

THE MACHINIST

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“WE ARE INVESTING RS 5,300 CRORE IN INDIA”

In an exclusive interview

Keerthi Prakash, Managing Director, Renault Nissan Automotive India Pvt Ltd talks to **Rahul Kamat** about how RNAIPL is actively aligning its strategies with the latest trends, commitment to designing and manufacturing new models, including electric vehicles, and tailored to meet the demands of the Indian market.

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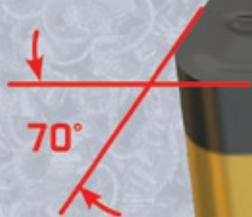
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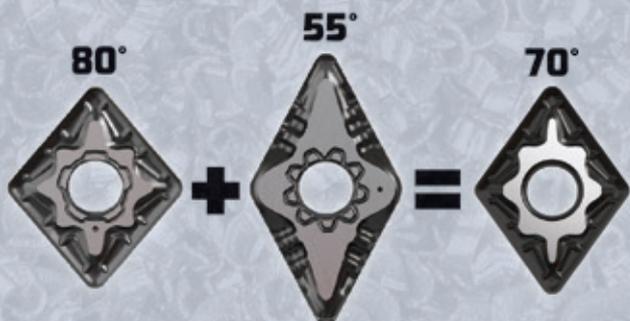
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BEYOND NUMBERS: A LESSON IN UNPRECEDENTED EXCELLENCE

In the world of cricket, there are few players as enigmatic and versatile as Glenn Maxwell. As the cricketing world stands witness to an extraordinary feat, his World Cup 'Double Hundred' is not just a remarkable achievement; it is a masterclass in resilience, adaptability, and the pursuit of excellence. This record-breaking performance offers invaluable insights and lessons that extend far beyond the cricket pitch, inspiring all who seek to excel in their respective fields.

Maxwell's World Cup Double Hundred is a testament to his audacious style of play. He is unafraid to challenge the conventional norms and push the boundaries of what's possible in the game. In our lives and careers, this teaches us the importance of stepping out of our comfort zones and striving for excellence by daring to do what others might consider impossible.

Throughout his career, Maxwell has showcased the ability to adapt his game to the demands of different formats. This adaptability has been on full display in the World Cup, proving that versatility is a prized asset in any profession. In the ever-changing landscape of our modern world, being able to adjust and evolve is a skill that should not be underestimated.

That said, Maxwell's journey to the World Cup Double Hundred has not been without its fair share of struggles and setbacks. However, his unwavering commitment to his craft and his belief in his abilities have been unwavering. It is a lesson that reminds us to persist and remain resilient in the face of adversity, knowing that success often comes after enduring challenges.

Despite the spotlight on his performance, Maxwell has never lost sight of the team's success. He values collaboration and teamwork, understanding that it takes a collective effort to reach new heights. This echoes the importance of working together for a common goal, whether it's on the field or in the workplace. Maxwell's double hundred in the World Cup is a testament to the idea that records are meant to be broken. It encourages us to challenge the status quo, break existing boundaries, and set new benchmarks for ourselves in our endeavours.

Glenn Maxwell's World Cup Double Hundred is more than just a numerical milestone; it is a symbol of human potential and the relentless pursuit of greatness. It serves as a source of inspiration and motivation for individuals and teams alike. Regardless of whether one is a cricket enthusiast, Maxwell's incredible achievement reminds us that the pursuit of excellence is a journey filled with valuable lessons for all walks of life. As we celebrate his remarkable feat, let us also celebrate the lessons we can draw from this ongoing cricket spectacle and apply them to our own aspirations and ambitions.

Happy Diwali

R Kamat
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CONTENTS



COVER STORY

“We are investing Rs 5,300 crore in India” **26**



MACHINERY

Once producing 13 machines per year, Biese now produces 2,000 machines yearly **32**

Editorial 4

News 8

Programme management:

The Roadmap of PMO from Tactical to Strategic.....46

Products 49



CUSTOMER EXPERIENCE SOLUTIONS

“Data-driven CX is essential for manufacturers to unlock customer insights and make informed decisions” **14**



CASE STUDY

Mobil elevates India’s machining sector with quality lubricants -- **22**



TOY MANUFACTURING

Aequis is well placed to tap into the ODM services market with its own ideas and designs----- **38**



LEAN MANUFACTURING

The future of integrated AIDC led by lean manufacturing ----- **42**

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TVS Motor launches TVS RONIN special edition

AFTER SUCCESSFULLY CARVING a new segment in the two-wheeler industry with the TVS RONIN, the first 'modern retro' motorcycle, TVS Motor Company has launched a special edition variant of its motorcycle this festive season.

In line with its ethos of celebrating and encouraging riders to make their own move without following a script, the all-new TVS RONIN Special Edition motorcycle comes equipped with a host of new upgrades to amplify their #Unscripted experiences.

Vimal Sumbly, Head Business, Premium, TVS Motor Company, said, "As a passionate motorcyclist, there's no telling where your ride will take you

or what unexpected experiences you'll encounter along the way – that's where the TVS RONIN comes in with its modern-retro build and loaded features. TVS RONIN was launched last year as the first premium lifestyle segment motorcycle from the house of TVS Motor. One year later, our #Unscripted modern-retro motorcycle is inspiring thousands across India to write their own stories in their own way. With this new edition, we are confident to take that journey forward and chart exciting journeys."

The new TVS RONIN TD will be



available in the colour - Nimbus Grey, at an exciting price point of Rs 1,72,700.

Kirloskar Pneumatic announces Q2 and H1 FY 24 Financial Results

KIRLOSKAR PNEUMATIC COMPANY LTD (KPCL),

a prominent player in the Air, Refrigeration, and Gas Compression industry in India, has reported its financial performance for the second quarter (Q2) and the first half (H1) of the fiscal year FY 24.



In Q2, the company experienced notable growth in revenue from operations, surpassing 16 per cent compared to Q1. However, H1 revenue fell by approximately 8 per cent when compared to the same period in FY 23, primarily due to a decrease in export sales amounting to Rs 47 crore.

Despite the challenges in H1, KPCL maintained a robust order booking, securing over Rs 340 crore in new orders, surpassing H1 of FY 23. As of September 30, 2023, the company had a backlog of orders worth Rs 1,450 crore, which is expected to contribute to a strong second-half (H2) sales performance, resulting in year-over-year sales growth.

In Q2 of FY 24, the company achieved a Profit Before Tax (PBT) of Rs 26.8 crore, marking a 14 per cent increase over the Q1 FY 24 PBT of Rs 23.5 crore. However, for H1 of FY 24, the PBT was reported at Rs 50.3 crore, down from the previous year's Rs 57.6 crore, mainly due to reduced sales, especially in the export market during the current period.

To enhance its market presence, KPCL introduced the Aria range of competitively priced standard air compressors, targeting a market segment that has predominantly relied on imports.

With the establishment of the Forging and Fabrication facility in Nashik, the company has achieved greater vertical integration and competitiveness in terms of its product offerings and execution speed.

The compression business remains the primary source of revenue for the company, contributing to around 90 per cent of its total revenue and remains the sole reporting segment.

Volkswagen India adds another 'All-Women operated City Store' in Ahmedabad

VOLKSWAGEN Passenger Cars India has announced that the City Store SP Road, Ahmedabad, Gujarat would be its 2nd 'All-Women operated City Store'.

Following the successful launch of the first store in Coimbatore, Volkswagen India in partnership with Automark Group has expanded this initiative to the state of Gujarat.



The 'All-Women operated City Store' employs over 10 dynamic women professionals who will oversee every aspect of operations, from sales and after-sales service to test drive management, customer care services, housekeeping, security, and more. The showroom boasts of a four-car display showcasing the latest product portfolio, which includes the Volkswagen Taigun, Virtus, and Tiguan.

With the learnings from the first All-Women operated City Store in Coimbatore, the company aims to offer an even more engaging environment to its customers.

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Ultraviolette to make a debut at EICMA 2023

ULTRAVIOLETTE, an innovator in sustainable mobility is poised to debut at EICMA 2023. EICMA - the world's largest and most prestigious two-wheeler exhibition is scheduled to take place in Milan, Italy, from November 7 to 12, 2023.

Ultraviolette will be unveiling the International Spec F77, India's first high-performance electric motorcycle at the event. The F77 will not only mark Ultraviolette's debut in the European markets but is also set to become one of the most advanced electric two-wheeler platforms worldwide. This announcement underscores Ultraviolette's commitment to constantly



push the boundaries of innovation and technology not just in India but also in the global markets.

The company's flagship electric motorcycle - the F77 has been designed and developed completely in India.

The F77 will be launched internationally within the first year of its production.

Ultraviolette will have a cutting-edge product showcase at its Futuristic Zone - The UV Space Station that will accommodate multiple motorcycles, technology demonstration and merchandise. The UV Space Station will offer an exciting and immersive experience to the visitors

at 2023 EICMA. Ultraviolette aims to showcase its expertise in performance motorcycles - previously driven by the legacy European and Japanese motorcycle brands participating at the event.

LANXESS and Tennants to design solutions for industrial plant hygiene

LANXESS, one of the world's largest suppliers of antimicrobial protection products, and Tennants GmbH, Bielefeld, Germany, have agreed on a cooperation for integrated solutions in the field of industrial plant hygiene.

The partner will deploy ATP technology to detect a possible contamination quickly and reliably with microorganisms.

Philipp Seidenstuecker, Global Marketing Manager Paints and Coatings in the Material Protection Products (MPP) Business Unit, LANXESS, explains, "Plant hygiene is a key element of proper preservation, especially in our ever tighter regulatory environment. The ATP technology from Tennants is an excellent way to monitor the hygiene level in the factory and to support the most efficient use of biocides. Customers of both companies benefit equally from this cooperation."

Jasper Stegeman, General Manager ATP Technology at Tennants, said, "LANXESS' comprehensive biocide solutions are a perfect match to our ATP technology to help our customers maintain their industrial plant hygiene."

This combination does not only account for paints and polymer manufacturing but also for the processing

industries, including chemicals for inks, adhesives, plastics, textiles, leather, metalworking fluids, lubricants, and building materials.

Preventive hygiene control serves sustainability

Inadequate industrial plant hygiene can lead to microbial disruptions or contamination of raw materials, production water, equipment, and end products. Contaminated materials, which can lead to equipment failure and loss of productivity, are counterproductive.

Therefore, proper industrial plant hygiene, preservation with appropriate biocide formulations, and efficient, real-time, and quantitative microbial control mechanisms such as ATP technology are essential for sustainable production.

ATP technology can reliably quantify microbial content in any sample such as water, chemically complex samples, solids, and surfaces.

It provides results within minutes. "No microorganism goes undetected



in quantitative analyses using 2nd generation ATP technology. There are no false-positive or false-negative results compared to conventional methods," Stegeman explains.

The test can be performed both in the laboratory and directly on-site at the plant. ATP technology can be used to determine the concentration of total biomass, including bacteria, yeasts, and moulds. The emphasis on using the tests is on prevention, not post-treatment.

"As a next step, we are planning joint webinars on ATP technology, plant hygiene and material preservation to explain the benefits of this holistic approach to our customers," announces Seidenstuecker.



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Charzer brings EV Charging on WhatsApp

CHARZER, a leading EV charging station aggregation platform, has introduced a new WhatsApp feature to offer hassle-free charging for EV users. This new feature aims to make EV charging more accessible and user-friendly, particularly for individuals who may find mobile applications challenging to operate.

The company noticed fleet drivers encountering difficulties when operating new mobile applications. Recognising the widespread use of WhatsApp across various age groups, Charzer's solution simplified the process by allowing anyone to start charging their EVs with just a simple 'Hi' sent to 7829330410 on WhatsApp. Users can send the text in Hindi, Telugu and Kannada as well.

During a successful pilot program with fleet partners, Charzer reported a reduction of driver training time to just 2 minutes, as drivers were already



familiar with WhatsApp. This feature also provided fleet managers with more time to focus on operational tasks and eliminated the need for constant coordination between managers and drivers for charging activities.

The feature enables users to remotely initiate and halt their EV chargers via WhatsApp and carry out a real-time monitoring of charging progress.

The company has incorporated a user-friendly complaint system which allows customers to address any concerns that might arise during the charging process.

Further, any EV fleet, apartment community, or office can request a charging station installation at zero upfront cost.

Sameer Ranjan Jaiswal, CEO and Co-Founder, Charzer, said, "We are excited to launch this new Whatsapp feature that can make it much easier for our users to use our charging stations. With this new feature, users can start charging their EVs without the need to download an additional app, making the process more accessible, particularly for individuals who are not tech-savvy."

Castrol India reports Q3 2023 results with 6 per cent revenue growth

IN THE THIRD QUARTER of 2023, spanning from July to September, Castrol India has reported a 6 per cent year-on-year growth in Revenue from Operations. This figure increased from Rs 1,121 crore in the same quarter of the previous year (3Q 2022) to Rs 1,183 crore. Revenues in the preceding quarter (2Q 2023) reached Rs 1,334 crore. The Profit Before Tax for 3Q 2023 amounted to Rs 264 crore, marking a 4 per cent increase compared to the Rs 254 crore in 3Q 2022.

These figures demonstrate a robust performance for the nine months ending on September 30, 2023. Revenue from Operations for this nine-month period reached Rs 3,811 crore, reflecting a 6 per cent growth compared to the Rs 3,598 crore in 9M 2022. The Profit Before Tax for this period stood at Rs 857 crore, representing a 1 per cent increase from Rs 845 crore in 9M 2022.

Sandeep Sangwan, Managing Director, Castrol India Limited, commented, "Our investment in our brand has paid off with a 6 per cent revenue growth. Our new #BadhteRahoAagey campaign underscores our commitment to our

consumers. The next phase of this campaign will involve extensive on-ground activities tailored to support truckers in their pursuit of progress. We continue to expand our presence in rural India to meet growing demand."

Looking ahead, Sangwan acknowledged challenges like rising crude oil prices, global uncertainties, and inflationary pressures, further exacerbated by recent conflicts in the Middle East. However, he emphasized Castrol's commitment to leading the industry with a focus on aftercare, electric vehicles, and industry partnerships for automotive service and maintenance, ensuring Castrol remains synonymous with quality and reliability.

Key highlights from Castrol India in 3Q 2023 included:

Brand building:

The launch of the Castrol CRB TURBOMAX's #BadhteRahoAagey campaign, specifically targeting the trucker community.



A partnership between Castrol Power1 and Jio Cinema as the Associate Streaming Partner for Bharat GP, India's first Moto GP, catering to motorcycle enthusiasts.

Sustainability:

The company transitioned all its blow-moulded High-Density Polyethylene (HDPE) bottles manufactured and distributed across its supply chain network to include 30 per cent post-consumer recycled (PCR) content. This shift will result in a reduction of virgin plastic consumption by 1,800 metric tons and a carbon emissions reduction of 2,600 metric tons per year, following the earlier introduction of 100 per cent PCR bottles for Power1 Ultimate.

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“DATA-DRIVEN CX IS ESSENTIAL FOR MANUFACTURERS TO UNLOCK CUSTOMER INSIGHTS AND MAKE INFORMED DECISIONS”

Vasudeva Rao Munnaluri, RVP, India & SAARC, Zendesk underlines the importance of data driven customer experience (CX) in manufacturing and how these technologies are assisting manufacturers in finding new revenue opportunities in an interview with **Nisha Shukla**

What benefits do manufacturers stand to gain when they use AI-powered customer experience (CX) solutions?

AI helps manufacturers stay consistent, understand their customers better and gain actionable insights. In the CX context, this means being able to identify knowledge gaps and customer-facing issues before they spiral into bigger problems and reduce manual and repetitive work like warranty claims and order processing. A simple form submission can connect all the necessary customer information up front, including photos and customer details, with backend processes kicking off automatically. This efficiency is critical to manufacturers who want to scale up their business without adding excessive cost and complexity.

In essence, AI adds an intelligence layer that helps manufacturers recognise and anticipate customer needs. For example, AI can help manufacturers identify trends regarding demand and supply and streamline operations accordingly. In addition, intelligent chatbots powered with generative AI can help them achieve empathy at scale, ensuring responses are crafted in the right tone and handed over to live agents seamlessly to deliver an outstanding customer experience.

Zendesk's CX Trends Report 2023 found that by investing in CX, manufacturing companies have improved their first response time by 30 per cent, deflected 50 per cent of tickets with bots and reduced average first reply time by 30 minutes. With the right solutions, manufacturers don't have to spend heavily on IT infrastructure to build the AI solutions themselves. Intelligent CX solutions that integrate seamlessly into existing tech stacks already exist, making them far more accessible and easier to adopt.



Vasudeva Rao Munnaluri, RVP, India & SAARC, Zendesk

What is the importance of data driven CX in manufacturing?

Data-driven CX is essential for manufacturers to have a deep understanding of what their customers want and make informed decisions. The insights gleaned allow manufacturers to anticipate customer needs and potential issues by reviewing support data to identify common issues and, with the help of generative AI, instantly create help centre articles that address these issues.

Analysing customer data and interaction history can also help manufacturers personalise the experience, like providing customised recommendations and giving agents all the relevant context, they need to provide seamless support. It can also improve visibility to their staffing needs and agent productivity, allowing them to skillfully manage their teams during busy periods and reduce the need for hiring additional headcount. A

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FOR DETAILS





The ability to analyse organisational data across systems can help manufacturers gain a comprehensive picture of the performance of their CX strategies and how it's impacting other parts of the business. The invaluable customer history and feedback from comprehensive CX platforms can help manufacturers understand performance across brands, channels, and geographies, allowing them to tailor each customer segment's needs.

support team also receives plenty of customer feedback - a valuable source of information that can help improve processes and products to meet customer demands.

However, most manufacturers still rely on multiple tools that serve one specific function. And if these tools can't connect and unify their data, the silos created impede them from having a holistic view of their customers and business. CX technologies are a game changer here, especially the ones powered by AI and built on large CX-specific data sets. They can centralise regional, brand and support systems to create a unified, global brand experience that leverages customer information across the entire lifecycle, which enables them to understand their customers, identify patterns and improve their strategies in a data-driven manner.

The ability to analyse organisational data across systems can help manufacturers gain a comprehensive picture of the performance of their CX strategies and how it's impacting other parts of the business. The invaluable customer history and feedback from comprehensive CX platforms can help manufacturers understand performance across brands, channels, and geographies, allowing them to tailor each customer segment's needs.

Most companies today are sitting on a trove of data that can produce actionable insights to serve their customers better when coupled with the right technology like AI. Done right, manufacturers can proactively engage their customers before they even reach out.

How can CX technologies help manufacturers find new revenue opportunities?

There is a massive opportunity for manufacturers to leverage the power of CX technologies to drive sales and identify new revenue opportunities. For example, MOO, a US-based company that designs, manufactures, and sells premium, customised merchandise, achieved significant sales success by leveraging CX solutions.

When customers contact MOO and the support agent recognises a successful opportunity for the sales team, they can use custom macros and triggers to send the ticket automatically to the specific teams. An account manager is assigned within seconds. Often, manufacturers have crossovers with support and sales. CX solutions

make this transition easier, with a 360-degree view, so they can point business customers back to their account managers or help them on the spot.

In addition, CX technologies also present a massive opportunity to upsell and cross-sell. MOO, for instance, uses webhook integrations to leave notes on support tickets with a link to the sales team. With this, agents can offer more personalised recommendations leading to upsells and cross-sells.

What role can AI play in personalising customer interactions and product offerings?

There is an experience disconnect when it comes to personalising the customer experience. 80 per cent of manufacturers believe that personalisation increases customer retention. However, in India, 81 per cent of customers feel most companies could do a better job in personalising their experience.

AI can help manufacturers drive deeper personalisation through a myriad of ways; from suggesting products to customers based on their history, searches, and queries to utilising Large Language Models (LLMs) - like the ones behind ChatGPT to provide insights into buyer behaviour, such as product popularity, marketing channel effectiveness and factors that drive customer loyalty. These technologies can also collect customer feedback to help businesses gather crucial insights on customer sentiment, intent, and pain points.

We believe 70 per cent of customer interactions will be impacted by AI in some way, be it through deflection, automation, or agent productivity. Executing this well requires a deep understanding of what the customer wants and how the customer is feeling, which is why tracking customer sentiment and intent using AI is crucial to personalisation.

And when CX solutions are built upon large CX-specific datasets, manufacturers can better assist customers with greater accuracy as the AI continuously learns from every customer interaction. This eliminates the painful work of manually assigning and routing inquiries, freeing up team capacity and reducing operating costs. Drawing from a large set of CX-specific data, generative AI can accurately summarise customer

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purchase and support history for agents to deliver personalised and conversational experiences within minutes. Support staff can also leverage this technology for cross-selling and upselling products during support interactions.

AI can also identify customers at risk of churning by conducting customer sentiment analysis to gauge intent and tone. When paired with automated routing and AI-powered workflows, the insights gained can ensure that the most experienced support agents handle the tougher interactions, bypassing any self-service or chatbot workflow.

Why is it important for manufacturers to engage with customers on multiple channels?

The rise of e-commerce and digital platforms has significantly impacted the manufacturing sector, leading many to shift towards selling directly to customers.

An omnichannel approach offers several benefits, such as increased reach, improved customer engagement, broader market coverage, and the ability to gather valuable customer insights. It empowers manufacturers to connect with their customers wherever they are, enhancing convenience and flexibility in the buying and service processes.

Being present where your customers and vendors are, is crucial for any manufacturer – allowing them to tap into diverse customer segments, accurately cater to customer preferences, and create a seamless buying and service experience across channels.

Equipped with the right CX technologies to

manage multiple communication channels effectively, manufacturers can develop robust strategies for consistent management of inventory, pricing, branding, and customer interactions. This, in turn, facilitates the smooth flow of order processing, inventory management, and customer support, ultimately benefiting their customers and, in the long run, their business.

How do manufacturers pick the right CX solution?

Manufacturers looking to invest in CX technologies need to look at five important aspects when choosing the right solution for their business:

1. The solution needs to be powered by AI, one that's ideally built on large CX-specific data sets.
2. Technology must enable conversational experiences across channels and empower customers with self-help options.
3. It must be able to drive deeper personalisation, which is essential to maintaining the myriad relationships manufacturers juggle every day.
4. The solution must be easy to implement, use and maintain, without requiring heavy IT spending.
5. It must be a unified platform that works out-of-the-box and easily integrates into existing systems so there is no need for heavy IT spending or long implementation processes.

These five aspects are important elements of any successful CX program and when coupled with a customer-centric approach, manufacturers will be able to deliver seamless, personalised, and meaningful experiences that offer a competitive advantage. 

FLEX GBS NAMED TOP-20 MOST ADMIRABLE SHARED SERVICES ORGANISATION IN 2023

Flex Global Business Services (GBS) has been named one of the Top-20 Most Admired Shared Services Organisations in 2023 by Shared Services and Outsourcing Network Research and Analytics (SSON R&A). This recognition is a result of Flex's outstanding performance in three key areas: organisational structure, service delivery model and digital ecosystem.

SSON is the largest and most established community of shared services, global business services and outsourcing professionals worldwide and SSON R&A is the global data analytics centre of the Shared Services & Outsourcing Network.

"This recognition is a testament to Flex Global Business Services' unwavering commitment to innovation, excellence and strong engagement with our stakeholders. Our continued focus on outstanding performance and impeccable customer

service has resulted in this distinction. We look forward to continued collaboration and driving positive engagements at Flex" said Balroop Grewal, Senior Vice President Global Business Systems & Services, Flex.

Every year, SSON Research & Analytics publishes a list of Top 20 Most Admired Shared Services Organisations (SSO) and Global Business Services (GBS). The companies are selected through a rigorous evaluation process and are recognised based on a comprehensive benchmarking performance study that covers two areas – organisation profile and performance benchmarks.

The GBS centers provide centralised services in support of Flex's global operations in the areas of Global Procurement & Supply Chain, Finance, Engineering & Quality, Program Management, IT and HR, together with other specialised verticals.

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XT Digital Internal Micrometers (XTD Series)

- Resolution 0.001mm
- **IP67 electronics protection**
- Proximity output with built-in **Bluetooth**
- Transfer of data using BT reduces report errors



XT Hometric Internal Micrometers (XTH Series)

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- Transfer of data using BT reduces report errors
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New



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Special Bore Measurement Applications

Thread



Groove



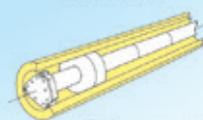
Internal Splines



3 Point Spherical



Deep Hole



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ARPF type

Radius Precision ARPF

Introducing 7 Modular Mill Type with Air hole items!

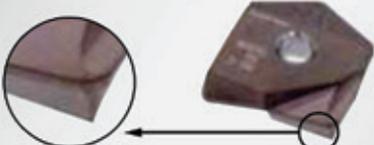
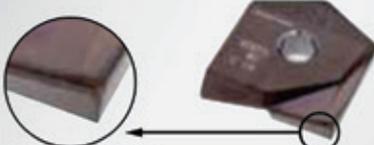
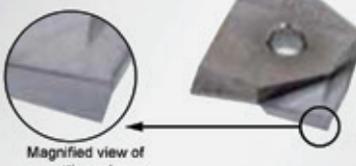
Radius End Mill for High-Precision Finishing.

Introducing 7 Modular Mill Type with Air hole items!

- Features **01** Mounting runout accuracy of 0.02mm or less
- Features **02** R accuracy of insert is ± 0.01 mm or less
- Features **03** Blade diameter tolerance of 0 to -0.02 for inserts alone
- Features **04** Smooth cutting performance finish by sharp cutting edge.
- Features **05** New material for longer life

Proper use of helical cutting edge inserts

How to select helical cutting edge inserts

SG type	SW type	SQ type
<p>High-efficiency machining. Application : semi-finishing to finishing</p>  <p>Magnified view of cutting edge</p> <p>Suitable for machining of 3-dimensional shapes including flat surfaces and sloped surfaces.</p> 	<p>High-accuracy machining of standing walls Application : Finishing</p>  <p>Magnified view of cutting edge</p> <p>Suitable for high-accuracy finishing of vertical side surfaces (standing walls) which will be used as reference surfaces.</p> 	<p>Application : Corner R removal</p>  <p>Magnified view of cutting edge</p> <p>Suitable for removing remaining corner R areas after machining with radius tools.</p> 



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YOUR GLOBAL CRAFTSMAN STUDIO

By Shantanu Sharma, General Manager – Brand Marketing South AP, ExxonMobil Lubricants Pvt. Ltd.

MOBIL ELEVATES INDIA'S MACHINING SECTOR WITH QUALITY LUBRICANTS

As a leading lubrication provider, Mobil™ is collaborating closely with businesses in the machining sector to help them mitigate operational challenges and achieve greater efficiency with the adoption of best-in-class lubrication solutions.

India's aluminum sector is a vital part of the country's growing economy, with substantial production capacity and a significant role in supporting ancillary industries. India is the fourth largest producer of aluminum in the world, accounting for approximately 5.3 per cent of global aluminum output. Furthermore, the rise in infrastructure development and automotive production is encouraging growth in this sector. The Indian aluminum sector is expected to expand, driven by increased demand from sectors like automotive, construction, and packaging.

Lubricants are of paramount importance in the aluminum industry, playing a multifaceted role in enhancing both efficiency and productivity. In the various processes involved in aluminum production, such as extrusion, rolling, forging, and machining, metal surfaces often encounter friction, leading to wear, increased energy consumption, and decreased productivity.

As a leading lubrication provider, Mobil™ is collaborating closely with businesses in the sector to help them mitigate operational challenges and achieve greater efficiency with the adoption of best-in-class lubrication solutions.

PARTNERSHIPS FOR PROGRESS

Mobil recently partnered with a leading aluminum manufacturing company based in Tollygunge, Kolkata. For its day-to-day operations, the company has been utilising several high-quality precision machines including an advanced VMC from a well-known EB. However, the equipment faced challenges such as a high rejection rate of finished products and reduced sump life. These issues significantly impacted resource utilisation and profitability.

Seeking solutions, the company reached out to Mobil's Field Engineering Services (FES) team.



After a comprehensive assessment of their application and maintenance practices, the FES team recommended adoption of the Mobilcut™ 250 along with Mobil™ Solcare Service app for enhanced machining and increased production.

The transition to Mobilcut 250 and thorough monitoring with the Mobil Solcare Service app brought significant improvement to the company's operations. It boosted

profitability, reduced exposure time by 150 hours, improved environmental sustainability by saving 80 litres, and increased revenue by Rs 75,000. This change also led to fewer rejected finished products, extended sump life and enhanced productivity.

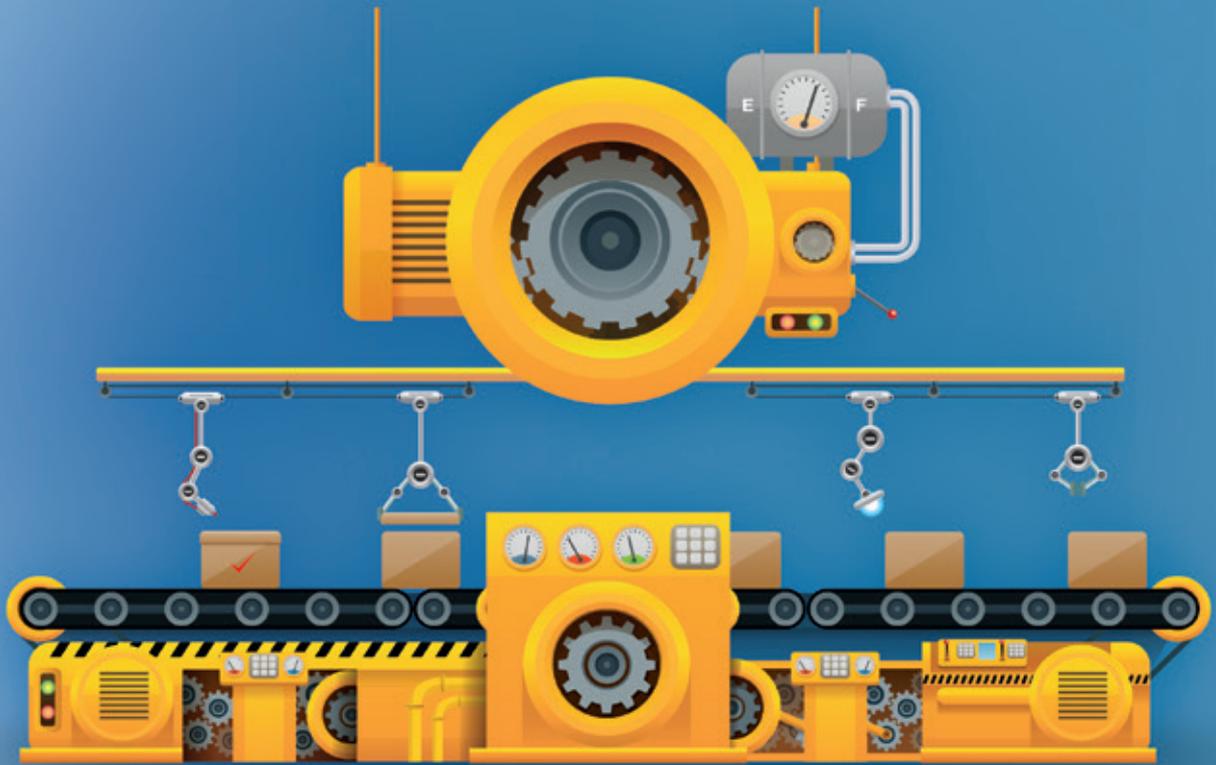
DRIVING LUBRICATION INNOVATION

The Mobilcut 250 comes with a unique additive package which makes it the first choice for precision machining and consistent high-quality manufacturing. It is a high-performance, versatile semi-synthetic water-soluble metalworking fluid designed for a broad range of metals used in cutting and grinding operations. It forms a fine milky emulsion and can be used on aluminum alloys, steel alloys and other metals for grinding, turning, drilling, milling, tapping, and reaming operations.

It is a part of the acclaimed Mobilcut™ Series which includes Mobil's line of high-performance water miscible metal removal fluids. Formulated with leading edge-base oils, additives, and emulsifiers, the Mobilcut Series provides dependable performance in a wide array of metal removal processes. Low maintenance and inherently stable, the Mobilcut products are designed for the modern machine shop where long service life, excellent machining performance and health and environmental concerns are important factors for increased productivity.

Further, in today's machine tools sector, services are playing a crucial role in ensuring continued success.

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The Mobil Solcare Service app has been instrumental in addressing customer challenges through continuous real-time monitoring, easy data access, trendline insights, and open communication.

Here, Mobil has set industry-leading standards by implementing advanced digital solutions to streamline equipment monitoring and enhance efficiency. The Mobil Solcare Service app has been instrumental in addressing customer challenges through continuous real-time monitoring, easy data access, trendline insights, and open communication. The app's paperless reporting reduces environmental impact, while automating paperwork and provides comprehensive data access to assist engineers in staying informed,

scheduling tasks, generating instant reports, and evaluating performance.

With customer experience at the centre of its brand ambition, Mobil is collaborating closely with industry leaders to help them achieve their productivity and energy-efficiency goals. Bringing a legacy of over 150 years complemented by continuous R&D, Mobil remains committed to innovating lubrication services and supporting the growth of the plastics industry in India. 

CHRISTOPHER MARSH APPOINTED AS HEAD OF CONTINENTAL'S SURFACE SOLUTIONS BUSINESS IN INDIA

Christopher Marsh took charge as Head of Surface Solutions business and the Pune Plant in India on October 01, 2023. He succeeds Landry Tchabda who now at the end of his assignment has been assigned another responsibility within the organisation and is moving onward to Australia.

Prashanth Doreswamy, President and CEO, Continental India said, "Continental welcomes Chris and wishes him the very best for his new role. His extensive experience in both global and local markets renders him a highly valuable asset to our company. We look forward to his leadership and contributions as we build on our commitment to delivering high-quality solutions to our valued customers."

He further added, "Continental extends its sincere gratitude to Landry Tchabda for his invaluable contributions since the inception of the Greenfield Plant. We wish him the best for his future endeavours."

Speaking on the appointment, Christopher Marsh, Head of Surface Solutions business area, ContinTech India, said, "I am truly delighted to join the Continental family and embark on this exciting new role. It is both a privilege and an honour to be associated with such a distinguished organisation, and I eagerly anticipate collaborating closely with the exceptional team here in India. As India is an important market, my aim is to contribute significantly to our



business growth, and further advance the company's localisation efforts.

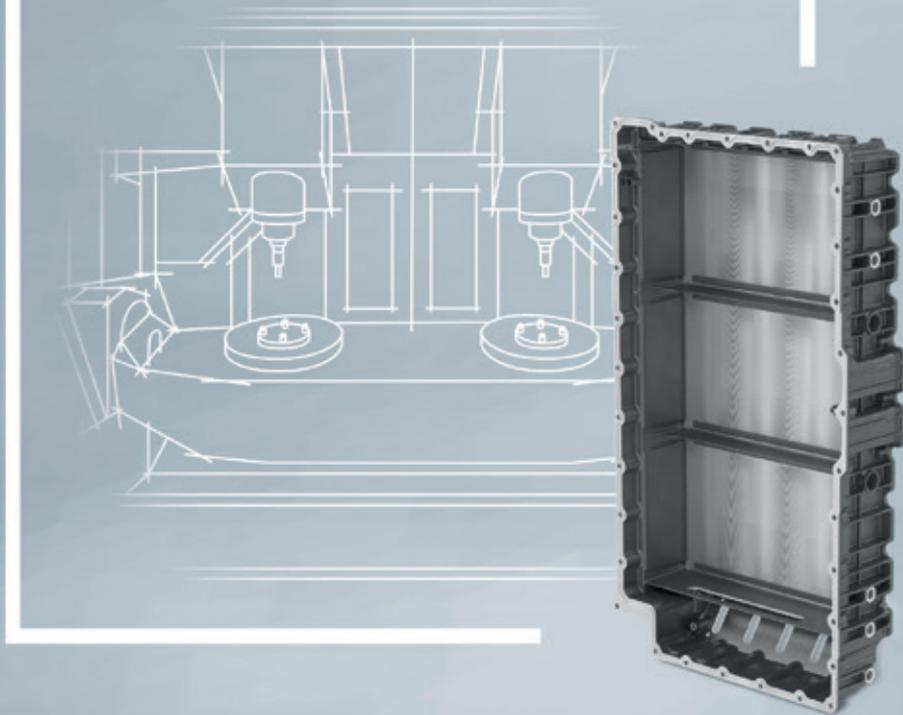
Leveraging my extensive experience, my goal is to strengthen the company's sustainability initiatives and chart a strategic path for growth, both for India as well as global markets."

With extensive experience of over 15 years in the automotive manufacturing industry, Chris has worked for organisations such as Dana Axle and Jaguar Land Rover, which moved from the UK in 2018 to Pune, supporting Jaguar Land Rovers' strategic

India Operations. With various leadership roles and his understanding of the Indian market, he will be instrumental in expanding the business areas existing connections, and operations in the country. His degree in Supply Chain Management and prior experience will aid him in further building on the company's localisation efforts, exploring the scope of the export market while establishing a sustainable, strategic, and sensible roadmap for the country.

Landry Tchabda assumed his role as the Head of the Surface Solutions business and the Pune Plant in 2018 with the announcement of the groundbreaking ceremony. In his five-year assignment, he was responsible for the greenfield establishment, the inauguration of the plant, and building the customer portfolio. He was also instrumental in establishing production and sales objectives and setting a remarkable exposure for the business.

AUTOMOTIVE



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THE ECONOMIC TIMES




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By Rahul Kamat

“WE ARE INVESTING RS 5,300 CRORE IN INDIA”

In an exclusive interview **Keerthi Prakash**, Managing Director, Renault Nissan Automotive India Pvt Ltd talks to **Rahul Kamat** about how RNAIPL is actively aligning its strategies with the latest trends, commitment to designing and manufacturing new models, including electric vehicles, and tailored to meet the demands of the Indian market.

Keerthi let's talk about your journey and experience in the automotive industry that led you to the role of Managing Director at Renault Nissan Automotive India...

I have been very fortunate in my nearly three decades of professional experience to have worked in a variety of roles that allowed me to get a 360-degree understanding of the automotive industry. I started my professional journey as a junior engineer with TAFE (Tractors and Farm Equipment Ltd) following my education in Mechanical Engineering. After about three years, I had the opportunity to work with Toyota, working initially in the body shop, I then moved on to other aspects of manufacturing including production engineering, logistics, lean production, and kaizen.

In 2008, I joined Renault Nissan Automotive India Pvt. Ltd., just when it was being set up. Over the last 15 years, I have had the chance to take up several senior roles within RNAIPL and Nissan covering vehicle production, plant engineering, industrial strategy new product development industrial strategy, both in India and overseas- specifically in Japan and in the UK. I took up the role of Deputy Managing Director of RNAIPL in February 2021 leading on Engineering, Quality Assurance, Production Control & Parts Arrangement. In August 2022, I stepped up to the role of Managing Director of the plant.

Interesting and quite inspiring journey it is! However, what core values and leadership principles do you believe have contributed to your success in

leading a prominent automotive company?

I believe that adopting a 'people first' or 'human-centric' approach is essential to success in any organisation, not just for manufacturing or automotive. After all, people are the most important resource of any organisation. Additionally, we spend most of our waking lives at work and hence our workplace becomes an important part of our lives, and it is therefore essential to make the workplace a fulfilling experience for all employees. At RNAIPL, our processes are designed to keep the well-being of the employees, for example, ergonomics is an important consideration during the design stage of any new process. Secondly, we also try to bring a bit of home to the workplace by creating rest areas where employees can have photographs of their family members or important life events displayed.

Having an open mind, that is having the curiosity to learn and accept new challenges is always key to personal and professional development. We believe in five core principles that should guide all our actions. These are respecting others and society, always thinking of the customer, showing facts and facing reality, being accountable and acting proactively and finally also thinking out of the box as we believe that innovation is the key to delivering the best products at great value to our customers. Innovation is one key driver that helps us to constantly evolve and stay ahead in a highly competitive industry. I believe that a culture of collaboration and open communication greatly helps to reach a common vision and achieve shared goals.





And lastly, a strong sense of ethical conduct should guide all decisions as this is key to earning and strengthening the trust of all of our stakeholders.

Could you elaborate on how the global semiconductor shortage has impacted the automotive production landscape, especially in the Indian market? What specific challenges did Renault Nissan Automotive India face due to this shortage, and how did it impact your production capacity and schedules?

The shortage of semiconductor chips had a deep impact on several sectors including the automotive industry. The semiconductor shortage itself stemmed from various factors, including a huge rise in demand for semiconductors in consumer electronic devices such as laptops. This was partly a result of the increased adoption of remote work and online learning models during the COVID-19 pandemic. Moreover, the pandemic disrupted logistics and manufacturing supply chains across the world. As pandemic-hit industries, including automotive, witnessed a surge in demand for semiconductor chips in the post-COVID recovery phase, the shortage of semiconductors was felt even more acutely, and this led to several knock-on effects in manufacturing and delivery to customers including in automotive production. During this dynamic period, RNAIPL closely monitored the global semiconductor shortage situation and implemented several strategies to mitigate production disruptions.

In that case, how Renault Nissan Automotive India has successfully mitigated semiconductor shortages and maintained a consistent production rate?

RNAIPL undertook several strategic measures to safeguard our production volumes and ensure that we were able to deliver on customer commitments despite the semiconductor shortage.

One of the first action items that we undertook was to create a strong cross-functional team across the organisation with various departments such as product development, R&D, Marketing, Sales, Purchasing and Supply Chain – to identify and develop alternate solutions. The uniqueness of the cross-functional team was that it operated on a global and regional level allowing our teams across the world to collaborate on a holistic basis and also have more meaningful and impactful negotiations with suppliers helping us to secure appropriate allocations on a long-term basis to meet the needs for our production plans.

Thanks to prompt action and collaborative working, we were able to continue to protect our production volumes and at the same time introduce new variants in our product mix within a record time during the semiconductor shortage offering more choice and value to our customers.

Were there instances where you had to re-evaluate supply chain strategies or modify production processes to overcome the semiconductor shortage?



How did these changes contribute to your operational resilience?

Given the potential serious impact of the semiconductor shortage on our operations, we undertook a global collaborative approach to manage the situation. One of the key changes that we implemented was that we made direct contact with semiconductor manufacturers (earlier this was directed via parts suppliers) to ensure that we could secure the necessary volumes for our production needs. The learning was that while previously we could focus only on our Tier 1 suppliers, the semiconductor shortage brought our attention to the fact that we needed to engage with our Tier N suppliers all across the value chain. This strategic shift strengthened our supply chain and ensured the stability of production.

Keerthi, with changing consumer preferences, including a focus on sustainability and electric vehicles, what steps is RNAIPL taking to align its products and strategies with these trends?

In February 2023, the Renault-Nissan Alliance announced an investment worth Rs 5,300 crore in India to design and manufacture six new models - three each for Renault and Nissan, including an electric vehicle for each brand –first in India. These models will be manufactured by RNAIPL and will be targeted at both domestic and export markets. This decision, made after a deep evaluation of market conditions

and customer preferences reflects the Renault Nissan Alliance's commitment to India for the years to come.

Furthermore, RNAIPL remains dedicated to embracing advanced manufacturing techniques that optimise production processes, reduce waste, and enhance overall efficiency. This aligns with our commitment to pursuing innovation in other spheres besides technology. We are also deeply committed to sustainable and smart manufacturing practices and are working towards achieving carbon-neutral operations by 2045.

Looking ahead, how do you anticipate the automotive industry to evolve, and what role do you see RNAIPL playing in shaping this evolution?

The automotive industry, both in India and globally is being shaped by several factors. The most important of these factors is perhaps the rapid evolution of customer preferences. Additionally, technological advancements are allowing us to build better quality and safer vehicles in line with environmental considerations. These are just some of the factors that will shape the success of automotive players.

RNAIPL was established in 2008 and we recently celebrated our 15th anniversary since foundation. We produced the first car in May 2010 and since then we have successfully manufactured more than 2.5 million cars for Nissan and Renault for India's domestic market as well as exports. More than 1.15 million cars



manufactured at our Chennai plant have been exported to over 108 destinations globally in line with our 'Make in India, Make for the World' philosophy and our production milestones have allowed us to establish ourselves as a centre of excellence for manufacturing cars.

We are moving ahead to an exciting future, bringing the latest and best global technologies from Nissan and Renault to customers in India and other markets. We are currently gearing up preparation activities at our plant to produce six new vehicles that are designed keeping in mind the demands of the Indian customers. The preparation activities include technology and skill upgradation as well as knowledge sharing with the other Nissan and Renault plants around the world.

Take EV for example, although it will be the first time that we will manufacture EVs at RNAIPL, there is a wealth of know-how within Nissan and the Alliance about the production of EVs. Recently Nissan crossed the 1 million milestone for sales of EVs and as you would know Nissan Leaf which was first launched in 2010 has sold more than 6,50,000 units globally in over 50 markets. So, what we're working through is the transfer of this know-how. And this is done through training. We've got teams from RNAIPL visiting the Nissan plants in the UK and Japan to become master trainers. We are also consulting with other plants in our network and other stakeholders in preparation for the launch.

The company is known for its state-of-the-art manufacturing facilities. What are the key factors that contribute to maintaining manufacturing excellence and high-quality standards? How does the company

leverage technology and innovation to streamline production processes and ensure efficient operations?

RNAIPL has a rich manufacturing heritage, where we combine the best standards from two global automotive manufacturers- Renault and Nissan. We follow a production standard called 'The Alliance Production Way' which brings together the best practices from both entities, focusing on synergies and innovation. Our manufacturing excellence and high-quality standards have evolved around developing the right processes with the right infrastructure and the right skill sets. We aim to build it right and build it right the first time.

Any new process development takes place during the product development stage as it evolves from the concept stage to trials and mass production. Our extensive know-how and heritage along with our emphasis on innovation allows us to determine the right level of infrastructure required. In terms of skillsets, RNAIPL has an elaborate and extensive management process for tracking skills from basic to advanced managed on a zone-wise basis.

Basic skill training is provided through the Regional Training Centre where the operators' skill for quality and time is validated through structured training. Advanced skills are imparted through Master trainer and train-the-trainer programmes including deployment to other Alliance plants. We have several internal indicators to track plant performance and productivity including equipment efficiency, defects, quality as well as digitalisation. The latter is a key priority for us, and we aim to improve efficiency and make RNAIPL a better place to work with a better focus on what customers need from us. We have a clear



digital strategy to work towards these goals and are building a digital architecture that will be scalable for our future needs.

Sustainability is increasingly crucial in the automotive sector. How you are integrating sustainable practices and technologies into its operations and vehicle offerings?

Sustainability is a core pillar of our operations at RNAIPL, and we are working to reduce the impact of our operations on the environment. Our goal is that by 2045, our operations at RNAIPL will be carbon neutral. We are working to reach this goal with a three-pillared strategy which currently helps us save nearly 87,500 tons of CO2 emissions every year. The pillars are Reducing the energy consumption of our operations; Increasing our use of renewable energy; and Implementing energy-efficient technologies.

On energy sources, currently, almost 60 per cent of the electricity consumed at our plant is generated from renewable sources such as solar and wind. We are working to expand our in-house solar plant capacity from 2.2 MW at present to 14 MW by 2026 through additional rooftop solar panels and floating solar panels in the plant's pond. With that infrastructure in place, we will be able to fulfil 85 per cent of our energy needs through renewable power by 2030, and eventually 100 per cent by 2045.

For energy reduction, we are working to reduce the total energy required for manufacturing a car by 20 per cent by 2030 compared to the 2019 energy baseline. By 2045, we aim to cut that down by a further additional 30 per cent. Our dedication to energy conservation and smart technology has already resulted in a one-third

reduction in energy use since the start of operations in 2010.

Water management is another key focus area for us. We have installed extensive rainwater harvesting systems in our plant which is spread over 600 acres. The water that we collect through this system helps us meet 85 per cent of our total water needs for the entire year. Additionally, by installing robust mechanisms for treating wastewater and using it for a variety of industrial and gardening purposes, we are also a Zero Discharge facility. In addition, as part of our Corporate Social Responsibility commitments, we have also committed to rejuvenating ten water bodies in villages around the manufacturing plant. Over the years, these water bodies have been losing their capacity for water storage due to a combination of soil deposition and other activities. As part of the revitalisation work, we are desilting and deepening these lakes, amongst other protective actions, to increase capacity making sure more water is available for local villages for farming and other needs as well as supporting biodiversity.

We are also adopting better and more energy-efficient technology across the plant. For example, we use intelligent flow controllers in our air compressor systems to reduce energy consumption. This one measure saves almost 800 tonnes of CO2 emissions annually. We have many other sustainability-focused initiatives including the implementation of zero-energy days; standardizing the stickering of equipment across the plant; increasing education and awareness and encouraging optimal energy use; as well as conserving and upgrading energy-efficient equipment such as BLDC Blowers, Compact Ejectors, and VFD for Pumps and Motors. 

By Rahul Kamat

ONCE PRODUCING 13 MACHINES PER YEAR, BIESSE NOW PRODUCES 2,000 MACHINES YEARLY

Sayed Ahmed, CEO, Biesse India, traces the company's journey from its inception to becoming an industry leader in woodworking machinery manufacturing. He attributes this growth to reasons which span right from effective Industry 4.0 integration and resilience during the pandemic to his vision as the CEO of the company.

Can you please provide an overview of Biesse India's journey and its establishment in the Indian market? How has the company grown and evolved since its inception?

Biesse India, founded in 2007 as a wholly owned subsidiary of Biesse SpA, headquartered in Pesaro, Italy, has played a significant role in the journey of its parent company, Biesse. Biesse is a renowned global leader in manufacturing Machines and Systems for processing a diverse range of materials, including wood, glass, stone, metals, plastics, and composite materials. It has

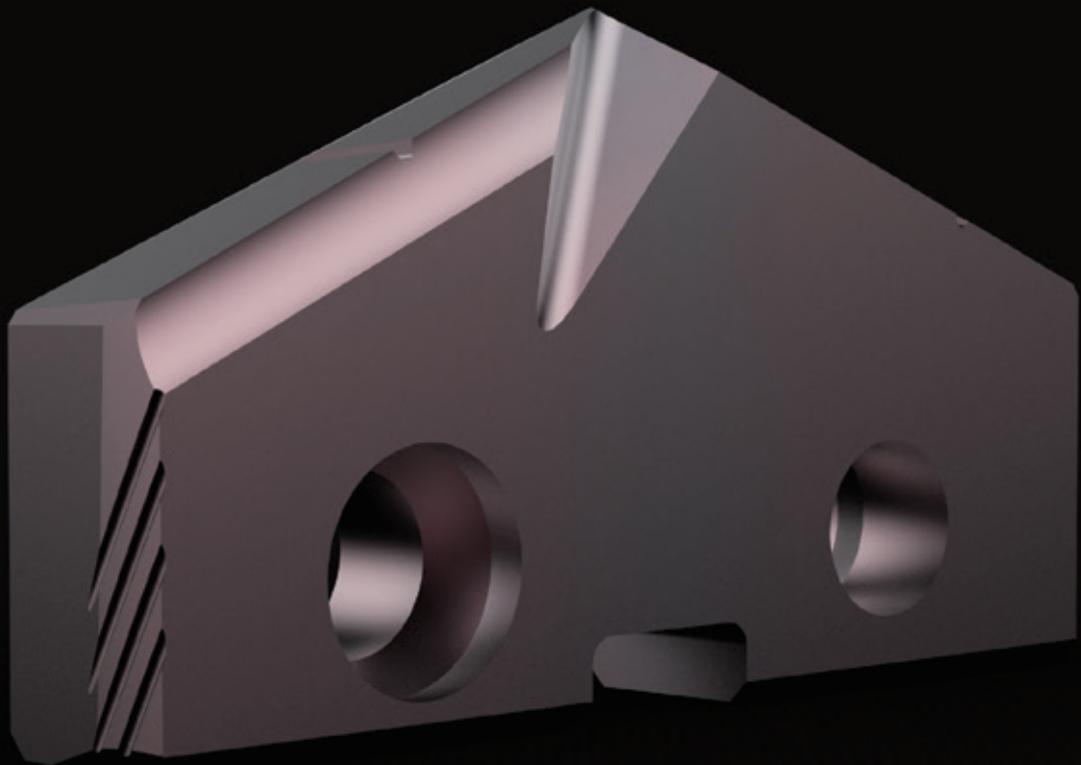
been listed on the STAR segment of the Italian Stock Exchange since 2001.

Biesse India's story began in Bangalore, where it emerged as the first overseas manufacturing facility for Biesse, specialising in medium-range woodworking machines. This move was motivated by the potential for growth in India's woodworking industry, which, at the time, was in its early stages but showed promising prospects.

From its very beginning, Biesse India has been at the forefront of product development, which



Sayed Ahmed, CEO, Biesse India



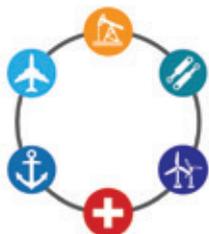
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has equipped the company with a technological advantage, enabling it to remain competitive in the market. Biesse India's expansion strategy involved reaching a wider global audience to meet the increasing demand for its products. To achieve this, the company needed to scale up production, diversify its machine range, maintain high-quality standards, and ensure competitive pricing.

What are the core products and services offered by Biesse India? How do these offerings cater to the needs of the Indian market and industry?

We offer advanced woodworking machines like CNC machines, edge banders, and panel saws. Alongside, we cater to software solutions that boost automation and output. This is in line with India's digital trend in the manufacturing sector.

The Indian market sees a high demand for quality furniture and woodworking items, driven by urban growth, increased household income, and a liking for bespoke furniture. Biesse's machinery lets Indian manufacturers supply this demand quickly and accurately, allowing them to craft items that meet both local and global standards.

Understanding India's diverse market, our solutions fit businesses of all scales, from small to medium and

large manufacturers. This inclusive strategy makes sure our services reach a broad scope of businesses.

The woodworking and manufacturing industry is highly competitive. What are the unique selling points of Biesse India that set it apart from its competitors?

More than just offering machines, we offer our customers complete end-to-end business consulting services, such as understanding their furniture business plan, the products they want to produce, studying their production needs, defining factory layouts, and setting up machines.

SOPHIA, Biesse's cyber-physical assistance system, is an IoT platform enabling customers to access a wide range of services to streamline and rationalise their work management processes.

We have two world-class, fully integrated manufacturing units in Bengaluru that also give us an edge over the rest of the competition. The fact that 80 per cent of our products are exported itself shows that we stay ahead of the curve and be a front runner when it comes to innovation.

Technology plays a crucial role in the woodworking sector. How does Biesse India incorporate innovation

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According to a BCG report to FICCI, India has an excellent opportunity to become one of the top three exporters of furniture to the world

and cutting-edge technology into its products and solutions?

Leveraging the latest IoT technologies, robotics, rapid prototyping, artificial intelligence, and big data analysis, we have evolved into a data-driven, technologically advanced organisation.

Our approach nurtures a culture of creativity among our employees. We have implemented a systematic and innovation-friendly management framework that empowers our teams to translate their inventive ideas into solutions that cater to our customers' requirements.

Situated in Bengaluru our 35,000 square metre campus is home to a highly skilled workforce, state-of-the-art machinery, and cutting-edge technology for wood and advanced materials processing.

Since launching our first machine in 2007, we have consistently grown, and today produce approximately 1,800 machines annually. Our customer base spans over 60 countries, including Europe, the US, and Australia.

As CEO of Biesse India, what are your key priorities and strategies for driving growth and achieving the company's vision in the coming years?

Our overarching vision centres on simplifying our clients' manufacturing processes to inspire creativity and foster engagement. Our daily mission is to offer clients optimal solutions by leveraging our well-established expertise.

Our approach goes beyond merely selling machines; we are dedicated to identifying specific business needs and facilitating growth through tailored solutions. Our product development team is significant in this, even as they may encounter challenges in understanding market requirements during the conceptual phase.

At the core of our strategy is the need to integrate technologies such as artificial intelligence and machine learning into our operations. To do this effectively, we are focusing on upskilling our workforce.

With our products being manufactured in India and gaining recognition globally, we have set our sights on expanding our business worldwide, with a strong focus on the APAC and Middle East regions. People development is a key pillar of our strategy, ensuring that our team, from the front line to CXO levels, is equipped to adapt to market needs and the requirements of our growing business.

Sustainability is also a significant responsibility for us. We are committed to promoting eco-friendly practices to reduce our carbon footprint. Thus, we are involved in collaborating with our suppliers to reduce the environmental impact of their manufacturing processes. Additionally, we have enhanced our vertically integrated facility to meet global volume demands and the expanding sales landscape in India.

Industry 4.0 is transforming the manufacturing landscape. How is Biesse India adapting its products and operations to align with the principles of Industry 4.0, and what benefits does this offer to your customers?

The manufacturing landscape is undergoing a remarkable shift driven by Industry 4.0. This encompasses advanced elements such as automation, data exchange, IoT, and cloud computing, collectively giving rise to what's known as the 'smart factory'.

In our industry, transparency across the supply chain and efficient information dissemination within the organisation is necessary for enhancing product quality and customer experiences. Thus, we are in the process of digitalisation of all aspects of our operations, from new product development and sales to customer support and the supply chain.

Furthermore, we have integrated business applications to streamline processes, reduce paperwork, and empower data-driven decision-making. Our digitalisation plan aims to achieve benefits across the manufacturing value chain, including reduced waste, enhanced inventory management, improved customer service, shorter delivery lead times, increased employee satisfaction, and a reduced environmental footprint.

The COVID-19 pandemic brought significant disruptions to businesses worldwide. How did Biesse India handle the challenges posed by the pandemic, and what strategies were adopted to ensure continuity and resilience during such times?

As the manufacturing industry had to operate from the factories themselves during the initial phases of the COVID-19 lockdown, the biggest challenge for us was to continue operations without compromising on the health and safety of our employees.

However, we saw this as an opportunity to implement new technologies and protocols for safety and efficiency is the BEST (Break-Enhance-Sanitise-



Test) strategy to break the chain and maintain safety at every level.

The post-COVID phase also hinted at a revival for the manufacturing industry as the exports helped in recovering the economy to a large extent.

Biesse India has not only been able to maintain a steady flow of business during the pandemic, we have been working around the clock to enhance production to meet the increasing demand for our machinery in India and abroad.

With over 10,000 machines produced and exported across 60 different countries and over 3,000 machines already installed in India, we had delivered quality machines and garnered the trust of our Indian and global customers.

To cater to our clients' increasing needs, we are foreseeing automation in the furniture industry, and the same is being translated into their products, as we consistently improve the quality and reliability of their machines.

India has ambitious goals for economic growth and development. How does Biesse India contribute to the 'Make in India' initiative, and what role does the company play in the nation's manufacturing sector?

The woodworking machinery manufacturers industry is a booming market segment in India, and the recent

developments in the housing segment in various cities across the country have helped the industry to clock impressive growth, driven by the furniture industry.

According to a BCG report to FICCI, India has an excellent opportunity to become one of the top three exporters of furniture to the world and to unlock this potential strategic decision will have to be taken. The Government of India has identified the furniture industry as a key enabler to expand the reach of 'Make in India' goods globally. Rapid mechanisation of the woodworking industry in India is the key to meeting the demand for furniture and woodworking India is witnessing. In this scenario, it is imperative concurrent technologies must be brought to the doorstep of entrepreneurs to trigger the required growth rate in India.

Biesse India has been playing a vital role in the woodworking machinery manufacturers industry. With over five decades of industry experience, we offer high-performance machinery that is built in such a way that it ensures high production capacities while at the same time being reliable.

Growing from humble beginnings in India with a production capacity of 13 machines per year in 2007, now with over 700 employees, we have grown into an industry leader that produces 2,000 machines yearly through both our plants in Bengaluru, India. 

AEQUS IS WELL PLACED TO TAP INTO THE ODM SERVICES MARKET WITH ITS OWN IDEAS AND DESIGNS

Dr. Ravi Guttal, Aequs' Chief Technology Officer and Senior Vice President, discusses Koppal Toy Cluster's pivotal role in reshaping North Karnataka's future, its impact on India's socio-economic growth, and the significance of vertical integration and robust supply chains for Original Design Manufacturing (ODM) success in India. He also addresses key policies and initiatives for ODM growth in an interview with **Nisha Shukla**.



Dr. Ravi Guttal, Chief Technology Officer, and Senior Vice President of Aequs

How does Koppal Toy Cluster aim to cater to the international toy market demands by manufacturing in India? How is it also reshaping North Karnataka's future and contributing to the growth of India and the manufacturing sector?

Spread over 400 acres, the Koppal Toy Cluster (KTC), India's first toy manufacturing cluster, is built to cater to global players. It comprises an exclusive Special Economic Zone (SEZ), apart from a Domestic Tariff Area (DTA).

KTC offers end-to-end infrastructure and services as a one-stop manufacturing solution. It is set to play a key role in India's quest to become a dominant player in the global toy market. Built to house up to 100 units when fully occupied, the industrial cluster offers

a viable option for global manufacturers and toy brands seeking to diversify their manufacturing and supply chains away from other production centres like China and Vietnam.

For instance, one of the first occupants in the SEZ makes rubber components used in toys made by other units within the cluster. Aequs, one of the largest exporters of toys in the country today, is an anchor participant in the KTC.

Exporting to over 60 countries, Aequs boasts of one of the largest manufacturing spaces in the country, making it one of the biggest toy makers and exporters in India.

Understandably, KTC is expected to transform the socio-economic scenario in North Karnataka, and particularly in Koppal, which is the most backward district in Karnataka. With few jobs available locally, the Koppal district is characterised by rampant migration of labour and is an ideal location for setting up new industries. When fully occupied, the KTC is slated to provide direct employment to 25,000 people, subsequently generating another 1,00,000 indirect jobs in the region. Many of these jobs will require semi-skilled workers, including women from the region.

Why vertical integration and supply chain is crucial for ODM to become successful in India? Which are the other models the industry needs to focus on to emerge as the global hub for manufacturing?

Vertical integration, by its very nature, is beneficial to any industry, as it enables lower costs, better quality, and quicker turnaround in production cycles. However, Original Design Manufacturing (ODM) for toys is a new area for Indian toy manufacturers who, for many



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Original Design Manufacturing (ODM) for toys is a new area for Indian toy manufacturers who, for many years, have been dependent on OEM specifications and designs for manufacturing. There are several upstream and downstream capabilities that ODM players need to develop.

years, have been dependent on OEM specifications and designs for manufacturing. There are several upstream and downstream capabilities that ODM players need to develop.

For instance, rapid prototyping is a crucial element for New Product Development (NPD), which requires companies to have in-house 3D printing, prototype mold development, styling, designing, and testing capabilities.

The Aequus Innovation Centre (AIC), set up along with the KLE Technological University, is a first-of-its-kind initiative in the country for innovation in toys and consumer durables, representing a step in this direction by Aequus. The AIC complements Aequus' 30-strong NPD team in the 'Toys' business. Having already proven itself as a successful contract manufacturer for global OEMs, Aequus is well placed to tap into the ODM services market with its own ideas and designs for brand owners.

What challenges do you anticipate India might face in implementing the ODM model for toy manufacturing?

Breaking into the ODM services market begins with the design aspect. Developing original and new toys is a highly specialised field dominated by established studios in the West, which use the services of design houses in centres like Hong Kong, known as the toy design capital of the world.

For instance, Aequus has its own design house in Hong Kong, strategically positioned to stay updated on the latest market trends. This proximity allows them to share ideas and designs for the industrialisation process with Aequus Toys in India. Indian companies will need to establish themselves in this realm first.

Do you think the ODM model has the potential to create employment opportunities and contribute to the socio-economic development of India? What steps is Koppal Toy Cluster (KTC) taking to upskill, skill and reskill the existing workforce?

In terms of job creation, ODM itself will be a minor contributor as the number of people directly engaged in this will be few. However, more ODMs would lead to higher domestic manufacturing and hence accrue the benefits thereof.

As for skilled manpower, toy manufacturing itself does not call for very high-end manpower capabilities. As such, Aequus has a very mature skilling initiative which takes care of all its manpower training needs.

The Aequus Skill Development Centre (SDC) imparts training across all the domains needed for workers to be employed. The SDC also runs the country's first Toy Painting Institute. The SDC has the capability to cater to the needs of all the units within the KTC.

The Indian government recently introduced a production-linked incentive (PLI) scheme for toy manufacturers. How beneficial is it proving for the industry? Are there any specific government policies, initiatives, or incentives that you believe should be in place to support the growth of the ODM model in India?

The industry is still awaiting the announcement of the Production-Linked Incentive (PLI) scheme for toy manufacturing, which has been in the making for almost two years now. Surely, the scheme is much called for, not just from an industry perspective, but also from a socio-economic angle. We strongly believe that PLI should also focus on job creation, a sector where toy manufacturing excels. For instance, for every \$10 million of revenue from toy sales, is estimated to generate 1,000 direct jobs in the industry.

Just imagine the number of jobs that can be created by encouraging toy manufacturing in India through incentives such as PLI. As for incentivising ODM, it can perhaps be a part and parcel of the PLI scheme. Alternatively, an innovation fund could be established to encourage innovation, product design, and the industrialisation of toy products.

How is Industry 4.0 revolutionising toy manufacturing in India?

At Aequus, we consider toy manufacturing as a confluence of art and science. While it is still in the early stages of large-scale deployment of Industry 4.0 concepts for manufacturing toys in India, it will be a reality sooner than later. Aequus is at the forefront of this in the industry.

However, we are mindful of the fact that toy manufacturing plays a crucial role in generating large

scale jobs, and thus, the technologies we implement are designed to complement our workforce, not replace it.

For example, Aequus is among the first in the industry in India to implement large-format digital printing. This technology helps execute intricate designs that can be challenging for humans to carry out. Additionally, all our production lines are equipped with sensors that track workflow and enhance input management.

Additive manufacturing, an integral part of Industry 4.0, is used for concept design, rapid prototyping of new toys, and testing concepts with end customers. Digital Twin technology is also being developed by manufacturers in India to understand machine behaviour and health.

Aequus has integrated both additive manufacturing and digital twins into its product design and development initiatives and factories.

What are the key advantages that India possesses over China in terms of toy manufacturing?

The Indian toy industry is more cost-effective than China, primarily due to lower labour costs, which amount to a fraction of the latter. The average labour cost in India is just 92 cents per hour, while in China, it is nearly \$4 per hour.

However, government incentives can skew the equation, as manufacturing units in the hinterland of China tend to benefit from lower labour costs. On the other hand, India possesses a large pool of engineering talent, which is a significant advantage. In addition, intellectual property protection in India is much stronger compared to China, which is a major advantage. This has boosted the confidence of multinational brands in doing business in India.

According to a joint report by industry bodies FICCI and KPMG, the Indian toy market is expected to double to \$2 billion by 2024-25. What are the factors/ measures contributing to growth in this sector?

For starters, global brands view India as a lucrative market for growth, given its low market penetration and increasing purchasing power. Several new brands are entering the Indian market, while a few retail toy chains are expanding their networks in the country.

Secondly, OEMs are looking to de-risk and diversify supply chains from production centres like China. Indian companies like Aequus have proved their mettle as successful contract manufacturers, producing toys for global brands and are now ready to scale up. Some portions of these capacities are likely to be tailored to meet the demands of the Indian market with products variations. For instance, Aequus is seeing a strong interest from brands seeking to manufacture toys for the Indian market, and the DTA units at the KTC are witnessing increased business in this direction.

There are certain electronic components that can be only imported from China or Vietnam since they are not manufactured in India. And these imported parts come with higher duties. What can be an immediate solution to this problem?

Indian EMS (Electronic Manufacturing Services) industry needs support to invest in equipment and facilities. We may need a smooth phase-in of local electronic components and phase-out of imports over the next 2 years. This should also be applied to duties on imports. 

PPS MOTORS TO DELIVER 298 BHARATBENZ BUSES TO ODISHA GOVT

PPS Motors, a part of the largest automotive dealership group, is delivering nearly 300 BharatBenz buses to the Odisha Government as part of the Location Accessible Multimodal Initiative (LAccMI). The Chief Minister of the state, Naveen Patnaik flagged off 63 of these buses recently from Bhawanipatna, Kalahandi District.

PPS Motors, the authorised dealer partner of BharatBenz in the state had secured this significant order from the commercial vehicle brand. PPS Motors will provide the after-sales support for these buses. This order bagged by PPS Motors is one of the largest orders awarded by the Odisha Government in the state.

Speaking on the occasion, Rajiv Sanghvi, Managing Director, PPS Motors, said, "We are extremely delighted and honoured to have got the order for 298

buses from Odisha Government under the LAccMI scheme that is set to revolutionise state's public transportation. We are committed to providing the best-in-class service and ownership experience through our network spread across the state. Further we are investing in creating additional touch points providing deeper and wider coverage. This will help us to provide easily accessible and seamless service for these buses and ensure optimised uptime and a remarkably low cost of ownership."

Under LAccMI policy the state is set to revolutionise the public transportation system. Beginning with a primary emphasis on enhancing connections within blocks and districts. Furthermore, it will aim to seamlessly integrate these improvements into inter-city bus operations.

By JP Mishra, Country Manager, India-Newland AIDC

THE FUTURE OF INTEGRATED AIDC LED BY LEAN MANUFACTURING

The article takes a holistic view of AIDC Technology and explores its role in optimising lean manufacturing in today's world.

Lean manufacturing could be defined as a key methodology that focuses on minimising waste within the manufacturing system while simultaneously maximising productivity. Thus, it addresses one of the worst things that could happen to any company: 'Wastage'.

Unfortunately, waste is a common occurrence when we talk about the manufacturing industry, whether it is an inefficient workforce, inaccurate production lines, or unutilised material due to poor inventory management. Lean manufacturing plays a significant role in combating this burgeoning issue. While it primarily focuses on minimising waste, it also aids in boosting customer value and, along the way, helps with process improvement using various lean principles and techniques.

The concept of lean manufacturing was coined by Ohno Taiichi, a Japanese industrial engineer and businessman, also known as the father of the Toyota Production System (TPS).

Lean manufacturing has also proven positive in bolstering the sustainability and operational economic performance of manufacturing industries by eliminating non-value-added operations.

5 KEY PRINCIPLES OF LEAN MANUFACTURING

The success of optimised lean manufacturing revolves around these five principles. These include:

- **Value:** While value is created by the producer, it is defined by the customer. Thus, it is necessary for companies to understand the value that a customer places on their products and services, which, in turn, can help them determine how much money the customer is willing to pay.
- **Value stream:** Analysing and mapping the flow of information or resources is required to produce a specific product or service with the intent of identifying waste and methods of improvement, as value

stream mapping encompasses the product's entire lifecycle, from raw materials through disposal.

- **Flow:** To eliminate major functional bottlenecks and find routes to improve lead time, devising the flow plan is instrumental.
- **Pull:** Lean manufacturing works effectively in a pull system. Hence, it is pivotal to identify new work that has good demand. Push systems also come in handy in manufacturing resource planning (MRP), for which the inventory needs to be determined in advance.
- **Perfection:** The perfection in lean manufacturing lies in perpetually targeting the root cause of quality issues and curtailing the waste across the value stream until perfection is attained.

WHAT IS AIDC TECHNOLOGY?

Working on the same objective as lean manufacturing, i.e. maximising productivity and efficiency while reducing wastage and shrinkage, Automatic Identification and Data Capture (AIDC) technology facilitates the automated collection of data to further enhance real-time accuracy and bolster traceability. The key AIDC identity markers are barcodes, QR codes, RFIDs, biometrics, optical magnetic strips (OCR), etc., which allow businesses to make better-informed decisions.

THE SIGNIFICANCE AND BENEFITS OF AIDC TECHNOLOGY IN LEAN

MANUFACTURING

The global AIDC industry has already reached a market size of \$49.8 billion in 2022 and is forecast to reach \$106 billion by 2028 at a staggering growth of 12.6 per cent (CAGR), as per a study by IMARC, thanks to the adoption of rapid digitalisation and the incorporation of innovative automation.

Some key benefits are as follows:

1. Enhanced process efficiency
2. Real-time data capture



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3. Improved inventory management
4. Improving accuracy and cutting down the degree of error

More importantly, AIDC identity markers like barcodes, QR codes, and RFID further play a significant role in capturing quick, real-time identification and resolution of quality issues and eventually aiding in better workforce productivity. For instance, factory workers equipped with mobile devices or wearable technology can access information about the production process, track the status of orders, and make informed decisions on the shop floor, thus fostering a culture of continuous improvement and empowerment.

AIDC technology works as a game changer with respect to traceability, which is a crucial part of the manufacturing process, while also ensuring it is aligned with industry standards and regulation compliance.

AIDC technology further integrated with lean manufacturing also helps in combating the biggest challenge of companies, which is cost cutting, as there is an immense saving from reduced labour, improved inventory management, and fewer errors, which eventually impact the bottom line.

When we talk about the marriage of lean manufacturing and AIDC, just-in-time, or JIT, manufacturing is pivotal, which is a marquee production model where items are created to meet

demand, not created in surplus or in advance of need. The key aim is also to increase efficiency, reduce costs, and eventually speed up product delivery.

THE FUTURE OF INTEGRATED AIDC LED BY LEAN MANUFACTURING

In today's fast-paced and interconnected world, efficient workforce management has emerged as a decisive factor for businesses aiming to achieve unprecedented success. The era of digital transformation has not only disrupted traditional manufacturing practices but also presented a remarkable opportunity for companies to thrive in an increasingly competitive landscape. In the recent past, it has been established that AIDC technology is indispensable in the world of lean manufacturing. Their ability to streamline inventory management, enhance process efficiency, reduce errors, empower the workforce, ensure compliance, and provide valuable data for continuous improvement makes them a key component of lean manufacturing strategies.

The amalgamation of lean manufacturing coupled with AIDC technology will further aid in optimising operations, and with the adoption and leverage of modern technologies and automation, businesses in India will only grow and be poised to achieve better efficiency and competitiveness in the global markets. 

TVS MOTOR PROFIT CLIMBS BY 32 PER CENT IN Q2

TVS Motor Company marks a 13 per cent growth in operating revenue, which grew to Rs 8,145 crore for the quarter ended September 2023 as against Rs 7,219 crore reported in the quarter ended September 2022.

The operating EBITDA grew by 22 per cent at Rs 900 crore for the second quarter of 2023-24 as against EBITDA of Rs 737 crores in second quarter of 2022-23.

Profit Before Tax grew by 32 per cent at Rs 724 crore for the second quarter of 2023-24 as against PBT of Rs 549 crore in second quarter of 2022-23.



Half-year results:

Total revenue in the half-year ended September 2023 is at Rs 15,362 crore against Rs. 13,228 Crores in the half-year ended September 2022. PBT for the half-year ended September 2023 grew by 36 per cent at Rs 1,334 crore as against Rs 981 crore in the half-year ended

September 2022.

During the half-year ended September 2023, the Company reported Profit After Tax of Rs. 1,004 crore as against Rs 728 crore in the half-year ended September 2022.

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By Kartik Nagarajan, Managing Director- Business Consulting and Global Business Services (Sales), Nexdigm

THE ROADMAP OF PMO FROM TACTICAL TO STRATEGIC

Programme management strategies are breaking away from their hierarchical and rigid approach, and a new paradigm is taking shape that is more collaborative and involves all stakeholders in decision-making. This article explores the practices that underpin this new paradigm, shedding light on how it can unlock the full potential of projects and drive measurable business outcomes.

As organisations and shareholders strive for better business results in today's economic environment, the role of Programme Management Offices (PMOs) has taken centre stage in maximising the value of every investment. PMOs are now being challenged to go beyond traditional project tracking and reporting, with a strong emphasis on delivering measurable business outcomes.



Historically, programme management strategies followed a hierarchical and rigid approach, restricting flexibility and responsiveness. However, a new paradigm has taken shape, emphasising a more collaborative and inclusive method involving all stakeholders in decision-making. By embracing this approach, a sense of ownership and accountability is nurtured among team members, paving the way for improved outcomes. The focus now lies on establishing a more agile and adaptable framework that can effectively navigate the complexities of dynamic programmes.

THE EVOLUTION OF PROGRAMME MANAGEMENT APPROACHES

The evolution of programme management has witnessed distinct phases, each with unique characteristics and roles. In the dynamic realm of business, project management plays a pivotal role in guiding organisations towards their goals and maintaining their competitive edge.

Tactical project management carries out daily tasks with precision, ensuring projects stay on track, meet deadlines, and adhere to budget constraints. This approach excels in time-sensitive ventures like software development and product launches, employing meticulous planning and a structured approach.

Transitional project management, on the other hand, emerges as a beacon of adaptability during transformative journeys and fosters communication and collaboration, bringing stakeholders together during mergers, acquisitions, or reorganisations.

Finally, strategic project management takes a grander view by aligning projects with long-term objectives. Strategic project management becomes the driving force propelling

organisations towards success by leveraging early warning signals, domain knowledge, and innovation.

VALUE IN ADOPTING A STRATEGIC MINDSET

In the landscape of today's business world, adopting a strategic mindset in project management becomes the secret ingredient that propels organisations to thrive and conquer. While traditional project management has long been fixated on tactical execution, the strategic approach emerges as a visionary force, weaving project objectives with strategic goals and the very essence of the company's mission.

A FEW ELEMENTS FOR CONSIDERATION ARE: Tools and technology

Technology unveils itself as a formidable ally. It encourages periodic updates of tasks, provides ease of monitoring, ensures projects stay on track, and enables timely interventions. Simultaneously, collaboration tools foster seamless teamwork, breaking down silos and promoting innovation. Effective cost and resource allocation are facilitated, optimising project efficiency and driving productivity.

Many established programme management consultants today leverage reporting frameworks, such



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Z-Nano System – Compact tool setting probe for length measurement and tool length breakage detection



ZX-Speed System – Reliable tool measuring probes for a wide variety of machines



Z-PICO – Tool Seeting probe for drilling bit breakage detection and length measurement in micro-machining



LC50-DIGILOG – Premium laser measuring system for tool measurement and tool monitoring



as interactive dashboards, to offer real-time insights and empower informed decision-making.

Communication

Effective communication and decision-making emerge as critical factors, with key conversations playing a pivotal role. These discussions lead to game-changing decisions and breakthrough ideas that shape the trajectory of future endeavours.

Adopting a proactive approach rather than a reactive one enables organisations to seize opportunities and stay ahead of the curve. Establishing a clear sense of direction guides decision-making and resource allocation, enhancing operational efficiency.

The result is increased market share, profitability, and the creation of a resilient and durable business.

In synopsis, embracing a strategic mindset in project management not only transforms the way projects are executed but also propels organisations towards sustainable success in an ever-evolving business landscape.

TACTICAL TO STRATEGIC: A RESULT-DRIVEN APPROACH

Interpreting the definition of success for a Programme Management Office (PMO) reveals a multi-faceted approach that encompasses both project and organisational levels.

In the dynamic space of project management, a result-driven approach serves as a catalyst, ensuring seamless alignment of projects and programmes with the overarching organisational strategy.

As a priority, projects are meticulously aligned to the strategic framework, their purpose intertwined with the fabric of the entire organisation. Additionally, projects are aligned with the specific organisational divisions that hold the potential for value creation, enabling the company to capitalise on its strengths and opportunities. This approach could be incorporated into all projects at various levels.

Lever 1: Success at the project level depends on various factors, including:

- Utilising early warning signals as essential indicators to proactively mitigate risks.
- Possessing domain knowledge to ensure expertise and effectiveness in execution.
- Embracing adaptability as a foundational element for project flexibility
- Implementing metrics and reporting mechanisms to track progress and make data-driven decisions.
- Cultivating a culture of innovation to foster continuous improvement and generate breakthrough ideas.

Lever 2: At the organisational level, success factors for a PMO include:



In today's evolving business landscape, the transition from a tactical to a strategic mindset within a Project Management Office (PMO) is not just a progression but a necessity.

- Strategic selection and prioritisation of growth issues.
- Efficient allocation of resources towards projects that contribute to increased revenues.
- Focus on critical initiatives and the development of staff capabilities.
- Dedicated time allocation for strategic planning and evaluation of key issues
- Cultivation of a change-embracing culture

Leveraging these levers, an organisation can ultimately drive towards success. A result management office (RMO) plays a pivotal role in ensuring the success of project management endeavours. The RMO effectively aligns strategy and execution, demonstrating commitment to achieving tangible outcomes and maintaining seamless alignment. By harmoniously aligning projects with the strategic framework and organisational divisions, the RMO crafts comprehensive communication plans that highlight programme benefits and foster cohesive collaboration. Integration of technology, people, and processes promotes efficient collaboration as the standard, encouraging thriving innovation within the organisation. Embracing this result-driven approach sets the stage for organisational success, ensuring that projects are strategically aligned, communication flows seamlessly, and teams work cohesively towards a common goal.

In today's evolving business landscape, the transition from a tactical to a strategic mindset within a Project Management Office (PMO) is not just a progression but a necessity. As organisations increasingly emphasise a result-driven ideology, the strategic orientation of a PMO becomes the cornerstone of success. The shift from merely overseeing projects to actively influencing their outcomes exemplifies the PMO's evolving role. However, this transformation goes beyond the confines of conventional responsibilities. This new dimension underscores the vital importance of a symbiotic relationship between progress and guidance, signifying the true role of a modern PMO. As organisations seek a PMO that not only navigates the strategic landscape but also provides insightful direction, the evolution towards a holistic and results-oriented approach emerges as the defining hallmark of a successful PMO in today's business environment. 

JCB INDIA UNVEILS ITS NEXT-GEN 'TRACKED EXCAVATORS' RANGE AT ITS PUNE FACILITY

India's leading manufacturer of Earthmoving and Construction equipment, JCB India, showcased its Next Gen Excavator range at its state-of-the-art facility at Talegaon, Pune. The company introduced its first Tracked Excavator in India over two decades ago and has since manufactured over 40,000 such machines in India.

Deepak Shetty, CEO and Managing Director, JCB India, said, "JCB Excavators have been helping build infrastructure in India for over two decades. They are manufactured at our state-of-the-art facility in Pune with a high degree of localisation. In addition to the domestic market, JCB Excavators are also exported the world over. Infrastructure development activity is set to increase significantly, and these machines will play a leading role in this development. We have invested significantly in the Design, Engineering and Manufacture of these machines to one-global-quality standards in India."

The company showcased its range of 16 different models of excavators during the event; from the 1.6-tonne on mini excavator, which is used for smaller applications, to the larger 38.5-tonne excavator used for bulk excavation and mining work. The machines are engineered for Indian applications. The structures and design are validated at the test track at the state-of-the-art research centre at Pune.

JCB is amongst the few companies which have set-up an innovation facility at India, thus it can design products as per the needs of the customers. JCB also works closely to develop capacity of supplier partners, especially MSME companies to create import substitution of components for excavators.



These digitally enabled machines are a part of JCB's Next-Gen range. They are fitted with JCB's advanced Telematics Technology called Livelink, which has revolutionised the way fleet management is done in the industry. This technology gives real-time updates on the service, operations, and security of the machines. Livelink is useful for large construction companies as it gives updates on fuel consumption, performance, and security alerts for their fleet.

Deepak Shetty, further added, "With infrastructure activity being in the focus, India must get world-class equipment to leverage this opportunity. We are very proud that these high technology machines are

'Made in India' and are helping in infrastructure development and our wide range of machines will ensure that our customers have a machine for every application."

As part of the company's focus on Excavators, JCB launched its JCBNXT 225 LCM Tracked Excavator last year, the machine has seen a very encouraging response from customers.

The JCB Pune factory is in Talegaon and was inaugurated in the year 2006-07. It is an integrated facility which has fabrications, assembly and the design centre all located in one place. It is a global manufacturing hub which caters to the domestic as well as international demand for its products.

CONTINENTAL STRENGTHENS MOBILE ROBOTICS POSITION WITH KINEXON ACQUISITION

Continental has acquired KINEXON's specialist division responsible for on-board operating systems used to control autonomous mobile robots (AMRs). This move is aimed at strengthening Continental's position in the field of mobile robotics.

The core of this acquisition is the 'Brain' on-board operating system, which is designed for precise and networked control of autonomous mobile transport robots. Continental now holds the intellectual property rights to this advanced solution. Additionally, the team from KINEXON is joining Continental as part of this acquisition.

This acquisition allows Continental to expand its capabilities in both software and hardware for mobile robots. This will enable the company to introduce new features and expand its product lineup in the field of robotics for intralogistics. Both Continental and KINEXON have agreed to not disclose the purchase price or further details of the transaction.



Pierre Pomper, Head, Continental Mobile Robots, expressed that this acquisition will bolster Continental's global development team and expertise in mobile robotics, allowing them to provide reliable mobile

robot solutions. It positions Continental as a one-stop shop for customers in this field and supports the company's growth in various end markets.

The partnership between KINEXON and Continental will continue even after the acquisition of the on-board operating system 'Brain' for autonomous mobile robots. KINEXON will focus on centralised control for autonomous mobile robots. Continental will offer its customers the option to use this intelligent fleet management software for controlling AMRs, shared Alexander Hüttenbrink, Co-Founder and Co-CEO, KINEXON.

igus INTRODUCES AFFORDABLE CARRIAGES MADE FROM RECYCLED PLASTIC

igus, a global leader in motion plastics, introduces its latest innovation: the drylin econ entry-level series. The new polymer carriages offer cost savings of up to 80 per cent.

The drylin econ series is manufactured from regranulated high-performance plastic, making it not only cost-effective but also environmentally sustainable. These carriages are designed to simplify adjustment and positioning tasks, all while costing less than 20 per cent of their milled aluminium counterparts. Further, they can smoothly navigate curved aluminium rails, thanks to movable bearings.

In an era where efficiency and cost-cutting are given utmost importance, design engineers now have access to a cost-effective solution. Michael Hornung, Product Manager, drylin Linear and Drive Technology, igus, explained, "We have introduced the drylin econ series to cater to the growing need for simple adjustment and positioning tasks, including cornering."

Key Features and Benefits:

Cost Reduction: The drylin econ series offers an affordable alternative to traditional linear guides, with carriages injection-moulded from high-performance plastic. This innovative approach reduces the cost of a 0630-size linear carriage and saves design engineers over 80 per cent.

Maintenance-Free Operation: The incorporation of



microscopic solid lubricants within the high-performance plastic eliminates the need for maintenance.

Lightweight Design: drylin econ utilises a combination of plastic and aluminium, making it suitable for lightweight constructions and diverse applications.

Cornering Capability: These carriages smoothly navigate curves on anodised aluminium linear rails, offering noise-free

movement. This feature is especially valuable for applications like vending machines in public spaces.

Sustainability: igus' commitment to sustainability is evident in its use of recycled material. The carriages are made from regranulated plastic, including production waste, promoting a resource-saving, environmentally friendly circular economy.

GODREJ SECURITY LAUNCHES FACIAL RECOGNITION ACCESS SYSTEM

Godrej Security Solutions, a business unit of Godrej & Boyce, the flagship company of the Godrej Group, unveiled their latest offering, 'Facial Recognition System'. The brand has been focusing on innovations and tech-enabled solutions through their platform, Secure 4.0.

Godrej Security Solutions' Facial Recognition System increases security while maintaining high throughput for access into buildings, making the process effortless for the authorised personnel. The face recognition reader authenticates the person against the templates stored in the database up to 4 metres, making it a 'walk-through reader'.

It can be connected to a LAN and remotely managed through the administration software. The key advantages of the Facial Recognition system are Live and Fake Face detection, authentication with or without a mask, and multi-face authentication with users walking through gates.

This Face Recognition System can be integrated into the Swing Lane barrier to improve the accuracy of authorised access. Godrej Swing Lane Barrier (GSLB) is



an innovative pedestrian control technology that is designed to achieve the best balance between quality, performance, and affordability.

GSLB series provides a combination of reliable mechanical as well as electronic restrictions for unauthorised visitors while still maintaining a welcoming atmosphere. Standard cabinet cladding in stainless 304 finish; optional finish in gold or any colour suitable for existing aesthetic lobby.

Pushkar Gokhale, Senior Vice President and Business Head, Godrej Security Solutions, stated, "I'm glad to see positive vibes in response to our innovations that we are unveiling under the Secure 4.0 umbrella. The thought behind Secure 4.0 was to showcase offerings that people trust and solutions that are constantly evolving with changing consumer needs driven by the threat landscape."

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