

Mumbai, 20 March 2025: Hindalco Industries Ltd., the flagship metals company of the Aditya Birla Group, has unveiled a bold new brand identity, signaling its transformation from a conventional materials supplier to an innovation-driven engineered solutions provider. This strategic shift underscores Hindalco's commitment to driving advancements in electric mobility, renewable energy, semiconductors, energy storage, and high-end electronics.

The announcement was made at a high-profile event where Mr. Kumar Mangalam Birla, Chairman of the Aditya Birla Group, unveiled the company's new identity in the presence of industry leaders, policymakers, and business partners. This rebranding effort highlights Hindalco's evolving role as a co-creator and problem solver in critical global industries.

Major Investment in Advanced Manufacturing & Sustainability.

As part of its transformation, Hindalco has committed ₹45,000 crore to expanding its aluminium, copper, and specialty alumina businesses. This significant investment will support the development of next-generation high-precision engineered products while strengthening Hindalco's upstream capabilities.

Speaking at the event, Mr. Kumar Mangalam Birla emphasized Hindalco's evolution into a miniconglomerate with 52 plants spread across 10 countries. He highlighted the company's focus on innovation, sustainability, and advanced manufacturing, positioning it as a key "Hindalco's new identity represents more than just a visual change—it signifies our transformation into a solutions-driven company that is shaping the future of multiple industries. Our commitment to sustainability, precision engineering, and circular economy solutions



will drive long-term progress, ensuring that we remain a force for good in the global economy," he stated.

A New Brand Identity for the Future

To reinforce its strategic transformation, Hindalco has introduced a new corporate identity centered around a

bold and dynamic 'H' logo. This modernized design symbolizes forward momentum, innovation, and sustainability, aligning with Hindalco's vision of leading

India's industrial evolution.

Additionally, Hindalco has launched a new tagline – "Engineering Better Futures" – which embodies its four core principles:



Sustainability:

Commitment to eco-friendly production and responsible resource management Circularity: Development of recyclable and reusable materials to reduce waste

Durability: Manufacturing high-quality, long-lasting engineered products

Precision Engineering: Driving innovation through advanced materials and next-gen industrial solutions

Expanding Across Key Industries with Cutting-Edge Solutions

Under its redefined strategy, Hindalco is forging strategic partnerships to develop next-generation materials and high-performance applications across multiple industries. These collaborations aim to create sustainable and innovative solutions that enhance efficiency and performance.

In the automotive and electric mobility sector, Hindalco's lightweight aluminium and copper solutions

are helping manufacturers improve fuel efficiency, vehicle performance, and sustainability. The company is playing a crucial role in enabling the electrification of the automotive industry, ensuring better energy efficiency and lower emissions.

In the packaging industry, Hindalco is leading circular economy



initiatives by developing recyclable aluminium packaging solutions. These efforts focus on reducing environmental impact, improving material sustainability, and minimizing waste in consumer goods.



The company is also making significant strides in energy storage and battery technology. Hindalco has partnered with battery manufacturers to develop specialized aluminium and copper materials for anode



and cathode components, which are critical for next-generation energy storage solutions. These innovations will help drive advancements in electric vehicles,

renewable energy grids, and portable power systems.

In the aerospace and defense sector, Hindalco has been a key contributor to India's space programs, supplying high-performance aluminium alloys for ISRO's Chandrayaan and Mangalyaan missions. These materials have been instrumental in enhancing India's space exploration capabilities.

Commitment to Sustainability & Renewable Energy

Sustainability is at the core of Hindalco's transformation. The company is actively investing in green initiatives and renewable energy projects to reduce its environmental footprint and contribute to India's net-zero goals.

One of its landmark sustainability projects is India's

first e-waste recycling plant, operated by Birla Copper. This facility aims to enhance e-waste management and promote responsible recycling of electronic materials, reducing environmental hazards associated with electronic waste disposal.



Additionally, Hindalco has launched a 100MW renewable energy project

in Odisha, integrating wind, solar, and pumped hydro storage. This initiative ensures stable, round-the-clock clean energy for industrial applications, further strengthening the company's commitment to sustainable production.

For the fifth consecutive year, Hindalco has been recognized as the World's Most Sustainable Aluminium Company in the S&P Global Corporate Sustainability Assessment (CSA) rankings. This achievement highlights Hindalco's leadership in energy-efficient production, waste reduction, and the development of eco-friendly materials.

Shaping the Future of Industrial Innovation



With its redefined brand identity, strategic investments, and unwavering focus on sustainability, Hindalco is well-positioned to lead the future of advanced manufacturing. The company's transformation from a metals producer to an innovation-driven engineered solutions

provider marks a significant milestone in its journey.

By embracing precision engineering, circular economy

principles, and sustainable growth, Hindalco is ensuring long-term industrial progress while driving technological innovation and environmental responsibility. As it continues to expand its influence across multiple industries, Hindalco remains committed to engineering a better and more sustainable future for generations to come.



https://www.linkedin.com/posts/aditya-birla-group_activity-7308455410565296129--X8C?utm_source=social_share_send&utm_medium=android_app&rcm=ACoAAAE4QacBLZpxS9PYjm1AJmLgkz5yfV49hec&utm_campaign=whatsapp

Sustainability at Scale: Vedanta Aluminium's Water Recycling Triumph

Vedanta Aluminium recycled 16 billion litres of water in FY25—equal to 6,400 Olympic pools—achieving a 15% recycling rate. It renovated 81 community ponds, built 20 farm ponds, and launched water-saving initiatives benefiting thousands.

At Lanjigarh, its watershed project recharged 2 lakh cubic meters of water, aiding 500+ farmers. Mining sites saw increased water storage, while Jharsuguda and BALCO improved wastewater treatment.

On World Water Day, Vedanta reaffirmed its goal of Net Water Positive status by 2030, promoting awareness through community activities. Producing 50% of India's aluminium, the company remains a leader in sustainable development.





IBAAS: Pioneering the Future of the Bauxite, Alumina & Aluminium Industry

 Executive, International Bauxite, Alumina & Aluminium Society (IBAAS)
 President, International Bauxite, Alumina & Aluminium Society (IBAAS)

The International Bauxite, Alumina & Aluminium Society (IBAAS) is a globally recognized organization committed to fostering growth and innovation in the aluminium industry. Established in 2012, IBAAS has played a crucial role in bringing together industry professionals, researchers, and key stakeholders to discuss technological advancements, industry challenges, and sustainable solutions for aluminium industry. IBAAS provides platform for knowledgesharing and partnerships to drive progress in the aluminium value chain worldwide.

IBAAS has successfully organized twelve International Bauxite, Alumina & Aluminium Conferences & Exhibitions in various locations, including India, China, and Guinea. These events have attracted global participation, addressing critical aspects of the aluminium value chain, from bauxite mining to alumina refining and aluminium production.

The Need for a Dedicated Platform in the Aluminium Industry

The aluminium industry continues to witness remarkable growth,

particularly in China, India, Guinea, UAE and Brazil, with other nations such as Vietnam. Saudi Arabia, and Indonesia planning significant investments in development of this industry. However, the industry faces numerous challenges, including high CO₂ emission particularly in India and China, regulatory compliance, sustainability concerns, and high capital investment requirements. In recent years, the push for a low-carbon future has placed further emphasis on the industry's need to reduce CO2 emissions. The Indian aluminium industry, which is among the world's largest producers, is currently responsible for approximately 2% of the country's total industrial CO2 emissions. The



average carbon footprint of primary aluminium production in India is around 17–20 metric tons of CO₂ per ton of aluminium, significantly higher than the global average of 11.5 metric tons of CO₂ per ton. This disparity is mainly due to the industry's over 90% reliance on coal-based captive power plants.

The Indian aluminium industry is actively working towards reducing carbon emissions by implementing several key strategies to align with both national and global climate goals. Some of the significant efforts include:

1. Adoption of Renewable

Energy: Many aluminium producers in India are transitioning towards renewable energy sources, such as solar and wind, to reduce reliance on coalbased power plants. For instance, large producers like National Aluminium Company (NALCO) have committed to integrating renewable energy into their production processes.

2. Energy Efficiency Improvements: The industry is focusing on energy efficiency by adopting advanced technologies such as inert anode technology in aluminium smelting, which has the potential to reduce emissions significantly. Additionally, Al-based energy management systems are being implemented to optimize energy consumption and minimize waste.

3. Carbon Capture and

Utilization (CCU): Indian aluminium companies are exploring and investing in carbon capture technologies to capture CO₂ emissions directly from the production process. These captured



emissions can then be used in various applications, such as the production of chemicals, helping to mitigate the overall environmental impact.

4. Recycling Initiatives:

The industry is also increasing its focus on recycling aluminium, which has a much lower carbon footprint compared to primary aluminium production. The Indian government has set policies that promote the recycling of aluminium scrap, which not only helps reduce emissions but also addresses the issue of resource conservation.

5. Government Support and Policy Frameworks: The Indian government has introduced various policies and initiatives aimed at decarbonizing the aluminium

sector. These include incentives for using renewable energy, tax rebates for carbon reduction technologies, and support for R&D in low-carbon aluminium production processes.

6. Collaborations with Global Initiatives: In addition to the ASI workshop mentioned, Indian companies are also collaborating with international organizations and adopting global sustainability standards, further reinforcing their commitment for reducing emissions and promoting responsible aluminium production.

These efforts are part of India's broader strategy to reduce its industrial emissions and meet the net-zero target by 2070. The Indian aluminium sector is positioning itself as a key player in the global push for a low-carbon future, with a clear focus on technological advancements and sustainability.

Recognizing these evolving dynamics, IBAAS provides a vital platform for experts to address these challenges and shape the future of the aluminium industry. A testament to this was the Aluminium Stewardship Initiative (ASI) of Australia conducting a workshop on sustainability during the IBAAS 2022 Conference & Exhibition—the first time such an event was held in India. This initiative, which took place during the 2022 conference, emphasized the growing importance of responsible aluminium production and sustainability in the sector.

A Legacy of International

IMMT (Institute of Minerals



Conferences in association with IIM, AAI, IBAAS has established a JNARDDC, and ABSTCPL. legacy of hosting highly ■ IBAAS-2019 (Guiyang,

 IBAAS-2019 (Guiyang, China): Explored technological advances in

alumina refining, smelting, downstream fabrication, and smart manufacturing, in cooperation with GAMI.

• IBAAS-2020 (Online): Conducted virtually due to the pandemic, with over 400 professionals participating worldwide, in

association with JNARDDC.

- IBAAS-2022 (Raipur, India): Focused on sustainability challenges in the bauxite, alumina, and aluminium industry, in association with JNARDDC.
- IBAAS-2023 (Nagpur, India): Addressed the latest technological developments in alumina and aluminium production, in association with JNARDDC.
- IBAAS-2024 (Goa, India): Themed 'Aluminium Industry Vision 2030', providing a roadmap for the next decade, in association with IIM. These events have been

These events have been widely appreciated and have significantly contributed to knowledge-sharing and industry collaboration.

IBAAS-IMMT-IIM 2025 Conference & Exhibition: A Global Opportunity

Following the tremendous success of past editions, IBAAS-IMMT-IIM 2025, the 13th International Bauxite, Alumina & Aluminium

Conference & Exhibition, will be DDC, and ABSTCPL. held in Bhubaneswar, India during October 8-10, 2025. This event, jointly organized with



and Materials Technology) and IIM (Indian Institute of Metals), is set to be one of the most significant global gatherings for the aluminium industry.

This prestigious conference will focus on:

- Technical Presentations & Panel Discussions Covering bauxite mining, alumina refining, aluminium production, and sustainability.
- Exhibition & Networking
 Opportunities Showcasing the latest innovations and industry solutions.
- Sustainable Development: Addressing the industry's role in achieving net-zero emissions.
- Technological Innovations: Showcasing advancements in bauxite mining, beneficiation, alumina refining, and aluminium production.
- Market Trends & Investments: Providing insights into global market dynamics and investment opportunities.
- Industry 4.0 & Digitalization: Exploring smart manufacturing

• IBAAS-2014 (Visakhapatnam, India): Addressed technological improvements and market developments in aluminium industry.

successful conferences.

bringing together industry

leaders, policymakers, and

• IBAAS-2012 (Nagpur,

of past events:

experts. Below is a summary

India): Focused on the vision

of the bauxite, alumina, and

aluminium industry in Asia,

IBAAS-2013 (Nanning,

China): Examined the status

and future prospects of the

association with CHALIECO

in association with

global industry, in

and ANTAIKE.

JNARDDC.

- IBAAS-2015 (Suzhou, China): Explored the development and future of China's aluminium industry, in association with CHALIECO and SINR.
- IBAAS-2016 (Goa, India): Focused on the evolving aluminium industry in the Asia-Pacific, jointly organized with IIM and major Indian aluminium producers.
- IBAAS-2017 (Conakry, Guinea): The first bauxitealumina conference in Guinea, widely appreciated by the industry and the Government of Guinea.
- IBAAS-2018 (Mumbai, India): Highlighted the status, strategies, and growth opportunities for India's aluminium industry,



and Al-driven solutions in aluminium production.

- Best Paper Awards -Recognizing outstanding research and technical contributions.
- IBAAS-CETIZION Verifica ESG Awards - Celebrating achievements in sustainable development.

ESG Awards & Recognition
Building on the success of
the IBAAS 2024 ESG
(Environmental, Social, and
Governance) Awards, IBAAS,
in collaboration with
CETIZION Verifica, is proud
to continue this initiative in
2025. These awards
recognize outstanding
contributions by the global
aluminium industry towards
achieving Sustainable
Development Goals.

Award Categories:

- Driving Sustainability through Technological Advancements and Processes
- Excellence in Stakeholder Engagement
- Responsible Sourcing
 Join us in recognizing industry leaders making a significant impact on sustainability.

Additional Highlights of IBAAS 2025

• Pre-Conference Workshop (October 7, 2025): A one-day training session on Bauxite Resources, Characterization and

Characterization, and Beneficiation.

• Post-Conference Plant Visit (October 11, 2025 -Subject to Approval): A proposed visit to an aluminium plant for an exclusive industry insight. IBAAS continues to lead the aluminium industry towards a more sustainable and technologically advanced future.

IBAAS is also actively involved in monthly online technical sessions and supports research and development activities to drive innovation in the aluminium sector. Some of the interesting online presentations are listed

Topic of Presentation	Speaker	
50 Years' Development of the Bayer Process and Outlines of the Future	Mr. György (George) Bánvölgyi, Senior Process Consultant (Alumina)	
Aluminium-A Sustainable Resource	Dr. Anupam Agnihotri, Director of Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC)	
Alumina Production Growth in a Decarbonised World	Mr. Andrew Furlong, Technical Director Bauxite and Alumina, Worley, Australia	
Review of 50 years of Hall-Héroult Cell Models Development	Mr. Marc Dupuis, Consultant GéniSim Inc., Canada	
QEMSCAN Based Mineralogical Characterization of Bauxite and Intermediate Solids of Bayer Process	Dr. Vilas Tathavadkar, Chief Technology Officer (Aluminium Upstream & Copper) of Hindalco Industries Limited, India	
Development of Sumitomo's differential extraction processA case study for Eastern Ghats (Odisha) bauxite of India and advantages and challenges	Mr. Takuo HARATO, Adjunct Researcher of Waseda University	
Improving Yield While Maintaining Product Quality in Bayer Precipitation Circuits	Mr. Alex Aboagye, Director of ARKA Consulting	
Aluminium's Sustainability Dilemma: The Red Behind your Green Aluminum	Dr. Subodh Das, CEO – Phinix, LLC, USA	
Special Hydrates/Alumina: Properties and Applications	Dr Suchita B Rai, Principal Scientist of Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC) Mr. Jürgen Hahn, BOKELA	
Mechanical Vapor Recompression - A Technology Hef ^{atio} Low Carbon Alumina Refining		
Hydrogen on Demand from Aluminum - A Massive Growth Opportunity for the Industry	Mr. Kurt Koehler, CEO of AlGalCo, USA	
Revolutionizing Smelter Operations: Early Detection of Anodic Incidents with AI	Mr. Benoit Verreault, Executive Vice President of Maestria Solutions, Canada	
Addressing Amperage Creep in Aluminium Smelters: Strategies and Effective Solutions	Mr. S.Sasikumar, Plant Head of Mahan Aluminium	
Billets Alloys Applications and New Developments	Mr. Fabio Martins, CEO Billets, Vedanta Aluminum	

below:

We invite companies, professionals, and industry experts to be part of IBAAS-IMMT-IIM 2025 and contribute to shaping the future of the bauxite, alumina, and aluminium industry. With Bhubaneswar (Odisha) serving as a key hub for bauxite, alumina, and aluminium production, the IBAAS-IMMT-IIM 2025 Conference & Exhibition promises to be a

landmark event for the industry. We invite global stakeholders to join this premier gathering and contribute to shaping the future of a sustainable aluminium sector. India is on the verge of becoming the world's second-largest alumina producer, making this conference a major attraction for industry leaders and experts. With proposals for two new greenfield alumina refineries in Odisha and ongoing expansions in alumina plants and smelters. this is the perfect time to be part of India's remarkable growth story.





Passenger Vehicle Sales increase to All-time High in February 2025: SIAM

As per SIAM data, February 2025 recorded the highestever passenger vehicle sales with a dispatch of 3.78 lakh units. The Society of Indian Automobile Manufacturers (SIAM) has released the data for passenger vehicle sales in the country. Based on the latest announcement, the automobile industry showed growth in February 2025. Specifically, passenger vehicle sales have reached a record high, along with growth for three-wheeler sales, while two-wheeler sales have declined significantly. This comes at a time when FADA warned of a significant decrease in retail sales during the same month. The overall wholesale of passenger vehicles stood at 23,46,258 units in February 2025 including threewheelers, two-wheelers, and quadricycles. Sales of passenger vehicles increased by 1.9% compared to February 2024, reaching 3,77,689 units, which represents the highest sales for this segment in February based on factory shipments to dealerships. Wholesale sales of three-wheelers showed positive

growth, rising by 4.7 percent to 57,788 units compared to

percent and 5.9 percent, respectively, while electric rickshaws and carts experienced significant declines of 50.9 per cent and 30.6 per cent.

The two-wheeler category, which constitutes a major part of India's automobile market, saw a 9 per cent decrease year-on-year in wholesale shipments, with sales falling to 1,384,605 units. Motorcycles faced the largest decline, showing a 13.1 per cent drop, while scooters remained relatively stable with only a 0.5 per cent decrease. Mopeds persisted in their downward trend with an 18.2 per cent drop.

While commenting on February-2025 performance, Mr Rajesh Menon, Director General, SIAM said, "Passenger Vehicles segment remained resilient and posted its highest ever sales of February in 2025 of 3.78 Lakh units, with a growth of 1.9% as compared to February 2024. Three-Wheelers also continued to perform and grew by 4.7% compared to February of previous year, with sales of 0.58 Lakh units. However, Two-Wheelers de-grew by (-) 9% in February 2025, as compared to February 2024, with sales of 13.85 Lakh units. Upcoming festivities of Holi and Ugadi in March is likely to continue to drive demand, thereby closing FY 2024-25 on a reasonably positive note."

Domestic Sales: Monthly

the same month last year. Within this category,

passenger carriers and goods carriers grew by 6.8

Category	Domestic Sales (In Nos.)			
Segment/Subsegment	February			
	2024	2025	% Change	
Total Passenger Vehicles ³	3,70,786	3,77,689	1.9%	
Three Wheelers				
Passenger Carrier	43,173	46,111	6.8%	
Goods Carrier	10,013	10,603	5.9%	
E-Rickshaw	1,509	741	-50.9%	
E-Cart	480	333	-30.6%	
Total Three Wheelers	55,175	57,788	4.7%	
Two Wheelers				
Scooters	5,15,340	5,12,783	-0.5%	
Motorcycles	9,64,362	8,38,250	-13.1%	
Mopeds	41,059	33,572	-18.2%	
Total Two Wheelers	15,20,761	13,84,605	-9.0%	
Quadricycle	36	3	-91.7%	

BMW, Mercedes, JLR & Volvo Auto data are not available. Tata Motors Domestic Sales data included only in 'Total PV', detailed break-up is not available. However, without Tata Motors, 'Total PV' would be 3, 19,519 for February 2024 and 3,31,254 for February 2025.

3 -91.7 456 258

-6.4 4,08, 4,74,

-43.4

16.1



SIAM Segment wise Comparative Production, Domestic Sales & Exports data for the month of (Number of Vehicles) Category **Production Exports** February February February Segment/Subseg 2024 2025 2024 2025 2024 2025 Passenger Vehicles* 1,51,538 1,46,265 -3.5% 1,15, 1,10, -4.3 31,4 24,2 Passenger Cars 10.6 1,91, 2,08, 9.1% 21,8 31,3 **Utility Vehicles** 2,21,955 2,45,508 43.9 13,248 12,420 -6.3% 12,1 11,4 -5.4 784 1,00 Vans 27.8 Total Passenger Vehicles 3,86,741 4,04,193 4.5% 3,19, 3,31, 3.7% 54,0 56,6 4.8% Three Wheelers Passenger Carrier 66,028 6.8% 25,2 25,8 2.5% 71,693 | 8.6% 43,1 46,1 10,465 -3.1% Goods Carrier 10,797 10,0 10,6 5.9% 638 199 -68.8 E-Rickshaw 754 650 -13.8 1,50 741 -50.9E-Cart 567 444 -21.7 480 333 -30.6 **Total Three Wheelers** 78,146 83,252 | 6.5% | 55,1 | 57,7 | 4.7% | 25,8 | 26,0 | 0.7% **Two Wheelers** Scooters 5,67,463 6,05,501 6.7% 5,15, 5,12, -0.5 47,3 44,7 -5.5 12,19,447 12,08,538 -0.9% 9,64, 8,38, -13.12,80, 3,45, Motorcycles 23.4 42.624 44,423 4.2% 41,0 33,5 -18.2 576 942 63.5 Mopeds 18,58,462 1.6% 15,2 13,8 -9.03,28, 3,91, Total Two Wheelers 18,29,534 19.3

331

22,94,752

351 6.0%

23,46,258 | 2.2% | 18,9 | 17,7

36

SIAM Segment wise Comparative Production, Domestic Sales & Exports data for the month of (Number of Vehicles) Category **Production Exports** February Segment/Subsegm **February February** 2024 2024 2025 2024 2025 2025 Passenger Vehicles* 1,51,538 1,46,265 -3.5% 1,15, 1,10, -4.3 31,4 24,2 -22.9 Passenger Cars 31,3 Utility Vehicles 10.6 1,91, 2,08, 9.1% 21,8 43.9 2,21,955 2,45,508 -5.4 Vans 13,248 12,420 |-6.3% | 12,1 | 11,4 784 1,00 27.8 Total Passenger Vehicles 3,86,741 4,04,193 | 4.5%|3,19, |3,31, 3.7% 54,0 56,6 4.8% Three Wheelers Passenger Carrier 66.028 71,693 | 8.6% | 43,1 | 46,1 | 6.8% | 25,2 25,8 2.5% **Goods Carrier** 10,797 10,465 -3.1% 10,0 | 10,6 | 5.9% 638 199 -68.8 E-Rickshaw 754 741 650 | -13.8 | 1,50 -50.9 E-Cart 444 -21.7 480 333 -30.6 567 **Total Three Wheelers** 83,252 6.5% 55,1 57,7 4.7% 25,8 26,0 0.7% 78,146 Two Wheelers Scooters 5,67,463 6,05,501 6.7% 5,15, 5,12, -0.5 47,3 44,7 -5.5 Motorcycles 12.19.447 12,08,538 -0.9% 9,64, 8,38, -13.12,80, 3,45, 23.4 Mopeds 42.624 44.423 | 4.2% | 41.0 | 33.5 | -18.2 | 576 | 942 63.5 **Total Two Wheelers** 18,58,462 | 1.6% | 15,2 | 13,8 | -9.0% | 3,28, | 3,91, 18,29,534 19.3 Quadricycle 331 351 6.0% 36 3 -91.7 456 258 -43.4 **Grand Total** 22,94,752 23,46,258 | 2.2% | 18,9 | 17,7 | -6.4% | 4,08, | 4,74, 16.1 BMW, Mercedes, JLR, Tata Motors Society of Indian Automobile

Quadricycle

Grand Total

* BMW, Mercedes, JLR, Tata Motors Society of Indian Automobile

14th SPECIAL STEELS CONVENTION

18 April 2025

(On Digital Platform)



Green Steelmaking

Market Dynamics

User's Perspective

Digitalization

Organised by



In association with





www.electromagneticindia.com



A COMPLETE **SOLUTION FOR** STEEL INDUSTRIES

Electro magnetic industries for over 43 years, have lead the industry in producing Magnetic Separator/Vibrating equipments for the control and removal of ferrous tramp metal from product movement and processing system.



RECTANGULAR LIFTING **ELECTRO MAGNETS**



ELECTRO HYDRAULIC ORANGE PEET GRAB



VIBRATORY FURNACE CHARGER



FURNACE LINING VIBRATOR



HYDRAULIC PUSHER

























OUR PROJECTS



Corporate office & Works:

Plot No: 1, Unit: 2, GIDC Industrial Estate, Por-Ramangamdi, Vadodara 391 243, Gujarat, India

- www.electromagneticindia.com
- sales@electromagneticindia.com
- 6+91-937-621-9322
 - ¢ +91-982-502-8823
 - \$+91-932-724-5492

REPRESENTATIVES / AGENT REQUIRE FROM ALL OVER THE WORLD

