



Building Platforms for BRICS Vocational Education and Skills Training: Advancing High-quality BRICS Partnership on the New Industrial Revolution

VOCATIONAL EDUCATION IN CHINA

China has the world's largest vocational education system with 11,200 vocational schools and 29.15 million students, offering more than 1,300 majors which cover almost all areas of the national economy (Workers' Daily, 19 August 2022). A system of Secondary Vocational High School + Vocational College + Vocational and Technical University was established. The Chinese government stresses

the importance of craftsmanship and vocational education and has implemented a series of laws, mechanisms and policy measures with massive financial support. In recent years, a three-year action plan for expanding enrollment in vocational colleges and upgrading vocational skills has been successfully carried out. This drive saw vocational colleges enrolling an additional 4.13 million students and providing over 83 million training opportunities (Xinhua News Agency, 12 March 2022).

Vocational education in China will develop in the following three directions:

- **The digital transformation of education**

The wide application of online education platforms has made learning easier for "anyone, anywhere, anytime" - it can also provide real-time data tools for analysing study and teaching quality. Virtual imitation of the real training platform can enable practical education to be easily deployed and implemented through online methods.

• **Deep integration of industry and education**

Commonly the vocational schools and colleges have training bases in the enterprises that makes scientific research cooperation and skill training more efficient. China will build several regional communities integrating industry and education, so that vocational education can serve the regional economic development better.

• **Internationalisation**

There will be more and more exchanges and cooperation between countries. China will introduce several high-quality foreign vocational education resources to its own system while recommend several vocational education programs with Chinese characteristics to other countries.

Above all, the vocational education has become more attractive, influential and competitive amid an industrial upgrade in China.

ABOUT BRICS PARTNERSHIP ON NEW INDUSTRIAL REVOLUTION CENTER

It is common knowledge that vocational education thrives in cities with high economic performance and an advanced level of modernisation and internationalisation. Xiamen is a beautiful coastal city in southeastern China. President Xi Jinping once described it as “a robust city famous for innovation and entrepreneurship, and a beautiful garden-like city with sound eco-protection.” In 2017, the 9th BRICS Summit was held in Xiamen. In 2020, to consolidate the BRICS Partnership on New Industrial Revolution initiated by BRICS Summit Johannesburg Declaration, Chinese President Xi Jinping announced at the 12th BRICS Summit that China would establish a BRICS Partnership on New Industrial Revolution Innovation Center (BPIC) in Xiamen, Fujian. This would be in order to advance cooperation in the fields of policy coordination, personnel training and project development and China welcomed the active participation of its fellow BRICS countries.

In the recent two years, the BPIC has held more than 30 BRICS events including the BRICS Forum on Development of Industrial Internet and Digital Manufacturing and the International Symposium for BRICS Think Tanks. The Xiamen BPIC Think Tank Cooperation Alliance was formed to strengthen cooperation among BRICS think tanks and conduct joint research. A platform for project cooperation and exchange was launched, to promote the two-way communication and transfer of technology and flow of products among BRICS countries.



BPIC intensively programmed personnel training (See Figure 1). A training alliance was formed for industrial capability improvement, bringing together training instructors and other resources from 16 universities, enterprises, and research institutions in Xiamen. Giving full play to its strengths in vocational education, especially in new industries, a training system was developed by BPIC including more than 600 courses and BPIC conducted 38 training activities attended by over 1.3million people from 52 countries. The BRICS’ industrial innovation cooperation and skills competitions were also organised by BPIC, attracting the participation of more than 5,000 domestic and foreign teams.

Xiamen City University (XMCU) is included as an example of what efforts a member of the training alliance has made in organising BRICS skills training programs. In cooperation with national high-tech industrial park and some well-known leading companies such as Huawei, Schneider Electric and Digital China, XMCU has established a skills training base of national level. XMCU connected with more than 200 companies as working partners, and accepted, annually, over 20 000 people for short-term training. More than two hundred international students from 18 countries have been enrolled. One of the most popular majors is Internet of Things application technology (IOT). Comprehensive practical ability for the IOT system integration, and development by restoring the real IOT application scenarios, is cultivated here. Vocational skills standards which are widely recognised by enterprises in the industry is introduced, and the students are sent to enterprises for better practice. Usually, the students achieve 1–2 vocational skill-certifications upon graduation. They qualify for jobs in IOT related

Figure 1: Personnel training by BPIC



Figure 2: 2022 BRICS Skills Competition (provincial IOT qualification)

areas such as smart home, smart transportation, smart city and industrial internet. An example is bike sharing where IOT technology is widely applied.

Additionally, as a supporter of the 2022 BRICS Skills Competition, XMCU had successfully organised a provincial-level IOT qualification trials with more than 70 participants competing for 6 finalist spots (See Figure 2). The competitions have promoted exchanges of expertise, best solutions among professionals, specialists and skilled workers to jointly advance the development of vocational education in BRICS countries.

BPIC IN THE FUTURE

BPIC is dedicated to establishing a policy coordination network, a personnel training base and an industrial project incubator for BRICS countries. It will support companies and institutes, who have exchanges and cooperation with other BRICS countries, and help them to introduce their practices and business models to other countries.

Focusing on this year, a series of training workshops is planned, including 10 short-term training projects such as a workshop for industrial internet leadership personnel, a workshop for high-calibre NIR technological and managerial personnel. Skills training courses will also be provided by the 16 enterprises, colleges and institutes of

the training alliance. Meanwhile, the BRICS skills training events will be continually held in the future, (for example BRICS Skills Development and Technological Innovation Competition and BRICS Skills Competition), to promote the BRICS joint training and to help select technical talents who meet the needs of the new industrial revolution with international vision on science and technology.

BPIC will also provide support on joint research and studies between BRICS countries, and suggestions on how to deepen BRICS Partnership on New Industrial Revolution will be highly valued.

It is hoped that BPIC will assist the BRICS countries in building a bridge of wisdom connecting each other and a platform for more exchanges and cooperation, in order to deepen high-quality BRICS Partnership on the New Industrial Revolution and in order to move forward together for a better BRICS future. ●

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