

Canon Makes a Splash in Global Healthcare



Last year, the Japanese tech giant Canon Inc. acquired Toshiba Medical Systems Corporation, a leading manufacturer and seller of medical imaging devices. The move propels Canon deep into the global healthcare market and promises a host of synergies for delivering world-class medical devices and solutions.



Fujiio Mitarai, Chairman and CEO of Canon

The first president of Canon, the global camera and printer giant, was an obstetrician named Takeshi Mitarai. And since its establishment in 1937 in Tokyo, Canon manufactured digital radiography and ophthalmic equipment, but had never developed a large global presence in medical devices. Last year, the company returned to its roots with verve. In a whopping 665.5bn yen (5.47bn US dollar) deal, Canon acquired Toshiba Medical, a leading manufacturer of medical imaging devices, propelling the group into the global healthcare business.

"As Canon's first president was a doctor, there was always a yearning to make healthcare one of our main businesses," says Fujiio Mitarai, Canon's Chairman and CEO. "We are delighted that Toshiba Medical is joining our group; it feels as if our dream of launching into the global healthcare market has been achieved, all in one fell swoop."

Canon's four new growth areas

The latest acquisition is certainly not mere nostalgia, but an integral step in the transformation of the \$29.3bn-revenue company (as of 2016). In recent years, the markets for office equipment and cameras – which have for long been Canon's core businesses – have undergone structural changes, including market maturation and the proliferation of smartphones. In response, the company has been pursuing a multi-pronged strategic shift of its business model. Its latest five-year plan focuses on pivoting away from consumer electronics to business clients in its traditional domains, while searching for new growth areas with affinity to its core competencies. The plan is ambitious: group revenues are targeted to increase to over 5 trillion yen (\$44bn) with operating profit margins over 15 per cent and net profit margins of over 10 per cent for the Canon group by 2020.

The purchase of Toshiba Medical, finalized in December of last year, completes the realignment of the tech company and is expected to serve as a primary engine towards this medium-term goal.

"We have now lined up new businesses in four key growth areas – commercial printing, network cameras, industrial devices, and healthcare," says Chairman and CEO Mitarai. "From this year, we plan to redouble our efforts, particularly in healthcare."

Indeed, the purchase of Toshiba Medical comes fast on the heels of a series of industry-shaping M&As by Canon. In 2010, the company purchased Dutch Océ, expanding laterally into the digital commercial printing domain. Canon has also committed deeply to the burgeoning video surveillance market with purchases of Danish Milestone Systems in 2014 and Sweden-based Axis Communications in 2015. The Japanese company now has the largest network camera business in the world.

Although no major purchases have taken place in its third target area of industrial devices, the company's subsidiary in that domain is in rude health. Canon Tokki Corporation's production capacity is being expanded to meet strong demand for equipment used in producing organic electroluminescent displays (OLED) found in smartphones.

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Pivoting towards healthcare

And now Canon has set its sights firmly on healthcare. Chairman and CEO Mitarai believes this to be "an area of the greatest potential", in light of global population growth and its affinity to Canon's technologies and corporate goals.

In both developed and developing markets, greater longevity and an expanding geriatric base of patients with chronic diseases related to the brain, and respiratory and cardiovascular systems are driving demand for diagnostic equipment. The market for diagnostic imaging equipment was valued at \$32bn in 2016, and is expected to grow at a compound annual growth rate of around 6 per cent in the next five years to \$42.6bn in 2021, according to industry research¹. Currently, Siemens, General Electric, and Philips dominate, taking roughly three-quarters of the global market share, followed by Toshiba Medical and several smaller Japanese makers.

The purchase of Toshiba Medical puts Canon in an ideal position to compete in the medical imaging systems market. As one of the most profitable divisions within the Toshiba group, Toshiba Medical has over 86 years of history in developing and supplying medical diagnostic devices, technology, and services in 140 countries and regions across the world. The company is dominant in Japan for diagnostic imaging devices including CT (computed tomography), MRI (magnetic resonance imaging), X-ray radiology, ultrasound, and nuclear medicine. It also offers cutting-edge medical imaging solutions and in-vitro diagnostics aimed at precision medicine. The company is vying to become the second largest supplier of CT systems globally and is currently the fourth largest supplier of MRI systems in the world.

Made for Life

"Toshiba Medical has developed a lot of technologies and products which are Japan-first or world-first in diagnostic imaging," says Toshiba Medical's President and CEO Toshio Takiguchi.

The company developed the world's first super-quiet MRI system as well as pioneered non-contrast-enhanced imaging to ease the burden of patients undergoing examination. The company's lower radiation dose technology is standard in all its CT systems, which are constantly evolving to more rapidly, widely, and accurately diagnose patients.

"All of this product development is driven by our corporate philosophy – 'Made for Life' – which is focused squarely on the patient. Our mission is to listen to the needs of clinicians and help them to more efficiently diagnose their patients," says President and CEO Takiguchi.

In a fortuitous echo to Toshiba Medical's slogan, Canon is guided by its corporate philosophy of *kyosei* that "focuses on living and working together for the common good". Chairman and CEO Mitarai believes the company world-views are compatible, a vital point when integrating the two companies: "I believe we have been able to share smooth conversations and develop plans together because our thinking overlaps in many areas."

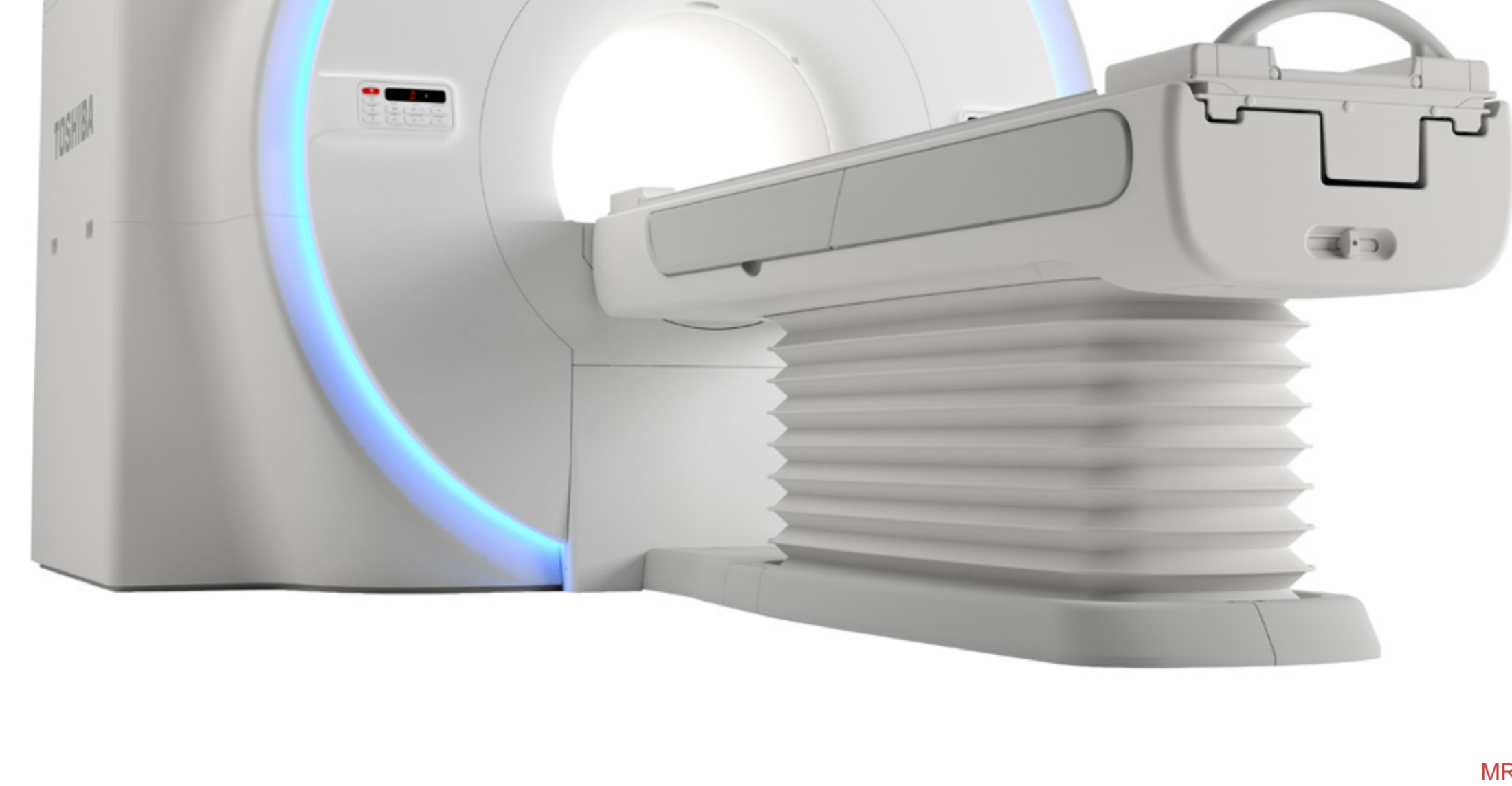


Toshio Takiguchi, President and CEO of Toshiba Medical

Synergies in expansion, efficiency, and R&D

Such overlap, however, does not extend to the two companies' products and technologies, leaving plenty of room for synergies. Although acknowledging that these are still early days in the integration, the two executives expressed excitement over a wide range of future benefits from the deal.

The first area in which Canon is hoping for synergies is further acceleration into new healthcare businesses. Leveraging Toshiba Medical's strength in imaging diagnostics, Canon hopes to expand its presence in different healthcare businesses through strategic investing and M&A.



MRI



Diagnostic Ultrasound System

"Canon has been in a small pond, unlike Toshiba Medical which has been in a large ocean, in terms of competing in medical devices," says Chairman and CEO Mitarai. "So, we expect Toshiba Medical to take initiatives, including in the selection of M&A candidates, with the full backing and funding from the Canon group."

Canon is pleased to inherit the global sales network of healthcare providers developed by Toshiba Medical over decades. While President and CEO Takiguchi is hopeful that Canon's brand and sales network – know-how in customer relations, sales, and marketing – will open up new sales routes for Toshiba Medical's devices.

A second set of synergy gains is expected in improved production quality and cost-efficiencies. As government reforms tighten national health budgets in mature markets and newcomers drive down prices in emerging ones, competitive pricing in medical imaging devices will be critical. By applying Canon's know-how in optimizing design, manufacturing, and production, Toshiba Medical's existing offerings could be made more cost-competitive. Moreover, savings in production processes will then be used to fund next-generation medical technology.

And finally, there are the R&D synergies. President and CEO Takiguchi believes that the possibilities for innovations from joint development will be many: "I am very curious about what kind of chemical reaction will result from applying Canon's optics and materials know-how to our products."

Indeed, Canon boasts a rich stock of cutting-edge technologies that could be combined with Toshiba Medical's capabilities. Notable ones include: high-speed dynamic X-ray imaging sensor technology, among other imaging devices, along with associated elemental technologies; photoacoustic tomography technology selected by Japan's national IMPACT program²; medical robotic system technologies; and minimally invasive technologies.

"We are asking Toshiba Medical to make an inventory of all our technologies and see what they can use to create concrete synergies," says Chairman and CEO Mitarai.

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CT

Data healthcare and precision medicine

AI in almost all industries, healthcare is being reshaped by ICT, an explosion of digitized data, and the potential for AI applications. This so-called "data healthcare" trend has swept through the industry in the past year. Siemens partnered with IBM to jointly develop population health management tools that provide better prevention and diagnosis through cognitive computing. GE rolled out a medical cloud service which will use deep-learning algorithms to help doctors more effectively diagnose patients.

Even before joining the Canon group, Toshiba Medical had also been gearing itself up for this "data healthcare" revolution by purchasing medical imaging and software companies such as US VITAL Images, French Olea, and Canadian Karos. The group is keeping an eye out for further opportunities to expand and develop medical IT solutions.

"We recognize that doctors are overwhelmed by an explosion of medical data. We believe it is our mission to not just collect this data, but to collate, analyze and then deliver it to them in a way that helps doctors make accurate and efficient decisions," says President and CEO Takiguchi. "The use of AI would play a significant role in achieving this mission."

Another related and key market trend of "precision medicine" – medical treatment tailored to patients based on their individual genes, lifestyle, and environment – is also part of the new medical group's plans. In this area, Canon had already established Canon BioMedical in New York State in 2015, and hopes to use this facility to commercialize genetic diagnostic equipment together with Toshiba Medical assets.

Overseas strategy

Although dominant in Japan, Toshiba Medical – which will be renamed Canon Medical Systems Corporation from the beginning of 2018 – remains a challenger globally. The company generated roughly 417bn yen (\$3.6bn) in the year ending March 2016, which is considerably smaller than the annual sales of the top three healthcare device makers. Nevertheless, the two company executives are bullish about challenging the overseas titans.



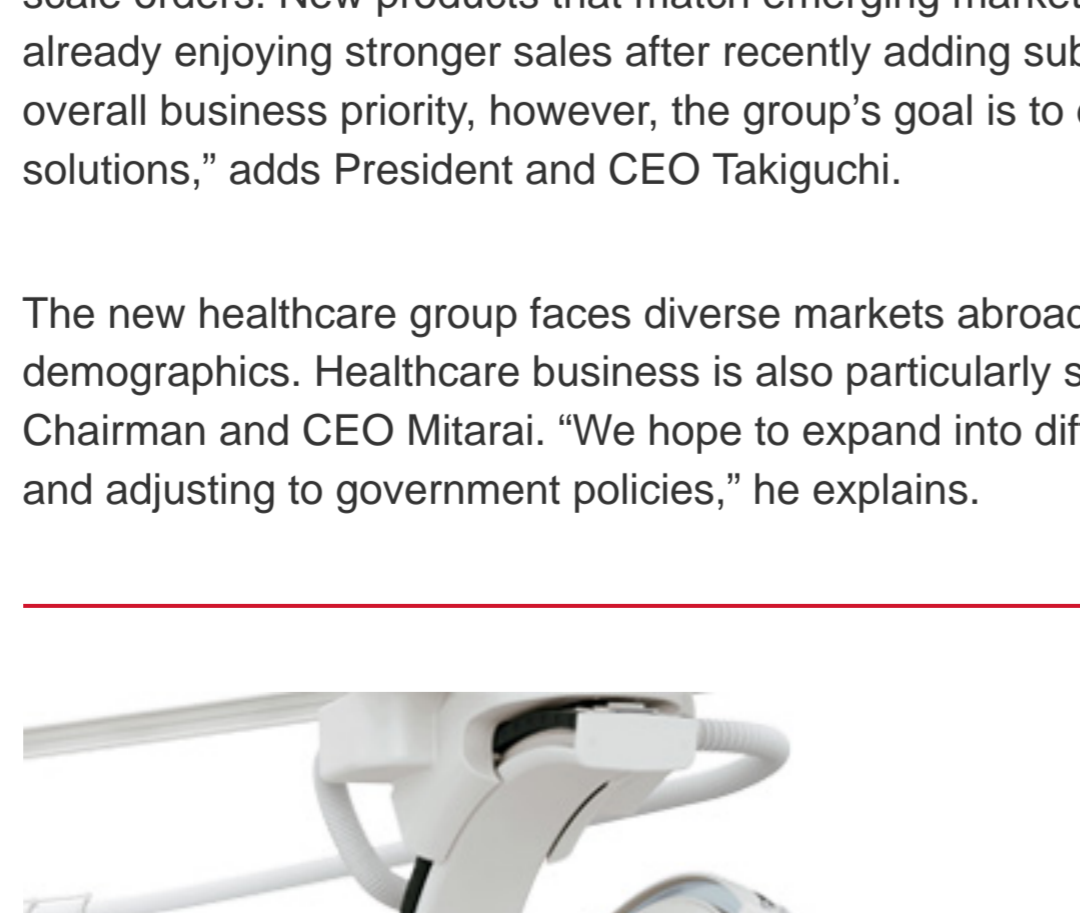
Clinical Chemistry Analyzer

"Our global marketing strategy is to maintain a dominant market share domestically, strengthen our business base in US and European markets, and use this influence to generate growth in emerging markets," says President and CEO Takiguchi.

In general, the group hopes to expand its global network by focusing on university hospitals, high-end medical facilities, and participation in collaborative research with local institutions. In the US, the group will heighten its brand awareness through joint research and emphasis of "Japan quality". In Europe, it is focusing on the top-end device market in the West, while hoping to expand market share in the East and Russia with its standard models.

Its basic strategy in emerging markets is to approach influential top hospitals and secure government-driven large-scale orders. New products that match emerging market conditions will also be developed. Toshiba Medical is already enjoying stronger sales after recently adding subsidiaries in Turkey, South Korea and Malaysia. As an overall business priority, however, the group's goal is to develop and pursue "universal global products and solutions," adds President and CEO Takiguchi.

The new healthcare group faces diverse markets abroad, with varying levels of economic development and demographics. Healthcare business is also particularly sensitive to government policies and regulations, points out Chairman and CEO Mitarai. "We hope to expand into different markets matching the country's developmental phase and adjusting to government policies," he explains.



Diagnostic X-ray System

Innovation and competitiveness from Japan

In conclusion, Canon's timely move into healthcare is indicative of the broader, underlying resilience of Japanese industry. For some time, critics have claimed that Japan's manufacturing prowess has been losing its edge. Chairman and CEO Mitarai, however, does not share in the pessimism.

"Innovation is the key for Japan's future. In that sense, the country still has comparatively very high levels of technological assets, companies are focused on R&D, and the Japanese government is promoting innovation," explains Chairman and CEO Mitarai. The Canon group itself commits more than 8 per cent of its revenues on average to R&D, from what used to be around 5 per cent.

"I am optimistic that Japanese companies have the potential to adapt to the changes of the time," he says. Canon's latest leap into the rapidly evolving and critical global healthcare market is strong evidence of that confidence.

1. BCC Research: Global Markets for Medical Imaging Analysis Equipment, September, 2016.
2. IMPACT is a program through which the Council for Science, Technology and Innovation, the body that serves as the Japanese government's command center for innovation policy, will encourage high-risk, high-impact R&D, and aim to realize a sustainable and exportable innovation system.
Note: The JPY/USD currency exchange rates are varied, depending on when these events occurred or figures were announced.

