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CHINA SCIENCE & TECHNOLOGY NEWSLETTER

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## **Focus on Innovation and Entrepreneurship in China**

**On October 22, 2020, Chinese Premier Li Keqiang noted at the opening ceremony of the Pujiang Innovation Forum that science, technology and innovation is an inexhaustible driving force for human progress. With science, technology and innovation high on its agenda, the Chinese government has pursued an innovation-driven development strategy and vigorously advanced innovation and entrepreneurship, so as to sustain economic growth and improve people's life.**

### **❖ InnoStars International Innovation and Entrepreneurship Competition held in Qingdao**

The 2020 InnoStars International Innovation and Entrepreneurship Competition was held in Qingdao on December 29, 2020. The event, based on top 100 industrial innovations released by the International Technology Trade Fair on ZGC Forum, focused on biotechnology and health, artificial intelligence and intelligent manufacturing, intelligent transportation and ICT, energy efficiency and green innovation. A total of 60 projects from the U.S., Canada, Germany, Italy, the UK, Israel, Russia, Japan and South Korea were entered for the competition.





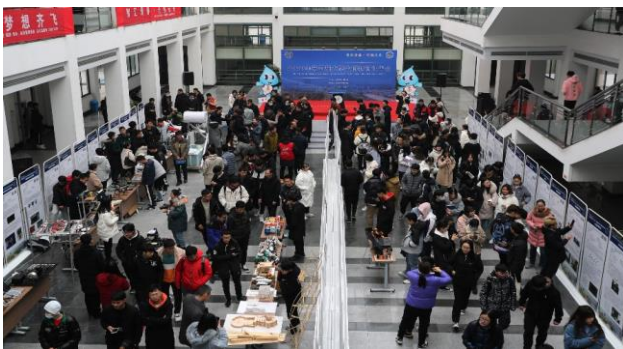
### ◇ “Energy internet” makes energy more cost-effective

Beijing Yanqing Comprehensive Demonstration Zone for Energy Internet has an advanced microgrid, making a wide variety of green energy sources, such as wind, solar, biomass and geothermal energy, accessible. This offers a new business model for smart microgrids. The innovative waste heat utilization technologies of cloud computing centers are adopted for heating in winter and heat storage in summer. By abandoning conventional boiler central heating, this approach is cleaner and more environmentally friendly.

The hybrid AC/DC power distribution network adopted in the Zone, which represents a very promising technology, is more responsive and reliable. Digital technologies like cloud computing, big data, the Internet of Things, artificial intelligence and blockchain make the energy system smarter, by bringing together power source, grid, load, energy storage and utilization, and by integrating energy production, transportation, sales, storage and services.

## ❖ Innovation and entrepreneurship by university students

On December 5, 2020, the fifth innovation and entrepreneurship event hosted by China University of Petroleum showcased 116 projects by university students. The tailored industrial equipment troubleshooting and diagnostics platform, one project that stood out, has been adopted by Haier, Huabei Oilfield, and State Grid.



The fifth Innovation and Entrepreneurship Achievements Exhibition at China University of Petroleum



University students demonstrate taxiing on a flying bed

## Focus on China's Science and Innovation Parks

On July 17, 2020, China released *the Guidelines on High-quality Development of National High-tech Parks*. Through more than 30 years' efforts, national high-tech parks have become important arenas for innovation-driven development, playing a vital role in shifting growth model, upgrading industrial structure and improving international competitiveness.

✧ **Yangtze River Delta: accelerating the development of a community of science, technology and innovation**

On December 29, 2020, the Chinese Ministry of Science and Technology released *the Plan on the Development of Yangtze River Delta Community of Science, Technology and Innovation* (the Plan), setting out specific measures for improving innovation capabilities, fostering an open and integrated innovation ecosystem, developing a pilot zone for high-quality development and pushing for open innovation.

The G60 S&T Innovation Valley of Yantze River Delta, covering an area of nearly 80,000 km<sup>2</sup> and consisting of 9 cities like Shanghai, Hangzhou and Hefei, has so many achievements to be proud of: the non-human primate cloning technology developed at its Brain Intelligence Innovation Park, City Brain launched by Alibaba Cloud, and speech recognition robots unveiled by iFlytek, among others.

Home to almost one third of domestic R&D expenditures, one third of major research infrastructure projects, one fifth of national key laboratories and national high-tech parks, the Yantze River Delta region is fully leveraging its innovation resources to develop into a community of science, technology and innovation.



## ❖ Guangdong-Hongkong-Macao Greater Bay Area: a demonstration zone for integrated development



Customs officers are inspecting bonded warehouses for cultural products

With the Nansha Area of Guangdong Pilot Free Trade Zone being upgraded into a comprehensive bonded area, the 324 businesses located within the area are enjoying greater tax incentives. As many brands like JD, Tmall, Kaola, Whirlpool and Panasonic have moved to the bonded area, a platform for international logistics and diversification of emerging industries has taken shape. Businesses are capitalizing on the policy incentives to expand their presence, both at home and internationally.

In 2020, Guangdong Pilot Free Trade Zone (the Zone), as a gateway to the outside world, played an active role in fostering a new development paradigm. Guided by this vision, the Pilot Zone put in vigorous efforts to mitigate the impact of COVID-19, and maintained a sound growth momentum. Among the 27,000 new businesses set up from January to November, there were 2,829 foreign-invested ones,

with paid-in foreign capital of \$ 6.682 billion, accounting for 30% of the total FDI of Guangdong Province. The Zone is one of the top performers in terms of economic indicators among all free trade zones in China. In 2020, as part of the efforts to foster a new development paradigm with domestic circulation as the mainstay and domestic and international circulations reinforcing each other, 70 achievements from the Zone were scaled up in the whole province.

✧ **Binhai-Zhongguancun Science Park to be built into a model of coordinated development of Beijing-Tianjin-Hebei Region**

During an inspection tour to Binhai-Zhongguancun Science Park on January 17, 2019, President Xi Jinping proposed that the Park should “pursue deeper innovation in institutions and mechanisms and create an enabling business environment to attract investment or promote expansion by enterprises from Beijing, facilitating greater synergy between Beijing and Tianjin based upon their respective strengths”. Over the past two years, the Binhai-Zhongguancun Science Park, as an exemplary zone for coordinated development of Beijing-Tianjin-Hebei region, has taken robust steps to relieve Beijing of its functions nonessential to its role as China’s capital and improve policy support for science, technology and innovation. Thanks to these efforts, four major industrial clusters--Intelligent Technology, Life Science, New Energy and New Materials, and Science and Technology Service Industry--start to take shape.

With a focus on “coordinated development of Beijing-Tianjin-Hebei region” and “high-quality development”, the Binhai-Zhongguancun Science Park encourages

innovation and dynamism from within enterprises, accelerates the fostering of new growth drivers, and improves integration of four chains, i.e. talent, innovation, financing and industry. More application scenarios have been created to enrich the ecosystem for the cluster development of industries. Meanwhile, the Park is committed to cultivating a crop of competitive, high-growth tech-based SMEs with high added value to help them thrive. In this way, innovation capabilities of enterprises continue to be elevated.

Key projects including the Headquarters of Beijing Blue Star Cleaning, Tianjin Graphene Engineering Innovation Center, Huawei Smart City Innovation Center, Fiars Intelligent Technology and Fun in Funding have successively settled in Binhai-Zhongguancun Science Park, forming a cluster of innovative enterprises with core technologies. In 2020, the number of national high-tech enterprises in the Park increased to 35 from 12 in 2019, a year-on-year increase of 192%. The number of national sci-tech SMEs increased from 19 to 65, a year-on-year increase of 242%. The number of start-ups increased from 7 to 57, a year-on-year increase of 714%.

## **MOST and CEPI Sign MoU on Cooperation**

The onslaught of COVID-19 has posed a major challenge to global public health and economy. Science, technology and innovation is the most effective weapon in humanity's battle against diseases, with vaccine providing an ultimate shield against COVID-19. The development of COVID-19 vaccines is a costly, challenging process. The current outbreak of the pandemic across the world has made vaccines all the more



needed. In the face of this new challenge, it is imperative to pool global efforts to accelerate vaccine development and production through pragmatic and effective cooperation. To this end, Ye Dongbai, Director General of the Department of International Cooperation of the Ministry of Science and Technology (MOST), and Richard Hatchett, CEO of the Coalition for Epidemic Preparedness Innovations (CEPI), recently signed a Memorandum of Understanding (MoU) on Cooperation.

The signing of the MoU is of great significance for promoting cooperation and exchanges between China and CEPI in the field of epidemic preparedness and innovation. According to the memorandum, the two sides will work together in epidemic preparedness and response, including supporting scientific research projects in the field of public health, and conducting vaccine research and development. In the future, the two sides will tap into their respective strengths to share experience and practices of research on COVID-19 and strengthen the sharing of scientific data and information; enhance cooperation among COVID-19 vaccine developers, select and support promising and mature projects that give full play to each other's advantages; boost communication and policy coordination with regulators; and create synergy with other governments, international organizations, and bilateral and multilateral cooperation mechanisms in the fields of science, technology and health.

## **High-Level Dialogue Held Between Minister Wang Zhigang and EU Commissioner for Innovation Mariya Gabriel**

On January 21, 2021, Chinese Minister of Science and Technology Wang Zhigang had a video meeting with Mariya Gabriel, the EU Commissioner for Innovation, Research, Culture, Education and Youth. The two sides exchanged in-depth views on implementing consensus reached between the top leaders, facilitating scientific and technological cooperation on fighting the pandemic, enhancing alignment on strategic plan, and jointly formulating the China-EU Research and Innovation Roadmap.

Minister Wang Zhigang said that China has made an all-out effort to support international epidemic response and proactively participated in multilateral cooperation against COVID-19. In the meantime, China and the EU have worked together to boost practical and effective cooperation on epidemic response. He hoped that the two sides will expand scientific and technological cooperation against COVID-19, including drugs, vaccine, and testing, and provide necessary support and favorable environment for institutions, universities and enterprises to engage in cooperation, making “China-EU contribution” to the final victory. China is now making steady progress in formulating the National Medium- and Long-Term Program for Scientific and Technological Development (2021-2035) and the 14th Five-Year National Plan for Science, Technology and Innovation. China is willing to strengthen exchange and coordination with the EU in scientific and technological plan, boost cooperation in areas of common interest, and boost both sides’ development levels of science, technology and innovation.

Commissioner Gabriel elaborated on EU's Horizon Europe Programme, and expressed willingness to continue advancing cooperation on scientific and technological response against COVID-19, facilitate alignment on the scientific and technological plans, expand cooperation channels, and create new space for cooperation.

(Source: Ministry of Science and Technology of China)