

# More R&D called for as China climbs ranking

## Investment needed to ensure country remains globally competitive

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Intellectual property experts and officials have called for more investment in research and development across broader areas to maintain China's increasing competitiveness in global innovation.

The move comes after the release of the Global Innovation Index 2019 by the World Intellectual Property Organization, Cornell University and other organizations last week.

China has moved to 14th position, beating its goal of being in the GII top 15 by 2020, according to the report.

"China's improvement this year is largely due to its relative performance and less so to new GII data or methods," said Sacha Wunsch-Vincent, head of the Economics and Statistics Division of WIPO.

The GII 2019 provides detailed metrics about performance in terms of innovation of 129 countries and economies around the world. Its 80 indicators explore a vision of innovation, including political environment, education, infrastructure and business sophistication.

According to the report, China has made an impressive improvement in the innovation output sub-index this year, reaching fifth position worldwide, up five places from 2018.

China remains top among middle-income economies in terms of quality of innovation for the seventh consecutive year. The country ranks third in the quality of universities and its score for the quality of scientific publications stands

above the high-income group's average.

The report said China stands out for producing innovation output that is equivalent to Germany, the United Kingdom, Finland, Israel and the United States, but at considerably lower levels of input.

For example, the country ranks low in some areas involving institutions and infrastructure construction.

Though its environmental construction and energy efficiency are weak items in the ranking, they are still the most promising areas in promoting China's innovation, said Chen Dongmin, chair professor of the Academy for Advanced Interdisciplinary Studies at Peking University.

China continues to increase efforts in making policies and promoting the use of renewable energy, Chen said.

"The two factors refer to sustainable development, and they will make great contributions to China's ranking in the index in the future," he said.

Zhang Xu, deputy director of the department of strategy and planning at the Ministry of Science and Technology, said innovation requires the effort of the whole society.

The output and input index also indicates structural problems, he said. "We will continue to increase the investment in basic R&D and infrastructure construction," Zhang said.

Xuan Zhaohui, head of the institute of scientific statistics and analysis at the Chinese Academy of Science and Technology for Development, said the report has shown China's increasing innovation capability.

"Innovation is more than technology — it is also in connection with economic and social developments," he said.

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in economic growth but ignored its contribution to social development and human health," Xuan said.

"This year's topic is of great value to pay more attention to the innovation in the economy, society and production," he added.

Themed "Creating Healthy Lives — the Future of Medical Innovation", the GII 2019 also analyzed the medical innovation landscape of the next decade, looking at how technological and non-technological medical innovation will transform the delivery of healthcare worldwide.

As an internet company, Tencent has put efforts into studying the role of the internet in the real economy over the past decades, said Wu Pengyang, deputy director of the industrial research center of Tencent Research Institute.

"Combining healthcare with technology is part and parcel of Chinese markets," Wu said.

However, the demographic dividend is waning in the 40 years of reform and opening-up, he said.

To this end, the application of artificial intelligence and big data is conducive to promoting treatment efficiency, mobilizing sound medical resources and reducing the time and cost of medical R&D, he added.

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China plans to develop homemade ice and snow equipment as the winter sports market, driven by the upcoming Winter Olympics, booms.

By 2022, sales revenue generated by the ice and snow equipment industry is expected to surpass 20 billion yuan (\$2.9 billion) with an average annual growth of 20 percent, according to a three-year plan starting from 2019, released by multiple central government departments.

However, the number of domestic brands with high-quality and global influence is quite limited. The country aims to improve circumstances by helping related companies and building more industrial parks.

Ice and snow equipment includes those used in ice rinks and ski resorts, such as snowmakers, snowmobiles, cableways and electric conveyor belts, as well as those for individual usage, including ski suits, helmets and protective gear. Most renowned brands are from developed countries like France, Switzerland, Italy, the United States, Finland and Japan.

According to the official website of Thaiwoo Ski Resort and Alpine Park in Hebei province, the ski equipment it provides is from a company in Austria. Its veneer is from a renowned Slovenian brand and its chairlift is from France.

While domestic ski wear brands such as Toread, Bosideng and Running River have established a repu-

tation in the market, their sales are far less than their overseas competitors.

The plan called on local governments to promote research on design, production and application of ice and snow equipment, by optimizing their business environment, supporting financial services and encouraging mergers and acquisition to improve competitiveness of the whole industry.

Northern provinces, such as Hebei, Jilin and Heilongjiang, whose climate is suitable for winter sports, have taken efforts to develop industrial parks and clusters involving ice and snow equipment manufacturing.

Financial institutes and industrial investment institutions will also enjoy preferential policies in purchase, tax and technological innovation when backing ice and snow equipment companies.

In September 2018, the General Administration of Sport of China released another plan to increase the Chinese winter sports population to 300 million by 2022, when the 2022 Winter Olympics is scheduled to open in Beijing and Zhangjiakou, Hebei province.

Lin Xianpeng, a professor with Beijing Sport University, told Eco-