

‘Mining 5.0 key to sustainable growth’

Rajya Sabha MP Dr. Sasmit Patra on mining industry, which is currently at different stages of technological evolution



Rajya Sabha MP Dr. Sasmit Patra has emphasised the need for technology-driven, sustainable, and community-centric mining practices, stating that “Mining 5.0” will play a crucial role in balancing industrial growth with environmental and social responsibility.

While speaking to *mojo4industry* Editor Subhjit Roy on the sidelines of the World Technology Convention organised by the Indian Chamber of Commerce in Mumbai, Dr. Patra said mining operations must adopt a “human-first” approach while leveraging advanced technologies to

Modern solutions can help minimise wastage, improve circularity in the economy, and create a more sustainable mining ecosystem.

reduce environmental damage and improve community welfare.

“Mining cannot be stopped because it remains essential for development. However, we must ensure that mining activities do not disrupt lives or adversely impact local communities and the environment,” he said.

Representing Odisha, one of India’s most mineral-rich states, Dr. Patra highlighted how emerging technologies can reduce friction between mining industries and affected communities. He noted that modern solutions can help minimise wastage, improve circularity in the economy, and create a more sustainable mining ecosystem.

Dr. Patra observed that the mining

industry is currently at different stages of technological evolution. “Some industries may still be at Mining 1.0, others at 2.0 or 3.0, while only a few can claim to be nearing Mining 4.0,” he said, adding that Mining 5.0 would be critical in bridging the gap between the benefits of mining and its environmental and social costs.

He stressed that mining activities must deliver tangible benefits to local communities. “If the adverse impact of mining outweighs the benefits reaching communities, then it is simply not worth it,” he remarked.

Calling for policy reforms, Dr. Patra advocated amendments to the Mines and Minerals (Development and Regulation) Act (MMDR) and other mining-related laws at both state and Union levels to encourage greater technological adoption.

“Technology should become an integral part of legislation, policy frameworks, and government programmes. Unless technology becomes a preferred and encouraged component of mining operations, industries may not proactively adopt it,” he said.

Dr. Patra concluded by underscoring that sustainable mining practices, backed by innovation and policy support, are essential to ensuring economic development while safeguarding communities and the environment.



WATCH: <https://bit.ly/SasmitPatra>

ABB unveils ‘world’s first’ magnet-free hyper efficient motor



ABB has claimed to be the world’s first manufacturer to offer an IE6 Hyper Efficiency motor certified for hazardous areas under ATEX and IECEx standards. The company said the new Increased Safety motor, based on its magnet-free synchronous reluctance (SynRM) technology, is designed to improve energy efficiency and reduce carbon emissions in industries where explosive gases, vapors or dust may be present, including chemicals, marine, oil and gas, pharmaceuticals, and food and beverage processing.

According to ABB, the IE6 SynRM motor delivers up to 60 percent lower energy losses compared with conventional IE3 induction motors commonly deployed in Zones 1 and 2 hazardous environments.

Certified for use with variable speed drives (VSDs), the IE6 SynRM motor offers accurate control and high efficiency throughout the whole speed range, even at partial loads. This makes it the ideal upgrade for standard IE3 induction motors in pumps, fans and compressors. “Over a typical 20-year service life, the energy savings from switching just one motor up to IE6 would be €87,520, resulting in an eight-month payback period with 157,540 kg CO2 avoided – equivalent to 37 gasoline powered passenger cars driven for a year,” ABB claims.

“In its Energy Efficiency report 2025, the IEA highlights the pressing need to

make sustainable technology available as an affordable choice. And that is central to ABB’s own Engineered to Outrun philosophy,” said Stefan Floeck, President IEC LV Motors, ABB. “With the world’s first IE6 Hyper Efficiency SynRM motor for hazardous areas, we now have the ideal solution for customers who must drive down their operating expenses while meeting stringent sustainability targets.”

The new IE6 SynRM Increased safety motor covers ratings from 110 kW, with IE5 versions available for up to 90 kW. As well as increased reliability and reduced maintenance, SynRM technology enables a more cost-effective installation. In Zone 1, cooler running can allow the use of an Increased safety SynRM motor where a Flameproof motor with a special enclosure would be the traditional choice. Furthermore, in Zone 2, the improved loadability of SynRM motors enables more power from the same size as an equivalent induction motor. This could enable a smaller, lower-cost motor to fulfil the same duty.

ABB’s IE6 and IE5 SynRM technology is part of the industry’s broadest portfolio of IEC LV motors for hazardous areas, with induction alternatives up to IE4 efficiency level. Whatever the technology, these motors combine robust construction, high energy efficiency, and reliable operation to deliver trusted performance and certified safety in the most demanding environments.



READ MORE: <https://bit.ly/abb-IE6>

Ace Designers opens Ahmedabad plant

Ace Designers Limited, the flagship company of the Ace Micromatic Group, announced the inauguration of its new state-of-the-art assembly facility at Panchratna Industrial Park, Ahmedabad. This strategic expansion marks a significant milestone in ADL’s growth journey, reinforcing its commitment to capacity enhancement, business expansion, and strengthening its global footprint.

Over the next five years, the facility is designed to achieve an annual production capacity of approximately 3,000 turning machines and 1,000 machining centres. The plant will emphasize localization through the development of regional vendors and the deployment of skilled manpower. Starting with a workforce of around 100 employees, the plant is expected to scale up to approximately 350 personnel over this period.

Founded in 1979 by three engineers from the Central Manufacturing Technology Institute (CMTI), Ace Designers began as a design consulting company and went on to establish the Ace Micromatic Group. Following the amalgamation of Ace Designers, Ace Manufacturing Systems, and Micromatic Machine Tools, Ace Designers Limited has emerged as India’s largest manufacturer of CNC turning centres and machining centres.

With an anticipated annual turnover exceeding INR 2,800 crore in FY 2025–26, ADL has the capacity to manufacture 8,000 turning centres and 3,400 machining centres annually. The company has established a strong global presence across Asia, Australia, the Middle East, North and South America, and Europe, and has maintained over 25 years of market leadership in CNC Turning and Machining Centres in India.

TK Ramesh, Managing Director, Ace Designers Limited said, “Our decision to set up this plant in Gujarat is driven by our commitment to be closer to key



industrial hubs and our customers. This proximity will enable faster response times, better service support, and deeper collaboration with our customers to enhance their productivity.”

Bill Shukla, Joint Managing Director, Ace Designers Limited said, “This facility has been conceptualized as a next-generation manufacturing unit, integrating advanced processes and digital technologies. It will play a crucial role in delivering high-precision, high-performance machine tools aligned with the evolving demands of modern manufacturing.”



WATCH: <https://bit.ly/Ace-Ahmedabad>

InnovMetric, the independent software development company that empowers manufacturers of every size to digitally transform their 3D measurement processes, announces the launch of PolyWorks 2026.

This major release delivers three key pillars of innovation:

- A data management solution in a cloud-based Software as a Service (SaaS) model
- Improved software compatibility to support a broader range of measurement devices
- An AI assistant designed to provide technical support 24/7

PolyWorks 2026 empowers metrology engineers and quality control managers to implement standardized dimensional inspection processes, facilitating multi-site collaboration among metrology teams, as well as with external suppliers.

A digital thread infrastructure PolyWorks 2026 introduces two major enhancements that leverage a digital thread framework to create the ultimate inspection lab:

- DataLoop Cloud, a SaaS solution designed to ensure secure data centralization for manufacturers seeking to outsource their data management server setup and maintenance, thereby simplifying deployment and reducing ongoing upkeep.
- Seamless sharing of PolyWorks|Inspector licenses as well as piece measurement templates with tailored interfaces, streamlining multi-site inspection by driving standardization and boosting efficiency.

Metrology platform extensions

The universal metrology platform

InnovMetric launches PolyWorks 2026



delivers four key extensions, enabling metrologists to work smoothly and with greater flexibility:

- A Computed Tomography (CT) scanning module that automates CT-based multipiece inspection in production environments.
- A web-based data app that allows collecting and consolidating data from handheld gauges and visual checks, directly on the shop floor.
- Real-time integration of portable multi-line scanners within PolyWorks|Inspector, enabling direct processing of scan data and eliminating manual transfers as well as the need to

switch between software platforms.

- Advanced 5-axis probe head support that includes native go-to-positioning, head-touch measurement, and built-in collision analysis functionalities.

An AI assistant for an enhanced customer experience InnovMetric is proud to launch MyPolyWorks AI, a smart assistant fully integrated into the MyPolyWorks customer portal. Available 24/7, it provides instant, reliable technical answers in the customer’s preferred language and includes hyperlinks for deeper insights.

“We dream with our customers, and together, we’re taking a step closer

Our innovations connect people, processes, and data through a digital thread, empowering manufacturers to stay competitive and thrive in a rapidly changing world.

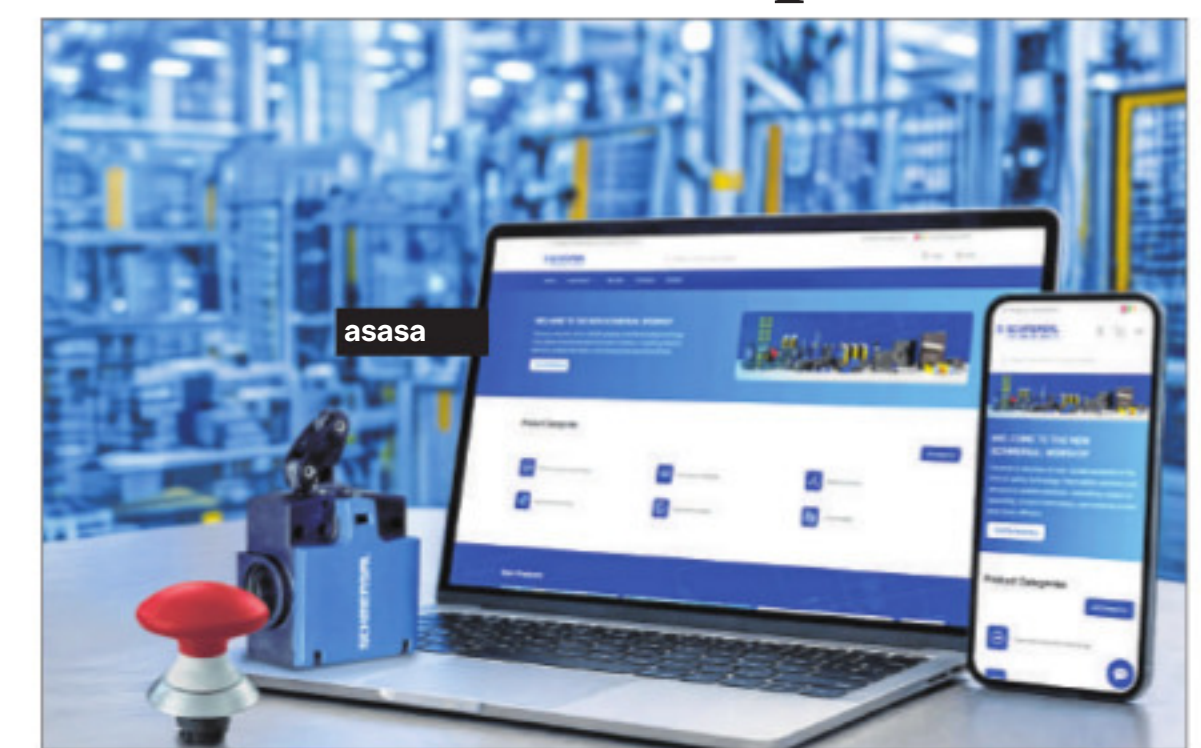
—Marc Soucy

towards the ultimate inspection lab—a place where data flows digitally, complex tasks become simple, collaboration between humans is effortless, and traceability is achieved without stress,” says Marc Soucy, co-founder and President of InnovMetric. “We chose this path because measurement data drives manufacturing agility. When companies have accurate, traceable data, they can maximize quality, make better decisions and reduce time to market. Our innovations connect people, processes, and data through a digital thread, empowering manufacturers to stay competitive and thrive in a rapidly changing world.”



READ: <https://bit.ly/polyworks-2026>

Schmersal launches new Webshop



K.A. Schmersal GmbH & Co. KG has successfully launched its new webshop. With modern technology and significantly improved user guidance, the platform offers customers worldwide a more convenient and efficient shopping experience for products, order data, and services. The overall portfolio comprises around 15,000 products in safety, control, and automation technology.

Simplified process

A key focus of the relaunch was further improving user-friendliness. The entire ordering process has been made clearer and more intuitive. Existing approval processes for the registration of business customers have been retained but now run more efficiently. Another advantage for existing customers: current login credentials remain valid, ensuring a seamless transition to the new system.

Product clarity

The product detail pages are now more user-friendly: technical features, specifications, and relevant information are more prominently displayed and easier to find. Additional functions such as a product comparison tool further support customers in selecting suitable solutions.

The new webshop is available in around 20 countries, strengthening Schmersal’s international digital presence and providing a consistent global shopping experience.

Responsive design

The mobile experience has also been significantly improved. The new webshop now features a modern, responsive design. Content and functions automatically adapt to different devices, ensuring convenient use on the go.

Availability & support

The new webshop is available in around 20 countries, strengthening Schmersal’s international digital presence and providing a consistent global shopping experience. In addition to digital optimization, Schmersal continues to focus on personal support. Customers will still benefit from technical and commercial support hotlines to receive fast and competent assistance.



READ: <https://bit.ly/schmersal-webshop>