

Japan on the move to develop a world-class medtech industry



Derrick Buddles

Its ageing population and the need for new sources of economic growth is galvanising the Japanese government to build up its domestic medtech industry. Its action plan include coordinating policy from within ministerial silos, encouraging non-medtech manufacturers to diversify into the medical devices sector and using the needs of the elderly as a catalyst to create new exporting industries, writes Derrick Buddles, director of the Tokyo-based American Medical Devices and Diagnostics Manufacturers' Association (AMDD)

The Japanese Government has identified the life sciences-related industries as one of its "pillars" of future economic growth. Its goals include expanding the healthcare industries and services, including nursing, to increase these markets by ¥4.5 trillion (\$ 57bn) and to create 2.8 million jobs by 2020.

The initiative is partly aimed at mitigating the effects of Japan's ageing population. Japan's working population reached its highest point in 1995 at 87 million. It has since been in decline and it is expected to have fallen by 20 million in 20 years' time. New technologies and services hold out the promise of healthier, more active ageing. Equally, the needs of the elderly are spurring the creation in Japan of new exporting industries capable of supplying Asia's growing markets and their expanding elderly populations.

The development of a world class medical technology industry is one of the keys to this strategy and for some, it would be the realisation of a long-held ambition. The Japanese market for medtech products currently stands at around ¥2.2 trillion (\$28bn), of which imports comprise 61%. This includes kidney machines (20% of which are imported); general hospital products (34% imported); wound care (64% imported); general and vascular catheters (77% and 55% imported, respectively); orthopaedic and general implants (78% and 91% imported, respectively); and cardiac rhythm management products where imports account for 100% of the market. This dependence on imports is longstanding and many in the industry and in government hope that with increased exports, medical technology might one day make a positive contribution to the balance of payments.

Central to the initiative is Japan's Medical Innovation Promotion Office (MIPO), established in early 2011. It is tasked with coordinating the expansion of medical technology and other sectors. One of the first problems the government addressed was how to coordinate medical technology-related policies that are divided between three ministries: the Ministry of Education, Culture, Sports, Science and Technology is responsible for basic science; the Ministry of Economy, Trade and Industry bridges scientific discovery and the development of medical products; and the Ministry of Health, Welfare and Labor oversees the clinical and marketing regulations for the final medical products. In the past, the plans of the three ministries were executed more in isolation than as part of an integrated strategy. The results were not encouraging.

This time the government is looking to collective decision-making to drive progress, with the novel idea that the three ministries would make up the membership of MIPO and the body that oversees it, the MIC (Medical Innovation Council). Both MIPO and MIC are packed with ministry representatives including the three vice-ministers, plus advisors from academia, the healthcare services and industry. In theory, at least, policy matters relating to the medical technology industry are now handled as part of a single strategy. Decisions and problems can be taken back to the ministries by their own insiders, who can then push for action and the greater good.

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Part of the inspiration for this initiative is Japan's belief in the prowess of its manufacturers. To tap into this, MIPO is encouraging manufacturers from other fields to enter the medtech sector. This includes using a model reminiscent of Japan's auto and electronics industries, whereby large companies partner with SMEs (small and medium sized enterprises) to mix the wide marketing and manufacturing reach of the former with the advanced technologies developed by the latter.

Japanese science and medicine is also seen as a source of competitive advantage. Here, MIPO is working to improve industry's uptake of academic research results and to deepen collaboration between hospitals and industry to increase the flow of new ideas into new products and services. Similarly, it wants to improve academia's willingness to move beyond the purely scientific all the way to applications. Ten years ago, very few new ventures came out of Japan's university. Three years ago, Japanese academics were founding around 150 new science-based companies a year, but few were surviving. Today, MIPO is trying to channel venture capital to the more promising start-ups to improve their chances of success.

Although most of the efforts in this initiative are domestic, the global nature of the medical technology industry and of

science has not been lost on the planners. MIPO wants Japan to become a more attractive place for overseas technology companies and researchers, and the Government is taking an increasingly active role in courting overseas investors.

Is the government providing the spark needed for the sector to take off in Japan? Perhaps, but a number of issues will need to be addressed before new exporting industries spring into life. Japanese product approval will need to be made less of a hurdle through greater global harmonization, and regulatory structures and working practices will have to become more effective. The funding of medical technology purchases will also need to be considered. Current demand

for medical technology products is expanding faster than the budgets to pay for them, the difference being partly met through regular reimbursement cuts. But this can only be a temporary fix. And domestic companies that could be tempted by the medical technology sector will be looking for a home market with a commercially attractive outlook and prices that are relatively stable.

Medical technology is a crowded and highly competitive business, but MIPO has big ambitions. If Japan succeeds in the medical technology sector as it has in other industries, it will be to the benefit of patients and the aged around the world and to the long-term good of the industry itself.

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