



# ELEMENTAL

Aluminium & Power Business' Monthly Newsletter

HAPPY  
New Year

## CEO's MESSAGE



**Ajay Kapur**

CEO - Aluminium & Power,  
and MD - Commercial,  
Vedanta Ltd

As a new year dawns upon us, my heartfelt thanks to each of you for your unflinching support and can-do attitude which helped us not only weather one of the toughest years in recent times, but impressively, create milestones! Stepping into 2021, I urge you to partake in our shared vision to create value for our country, customers & communities.

Wishing you and your families a safe, warm and joyous New Year!

## Dy. CEO's MESSAGE

The year 2020 saw us emerge victorious despite the challenges that came our way, proving that as a team, we have the fortitude and expertise to face all challenges with confidence. Let us continue to raise the bar for ourselves for 2021 beckons us all to achieve our aspirations and emerge with top honors.

To you and your families, I wish a very happy, healthy and prosperous new year!



**Rahul Sharma**

Dy. CEO - Aluminium  
Business

## SPECIAL ISSUE:

Presenting a compendium of our achievements in 2020, and some highlights from December.

### 2020 MILESTONES

Digital Smelter Solution  
Innovation Cafés

### HSE & SUSTAINABILITY

Setting Benchmarks in Water  
Sustainability

### SPECIAL INITIATIVES

Nukkad Natak for Safety

### AWARDS & ACCOLADES

HR & Sustainability Awards

### MEDIA HIGHLIGHTS

Auto Components India

### Deployment of Digital Smelter Solutions at one of the World's Largest Aluminium Smelters

We are in the process of deploying Digital Smelter Solutions at our Jharsuguda plant, which is the first such deployment of digital twin technology at any aluminium smelter in India, and the third in the world.

It uses digital twin technology, predictive and prescriptive analytics which enhances energy efficiency, reduces raw material consumption and arrests wastage of material through remote advisory system.



### Digital Logistics Control Tower Deployed to Streamline Logistical Efficiencies

We have end-to-end digital Logistics Control Towers for coal, alumina and bauxite with Machine Learning and Operations Research based mathematical modelling, have enabled us to do simulation-based planning, reduce costs and pilferages and improve efficiencies, impacting topline and enabling paperless operations.

### Innovation Cafés Launched to Foster a Culture of Innovation

Innovation and excellence are the hallmarks of Vedanta's exceptional performance culture. With a vision to not only develop business applications, revenue models and new products, but truly invent indigenous technologies ourselves which are perfectly customized to our assets and processes, Innovation Cafés were launched across all Aluminium & Power Business Units.



## Business Transformation Case Study published globally by SAP

Vedanta Aluminium & Power Business was the first in aluminium as well as metals sector to implement the full-scope of SAP S/4HANA, which provides real-time analytics for enterprise-wide business insights. Last year, SAP documented the business transformation case study and released it globally, outlining how our business set a 'Foundation for Growth with Intelligent Technology'.



## Best ever Net Station Heat Rate (NSHR) in Q2 and Zero Coal Import in 2020

An indicator of superlative operational excellence and process efficiencies, our world class supercritical power plant TSPL achieved best ever Net Station Heat Rate in Q2FY21, while also setting a historical milestone with zero coal import in 2020.

## Lowest Ever Specific Power Consumption, a Benchmark in India

BALCO, our iconic subsidiary, has achieved lowest specific power consumption in potlines, setting a benchmark in India. It has also delivered best ever cost in last few years by restructuring its cost levels across all elements.



## Mr. Rahul Sharma's visit to Jharsuguda and BALCO

On his maiden tour as Dy. CEO - Aluminium, Mr. Rahul Sharma visited our Jharsuguda and BALCO operations. He interacted with the employees and leaders, thanked them for their unfailing dedication which made us resilient during the pandemic, encouraged them to deliver their best for the progress of our country, communities and company.



## Mr. Andrew Lewin's visit to Jharsuguda

Head-Group HSE & Sustainability, Mr, Andrew Lewin, toured the Jharsuguda operations recently, where he interacted with the BU leadership, HSE & operations teams, and reiterated Vedanta's commitment to 'Culture of Care' and 'Zero Harm'. Besides our operations, he also visited Runaya plant and Subhalaxmi Co-operative.

## Celebrating Energy Conservation Week

Commemorating the National Energy Conservation Day, our Jharsuguda unit conducted a series of awareness sessions and disseminated information on energy efficiency and conservation among its employees, business partners and community. The drive included energy awareness campaigns at various site locations & community schools, online quiz competition for employees and best energy conservation idea competition for business partners.



## Safety Awareness at TSPL Through Nukkad Natak

TSPL's Safety team collaborated with employees for a street play on the importance of machine guarding and Isolation (LOTO) during maintenance activity. The program concluded with an on the spot safety quiz for audience along with rewards and recognition

**Bio-Culture Kits Distribution**

TSPL distributed bio-culture kits to farmers under its agriculture-based sustainable livelihood project, 'Navi Disha', which has an outreach of over 1100 farmers from 26 villages of Mansa and Bhatinda districts of Punjab. These kits are mixed with the seed while sowing and act as nitrogen fixers, increasing nutrition for crops.



**Vedanta Brings BUDDHI, IIT developed AI kits, to Jharsuguda Schools**

Vedanta is providing BUDDHI (build, understand, design, deploy human-like intelligence) kits, developed by IIT Delhi's start-up CyranAI Solutions Pvt. Ltd. to students, which will help them bridge the gap between theoretical and practical aspects of AI for end-users.

**Intensive HIV/AIDS Awareness Campaign at Community Level**

Our Lanjigarh & Jharsuguda units organized knowledge-sharing and sensitization sessions, reaching out Nand Ghar beneficiaries, members of the community, migrant workers and more. Various facts about the disease like the symptoms, modes of transmission and precautionary measures were also elaborated during the program.



**Lending a Helping Hand to District Administration**

SP of Korba, Mr. Abhishek Meena, along with other police officers felicitated the BALCO Security team for the company's efforts in aiding the district administration to maintain law and order in Balconagar area.

## MR. AJAY KAPUR REPRESENTS VEDANTA AT

- ASSOCHAM FOUNDATION WEEK**

Sharing his vision of an Aatmanirbhar Bharat, Mr. Ajay Kapur stressed upon the need to figure out ways to make India become a net exporter instead of an importer.



- ECONOMIC TIMES WATER CONCLAVE**

He shed light on our extensive initiatives towards water conservation, in pursuit of a sustainable tomorrow and our core tenets of Zero Harm, Zero Waste and Zero Discharge.



- ECONOMIC TIMES GLOBAL DIGITAL LEAGUE**

Sharing his insights on 'Boardroom Strategies for a Sustainable Manufacturing Eco-System', at The Economic Times Global Digital League, Mr. Ajay Kapur also elaborated on how "India can become the manufacturing hub of the world".



- NATIONAL CONFERENCE OF KCC INSTITUTE**

From sustainability to economic revival, Mr. Kapur had an insightful discussion on strategies for sustainable manufacturing at the National Conference organised by KCC Institute, Noida, on 'Transformation of the Indian Economy'.



## MR. RAHUL SHARMA AT THE FICCI POLICY ROUND TABLE



In an insightful interaction with the Minister of Steel, Mines & Work, Govt. of Odisha, Shri Prafulla Kumar Mallik, at the FICCI Policy Round Table, Mr. Rahul Sharma deliberated on progressive mining reforms for making Odisha a global mining powerhouse.

## SWEEPING VICTORY AT THE GREAT MANAGER AWARDS

### COMPANIES WITH GREAT MANAGERS

### GREAT MANAGERS



Vedanta Ltd., Lanjigarh



BALCO



Vedanta Ltd., Jharsuguda



Rahul Sharma  
Dy. CEO - Aluminium  
Business



Sandeep Modi  
CFO (BALCO)



GG Pal  
COO - Metal  
(Jharsuguda)



Pravin Kumar  
Head - Aluminium  
Expansion (Jharsuguda)



Ajay Kumar Sharma  
Chief Safety Officer  
(BALCO)



Krittika Bhatt  
Community Development  
Officer (TSPL)

### TA PAI YOUNG HR LEADER

### CIO100 HALL OF FAME



Parimita Behera  
Dy. CHRO (Lanjigarh)

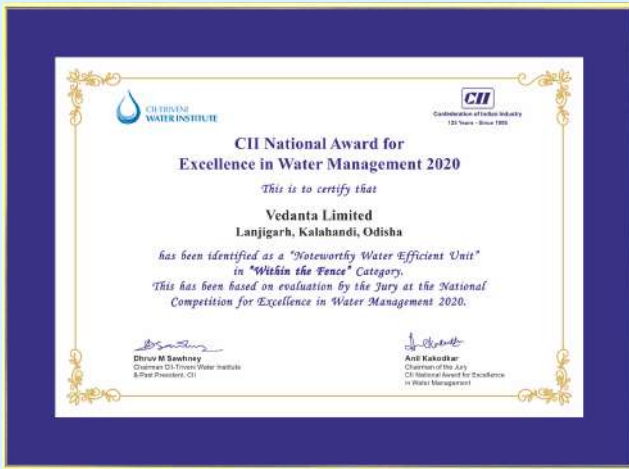


Subrata Banerjee  
Chief IT & Digital Officer  
(BALCO)



Abhijit Pati, CEO & Director (BALCO), recognised among

**"MOST PROMISING BUSINESS LEADERS OF ASIA 2020-21"**



**CII National Award for Excellence in Water Management (Lanjigarh)**



**ABC BRONZE AWARDS**

- Aluminium & Power Business: For PR Campaign for Reviving Dhokra Art
- BALCO: For e-magazine BALCO TODAY



**Commendation at CII-ITC Sustainability Awards 2020 (BALCO)**



**Apex CSR 'Gold' Award for Community Development Program (TSPL)**



**Greentech Corona Warrior Award 2020 (Jharsuguda)**



Click on the stories to read more



## Weld Fab Tech Times

## Construction Times

**INTERVIEW**

**“The Indian aluminium demand is growing at a CAGR of ~10%, on a mid-term basis. In the next 10 years, the demand is anticipated to increase to over 12 million tons, faster than the current 6-7% GDP growth rate.”**

**Q1. Vedanta Ltd is a globally diversified natural resources company with interests in iron-lead-silver, iron-ore, Steel, Copper, Aluminium, Power, Oil and Gas. How has been the journey so far? What keeps you committed towards a mission “To create a leading global natural resource company”?**

**A. The journey of Vedanta Group has been phenomenal if you look at how new the company is as compared to its domestic and global peers. Duilt with a single vision by the Group Chairman, Mr. Anil Agrawal – “to create a leading global natural resource company”, today Vedanta Limited is the world’s 6th largest diversified natural resources conglomerate with business operations in India, South Africa, Namibia, UAE and Australia. We a leading producer of Aluminium & Power, Oil & Gas, Zinc, Lead, Silver, Copper, Iron Ore, Steel etc.**

**Q2. In India, it indirectly contributes ~1% towards India’s GDP as per IFC Institute for Competitiveness. Vedanta’s ever-expanding portfolio follows a history of technological advancements and sustainable development, backed by world-class standards of corporate governance, safety, sustainability and social responsibility. Vedanta’s Aluminium & Power Business is India’s largest producer.**

**ALUMINIUM - VEDANTA**

**The domestic industry needs to deepen R&D and innovation capabilities.**

**AJAY KAPUR**  
CEO - Aluminium & Power Business  
Vedanta Ltd

**Could you please brief us on the current market trends for the Indian Aluminium Sector?**

With the world’s 5th largest reserves of bauxite and coal, India has the second largest aluminium production capacity in the world at 4.1 million tonnes per annum (MTA). While the country’s primary production grew at about 10.3% CAGR between FY18 and FY20, aluminium consumption grew at a much lower CAGR of 3.3% in the same period. 42% of total demand in the country is met through domestic production whereas 58% is imported, of which aluminium scrap is 63% and growing at ~12% CAGR (FY18-FY20).

**What has been the impact of the pandemic on this segment so far?**

Outbreak of the pandemic and associated lockdowns have brought home our set of challenges for the Indian economy. Building & Construction (B&C) segment exhibited less the resumption of activities in late March, real estate developments or large infra have kept few projects active due to reduced labour availability and credit tightness. The seasonal slowdown in demand from the B&C sector during recession was exacerbated by the effect of Covid-19 restrictions. Global competitors have faced several issues across the country to contain spreading virus across its workforce. The construction sector, even after the central government had relatively eased them, has had far slower than usual recovery of post-recession construction demand in Tier-1 and Tier-2 cities. However, the domestic aluminium industry has continued despite all setbacks.

**What was the impact of the pandemic on your business performance?**

At Vedanta’s Aluminium Plant, we have not only sustained production at full capacity by leveraging our automation and digital technologies, but also used the opportunity to drive changes into our R&D capabilities, work closely with our customers, reassess our product and market strategies, and streamline efficiencies for leading the industry in a post-pandemic world. We have strategies in place to ride on our planned course of action, which includes continuing our production, sales and over expansion plans. The past months have truly tested our resilience and made us more resilient and agile. Although the world is far from calm and we are yet to see the entire picture of the pandemic’s impact on

**CONSTRUCTION TIMES** November 2020

## Auto Components India

## Efficient Manufacturing

**Aluminium in the automotive industry**

Aluminium in automobiles has been used for several years and its consumption in new vehicles is increasing steadily. Over the past several years, usage of aluminium in automobiles and light-weighting of trucks has witnessed the highest growth in comparison to other aluminium applications, in any segment of use.

High strength to weight ratio, lightweight, corrosion resistance, supreme formability, high ductility and conductivity, smooth finish and infinite recyclability, coupled with the fact that bauxite (aluminium ore) mining is sustainable and eco-friendly, are some of aluminium’s unique selling properties which have made it a material of choice for some of the most iconic automobiles. High performance and elegance need not come at the cost of high fuel consumption, high maintenance and environmental impact, and

**Aluminium is the second most used metal in the world after steel. It has the potential to become the most important commercial metal in the future. Aluminium holds strategic importance for the economy as the commercial metal of choice for all kinds of transportation, power, aerospace, defence, infrastructure and packaging needs. Backed by rich bauxite deposits, India has the second largest aluminium production capacity in the world after China. Vedanta’s Aluminium Business produces more than half of India’s aluminium**

**“Aluminium will play a significant role in supporting critical and new-age industries”**

Vedanta Aluminium & Power Business, a producer of aluminium, directs its efforts towards increasing its production of aluminium and is investing in the development of high quality value-added products that enable the company to create a wide range of offerings. In this interview with IFC Institute, Ajay Kapur, CEO, Vedanta Aluminium & Power Business, shares how the competitiveness of the domestic aluminium industry is pivotal, how the demand for aluminium will rise on the account of infrastructure for serving EVs and how the company is working towards a sustainable future. Excerpts...

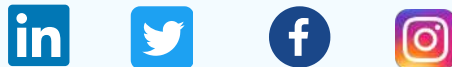
**You say that the work from home hack, because of COVID-19, works for you, such as it helping in adopting digital technologies, becoming more agile or simply saving travel time, leading to more opportunities to reflect, innovate and strategize. How have you turned this pandemic into an opportunity instead of a challenge for your company?**

When this pandemic first broke out, our teams were immediately engaged to monitor the progression of the impact and respond appropriately. Having multiple air stations making us far better to the connectivity of all the teams across locations, which means a big step in keeping our business moving without any interruptions. Several digitalisation initiatives have also been undertaken to maximize operational time to reduce the business impact. The company has adopted image, video analysis, statistical analysis, structural analysis, etc. to make it more and more available in real time with a CAGR of 10-12%.

**How do you think aluminium producers in India can deliver to the domestic demand of the country, with the Automotive Ecosystem and the recent debate with China? What are the challenges that stand in the way and how can they be overcome?**

India’s unique advantage of abundant raw material availability and abundant bauxite reserves need to be leveraged to develop a globally competitive aluminium industry. The competitiveness of the domestic aluminium industry is pivotal to the success of all government initiatives. The “Make in India, smart cities, power for all” and the ambitious space programme. To overcome the challenges the sector is facing, it requires a strategy for security of raw materials, like

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