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Bioinnovation APAC 2026: Advancing Industrial Biomanufacturing in the Asia-Pacific Region

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A Comprehensive Look at the Collaborative Efforts, Innovations, and Strategies Shaping the Future of the Bioeconomy



The **Bioinnovation APAC 2026** forum, held in Singapore on **March 4-5**, was a landmark event that brought together over **250 bio-pioneers** from across the globe to discuss, collaborate, and innovate in the field of industrial biomanufacturing. This two-day gathering was not merely a conference but a dynamic platform designed to foster partnerships, share cutting-edge insights, and address the challenges and opportunities in scaling biomanufacturing across the Asia-Pacific region.

Asia is well-positioned to capture opportunities in the bioeconomy, and Singapore serves as an ideal gateway to these. As Singapore continues to invest in our growing bioeconomy, we look to partner with companies to co-innovate, commercialise, and manufacture bio-products here for Asia.

At Bio Innovations APAC 2026, EDB EVP **Wey-Len Lim** highlighted three drivers reshaping the bioeconomy space: **regulatory mandates creating market shifts**, the **rise of bio-based "drop-in" replacement chemicals**, and **novel bio-products delivering superior performance over traditional petrochemicals**.

Lim furthur expalined, "Asia, home to 60% of the world's population and 50% of global agriculture, offers compelling advantages for bioeconomy growth by combining rapidly expanding consumer markets with biodiversity resources. Singapore's strategic location provides access to these markets and regional feedstock, while our diversity makes us an optimal base for regional product development. With established R&D capabilities across the industrial biotechnology value chain, and US$29b (S$37b) that will be invested between 2026 and 2030 via our national R&D budget, Singapore offers a complete ecosystem for bioeconomy innovation."

The event was characterized by a **well-rounded agenda** that combined **structured sessions**, **pre-arranged one-on-one meetings**, and **informal yet impactful networking opportunities**, creating an atmosphere of collaboration and forward-thinking energy. Participants engaged in over **400 scheduled meetings**, underscoring the strong interest in direct collaboration and knowledge exchange, while the event's vibrant and interactive format highlighted the region's growing role as a hub for bio-based innovation.

The event began with a **pre-event tour** on **March 3**, organized by the **Singapore Economic Development Board (EDB)** and **Alfa Laval**, which set the stage for the discussions to follow. This tour provided participants with a glimpse into Singapore's efforts to position itself as a leader in biomanufacturing, showcasing local initiatives and infrastructure that support the region's bioeconomy ambitions.

Industrial Biomanufacturing Efforts in APAC

The formal proceedings on **Day 1** opened with a **keynote address** by **Jukka Kantola**, Chair of the **World Bioeconomy Association**, who provided a **global perspective on the bioeconomy**. His speech emphasized the **geopolitical and market-driven evolution** of the bioeconomy, particularly how the Asia-Pacific region is emerging as a key player in industrial biomanufacturing. Kantola highlighted both the **momentum** and the **gaps** in the region, setting a tone of optimism tempered by the recognition of challenges that need to be addressed.

This global overview was followed by a **fireside chat** hosted by **Paul MacDonald** of **World Bio Markets**, featuring **Bryan Haynes** of **Kimberly-Clark**. The discussion centered on how the company is leveraging **biobased innovations** to future-proof its business. Haynes addressed critical issues such as the **transition from petrochemical feedstocks**, the importance of **value chain harmony**, and the role of **consumer sentiment** in driving sustainable practices. This session underscored the need for businesses to align their strategies with both **environmental goals** and **market demands**, providing a practical perspective on the integration of biobased solutions into mainstream operations.

The first day's agenda delved deeply into the **technical and commercial aspects of biomanufacturing**. One of the standout presentations came from **Leaf Bio**, which introduced **furan chemistry** as a platform for **next-generation bio-based aromatics**. This session highlighted the potential of furan-based compounds to replace conventional petrochemical-derived aromatics, offering a more sustainable alternative for various applications.

Similarly, **Alfa Laval** shared insights into **collaborative approaches for de-risking and scaling bio-based processes**, emphasizing the importance of partnerships in overcoming the technical and financial hurdles associated with bringing bio-based technologies to market. These presentations were complemented by a **panel discussion** on the **APAC legislative landscape**, which explored the **diverse regulatory frameworks** across the region. The panel identified both **enablers**, such as supportive policies and incentives, and **barriers**, including inconsistent regulations and limited infrastructure, that impact the commercialization and growth of bio-based industries in the region.

Another key theme of Day 1 was learning from **mature markets in Europe and North America**. A panel discussion shared **practical strategies for scaling bio-based production**, drawing on experiences from these regions to provide actionable insights for APAC stakeholders. The panel emphasized the importance of **market readiness**, **value chain collaboration**, and avoiding common pitfalls faced by early-stage projects. This cross-regional exchange of knowledge was a valuable addition to the event, as it allowed participants to understand how lessons from established bioeconomies could be adapted to the unique context of the Asia-Pacific region.

Innovative companies also took the stage to showcase their work. **RWDC Industries** presented their progress in producing **fully biodegradable PHA biopolymers** as a replacement for conventional plastics, addressing one of the most pressing environmental challenges of our time.

Meanwhile, **Uluu** shared their mission to transform **farmed seaweed** into **climate-positive materials** for mainstream applications, demonstrating how unconventional feedstocks can be leveraged to create sustainable solutions. These presentations not only highlighted technological advancements but also served as a reminder of the **diversity of approaches** being pursued to address environmental and industrial challenges.

The role of **academic institutions** in nurturing biomanufacturing startups was another critical topic explored during Day 1. A panel discussion underscored the importance of **pilot facilities**, **talent pipelines**, and **early validation partnerships** in derisking technologies and supporting the transition from research to commercial application. This session resonated with many attendees, particularly those involved in startups or academic collaborations, as it highlighted the need for a **supportive ecosystem** to bridge the gap between innovation and market entry.

Corporate perspectives were also a significant part of the program. **PepsiCo** shared their exploration of **fermentation and biomanufacturing** under their **Pep+ agenda**, focusing on **clean labels**, **sustainable materials**, and **advanced flavor solutions**. This session provided a glimpse into how a global consumer goods company is integrating biomanufacturing into its sustainability goals, offering a model for other businesses to follow.

Additionally, **A*STAR** provided a look into their efforts to build a **robust biomanufacturing backbone** powered by **synthetic biology** and **public-private partnerships**, illustrating how government-supported initiatives can drive innovation at scale. Meanwhile, **Newera Bio** introduced their work on **bio-based color solutions**, addressing **environmental and health concerns** caused by synthetic petroleum-derived chemicals, further emphasizing the breadth of innovation occurring in the region.

Networking opportunities throughout the day, such as **coffee breaks**, **lunch**, and **refreshments**, allowed participants to engage in **meaningful interactions** that reinforced the event's mission to foster collaboration. These informal exchanges often led to **new connections** and **potential partnerships**, demonstrating the power of in-person events to catalyze relationships that can drive the bioeconomy forward.

Advancing Biomanufacturing Through Collaboration

Day 2 of the event built on the momentum of the first day, with a program designed to advance the mission of scaling industrial biomanufacturing in the Asia-Pacific region. The day began with **opening remarks** from **Paul MacDonald**, Co-Founder and Managing Director of **Bio Innovations APAC**. This was followed by a **keynote address** and **fireside chat** that explored the transition from **fossil resources** to a **"Sun and Soil" economy**, emphasizing the role of **agriculture** and **biomass** in meeting global needs for **food**, **fuel**, and **materials**.

Sangeeta Srivastava of Godavari Biorefineries Limited provided a compelling case study of the company's **circular integrated biorefinery approach**, which converts **biomass into biochemicals** for applications in **skincare**, **cosmetics**, **agrochemicals**, and more. She also discussed the broader themes of **circular biomanufacturing**, **regenerative agriculture** , and **social sustainability**, offering a holistic view of how biomanufacturing can contribute to both **environmental** and **social goals**.

A **fireside chat** featuring **Lucas Palhares** of Braskem provided further insights into the company's **bio-based innovation journey**, particularly its work in **bio-polyethylene** and strategies for engaging **stakeholders across global markets**, including APAC. This session highlighted the importance of **market-specific strategies** and the need for companies to adapt their approaches to meet the unique demands of different regions.

Technical solutions were a major focus of Day 2. **DAB.bio** presented their **FAST technology**, which addresses the **cost challenges of large-scale fermentation** by enabling **competitive cost levels** and reducing **CAPEX**, making fermentation-based production more accessible and scalable. Similarly, **GS Biomats** showcased their leadership in **biobased furan materials**, presenting **scalable, low-carbon solutions** for **packaging**, **textiles**, and **personal care** applications. These presentations demonstrated how innovation in **process technologies** can address some of the most significant barriers to scaling biomanufacturing, such as **cost efficiency** and **scalability**.

Raja Kaliappan of Godrej Industries shared the company's foray into **biosurfactants and probiotics**, focusing on **replacing synthetic surfactants** and advancing **natural ingredients** to support **sustainability** and **human health**. He also discussed the company's search for **technology partners**, highlighting the collaborative nature of innovation in the biomanufacturing space. These sessions were followed by a **networking coffee break**, which provided another opportunity for participants to connect and discuss the ideas presented.

A **panel discussion** on **raising capital** to transition biomanufacturing innovations from **lab to industrial scale** featured experts from **Elev8.vc**, **EDBI**, **Allozymes**, and **SGInnovate**. This session provided practical advice on **funding strategies**, **investment readiness**, and the importance of **building a strong value proposition** to attract investors. The panel emphasized that while funding is a critical enabler, it must be paired with **strategic planning** and **robust partnerships** to ensure long-term success.

Building Reliable Biomass Value Chains across food, agriculture, and industrial biotechnology

The afternoon sessions included a presentation by **Acies Bio** on its **SmartRoute platform**, which integrates **microbial biotechnology solutions** to accelerate **commercialization** across **food**, **agriculture**, and **industrial biotechnology**. This was followed by **Sustainea's** showcase of its **one-step glycol innovation**, enabling **low-carbon bio-PET solutions** for **packaging** and **textiles**. These presentations highlighted how **targeted technological advancements** can address specific

challenges in the biomanufacturing value chain.

A **panel discussion** on **building reliable biomass value chains** examined the **challenges and opportunities** in **feedstock collection**, **supply reliability**, and **market demand**, emphasizing the need to strengthen APAC's **biomanufacturing ecosystem**. This was complemented by **Celluranics'** presentation on **defossilizing the chemical industry** through **renewable feedstocks** and the **commoditization of FDCA**, as well as **BioVerde Technologies'** vision for **building Borneo's bioindustrial future** by leveraging **rainforest resources**, **sustainable feedstocks**, and **public-private partnerships** to create **scalable global supply chains** while ensuring **community impact**.

Throughout the event, the **sessions and discussions** provided **actionable insights**, highlighted **innovative technologies**, and emphasized **collaboration** as a key driver for advancing biomanufacturing in the region. The forum not only showcased the **technological advancements** and **commercial strategies** being pursued by companies and organizations but also underscored the **importance of regional cooperation** and **knowledge sharing** in building a sustainable bioeconomy.

In conclusion, **Bioinnovation APAC 2026** was a resounding success, offering a **comprehensive and dynamic platform** for stakeholders to engage with the latest developments in industrial biomanufacturing. The event highlighted the **potential of the Asia-Pacific region** to become a global leader in the bioeconomy, while also acknowledging the **challenges** that must be overcome to realize this vision. Through its **well-structured program**, **diverse speaker lineup**, and **vibrant networking opportunities**, the forum set a strong foundation for continued growth and collaboration in the years to come, reinforcing the idea that **biomanufacturing** is not just a technological endeavor but a **collective mission** to create a more **sustainable and resilient future**.

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