

HEALTHCARE MARKET

Made in China
'for the world'

Multinationals establish more research facilities as nation's reputation for R&D and design increases

By LIU JIE in Shenzhen
liujie@chinadaily.com.cn

The global giant Siemens Healthcare has just delivered its 1,000th Magnetom Essenza, made in Shenzhen, to Tokushukai, a hospital group in Japan.

So far, more than 70 percent of the market-leading imaging devices — one of the German company's most competitive products in the international market — have been exported from the factory to markets around the world.

INDUSTRY "Created and developed in China, and made by Siemens," said Bernd Ohnesorge, CEO of the MR business unit at Siemens Healthcare, adding that the company's powerful 1.5-tesla magnetic resonance imaging system was globally launched five years ago by Shenzhen Siemens Magnetic Resonance Ltd.

The Shenzhen facility is one of Siemens Healthcare MR's three R&D and manufacturing headquarters around the world, the other two being in Erlangen, Germany, and Oxford, in the United Kingdom.

The Shenzhen base recently also developed the company's latest MRI system and sent the first products to sites in Germany, Japan and China for clinical trials, according to Ohnesorge.

"Our clients are very satisfied with it, and we hope the machine can also be used in China soon with SFDA (State Food and Drug Administration) approval."

China has fast become the manufacturing center for a growing list of multinational medical equipment manufacturers, producing sophisticated imaging systems which can compete with anything produced elsewhere in the world.

But now it is also growing its reputation as an R&D hub.

Multinational medical device providers are exporting products not only made in China, but also designed in China, according to Cai Tianzhi, director of the medical device department of the China Chamber of Commerce for Import and Export of Medicine and Healthcare Products.

And he predicts the proportion of China-designed exports will continue to rise.

Statistics from the General Administration of Customs show that for the past five years, nearly 60 percent of China's medical equipment exports have been from multinational companies and Sino-foreign joint ventures.

The nation's medical equipment exports were worth \$15.71 billion last year, an increase of 17.36 percent year-on-year.

"We have seen more and more foreign

medical device companies setting up R&D facilities in China, or even moving their regional R&D centers to China," added Liu Ximei, an analyst with the research company Forward Business Intelligence Co Ltd.

"Their exports are becoming more sophisticated, and more products are being developed in China for global use."

The US giant General Electric Co first proposed the idea of doing R&D in emerging economies for the global market in 2009, and its medical offshoot GE Healthcare first tested the water in China.

GE Healthcare's imaging market leader, the Brivo CT series, was developed in China in 2010, its small size and affordable price aimed primarily at China's county-level hospitals.

Now, besides meeting demand from China's grassroots medical institutes, 70 percent of GE Brivos, with an average unit price of \$15,000, are being exported to markets including developed economies such as the United States and Japan.

Dai Ying, chief technology officer at GE Healthcare China, said that due to the economic slowdown and public concerns about medical costs, governments and medical institutes in developed economies are paying much greater attention to medical cost reduction.

"Their focus is on quality and high efficiency, making products developed for China's grassroots market also suitable for Western clients," he said.

According to Ohnesorge, the needs in China are fast becoming those of other markets, even Europe.

"Advanced technology with affordable costs, what we call accessible innovation, has really triggered our global strategy."

"Easy-to-use, high throughput, high quality, advanced medical imaging — that's something particularly needed in the county-level hospitals in China, but also of importance in medium-sized hospitals in Asia, in Europe, in South America, and even in Germany," he said.

Foreign giants now realize that China is no longer just an appealing manufacturing center.

Their facilities in the country can combine R&D and production, producing high-quality goods in large numbers, managed by highly-qualified local engineers and workers, Liu said.

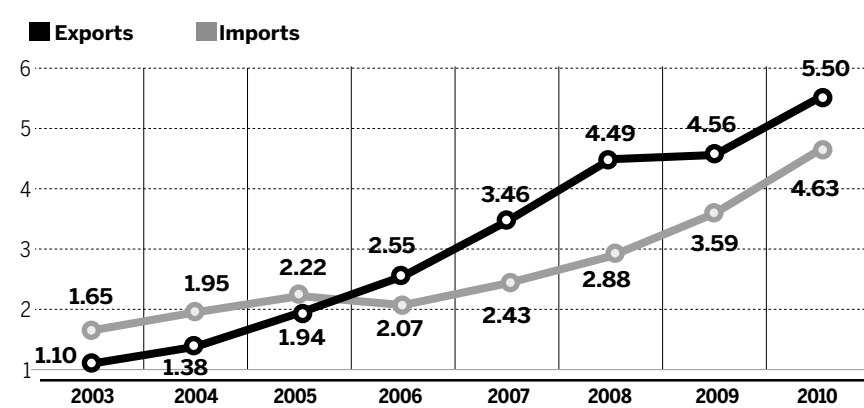
GE Healthcare established its own innovation center in Chengdu in April — a \$500 million investment which serves not only its customers in southwestern, northwestern and central China, but also its US and global network.



A Siemens AG magnetic resonance imaging system at a trade show in Beijing in March. For the past five years, nearly 60 percent of China's medical equipment exports have been from multinational companies and Sino-foreign joint ventures.

CHINA'S EXPORTS AND IMPORTS OF MEDICAL DEVICES

Unit: \$ billion



Source: Wind Information Co Ltd

GUILLERMO MUNRO / CHINA DAILY

"Products developed in Chengdu feed into our global supply chain," said Rachel Duan, president and CEO of GE Healthcare China. "We had said we are 'in China, for China.' Now we would like to say we are 'in China, for the world.'"

GE has completed more than 100 major projects under that "developed in China for the world" umbrella, 10 of them for the medical care sector.

GE Healthcare China added around 200 engineers to its R&D team this year, bringing its total workforce to 1,200.

Cai from the chamber of commerce said that such investment by foreign companies in R&D in China is now acting as a stimulus to domestic players to upgrade their technology to enhance their chances of export success.

This growing commitment to R&D by multinationals has also helped cultivate a

burgeoning community of homegrown, quality engineers with a global outlook and international working experience.

Cai said employee turnover within the industry is inevitable, but healthy, helping domestic medical equipment makers strengthen their R&D capabilities.

Shenzhen-based Mindray Medical International Ltd is now considered China's largest medical equipment manufacturer, and its exporter.

Set up in 1991 as a trading company, it is involved in importing medical equipment.

It now has 29 local sales and service offices in China, as well as sales and service subsidiaries in Amsterdam, Istanbul, London, Mexico City, Moscow, Mumbai, Sao Paulo, Seattle, Toronto and Vancouver, and its US offshoot is listed on the New York Stock Exchange.

With years of close connection with vari-

ous international firms, the device maker realized that to sustain its long-term development, it needed to develop its own products, according to Liu Jie, its corporate operation officer.

The company had been focusing on locally tailored products since the late 1990s, with some success, and its knowledge of local demand and market needs was a valuable resource.

"Learning from international big names, we built our own R&D teams with talent from home and abroad and actively targeted overseas markets with our technology and highly flexible products, at affordable prices. It was a formula that worked," Liu said.

So far, more than half of Mindray's revenues come from overseas, as it exports products to more than 190 countries and regions.

The company's sales revenue hit \$880 million last year, a 25 percent year-on-year increase, according to the company's financial report.

It has nearly 1,550 R&D employees, accounting for around one-third of its workforce.

Its engineers work across six R&D facilities in cities around the world, including Shenzhen, Beijing, Nanjing, Seattle and Stockholm.

"We are doing R&D in and outside China, in a bid to meet the needs of our home market and sell products globally," Liu said.

Ohnesorge of Siemens has the same message for his customers around the world, and said more companies are starting to adapt a similar approach.

"In China, we truly create rather than just make," he said.

"We do development here based on our global business, for our global customers."

Medical companies increasing focus on nation's grassroots market

By LIU JIE in Xining

When showing the device he is selling, Liu Simin usually has to explain that it is not a smartphone but medical equipment.

Looking like an iPhone, with a big screen and white in color, the device in Liu's hand can do all-body ultrasound diagnoses, color doppler ultrasounds and save and transfer data.

The Vscan, from international medical equipment and solution provider

HEALTH GE Healthcare, not only targets major hospitals, where doctors can use it to do immediate diagnosis, but also grassroots medical institutes, including village clinics, county and township hospitals and community health clinics.

"It's especially useful for general practitioners in rural areas, where big and expensive imaging machines are few and far between and doctors often travel from village to village visiting patients," said Liu, GE Healthcare China's clinical marketing manager.

"It's easy to carry, and its high-quality imaging allows for quick and efficient diagnoses. And data transfer facilitates remote consultation."

The Vscan is an important product for GE Healthcare, which will focus on the nation's grassroots market over the next few years.

Rachel Duan, president and CEO of GE Healthcare China, said the company plans to increase its sales in the grassroots market from less than 20 percent of the company's total at the moment to more than 50 percent in the next three to five years.

In addition to introducing products, such as the Vscan, the company will launch 32 newly developed products over the next three to four years.

Duan said 70 percent of the new products will be tailored to grassroots healthcare needs.

Since the beginning of 2011, GE Healthcare China has recruited 500 sales representatives in western China, and the medical business' sales in the world's second-largest economy increased by 20 percent year-on-year in 2011, said Mark Hutchinson, president and CEO of GE China.

New growth engine

GE Healthcare is not the only major multinational medical equipment manufacturer to focus on China's grassroots market.

Siemens Healthcare, the medical unit of Germany-based Siemens AG, launched its Agenda 2013 early this year, which is a two-year global initiative to grow innovative capacity and enhance the company's regional presence.

"Our objectives include further extending our portfolio of systems in the middle price segment, developing next-generation IT solutions that increase efficiency, and expanding our regional presence in fast-growing emerging markets," said Siemens Healthcare CEO Hermann Requardt.

Bernd Ohnesorge, CEO of the MR business unit at Siemens Healthcare, said that in China, the core is accessible innovation.

"To roll out our advanced imaging technology and improve access to healthcare in rural areas in China, particularly county-level hospitals, is something we are taking very seriously into consideration. This is also a trigger point to our decision under the umbrella of Agenda 2013 to particularly invest in Shenzhen," Ohnesorge said.

Shenzhen Siemens MR Co Ltd is one of

"To roll out our advanced imaging technology and improve access to healthcare in rural areas in China, particularly county-level hospitals, is something we are taking very seriously into consideration."

BERND OHNESORGE
CEO OF THE MR BUSINESS UNIT AT
SIEMENS HEALTHCARE

Siemens Healthcare MR's three global R&D and manufacturing headquarters. The other two are in Erlangen, Germany, and Oxford, the United Kingdom.

Ohnesorge said that the expansion project, due to start this summer and continue into the next year, will double its manufacturing capacity in Shenzhen.

New investment will also involve R&D to expand the company's portfolio to meet the special needs of county-level hospitals.

Philips Healthcare, for its part, has been competing with new and affordable products and solutions developed in cooperation with Neusoft Corp, a Chinese provider of IT solutions and services.

GE Healthcare, Siemens Healthcare and Philips Healthcare together account for 70 percent of China's high-end medical device market, said a report from the Samsung Economic Research Institute.

"One of the focuses in China's latest round

of healthcare reforms is the development of the grassroots market, especially the rural sector. Central government investment in the last round — from 2009 to 2011 — exceeded 63 billion yuan (\$9.86 billion), supporting the construction and renovation of 33,000 county-level hospitals, rural clinics and community medical centers," said Liu Ximei, an analyst at Chinese research company Forward Business Intelligence Co Ltd, adding that local governments also invest in this type of construction, although there are no official statistics.

"We expect the investment will increase over the next three years," she said.

Development support

Ohnesorge said his company's products aimed at the grassroots market are not "cheap," adding that Siemens Healthcare China aims to maintain a balance between quality and affordability, although this is not easy.

The company has adopted an accessible innovation strategy to develop products with lower costs and higher value.

Duan from GE said that cost savings can be achieved through technological innovation and local supply.

"Many newly developed technologies and solutions have helped us use economical raw materials or streamline manufacturing and logistics process, resulting in cost reductions," she said.

So far, around 70 percent of the components the medical device producer buys are from local suppliers.

She added that demand in China's grassroots market is diverse, due to the large size of the nation and different economic and

geographic conditions in various areas.

"What rural clinics need is likely to be different from community health clinics. We are diversifying our products to precisely meet various requirements," Duan said.

Zhao Hui, planning and finance department director of the Qinghai health bureau, said that he prefers the stability and durability of GE Healthcare's equipment.

In the recent round of equipment upgrades for rural medical institutes, 16 GE computed tomography machines were purchased by the provincial government via public bidding.

The US-based company donated five Vscans to Qinghai's township health center in April. Zhao said that the machine is really good in terms of convenience, efficiency and quality.

"But I don't think we can buy it so far, since it's too expensive — 200,000 yuan per unit, while the budget per center is only 100,000 yuan," Zhao said.

So far, more than 200 Vscans have been sold in China, with the majority going to major cities' large hospitals. Liu Simin said that the price will ultimately drop, when manufacturing takes place on a large scale.

Xu Jianmin, radiological department director of Shenzhen People's Hospital, said that his hospital has been using an MR machine, developed and made by Siemens Healthcare China, for five years, and no big problems occurred.

If there are any problems, after-sales engineers can solve them on the same day, he said.

However, Xu said that if these machines go to the rural market, education and training should be strengthened, as diagnoses based on equipment data is a kind of professional work, which needs knowledge and experience.