



EASTERN COMFORT

REINVENTING THE FUTURE SUMMIT IN BHUBANESWAR HAD SOME KEY TAKEAWAYS ACROSS FIVE CATEGORIES

MANUFACTURING IS THE PROCESS OF

creating value for society as per their need both in quantity and quality by converting raw materials which are natural resources to usable goods with the help of manpower and machines. Satish Pai, deputy managing director, Hindalco, began with the definition in his keynote address at the Manufacturing Today Reinventing the Future Summit, focused on 'Innovation at Work', in Bhubaneswar.

It is easy to sense his passion and stress on the manufacturing industry in India as he cites statistics to back it. "We had 50 million jobs in manufacturing in 2010, which rose to 54 million in 2014. There is a delta of 85 million jobs that can be created if this sector can grow. If we have to grow at 25% share of the GDP, then manufacturing must at 15%," he adds.

However, to grow, he says that there are certain challenges we must tackle — Infrastructure, roads, rail and logistics are the biggest barriers. Citing the four other challenges of manufacturers, he says, "A big challenge I faced was moving raw materials to

the plant and the finished goods to the customers. A large part of our client base is in west India and in Silvassa. With natural resources more or less in the east of the country, it was challenging to look at moving things from the ports. Indians are forced to set up captive power plants which is not so in the western world. Then there is the challenge of importing raw material, in spite of our plentiful resources, and the fourth challenge, and critical in today's juncture, is uneven playing field."

1. Satish Pai delivered the keynote address.



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Manufacturing Today partnered with IIT (Bhubaneswar) as official technology institute, and KIIT University. BDB India played the role of market research partner. We carried our five subjects of Quality, Technology, People Initiatives, Sustainability and Cost Optimisation to Bhubaneswar too. The forum saw presenters from Tata Sponge Iron Ltd, Paradeep Phosphates, Jindal Stainless Steel, Jindal Steel & Power, RSB Transmissions (I) Pvt Ltd, Tata Steel, and Vedanta.

Innovation and R&D is the high road that Indians need to take. "There's a trend among Indians to work abroad at R&D labs and create new marvels and then sell it to India. Instead, why can't we create it here and for the country?" asks Pai.

The day-long event also saw the presence of a jury such as N Nagesh, joint president (projects), Utkal Alumina; Manish Kulkarni, director, strategic initiatives, BDB India Pvt Ltd; Dr Raju Mistry, group head, talent staffing, Aditya Birla Group; TK Mishra, retired from Siemens India.

THE FORUM STARTED with a panel discussion moderated by BS Pani, head, Span Resources Management Consultants and accompanying were panellists KK Dave, chief operating officer, Sesa Sterlite Limited; DS Ravindra Raju, whole time director, Paradeep Phosphates; Bimal Mishra, senior VP, RSB Transmission and N Nagesh of Utkal Alumina.

Pani began the discussion making a case for eastern India, and Orissa in particular. His concern is the sheer lack of focus on downstream industries, and the reluctance to create jobs for the next generation.

Speaking about the Industrial Policy Resolution (IPR2015) launched in Bhubaneswar, Ravindra Raju said, "The initial reaction to IPR2015 catapulted Orissa to number 7 in the World Bank rating. India needs

region wise development. The East has been left far behind for too long. It needs to catch up with the rest of the country. In terms of ease of doing business, the CII has submitted 98 framework points and the government is looking at each of them keenly."

Dave spoke about how Orissa has not yet allocated any deposits of bauxite at G2 level. "They could have offered the same for auction. We have to import in bauxite to operate our plants. There is then the problem of competing with the Chinese," he added.

Any mining project needs a good strategy. Most plants are in remote areas and access is limited. Procuring raw material and its security is also a major issue. Speaking of India's enormous reserves, Nagesh said that if the government plays a proactive role in auctioning reserves, it would send one mining company in the western world into oblivion.

The fact that RSB Transmission is yet to get its incentive applied for under IPR2007 rankles, says Mishra. "We are the only auto components company to set up in a government declared auto park and the connectivity continues to remain poor. If this is the case, I don't see a bright future," he declares.

In the Technology category, the team from Paradeep Phosphates explained how a modification of an ignition plug and pilot gas gun assembly for the combustion chamber in gave them substantial benefits. The company was losing production due to the constant delay in starting up the fertiliser train. The creation of the new gun offered a longer flame and this gave zero down time, low maintenance and reduction in LPG consumption.

Jindal Stainless Steel, a joint winner in Quality, was compelled to reinvent its 409L grade when a customer requested the vendor to make a material that has enhanced properties of deep drawing of tube bending and tube flaring application. The company reworked the entire process by going back to the drawing board.

The next category was Cost Optimisation, where another team from Paradeep Phosphates revealed their chance of improving the scrubbing plant and reducing emissions. Improvements then followed in dust scrubbing, and furnace oil consumption.

The joint winner in Cost optimisation, Jindal Steel & Power, related their experience in the filter unit. Their target was over power saving and elimination of manpower cost. Using a technique of define,

**Mr Bimal Mishra,
RSB, Bswr, in Expert
Panel Discussion**

2. Winners in the Quality category were Jindal Stainless Steel.

3. The hugely successful panel discussion drew a good round of applause.

4. The Editor's Choice award went to the team from Vedanta.



5. The joint winner in Sustainability went to Jindal Stainless steel.

6. Tata Steel bagged second place in Sustainability.

7. The joint winner in Cost Optimisation was Paradeep Phosphates.

8. Jindal Steel & Power emerged joint winner in Cost Optimisation.

9. The joint winner in Sustainability category was Paradeep Phosphates.

10. The winner in the Technology category was Paradeep Phosphates.

11. RSB Transmission won in People Initiatives.

measure, analysis, improve, and control, it reduced the number of compressors to one from the earlier three, and saved considerably.

The third team from Paradeep Phosphates presented its case in Sustainability. The company found a way to convert phosphogypsum, a byproduct during making phosphoric acid, into granulated phosphogypsum. In a day it generated 5,000mt of phosphogypsum, which contains acid, chlorides and phosphates and is hazardous. The granulated phosphogypsum became a brand under gyprite that was then sold. The joint winner Jindal Stainless Steel spoke about how it successfully recycled content and limited use of primary raw materials while reducing energy consumption drastically.

The second winner in this category, Tata Steel, improved the performance of ESP and utilised fly ash effectively. Power plants alone produce 170 tonnes of fly ash every year and about 98,700 acres of land are used by ash ponds. Effective use of fly ash is necessary for a sustainable future.

In People Initiatives, RSB Transmission spoke about how it attends to the rural folk in Orissa and Bhubaneswar where it has its plant. As a CSR activity, it runs a full-fledged team comprising a medical team and offers free medical check-ups to the people around the villages and schools.

And finally, in the Editor's Choice Award, the Vedanta team won hands down. It presented a case study on how producing one tonne of cement requires about two tonnes of raw materials and releases CO₂, about 3kg of nitrogen oxide, and 0.4kg of PM10. The fly ash generated at the company's plant is effectively used to produce geopolymers. Geopolymer can be made with waste material and slag; the only premise being it contains silicon and aluminium.

The technical institute partner, IIT (Bhubaneswar) delivered a presentation on automation in the industry. Robots are more flexible as to the orientation of the object or the task that has to be performed. For example, for more precise guidance, robots often contain machine vision sub-systems acting as their visual sensors, linked to powerful computers or controllers. In its presentation, the team from KIIT said that the market needs better manufacturing practices. Of the R&D done in India, about 56% is tied to auto, aerospace, chemicals and electronics. He emphasised on the benefits of the Toyota Production System.

The jury awarded the excellence portrayed by the presenters and found it difficult to choose the winning team. The evening ended with an awards presentation and elaborate networking.

Dr BK Sahoo, RSB, Mania, receiving People Initiative Award for CSR work.