



CHINA S&T NEWSLETTER

No.15 2019

Contents

Policy charts a course for the future

--Researchers from "Belt and Road" countries talk about innovation



Policy charts a course for the future

--Researchers from "Belt and Road" countries talk about innovation

Innovation is the primary driver for development. Science, technology and innovation has become a cornerstone and hallmark of social productivity, and has a direct impact on the development of a nation. On August 7, 2019, the Chinese Academy of Science and Technology for Development (CASTED), Greatwall Strategy Consultants (GEI) and the International Research and Training Centre for Science and Technology Strategy (CISTRAT) under the auspices of UNESCO co-organized "Belt and Road" Science, Technology and Innovation (STI)) Think Tank Network -- STI Policies and Practices Workshop. The workshop brought together 27 researchers from 11 "Belt and Road" countries to discuss topics on how to improve STI policy-making and practices.



Chinese and foreign experts share policy-making experience

> Innovation in China

Over the years, China has invested heavily in manpower, material and financial resources for STI development. CASTED President Hu Zhijian noted that STI is a major source of growth, and it is an integral part of China's S&T policy to build an innovation-driven country, that is, to pursue high-quality development through innovation. He pointed out that development is China's top priority, and policy-making should be guided by the vision of innovative, coordinated, green and open development that benefits all.

China's national innovation system aims to highlight the role of businesses as major players in technological innovation, strengthen collaborative innovation, accelerate the reform of S&T system, improve the mechanism for developing human resources, and foster an innovation-friendly atmosphere. Looking ahead, China will enhance basic research, and play the dominant role of original knowledge in industrial innovation; deepen institutional reform and improve the allocation of knowledge resources, so as to promote coordinated development; improve innovation and entrepreneurship environment to share innovation and development fruits; remove the barriers for knowledge flow, take the lead in growing high-level, open economy and participate in global innovation management.

Remarkable progress has been made in industry-academia collaboration and technology transfer over the years, and relevant laws and policies have been steadily improved. In particular, the release of the revised Law on Promoting the Transformation of Scientific and Technological Achievements in 2015 highly motivated various innovators to transfer and commercialize technologies. Many new technology transfer models and practices emerge, and efforts are put in place to accelerate industrial transformation and raise regional innovation capacity, contributing to high-quality growth of China.

Universities' incentives led to rapid increase of publications in China over the years. Now many universities and research institutes adopt various approaches such as the pricing of research results, technology contributed as capital stock, allowing researchers to take an unpaid leave of absence to start a business, building university-based science parks or collaborating with makerspaces or incubators to promote innovation and entrepreneurship.

With government incentives in place, an increasing number of researchers are willing to start a business. According to a survey, the ratio of researchers who consider starting a business increased from 20.1% in 2003 to 28.2% today and the ratio of those who have already started a business was up from 0.9% to 2.5% in the same period. Meanwhile, lots of challenges remain, including the lack of commercially viable technologies, insufficient start-up training and the obstacles for delivering on some policies.

China's R&D investment in 2017 totaled 1.76 trillion yuan, and the S&T financing environment has been improving. As of the end of 2018, the number of venture capital institutions reached 2,800, second only to the US. Banks have increased their support for tech businesses by rolling out more financial products. A multi-tier capital market has been improved. Outbound investment has been growing. In 2017, China's overseas direct investment stood at \$158.29 billion, taking 11.1% of the global total. China also invested in nearly 3,000 enterprises of 57

"Belt and Road" countries.

> Innovation in Thailand

According to a representative from the National Higher Education, Science, Research and Innovation Policy Council of Thailand, Thailand has experienced four stages of development, from agriculture, light industry, heavy industry to today's innovation-driven development. The current stage puts more emphasis on modernization and the increase of income. Thailand adopted its 20-Year National Strategy in to enhance business cooperation with 2017 neighboring countries or regions, step up scientific research and innovation, develop infrastructure and logistics by covering "Balance and Public Sector Management", "Stability", "Eco-friendly Growth" and other strategies. It aims to finally achieve income growth, efficient management, social stability, sustainable development, economic growth, and social equity. The representative said that all the six science parks Thailand has built will spur on business and tech incubation, invest in infrastructure and serve the manufacturing and service sectors.

Thailand's Science Minister Counselor Pasupha Chinvarasopak said that against the backdrop of economic globalization, cooperation should be enhanced to address common challenges facing all countries. Only by boosting STI cooperation can best solutions be found for new problems. Countries should increase researcher mobility and technology flow and develop new technologies through bilateral and multilateral cooperation. She expressed her hope that participants could take the opportunity to work more closely with China, and strengthen regional cooperation for win-win benefits.

Innovation in Egypt

According to Prof. Mamdouh Moawad Ali Hassan from National Research Centre of Egypt (NRC), over the past 63 years since its establishment, NRC has been dedicated to improving technologies vital to the country, and has carried out lots of basic and applied research in various fields. NRC has stepped up S&T collaboration with other countries, and increased investment in scientific services and consulting, and in top human resources training, in an effort to upgrade Egypt's S&T prowess and speed up knowledge dissemination. NRC started building its technology park in May, with a focus on textile, applied engineering technology, biotechnology, advanced materials. NRC wishes to work with China in a wide range of fields, including seawater desalination, renewable energy, nanotechnology, sustainable agriculture, incubator and science park development,

Innovation in Serbia

According to Djordje Celic, CEO of Business Incubator Novi Sad, Serbia has built two technology incubation parks and will build another three parks for incubation. Take the example of the University of Novi Sad, its professors are allowed to start their own companies, and there are already 140 such companies, and employ a total of 6,500 engineers, the revenues keep growing at an annual rate of 23% and the number of employees increases at 22% a year.

➢ Innovation in Iran

According to Program Office Director of Pardis Technology Park, Iran has 43 technology parks, 192 incubators, 12,594 laboratories, and 686 research institutions. The development of science and technology in Iran started back in 1990, with a focus on higher education. Iran started strengthening technological research in 2000, and began the research on the transition to innovation by developing knowledge-based economy. Looking forward, Iran will promote the 4 technological goals of its tech business incubation, create business opportunities through technological innovation, so as to accumulate more wealth for the country.

(Source: Ministry of Science and Technology)