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Going Local: The New APAC Diagnostics Playbook

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Asia-Pacific (APAC), emerging as a diagnostics hub, is no longer just about a few large markets dominating the region. Countries across the region are building distinct strengths in genomics, molecular diagnostics, Artificial intelligence (AI), precision medicine and point-of-care testing, driven by their healthcare priorities and innovation capabilities. In this story, we examine six of APAC's leading diagnostics marketsâ??China, Japan, South Korea, India, Singapore and Australia to understand where each is leading, what is driving their growth, and how they are shaping the future of diagnostics in the region.



Diagnostics has become one of the fastest-evolving segments of healthcare in Asia-Pacific. For decades, the region's diagnostics market was largely shaped by multinational companies but that’s changing now.

“The diagnostics market in Asia was largely driven by US and European multinational companies, with proprietary platforms, reagents, and laboratory infrastructure. This dynamic is now shifting as local players scale capabilities and governments invest in national health innovation agendas,” said **Kavita Rekhraj, Life Sciences and Health Care Industry Leader, Deloitte Asia Pacific and Southeast Asia.**

That shift is creating a more diverse diagnostics ecosystem across the region. To understand how the landscape is evolving, we analysed six of APAC's leading diagnostics markets—China, Japan, South Korea, India, Singapore and Australia. These markets represent a diagnostics opportunity exceeding $38 billion. According to different market reports China leads with an in-vitro diagnostics (IVD) market valued at $18.65 billion, followed by Japan with more than $10 billion across IVD and diagnostic imaging, and India with an IVD market worth $5.6 billion. Australia ($2.06 billion), Singapore ($0.92 billion) and South Korea's $1.2 billion AI imaging analytics segment represent smaller but important markets.

These countries account for more than 2000 diagnostics companies and manufacturers, including over 1,400 IVD manufacturers in China, around 171 in India, approximately 360 in Japan and a growing ecosystem of AI diagnostics companies in South Korea. More importantly, each market has developed distinct areas of leadership. China leads in genomics, molecular diagnostics, oncology testing and Alzheimer's diagnostics. South Korea has emerged as a leader in AI-enabled imaging and population-scale genomics. Singapore has established itself as the region's precision medicine and genomics hub. Japan continues to play a key role in diagnostic imaging, laboratory automation and the clinical integration of advanced diagnostics. India is driving innovation in affordable point-of-care diagnostics and AI-enabled imaging, and Australia has become a centre for diagnostics validation, clinical research and bioinformatics.

Let's take a closer look at each of these markets.

Japan

- Market size: $10 billion
- Key companies: Sysmex Corporation, Fujirebio (H.U. Group), Canon Medical, Olympus

Japan remains one of Asia-Pacific's most mature diagnostics markets, with strengths spanning both IVD and diagnostic imaging. According to Mordor Intelligence, Japan's IVD market is expected to grow from $7.29 billion in 2025 to $9.46 billion by 2031, and the diagnostic imaging equipment market is projected to expand from $2.85 billion in 2025 to $4.02 billion by 2031. Combined, these segments represent a diagnostics market worth more than $10 billion.

The country's diagnostics ecosystem comprises approximately 130 IVD companies, according to the Japan Association of Clinical Reagents Industries (JACRI). Leading players include Sysmex Corporation, Fujirebio (H.U. Group), Arkray, Tosoh Corporation etc. which have established strong capabilities across hematology, immunodiagnostics, clinical chemistry, molecular diagnostics and laboratory automation.

Japan is also renowned for its diagnostic imaging and medical technology sector, which includes more than 230 companies, according to the Medical Technology Association of Japan (MTJAPAN). Major companies such as Canon Medical Systems, Fujifilm Holdings, Shimadzu Corporation, Olympus Corporation, Hitachi and Konica Minolta have established global leadership positions across MRI, CT, X-ray, ultrasound and endoscopy technologies. These companies are also expanding into AI-assisted diagnostics, digital pathology and integrated healthcare platforms.

“Japan brings unique strengths through its universal healthcare system, ageing population, long-term health datasets, advanced laboratory infrastructure, and growing investments in genomics and precision medicine. Increasingly, Japan is well positioned to serve as a bridge between global innovation and localised implementation across Asia,” said **Michel Mommejat, President & Chief Innovation Officer, A.D.A.M. Innovations, Tokyo, Japan.**

China

- **Market:** $18.65 billion (IVD)
- **Key companies:** Mindray, BGI Genomics, Autobio Diagnostics, Snibe, GenScript Biotech, Healthgen Biotech etc.

Emerging as a biotechnology powerhouse, China is also a leading force in the diagnostics sector. According to Mordor Intelligence, the China IVD market was $18.65 billion in 2025 and will grow to $24.92 billion by 2031, at a CAGR of 4.95 per cent. The country's diagnostics landscape is characterised by both scale and intense competition. According to the China Association of In Vitro Diagnostics, China is home to more than 1,400 IVD manufacturers. Leading companies include Mindray, Snibe, Autobio Diagnostics, GenScript Biotech, Healthgen Biotech and BGI Genomics, among others.

“China is clearly leading in genomics and molecular diagnostics at scale. This is driven by its large patient population, strong government support, and rapid development of local capabilities across sequencing, reagents, bioinformatics, and AI-enabled interpretation. China is also moving quickly into multi-omics, combining genomics with proteomics, single-cell analysis, and spatial biology,” said **Rathanesh R., Regional Practice Area Leader, APAC & Head of Healthcare & Life Sciences, Advisory, Frost & Sullivan.**

Jenny Zheng, Head of Region, Greater China of Illumina agrees, “Greater China remains a formidable leader in genomics and molecular diagnostics, defined by its massive market potential and its capacity for rapid clinical translation. Driven by strong government backing, such as national precision medicine initiatives, Greater China has built a robust ecosystem for oncology research and targeted therapy development."

The scale of clinical adoption further highlights China's position in precision diagnostics. Jenny added, “The sheer volume of clinical research generated in Greater China is a primary driver of its leadership. To date, there are over 20 clinically approved diagnostic panels based on Illumina platforms in Greater China, and as of March 2026, over 70 per cent of all approved oncology IVD gene testing kits in China have been developed on Illumina sequencing platforms. This collaborative ecosystem is exemplified by Illumina’s decade-long co-development partnership with Berry Genomics, which evolved from co-launching the research sequencer, NextSeq CN500, in 2015 to the China’s National Medical Products Administration (NMPA) approval of NovaSeq 6000Dx-CN-BG as a Class III medical device in August 2025, spanning oncology, reproductive health, rare genetic diseases, etc.”

Segment-wise, oncology diagnostics dominates China

“The molecular oncology scene there has reached a size that few **thought possible five or six years ago.** Huge patient numbers. An National Medical Products Administration (NMPA), that has evolved into a serious regulatory force. A homegrown biotech sector pushing out clinically validated liquid biopsy and circulating tumour DNA platforms faster than most of us can track. Chinese academic groups are not just adopting these tools; they are generating the primary science behind them. There is a solid review in Clinical Chemistry and Laboratory Medicine on how sequencing plus AI has lifted the sensitivity and specificity of ctDNA work, and a newer one out of Sun Yat-sen University in Guangzhou tracing how ctDNA is crossing over from research into real breast cancer management. Science is created there, not just consumed. Promega's own ProDx MSI Detection Kit has cleared NMPA registration, so this is a market we know from the inside,” said**Alok Sharma, Global Clinical Market Director at Promega.**

China is also emerging as a leader in Alzheimer's disease diagnostics. According to **Mike Banville, CEO & President, ALZpath,** “There is a strong focus on Alzheimer’s disease, driven by China’s rapidly ageing population and growing healthcare burden. The Chinese government has identified dementia and cognitive health as strategic health priorities and has established ambitious goals to expand screening and early detection efforts across the country. As part of these initiatives, there is a growing emphasis on scalable, population-level screening approaches, creating significant interest in blood-based biomarkers that can support earlier and more accessible detection.”

He added, “The combination of market competition, government prioritisation, and population health needs is accelerating the development and adoption of next-generation Alzheimer’s disease diagnostics and positioning China as a leading hub for innovation in this area.”

India

Market: $5.60 billion (IVD)

Key companies: Molbio Diagnostics, Genes2Me, Qure.ai

India's IVD market was valued at $5.60 billion during FY2025-26, according to the Association of Diagnostics Manufacturers of India (ADMI). India currently has nearly 171 IVD manufacturers as of January 2026, according to Tracxn. Domestic manufacturers are largely focused on rapid test kits, lateral flow assays, reagents and semi-automated instruments, where local service networks and cost advantages remain key differentiators.

“India is making strong progress in point-of-care and affordable diagnostics. This is largely driven by real healthcare needs — a large population, rural access challenges, workforce constraints, and a high burden of infectious and chronic diseases. What is interesting about India is how frugal innovation is being combined with AI, biosensors, microfluidics, and connected platforms. These solutions are highly relevant not only for India, but also for other emerging markets across Southeast Asia, Africa, and Latin America,” said Rathanesh.

These strengths are increasingly helping Indian companies expand beyond the domestic market. Genes2Me has built a molecular diagnostics portfolio around CE-IVD-certified products, ranging from NGS clinical panels to its OnePCR point-of-care system. In 2025, the company launched direct-from-blood CE-IVD sepsis and antimicrobial-resistance assays in Europe. Molbio Diagnostics' Truenat, a battery-operated point-of-care PCR platform, carries the CE-IVD mark, has received WHO endorsement for tuberculosis detection, and is now used in more than 80 countries.

India's growing capabilities have also attracted global investment. A spokesperson from Co-Diagnostics, which entered India through its joint venture CoSara Diagnostics, said, “India is emerging as a leader in molecular diagnostics and infectious disease testing at the point-of-care, driven by strong public health priorities, growing domestic manufacturing capabilities, and increasing adoption of smaller, more portable PCR-based testing. India’s efforts to eliminate tuberculosis have accelerated the shift toward molecular diagnostics as the standard for TB testing, while investments in local production and healthcare infrastructure are expanding access to high-quality testing. These factors were key considerations in our decision to invest in India through our joint venture, CoSara Diagnostics, which is focused on increasing the availability of gold-standard PCR diagnostics in India and the broader South Asian market.”

South Korea

Market: $1.2 billion (AI-based imaging analytics)

Key companies: Luni, Vuno, CarolineSoft

South Korea has become synonymous with AI-enabled diagnostic imaging and is emerging as a key centre for healthcare AI innovation in Asia-Pacific. According to Research and Markets, the South Korea AI-powered healthcare imaging analytics

market is valued at $1.2 billion. According to Tracxn, South Korea is home to around 27 companies focused on AI diagnostics.

“South Korea is one of the strongest markets for AI-enabled diagnostic imaging. Its advantage comes from highly digitalised hospitals, strong clinical datasets, and a supportive environment for validating AI tools in real-world settings. Korean companies are also not only focused on the domestic market; many are building AI diagnostics with global regulatory and commercial ambitions from the start,” said Rathanesh.

Several South Korean companies have expanded their reach beyond the domestic market. Lunit, a pioneer in AI-based chest X-ray and mammography analysis, serves more than 10,000 healthcare providers across over 65 countries. Vuno develops AI software for analysing brain MRI scans, ECG data and other diagnostic parameters. Coreline Soft focuses on AI-driven lung imaging and has deployed its solutions in cancer screening programmes and hospitals in Europe. JLK specialises in stroke and neurological imaging and is expanding into the US, Japan and Southeast Asia.

Apart from AI-enabled diagnostics, South Korea is also advancing population-scale genomics initiatives. “South Korea leads in AI-enabled diagnostics and large-scale population genomics. A prime industry example is the National Bio Big Data Project (K-DNA), an ambitious government initiative to sequence one million Koreans. In 2024, a consortium led by Macrogen, utilising Illumina’s high-throughput sequencing platforms, secured the tender for this project building a powerful foundation for tailored therapeutics,” said **Nilesh Shah, Head of Region, APAC of Illumina.**

Australia

- **Market:** $2.06 billion (IVD)
- **Key companies:** Sonic Healthcare, Healius, Rhythm Biosciences

Australia's IVD market is estimated at $2.06 billion in 2026 and is projected to reach $2.63 billion by 2031, growing at a CAGR of 5.02 per cent, according to Mordor Intelligence. Despite its advanced healthcare system, the country remains heavily dependent on imports, with AusAccelerate estimating that 97 per cent of IVD products are sourced from overseas.

Yet despite this import dependency, Australia is carving out a distinct regional identity, emerging as a hub for clinical next-generation sequencing (NGS) and bioinformatics. “Australia is leading the charge in secure data infrastructure and precision medicine platforms. Through initiatives like the Genomics Health Futures Mission, the Australian government is heavily investing in secure genomic databases paired with AI-driven analytics. Its robust privacy laws and well-regulated clinical trial ecosystem make it an ideal environment for standardising complex NGS assays,” said Shah.

The country has strong capabilities in clinical research, biobanking, academic-industry collaboration, and regulatory-quality evidence generation. This makes it a valuable market for diagnostics validation, especially for companies looking to build evidence for broader APAC access.

“Australia is easy to undervalue if all you count is market size. Australia's influence works through credibility: earn acceptance there and the rest of the region takes notice. The Therapeutic Goods Administration (TGA) is a respected regulator, there are ambitious national genomics programmes running, and Australian labs and researchers are wired into global standards-setting in clinical genomics. If you have a genuinely novel technology, getting it validated and accepted in Australia is often a steppingstone to being trusted everywhere. It leads on rigor, not volume, and there is value in that,” said Sharma.

Singapore

Market: $0.92 billion (IVD, 2023)

Key companies: MiRXES, Lucence

Singapore's IVD market was valued at $0.92 billion in 2023 and is projected to reach $1.65 billion by 2030, growing at a CAGR of 8.2 per cent, according to NextMSC. While relatively small in size, Singapore plays an important role as a regional hub for precision medicine, genomics and specialty diagnostics.

“Singapore plays a very important role as a precision medicine and genomics hub for Southeast Asia. Its strength is not volume, but governance, data quality, and translational infrastructure. The National Precision Medicine programme gives Singapore a strong platform to develop Asian-relevant genomic insights, especially in oncology, rare diseases, and pharmacogenomics. For global diagnostics and pharma companies, Singapore is a trusted base for regional validation and market access strategy,” said Rathanesh.

The country has invested heavily in population-scale genomics through its National Precision Medicine (NPM) programme. Through PRECISE, Singapore is building the SG100K database to map Asian genetic diversity and support the development of more accurate diagnostic tools. Illumina is a strategic partner in the initiative, providing sequencing platforms and expertise to support the sequencing of 100,000 genomes.

“Crucially, Singapore excels at translating these large-scale population studies into actionable, reimbursed public health policies. Driven by clinical evidence gathered during Phase II of the NPM programme—which Illumina’s sequencing technologies helped enable—Singapore’s Ministry of Health recently subsidised genomic testing not just for Familial Hypercholesterolaemia (FH), but also for hereditary breast and ovarian cancer syndromes. Singapore’s ability to seamlessly connect genomic diagnostics with immediate patient care pathways makes it a global model for end-to-end precision medicine,” said Shah.

Singapore is also home to a growing number of diagnostics innovators. MiRXES developed GASTROClear, a molecular blood test for early gastric cancer detection. Lucence uses AI-powered liquid biopsy technology for early cancer detection and precision oncology services.

What's Next for Diagnostics in APAC?

The next phase of growth in Asia-Pacific diagnostics is expected to be driven by advances in artificial intelligence, precision medicine, molecular diagnostics and greater regional collaboration.

“Looking ahead, the Asia Pacific diagnostics landscape is set to shift from a fragmented, import-driven ecosystem to a multi-country innovation ecosystem, driven by strong local demand, government push, advances in precision medicine, AI, and testing models. The next phase of growth in APAC diagnostics will not be led by a single country, but by cross-border ecosystems, where innovation hubs (Singapore, Korea), scale engines (China, India), and access markets (South East Asia) collectively shape a more integrated, technology-driven diagnostics landscape,” said Kavita.

AI in diagnostics is expected to become mainstream across Asia-Pacific. Beyond disease detection and imaging, AI is also being integrated into laboratory workflows, supporting total laboratory automation and improving operational efficiency.

“Total lab automation, the robotic sample handling, walk-away analysers, the integrated middleware, has stopped being a luxury and become the standard in the big hospital labs. But the development I find genuinely significant is AI auto-verification. The concept is straightforward: the system releases what is clearly normal or clearly positive, and flags only the genuine gray zone for human review. What that means in practice is that a lab director's attention goes where it actually belongs, instead of being consumed by signing off on thousands of results that were never in question,” said Sharma.

There is a proof-of-concept out of Qilu Hospital of Shandong University, in Clinical Chemistry and Laboratory Medicine, where a machine-learning auto verification system hit an 89.6 per cent pass rate, a false-negative rate under one in a thousand, and cut invalid reports by roughly 80 per cent against the old rule-based engine. The direction of travel is not in doubt. The fact that the Clinical and Laboratory Standards Institute now publishes a formal guideline, AUTO15, on how to design and validate these things tells you it is becoming established practice, not an experiment. In the high-volume labs across China, Japan and Australia, this is already day-to-day reality.

The next five years will see a proliferation of rapid, targeted molecular diagnostics deployed closer to the patient. Health systems will actively move away from relying on slow, offshore reference laboratories.

“One important trend that will shape the next phase of diagnostics development is localisation. Historically, many advanced molecular and genomic tests have required samples to be sent overseas, particularly to the United States. While this approach accelerated early adoption of certain technologies, it introduced significant challenges including higher costs, longer turnaround times, logistical complexity, foreign exchange exposure, and cross-border transportation risks. Our view is that the future of precision medicine requires testing in-market. Keeping samples within the country where patients receive care reduces turnaround times, improves operational resilience, lowers costs, and provides healthcare systems with greater control over quality and patient access. Most importantly, it allows physicians and patients to receive clinically actionable information more quickly, enabling faster treatment decisions and improved outcomes,” said Mommejat.

There is also an increasingly important data sovereignty dimension. Genomic data represents one of the most sensitive categories of personal information. “Governments and regulators across the world are becoming more attentive to questions surrounding data privacy, ownership, storage, and cross-border transfers of biological samples and genomic information. We anticipate continued evolution of regulatory frameworks that encourage, or in some cases require, samples, testing, and genomic data to remain within national borders while still enabling international scientific collaboration,” said Mommejat.

The future of diagnostics in Asia-Pacific will be defined by collaboration, innovation and complementary strengths across the region. As countries continue to build on their individual capabilities, the opportunity lies in creating a more connected diagnostics ecosystem that accelerates innovation, expands access and ultimately delivers better patient outcomes.

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