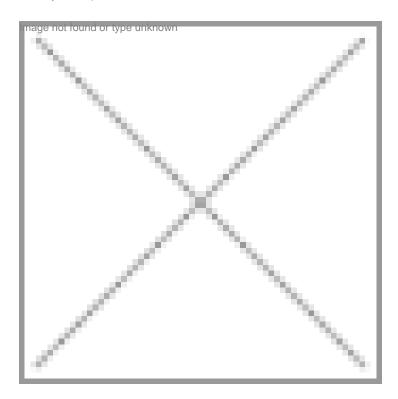


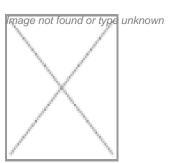
## **Asia**

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## Asia's biotech poised for innovative growth

The 20th annual biotechnology report of Ernst & Young, Beyond Borders, released during the BIO convention in Chicago, predicts that with strong government encouragements, the biotechnology industry in Asia Pacific is poised to embrace innovation in a big way. The author of the Asia Pacific part of the report, Mr Utkarsh Palnitkar, Leader of Health Sciences, in Ernst & Young. Extracts from the analysis on Asia-Pacific.



Bitters in Platgit karntinues to grow rapidly in the Asia-Pacific, as companies and governments across the region focus on this emerging is sector. The Asian sector's topline revenues increased by an estimated 46 percent compared to 2004. However, as isometimes affect the world, growth stemmed largely from the success of a few big companies.

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In Australia, strong performance by CSL, the sector's second largest company, boosted the country's biotech revenues by an astounding 64 percent, and allowed Australian and Asian biotech to reach a remarkable milestone - aggregating profitability. In other countries, leading starts continued to show strong growth. But for many smaller companies in the region challenges abound - the lack of experienced venture capital (VC) and increasing competition from new patent protections and foreign companies.

Asian governments are making biotechnology a top priority, recognizing the industry's tremendous growth potential and strategic importance. For Asian countries, the focus on biotech stems from several underlying trends. The first of these is the economic liberalization. In the 1980 and 1990, China and India started to liberalize their massive economies, enacting policies to encourage deregulation, privatization and international trade. As they opened their borders, both countries have had to boost intellectual property (IP) protections. Inevitability, these measures increased competition for domestic industries, and countries are looking for areas where they might have a competitive advantage.

India's prior patent laws had spawned a thriving generics industry, and these firms are now scrambling to find a competitive toehold under the new rules. Japan, an economy that has sometimes been accused of using regulations as "non tariff barriers" to shield its domestic economy, now is enacting regulatory reform to expose its sleepy drug industry to foreign competition.

Asian governments also see biotech as a natural fit because it is a technology-based industry with tremendous growth potential. Over several decades, several East Asian economies, including Japan, Taiwan, Singapore and South Korea, experienced rapid growth by developing competitive strengths in high technology industries. But in recent years, many of these sectors have seen shrinking margins due to commoditization and intense price competition. Biotechnology is viewed as the next big thing - an industry with tremendous growth potential in the decades ahead. While the strategy is risky - developing biotech products is a long, expensive proposition with no guarantee of success - the industry has much higher profit potential and create high-education, high-wage jobs.

The ingredients for a thriving biotechnology industry are no secret. Successful locations in the West have prospered from a combination of strong university research, experienced VC management, a highly educated labor force, physical infrastructure such as specialized real estate, and laws that support technology transfer. To varying degrees, Asian governments' strategic plans aim to replicate these success factors. But while biotech in the West took three decades to come of age, companies in the Asia-Pacific face the all-too-real prospect of looming foreign competition in the near term. They will need to accelerate development, creating unique solutions that reflect their own particular strengths and challenges. In an increasingly competitive environment, executives and policy makers are looking for focused strategies and competitive niches.

## Competitive niches

Today's biotechnology industry is extraordinarily diverse, encompassing numerous technologies, platforms and industry segments and Asian countries are well placed to be competitive in several key areas.

Contract research/ manufacturing: Research and manufacturing services are a growth sector that many Asian countries are targeting. Western drug development companies face tremendous pricing pressure in their home markets and need ways to reduce costs and increase returns for their investors and shareholders.

The Asia Pacific region has long served as a hub for low-cost manufacturing, with countries such as Taiwan, Hong Kong and Korea producing everything from toys to semiconductors. More recently, China and India are transforming Western industries through outsourcing manufacturing and services. The same labor costs that facilitated each of those transitions are at place in the biotech sector - savings from outsourcing research or manufacturing to Asia can range from 50 to 80 percent.

Biotech, however, has a key difference from most other industries. It is one of the most heavily regulated industries in the world, and companies must meet stringent requirements at every phase, from designing and conducting clinical trials to manufacturing finished products. To compete in this arena, Asian countries will have to raise their regulatory regimes to global standards. For instance, China has been actively boosting its enforcement of regulations covering good manufacturing practices (GMP), good selling practices (GSP) and good laboratory practices (GLP).

Vaccines: Asian countries are creating competitive niches in the vaccine space by developing vaccines at more affordable

prices. Using pioneering technologies and efficient production methods, companies such as China's Sinovac Biotech and India's Bharat Biotech have successfully developed vaccines for diseases such as Hepatitis A and B at a fraction of Western prices. Western companies are already recognizing that the region will play an increasingly important role in the global vaccine market and are making investments and forming alliances with Asian companies.

Generics: Generics is a rapidly growing segment. Several blockbusters are scheduled to go off patent soon, and 2005 was pharma's biggest patent-expiration year ever with an estimated \$23 billion worth of products losing protection. As some early biotech products go off patent, the prospect of generic biologics is equally tantalizing.

Regulatory pathways are not well defined in the West, but as these issues are resolved in the years ahead, follow-on biologic products could be a lucrative growth segment. Some Asian countries are well positioned to take advantage of these changes. India, for instance, has long had a thriving generics industry because of the permissive IP laws, and Indian firms already are gearing up for the coming boom in generics.

## Leveraging growth

There is good reason to think that Asia's biotechnology companies would follow the successful path of their manufacturing counterparts in moving up the value chain quickly. While outsourced manufacturing and research represent cash cows in the near future, many companies will inevitably seek to move from the fee-for-service model to the more lucrative, though more risky, innovation model. Foreign competition and patent protections are pushing Asian companies to become more innovative. It follows that they will seek to maximize their revenues from new drugs by pursuing sales in other markets.

Ultimately, a booming Asia-Pacific biotechnology industry will raise living standards in the region, creating bigger markets for Western drugs. And more innovative companies in Asia will mean greater supply of life-saving medicines for patients around the world.