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Six Trends Shaping the Asian Biopharma Supply Chain

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The landscape is shifting rapidly for Asia's biopharma and broader health sciences sector which has been thrust to the center of the global battle against COVID-19.

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What are the big trends which will impact future manufacturing, production and biopharma supply chains.

1. Getting breakthrough solutions to market, faster

Making medicines faster and cheaper has long been part of a new normal. But against the ever-present debate on quality and cost, we see broader innovation only accelerating. The dominant theme? Re-imagining what production actually looks like, not just where it's located.

As big global companies ramp up output, the need for technology that increases productivity should grow.

At the same time, smaller companies are stepping up to take bigger roles. One example is EQRx. This global start-up wants to do for pharma what Southwest Airlines did for air travel[1] – not reinvent the airplane but reassemble the supply chain experience while lowering the cost.

The goal to bring new products to market faster is reflected right across Asia. There is significant investment across all sub-sectors of healthcare start-ups, including med-tech and biopharma[2], where more players are expected in fields like cell, gene therapies and small molecules[3].

2. Going for green: environment-friendly packaging will drive more sustainable solutions

Consumers are now demanding products manufactured and delivered through sustainable processes, from sustainable companies. And while pharma packaging in particular presents waste issues, more sustainable solutions are on the rise, particularly in the most challenging temperature range to sustain: between 2-8°C.

For instance, one life sciences company in Asia is successfully distributing IVF culture media to as many as 14 countries across what are often 96-hour journeys using Medpak VI°C, a recyclable rent-and-return solution. Others are using the service to distribute products like heart valves. Companies don't buy Medpak boxes, but rather, only pay for using the 100% recyclable packaging, which is then collected and re-used.

Similarly, active temperature-controlled specialty containers like C-Safe, which eliminate the need for gel packs or dry ice, will remain in demand – particularly for transporting temperature sensitive active pharmaceutical ingredients (APIs). [Learn more about **FedEx temperature-controlled shipment**]

3. Re-defining and re-thinking supply chain and delivery systems

The wide spectrum of pharma-related businesses, including biopharma multinationals, have always placed a heavy emphasis on sound contingency planning. It's built into the industry's profile, which is naturally more susceptible to the impact of any supply chain disruptions.

It's no longer about "Plan A" in the face of unforeseen events such as COVID-19. It's about "Plan B" and "Plan C", and even a back-up strategy for those scenarios. In turn, that's pushing the logistics team to re-configure supply chains, all the way from design to navigation and operations.

Central distribution hubs are playing an increasingly critical role. Take for instance, Singapore, ranked as Asia's top logistics hub for more than 10 consecutive years[4]. There are now more than 50 biopharma manufacturing plants in Singapore with an output of close to US$ 21 billion – that's over 21% of Singapore's total manufacturing activity[5]. Singapore's central location, multi-modal access, connectivity, professional talent pool and a robust R&D ecosystem are becoming increasingly crucial for biopharma.

For FedEx, it's about how we drive critical biopharma products through our network – and accelerate changes to make supply chains more adaptable, whether by air, road or sea. As a key player connecting global commerce, we can flex up or down as needed and this has been crucial this year in the capacity-constrained environment.

4. Greater manufacturing agility here to stay

As the race to discover, develop and market medicine accelerates, examples of differentiated, value-specific supply chains for different product types are appearing everywhere. This is not just a biopharma trend. Examples of "as-a-service" supply chain models for specific products are evolving right across the healthcare space, which for FedEx includes not just pharma, but life sciences, clinical trials and med-tech.

The COVID-19 crisis acutely highlighted the need for agility. Fears over severe shortages of antibiotics and other medicines have grown. With the prolonged closure of China's factories, the vulnerability of the pharma supply chain[6] became clear. Now governments and companies around the world are increasingly scouting for alternative sources[7]. [Click here to discover how **FedEx healthcare solutions** can help your business become more flexible]

For instance, one leading high-end audio OEM has a supply chain that spans a select few countries – Singapore, Malaysia and the Philippines included. They're flexing manufacturing so more than one country can assemble their market-leading medical devices, in response to ever-changing conditions and reduce dependency on one market.

5. **Don't be complacent when it comes to future innovation**

Just as many businesses are finding new, cost-effective ways to prioritize sustainability, the future can be seen in technology that's changing transportation and logistics itself.

Already, drone-delivered medical supplies are on the horizon, with a first-of-its-kind FedEx trial[8]. While this trend may be largely directed at residential package delivery, it's easy to imagine that one day, air delivery drones might deliver vaccines for pharma – or even blood or tissue samples for clinical trials into the 2020s. [Click here to see how FedEx elevates **clinical trial processes** with innovative solutions]

Whatever the future, and even when the COVID-19 pandemic subsides, contactless delivery is set to increase, as digitally-enabled delivery trends like Roxo, the FedEx SameDay Bot, are further developed over time.

6. **Sharp growth will create unique logistics challenges**

The global biopharma market is expected to reach US$269.3 billion by 2024[9], thanks to the industry's ability to treat previously untreatable diseases[10]. Yet as Asia Pacific increases its dominance in this space, so do the opportunities and challenges.

The pharma supply chain, including biopharma, will continue to seek flexibility in how it manages its supply chain.

For example, one player - for whom we ship bioproducts - chooses to "broker select"[11], using their own specialist for custom clearance, while accessing the logistics, quality assurance expertise and reliable network of FedEx. Such solutions demand tight integration and strong collaboration and is a big step towards more flexibility and choices for the customer thus increasing customer confidence.

The message? Reliability of delivery is just as or maybe even more important than speed[12] as we adapt to the healthcare supply chain of the future.

[1] https://www.forbes.com/sites/leahrosenbaum/2020/01/12/a-pharma-startup-launches-with-200-million-in-funding-and-a-strategy-to-make-drugs-faster-cheaper/#6cd17f5459d3

[2] Singapore Business Review, https://sbr.com.sg/markets-investing/in-focus/new-startup-sectors-gain-ground-vcs-fill-coffers

[3] Singapore Business Review, https://sbr.com.sg/markets-investing/in-focus/new-startup-sectors-gain-ground-vcs-fill-coffers

[4] World Bank, as highlighted by EDB, https://www.edb.gov.sg/en/our-industries/logistics-and-supply-chain-management.html

[5] SAPI-commissioned Deloitte Report, https://www.sapi.org.sg/wp-content/uploads/2018/05/Deloitte-Thought-Paper.pdf

[6] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30459-1/fulltext

[7] https://www.straitstimes.com/asia/east-asia/japanese-companies-urged-to-cut-supply-chain-reliance-on-china and https://www.nytimes.com/2020/03/11/business/economy/coronavirus-china-trump-drugs.html

[8] https://newsroom.fedex.com/newsroom/drone-deliveries-coming-soon-as-wing-unveils-plans-for-first-of-its-kind-trial-with-fedex-and-walgreen/

[9] https://www.businesswire.com/news/home/20190624005782/en/Global-Biopharmaceuticals-Market-Projected-Grow-8.7-2025

[10] https://www.mordorintelligence.com/industry-reports/global-biopharmaceuticals-market-industry

[11] http://www.fedex.com/gp_english/international/customsservices/intbroker.html

[12] https://www.fedex.com/en-us/healthcare/knowledge-center/solutions/healthcare-supply-chain-future.html