Vontron to use new water tech for profit

By **JING SHUIYU** in Beijing and **YANG JUN** in Guiyang

Guiyang, Guizhou-based Vontron Co Ltd, a Chinese manufacturer of membrane-based water treatment equipment, is preparing to tap the ultrafiltration segment, having tasted success so far in the reverse osmosis process.

It is also augmenting capacity and expanding into new business areas, said a company executive. Membrane manufacturing capacity would increase from 16 million square meters to 30 million sq m by this year-end.

Vontron is expecting to achieve double-digit sales growth this year. Jin Yan, its general manager, said annual sales are projected to reach 660 million yuan ($100 million), up about 11 percent year-on-year. Last year, sales grew 14.7 percent from 2015.

The membrane separation technology is a filtration process to remove ions, molecules or larger particles from water, and is used in a variety of industries, including steel, desalination and power. It is also used for municipal and residential purposes.

Vontron's main products currently use reverse osmosis, a water purification technology that uses a semipermeable membrane to remove ions, molecules and larger particles from drinking water.

In this segment, Vontron has 40 percent market share in China. The domestic market is seen as "close to saturation", Jin said.

So, the company is looking to expand its product portfolio to maintain strong earnings.

In the ultrafiltration segment, Vontron would face competition from Beijing Originwater Technology Co Ltd, Shenzhen Litree Purifying Technology Co Ltd and Tianjin Motimo Membrane Technology Co Ltd.

Established foreign giants include US-based Hydranautics and Dow Filmtec Membranes. As early as in 1980s, the two companies entered China and have since won substantial market share.

Founded in 2000, Vontron is considered a latecomer. It has been seeking to gain brand recognition and market share, said Liu Xia, head of Vontron's overseas business.

"Brand recognition has always been a sore problem," said Liu. "We have a long way to go in terms of further development."

In recent years, China's membrane separation technology market maintained an average annual growth rate of over 25 percent, according to a report by Beijing-based ChinaIRR.org.

It is expected the figure will reach 40 percent in the next decade, the report said. In the same period, the growth rate of Chinese membrane manufacturers is estimated to reach 20 percent, higher than the global average.

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Demographic cloud has a 'silver lining'

Insurers in China drool as people aged 65 or above are set to grow in numbers

By **LUO WEITENG** in Hong Kong
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Domenico Savarese, global head of ageing at Swiss Re

The booming "silver generation" of China — people aged 65 or above — presents potentially huge opportunities for the insurance industry, an expert said.

"China is undergoing a huge demographic shift, with the proportion of its elderly population aged over 65 on track to grow from 10 percent (of total population) today to 24 percent by 2050," said Domenico Savarese, global head of ageing at Swiss Re.

To be sure, the number of ageing people is increasing in the world's second-largest economy. According to the UN, the country's ratio of working-age population to retirees aged over 65 will decline from 7.7 now to 3.4 within the coming two decades.

Those aged 65 or over are projected to increase from 144 million in 2015 to 330 million in 2050, roughly the current population of the United States and nearly twice the current population of Russia.

The rate of increase in ageing population is more rapid in China than most other comparable countries across the globe.

According to the UN, it has taken China only 34 years for the proportion of its elderly population aged 60 or above to double from 7 percent to 14 percent.

In stark contrast, it took 115 years in France, 85 years in Sweden and 69 years in the US.

"From the perspective of economics, the ageing society does have its upside, as tomorrow's 'gray population' in China and around the world could translate into golden consumption and investment opportunities that insurers and reinsurers cannot miss out on," said Savarese.

Some 30 percent of global consumption growth between 2015 and 2030 is forecast to come from the elderly population in the developed world and China.

The country alone would contribute 10 percent of growth, he said.

With a less mature insurance market and underdeveloped social welfare system, China is known for its much higher level of family support to fund the elderly population, as informal care contributes more than a fifth of the ageing wallet, a latest report from Swiss Re showed.

The ageing wallet refers to the annual amount spent across State, family and private sectors to fund lives of the elderly aged over 65.

Insurance, currently accounting for a mere 2 percent of the nation's ageing wallet, could increase its small share to serve as a complement to such a family dynamic that would not disappear in the foreseeable future, he said.

"The findings highlight the key role that family support plays today, how it would evolve, and how do we make ourselves (reinsurers) relevant in this game," Savarese said.

Family's large share of the ageing wallet fits in well with the country's time-honored culture of "filial piety", where the younger generation cares for the old, says the report.

However, today's support structure appears to be vulnerable as the Chinese society is embracing structural changes, the report said.

A baby boom in 1950s followed by 36-year-long one-child policy meant the majority of working-age Chinese are the sole providers for their parents and grandparents.

Not to mention the nation's low fertility and ongoing rural-to-urban migration, which make the vast funding requirement of China's ageing society a challenge.

"All of these are pieces of a puzzle that should be considered by policymakers and pilot market players to get a better understanding and vie for a share of the country's promising albeit yet-to-be-explored silver economy," Savarese said.

Insurers in China today gain momentum mainly from the sales of health products, while innovations like cancer-only critical illness products also find a place in the market.

As the insurance sector sees itself as part of a wider ecosystem that enables successful ageing, it is looking to play a bigger part in offering "living well" solutions for the country's seniors, the report said.

Ageing people consult insurance professionals for advice in Shanghai. Insurance is looking to play a bigger part in offering "living well" solutions for China's seniors, a report from Swiss Re says. PROVIDED TO CHINA DAILY

Mainland grows into nanotech power

Wang Haowei, an expert in material sciences in Shanghai Jiaotong University, works in the lab. China's applied nanoscience research and the industrialization of nanotechnology have been developing steadily, according to a report. XINHUA PHOTO

BEIJING — China has become a nanotechnology powerhouse, according to a report released at the 7th International Conference on Nanoscience and Technology in Beijing recently.

China's applied nanoscience research and the industrialization of nanotechnology have been developing steadily, with the number of nano-related patent applications ranking among the top in the world, said the report.

The report was co-produced by Springer Nature, the National Center for Nanoscience and Technology, and the National Science Library, which is part of the Chinese Academy of Sciences or CAS.

According to Bai Chunli, president of CAS, China faces new opportunities for nanoscience research and development as it builds the NCNST and globally influential national science centers.

"We will strengthen the strategic landscape and top-down design for developing nanoscience, which will contribute greatly to the country's economy and society," said Bai.

Nanoscience is the study of the interaction, composition, properties and manufacturing methods of materials at the nanometer scale.

The science encourages integration of many disciplines and has a direct impact on daily work and life because it leads to the discovery of advanced technology.

In 1997, around 13,000 nanoscience-related papers were published worldwide. By 2016, the number had risen to more than 154,000, the report said.

209,344
number of the nano-related patent applications in China over the past 20 years

The number of papers related to nanoscience from China grew from 820 in 1997 to over 52,000 in 2016.

Since 2007, the average compound annual growth rate of China's most cited nanoscience papers was 22 percent — three times the global rate, the report stated.

In terms of the number of nano-related patent applications, China has reached 209,344 over the past 20 years, accounting for 45 percent of the world's total.

In 2003, CAS and the Ministry of Education co-established the NCNST. Key to the NCNST's success has been the involvement of three of China's top research institutions -- Tsinghua University, Peking University and CAS, said Liu Minghua, director of the NCNST.

Liu said that thanks to robust funding, a growing number of Chinese scientists have been attracted to research of nanomaterials. Additionally, more foreign-trained Chinese researchers have returned to China under favorable policies.

Energy nanotechnology and catalytic nanomaterials are the top two fields in which China has made remarkable achievements.

Faced with mounting public pressure to tackle deteriorating environmental problems, China is putting great effort into the research and development of new energy, as well as energy efficiency and environmental protection technology.

This has made energy-related nanotechnology a promising area, leading Chinese researchers to research batteries and energy storage and conversion, Liu said.

Catalytic nanomaterials research is considered China's most promising area of nanoscience. Nanostructure-based catalysts can speed up chemical reactions and could be useful in chemical industries and oil refining, experts said.

Bai said both challenges and opportunities await China.

More breakthroughs in basic nanoscience research need to be made, and the gap between basic research and application should be closed.

CAS will foster more young scientists who can innovate, accelerate the building of value chains, and foster broad and efficient international collaboration, Bai said.

"Through our joint efforts, we expect to apply nanotechnology to various sectors that will benefit the people and help China to be a global leader in science and technology," Bai said.

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Sensible deals change Chinese M&A game

BEIJING — After a series of eyebrow-raising mega-deals in recent years, a number of high-profile but less controversial Chinese deals are now grabbing the limelight.

Such deals include Sanyuan and Fosun's takeover of St-Hubert; Fosun and Nanjing Nangang's stakes in Koller; and Hytera's acquisition of Norsat.

These new deals show the country's foreign investment is stepping out of the fast lane into one focused on sensible investment and quality growth.

A report by accounting firm PwC showed that foreign mergers and acquisitions or M&A by Chinese investors in 2016 more than tripled from the previous year.

Much of this involved an increase in irrational phenomena and even suspect transfers of assets, but things are now changing.

Since late 2016, government agencies have been reinforcing inspections on authenticity and regulation compliance of outbound direct investments or ODI in a bid to improve returns and control risk.

In the latest efforts, authorities decided to limit ODI by domestic companies in several fields, including real estate and sports clubs, while encouraging them to invest in infrastructure and new technology.

The new measures have proven effective.

In the first seven months of 2017, China's non-financial ODI dropped 44 percent year-on-year to $57 billion, official data showed.

ODI in real estate, culture, sports and entertainment sectors saw substantial declines during the period, the Ministry of Commerce said.

Meanwhile, involvement in billion-dollar projects has decreased significantly, with the majority of the deals announced this year worth less than $1 billion.

Fosun's chair Guo Guangchang said the most serious headache for his company in foreign investment used to be big-spending Chinese rivals whose bids were hard to understand. He believes such squandering will decrease as authorities tighten supervision.

> **Koller's expertise in providing lightweight solutions is in line with Nanjing Nangang's transformation direction."**
>
> **Huang Yixing,** chairman of Nanjing Nangang

Another positive trend is that investors are increasingly focusing on high technology, structural upgrading and capacity cooperation.

Nanjing Nangang's stake in Koller, for example, eyes the German company's lightweight technology, which could effectively decrease energy consumption and promote sustainable development.

"Koller's expertise in providing lightweight solutions is in line with Nanjing Nangang's transformation direction," said Huang Yixing, chairman of Nanjing Nangang.

"Strategic cross-border mergers, especially those associated with industrial upgrading and the Belt and Road Initiative, will take the lion' s share of the country's overseas mergers this year," said Li Ming at PwC.

Last but not least, while many investment bets are overseas, they actually eye domestic markets.

Guo expects that more Chinese companies will integrate global resources through overseas investment and mergers to develop themselves, pointing to Sanyuan and Fosun's plan to buy French margarine maker St-Hubert as a case in point.

The proposed acquisition will introduce healthy foods into China and is aligned with the government's policy to support and drive technological innovation, Guo said.

Authorities will roll out a negative list for programs that forbid and limit foreign investments and facilitate the implementation of those where the government wants to encourage foreign companies to invest, said Huo Jianguo, vice-chairman of the China Society for WTO Studies.

The State Council last month announced a series of measures to ensure steady growth of foreign investment.

China should make its foreign investment environment "more law-based, international and convenient" to increase growth and raise the quality of foreign investment, according to a document by the State Council.

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Construction workers walk past a building of the headquarters of Fosun International in Shanghai. ALY SONG / REUTERS