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Avantor Advances Bioprocessing and Sustainability to Power Asia-Pacific's Healthcare Innovation

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Narayana Rao Rapolu, Senior Vice President, Global Bioprocessing Commercial at Avantor, shares how the company is driving innovation, supply chain resilience, and sustainability to meet the region's fast-evolving healthcare needs.



Sharing his perspectives with ***BioSpectrum Asia*****, Narayana Rao Rapolu, Senior Vice President, Global Bioprocessing Commercial at Avantor**, reflects on how the company is shaping Asia-Pacific's fast-evolving healthcare landscape. From strengthening its product innovation pipeline and enhancing supply chain agility to embedding sustainability across operations, Avantor is driving solutions tailored to the region's unique needs. With advanced therapies, biosimilars, and personalised medicine on the rise, Rapolu highlights how Avantor is enabling biopharma partners to deliver life-changing treatments faster, more reliably, and more sustainably.

Could you share an overview of Avantor's current product innovation pipeline tailored specifically for the Asia-Pacific region? What unmet needs are you aiming to address in this market?

Asia-Pacific is witnessing a surge in demand for advanced therapies, driven by breakthroughs in oncology, rheumatology, diabetes, obesity, and rare diseases. The region is seeing rapid development of monoclonal antibodies, cell and gene therapies, and antibody-drug conjugates which offer more targeted and personalized treatment options. Innovations like GLP-1 analogues for metabolic diseases and next-generation vaccines for communicable illnesses are also reshaping public health strategies and global healthcare access.

Avantor is deeply embedded in this evolving landscape, supporting both global and regional biopharma manufacturers with high-purity materials, scalable production technologies, and regulatory-compliant solutions. Our regional manufacturing and innovation capabilities are being continuously strengthened to meet growing demand, reduce time-to-market, and ensure supply chain resilience. By leveraging our global network of certified facilities and trusted brands, we help customers streamline development, enhance efficiency, and expand access to life-changing therapies.

How is Avantor strengthening and localizing its global supply chain to ensure timely and secure delivery of materials across diverse markets in Asia-Pacific?

At Avantor, we're deeply committed to delivering reliable, high-performance support through our global manufacturing network. No matter where our products are made, they're held to the same rigorous standards for health, safety, environmental compliance, and quality. That consistency is key and ensures our customers have a seamless experience across every region.

We invest in our manufacturing and distribution capabilities to advance innovation. In the Asia-Pacific region, for example, we work with more than 25 third-party logistics providers and operate a major distribution center in Singapore. Our Avantor Singapore Manufacturing Hub is designed as a one-stop solution, supporting the biopharma ecosystem and meeting the unique needs of customers in the region.

To make things even easier for our customers, we offer web ordering, segmented inventory strategies, and flexible fulfillment options like Make-to-Stock , Make-to-Order, and Assemble-to-Order. These investments in infrastructure and supply chain agility allow us to strategically source materials, reduce risk, and ensure fast, efficient product delivery.

Can you walk us through the sustainability measures Avantor has introduced or plans to introduce within its APAC operations, particularly in areas like packaging, energy use, and local sourcing?

As part of Avantor's Science for Goodness sustainability platform, we're deeply committed to embedding sustainability across every stage of our business. We are actively reducing greenhouse gas emissions, developing innovative, sustainable products and packaging solutions, and improving delivery systems that enhance operational efficiency for our customers.

In 2024, we added five solar energy installations at facilities, including Dehradun and Panoli in India, building on the momentum from our Singapore site solar improvements, which went live in late 2023. We also reduced waste and the end-of-life impact of our products, expanded the portfolio of Environmentally Preferable Products available to customers, and supported more sustainable lab practices across our global footprint.

Since September 2024, Avantor's Panoli, India team transitioned to using green steam from biomass briquettes, cutting natural gas usage for vapor production by 99%. This shift significantly lowered our site's carbon footprint and operational costs, a powerful example of how renewable energy sources can deliver real-world results and help us move closer to our long-term sustainability goals.

Avantor's Panoli and Dehradun manufacturing sites were recently honored with the Green Leaf Gold Award 2024 for sustainability excellence by the Apex India Foundation, reflecting our commitment to a positive and lasting impact on both the environment and society.

We remain committed to strengthening our regional capabilities by investing in sourcing, manufacturing, and supply chains that are closer to our customers, reducing environmental impact, enhancing responsiveness, and supporting more sustainable growth.

With evolving regulatory environments across Asia-Pacific, how does Avantor stay agile in ensuring compliance while accelerating time-to-market for new offerings?

At Avantor, patient safety and regulatory compliance are central to everything we do. We're seeing increased vigilance from regulatory authorities across the Asia-Pacific region, with new measures being introduced, whether it's around Chinese Pharmacopeia compliance, Bureau of Indian Standards, controls on drug precursors and impurities like nitrosamines, or dual-use substances.

We're fully committed to meeting these evolving requirements and ensuring our products are aligned with all regulatory standards. Our Drug Master Files and registrations play a key role in supporting successful submissions for Investigational New Drug Applications and New Drug Applications in the United States and many other countries.

To stay ahead of regulatory changes, we actively engage with both authorities and customers. This helps us stay informed and implement updates promptly, ensuring full compliance with local regulations throughout the Asia-Pacific region.

Looking ahead, what role does Asia-Pacific play in Avantor's global growth strategy, and are there any key investments or partnerships on the horizon you can share?

Asia-Pacific plays a vital role in Avantor's global growth strategy. We're seeing strong momentum in the region, driven by rising demand for advanced biologics, medical devices, and semiconductor technologies. As patient needs shift toward biosimilars, antibody-drug conjugates, and personalized medicine, the healthcare landscape is transforming into a key area of innovation and infrastructure. To support this evolution, we are deepening investments in local manufacturing, skilled talent, and innovation center.

These efforts help us deliver solutions that are tailored to the region while ensuring business continuity. We're also actively exploring strategic partnerships in emerging areas like drug development across existing as well as new modalities. It's all part of our commitment to supporting transformative healthcare advancements and enabling greater affordability, scalability, and access across Asia-Pacific.

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