

LIFE IN CHINA

4

# Science Cannot Thrive in Isolation

By LONG Yun & ZHONG Jianli

"Today, the unbelievable speed of the knowledge evolution requires constant exchanges and cooperation. We always need to communicate with colleagues about the latest findings and share the important parts," Philippe De Maeyer, a prominent scientist, told *Science and Technology Daily* recently.

De Maeyer is an emeritus senior professor in cartography and geographic information system (GIS) at Ghent University in Belgium and a visiting professor at the Xinjiang Institute of Ecology and Geography (XIEG) of Chinese Academy of Sciences (CAS). More than just a specialist in his field, he is an advocate for cross-disciplinary collaboration and mutual learning.

### Stepping out of his comfort zone

According to De Maeyer, his career choice was influenced by his parents who are both geographers. "I have been involved with maps all my life," he said.

Actually, De Maeyer has a breadth and depth of working and learning experience across different industries, organizations and places. However, he was never satisfied with his research field during his studies and was, "Constantly immersed into new disciplines and industries." He combined geography with courses in programming and learned GIS on his own.

GIS is a system that creates, manages, analyzes, and maps all data types, he said, noting that the benefit of applying GIS mainly include improved communication and efficiency.

His academic journey always enriched his professional background. De Maeyer spent 12 years producing maps with GIS in a leading company in this

field. It was until 1999 that he, "Switched to academia and became interested in the theoretical aspects of geographical information."

All his experiences have pushed him to take risks, and he encouraged the youth to step out of their comfort zones and never constrain themselves to a single field.

### Science sees no borders

De Maeyer retained a vivid memory of his first encounter with XIEG, which started in August 2005. Moreover, his connection with XIEG was attributed to his traits of taking risks and seizing opportunities.

He had routinely undertaken annual trips to China for teaching until the COVID-19 outbreak. However, despite the pandemic making it more difficult for scholars to travel globally, technology has helped keep academic exchanges alive and prosperous.

In 2016, thanks to his efforts, the CAS and Ghent University established the Sino-Belgian Joint Lab for Geo-Information. This is an excellent example of international cooperation.

Although there exist differences in organization and mechanism between China and European countries, De Maeyer firmly believes science itself transcends boundaries. "Mutual understanding between people from cooperative parties plays a vital role in advancing collaborative progress," he said.

However, the joint lab was not always plain sailing at the outset. According to De Maeyer, the formal cooperative structure was gradually established as a result of the efforts of the two parties. This laid a solid foundation for new ideas and achievements.

From De Maeyer's perspective, researchers, especially young scientists, will benefit from professional guidance from an increasing number of senior faculties. More than only academic progress can be expected from the joint lab. "Researchers involved can acquire new working methods from different organizations," he said, adding that the reward also comes from the cultural aspect, leading to a deeper mutual understanding of both parties.

### Cultivating young scientists

De Maeyer pays special attention to the growth of young researchers. He applauded China's tremendous support for cultivating academic talent. For example, students in the joint lab were able to secure adequate funds to enable them to complete their education.

De Maeyer and his Chinese counterpart, professor Alisher Kurban from XIEG, agreed that the progress made in academic papers published is remarkable. "For me, the growing number of pa-

pers written by Chinese authors serves as an indicator of the increase of sci-tech level in China," he said.

Alisher appreciates De Maeyer's essential role in mentoring young researchers. He told *Science and Technology Daily* that professional training in the joint lab generated many benefits for the students. Some of these benefits are that students become more skilled at writing academic papers and more motivated to speed up the quality of their paper output, said De Maeyer, adding that, "More papers written by the students are [being] published in high-ranked and internationally recognized journals with high impact."

Over the years, De Maeyer's significant international influence in the sci-tech community has provided much help for students from XIEG to experience the global academic domain.

*This article is also contributed by experts from XIEG.*



For more detailed information about Professor Philippe De Maeyer's views. Please scan the QR code above.

## Traditional Eastern Wisdom

# Zhengguo Canal Benefits Humanity for 2 Millennia

By ZHAO Boyuan

Zhengguo Canal was first constructed in 246 BC, named after its designer Zheng Guo. It is a large canal located in



Zhengguo Canal Scenic Area Shot by Unmanned Drone. (PHOTO: XINHUA)

the northern part of Guanzhong plain in northwest China's Shaanxi province. Together with the Dujiangyan Irrigation System and Lingqu Canal, it is one of the three biggest water conservancy proj-

ects built before the Qin dynasty. Its construction laid the economic foundation for the rise of the Qin Kingdom and the unification of ancient China. The canal has worked effectively as an irrigation infrastructure for more than 2000 years.

Zhengguo Canal diverted water from the Jing River to the east. When it was first built, the general main canal was built along the contour line of the second terrace of Weibei Plain and crossed many natural rivers. Its tail water flowed into the Luo River. The canal was 126 km long and irrigated a farmland area of about 77,000 hectares. In the dynasties that followed, the canal and its irrigation system were adjusted several times and the irrigation area was reduced.

The design ideas of Zhengguo Canal, such as the engineering technology

of intercepting rivers along the way and the method of alkaline land controlled with silt offered rich experience in the design of water conservancy projects for later generations.

In 1932, the canal was rehabilitated again. A water diversion hub with a dam was built in the upstream of the original canal intake, and the Canal was renamed Jinghui (the benefits of Jing River). Today, its irrigation area covers east of the Jing River and west of the Shichuan River, including 48 townships of six districts and counties in a total area of 1,180 km² and an irrigation area of 97,000 hectares. In 2016 the Zhengguo Canal Irrigation System was recognized as a World Heritage Irrigation Structure by the International Commission on Irrigation & Drainage.

## Service Info

# Xiamen Expats Service Center Responds Actively to COVID-19

By LUO Lei & BI Weizi

Throughout the COVID-19 pandemic and current heatwaves, Xiamen Ser-



The service center staff provides services to an expat from Belgium. (PHOTO: Xiamen Municipal Science and Technology Bureau)

vice Center for Foreign Professionals has actively responded to the pandemic prevention and control policy, giving full play to the advantages of the service center staff to provide timely and professional services to foreign experts who need help through various channels.

### Efficient information delivery

In order to deliver the latest policies to foreign experts living in Xiamen in a timely manner, the service center staff send bilingual policy information to dozens of foreign experts communities online every day.

This information includes where the nucleic acid testing sites are, where they can get reports of nucleic acid tests, and how to use the registration

code for nucleic acid testing. A series of questions related to nucleic acid testing are constantly raised in the community. Meanwhile the service center staff keeps their eyes on the community dynamics, listens to their needs and doubts, and carries out targeted services online to help solve various problems.

### Door-to-door service

According to the city's pandemic prevention and control requirements, all domestic and foreign residents must take nucleic acid tests. One day, Osama, a foreign expert from Portugal, contacted the service center, saying that one of his business partners was extremely weak after chemotherapy, and had difficulties getting to the testing site. A nu-

cleic acid mobile testing team composed of community staff and medical personnel was sent to provide door-to-door service for the patient.

### Traditional Chinese Medicine Health Care Station

Xiamen Municipal Science and Technology Bureau, together with the Health Commission and Xiamen Hospital of Traditional Chinese Medicine, are preparing to open the Xiamen Traditional Chinese Medicine Health Care Station for foreign experts. The city will develop the TCM Health Care Station as an international clinical treatment center, an international TCM culture dissemination base, and an international TCM culture dissemination base.

# Bringing Science, Technology Closer to the People

By Staff Reporters

"We should facilitate the exchange and sharing of high-quality science popularization resources, and in particular unlock the potential of scientists to convey sci-tech stories." That's according to Li Meng, vice minister of the Ministry of Science and Technology and administrator of the State Administration of Foreign Experts, speaking via video link at the Shanghai Science and Technology Communication Conference.

In particular, Li lauded the efforts of foreign experts made in promoting science popularization and sci-tech communication in China.

He hoped that more foreign scientists will participate in China's sci-tech communication work and strengthen international cooperation and exchanges to enhance the international influence in this field.

The annual Shanghai Science Festival was launched on August 20. As part of the festival, the Shanghai Science Communication Conference debuted to popularize science to the public. Superstars in the sci-tech field, like Nobel laureates, prominent scientists, and Internet celebrities, shared their insights in promoting science communication.

### Shanghai-style science popularization

Shanghai has placed great importance on the work of popularizing science and technology, and on March 1, 2022, the city issued a policy to specifically promote this initiative. According to Shanghai Municipal Science and Technology Commission, the event serves as a proactive exploration toward constructing a new platform for sci-tech communication, as well as a robust measure to facilitate sci-tech popularization and innovation in Shanghai.

Shanghai was a vital hub for cultural exchange and one of the cradles of China's modern industrial and sci-tech civilization. The deputy mayor of Shanghai, Liu Duo, noted that the city will continue to step up efforts in sci-tech popularization in three dimensions, such as establishing a social platform, emphasizing professional support,

and maintaining an international perspective.

Wang Pinxian, academician of the Chinese Academy of Sciences (CAS) said, "Shanghai is a city with a scientific tradition, where Eastern and Western cultures mingle. The spirit of innovation has always been engraved in the city's DNA." He said that the concept of "Shanghai-style science popularization" is based on combining Chinese and Western perspectives and having the courage to try new things.

### Scientists' leading roles in sci-tech communication

Faced with a new wave of scientific and technical innovation, as well as economic transformation, the gap between scientists and the general public has narrowed. Scientists should maximize their own strengths, assist citizens in enhancing their scientific literacy, and involve the general public in technological innovation.

The 2013 Nobel Laureate in Chemistry, Michael Levitt explained the concept of the Virtual Global Laboratory (VGL) in a holographic speech. "This is a new concept that aims to develop a flexible scientific research structure that maximizes the advantages of global diversity, which combines the role of online and offline communication," he said, adding that, "It can expand the influence of scientific research results as much as possible."

Bruce V. Lewenstein and Diagram A. Scheufele, two of the most renowned figures in public communication of sci-tech, also discussed their opinions on the emerging trends in international scientific communication research.

Wang Hongyang, academician of the Chinese Academy of Engineering, inspired by her work with the Association for Women in Science, urged more scientific societies to get involved in the field of sci-tech communication.

"Science and technology need to be promoted in a way that appeals to the general audience," said Internet celebrity Tang Cheng, adding that professionals should promote and broaden public understanding of scientific and technological concepts.

## PHOTO NEWS



Huangshan Mountain, one of China's most famous scenic spots, is known for its majestic scenic beauty, strange rocks, cloud-shrouded peaks and ancient pines. It was listed as a mixed UNESCO World Heritage Site in 1990. The picture shows Greetings Pine in Huangshan Mountain. (PHOTO: XINHUA)

# China-Africa Cooperation Drives Meaningful Change

From page 1

Under the BRI, China and Africa are pursuing sustainable development through clean energy cooperation.

In recent years, many major green energy projects were established in Africa, with China's technological support. The Kaleta hydropower station, designed and built by China Three Gorges Corp., has turned Guinea, the water tow-

er of West Africa, into a veritable power tower, and injected a strong impetus into the economic development of Guinea and even West Africa.

This June, Sakai photovoltaic power plant in the Central African Republic, a Chinese aided project, began to supply power to the capital city Bangui, and has developed local communities and the economy while easing power shortages.