世界互联网大会
World Internet Conference

2024

COLLECTION OF PRACTICE CASES OF JOINTLY BUILDING A COMMUNITY WITH A SHARED FUTURE IN CYBERSPACE

携手构建网络空间命运共同体
实践案例集


世界互联网大会
World Internet
Conference

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01

Internet Infrastructure Construction

Accelerating the Building of Global Internet Infrastructure for Greater Connectivity

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Outstanding Case

2Africa International Submarine Cable Project:Building an Information Highway Around Africa, Embracing Africa's Intelligent Digital Future

▲ The 2Africa submarine cable has successfully deployed at Bude, UK, the northernmost landing site in the 2Africa West segment

Applying institution

China Mobile International Limited

Other participating organizations

Meta, Vodafone, Orange, Center3, Bayobab, WIOCC, Telecom Egypt

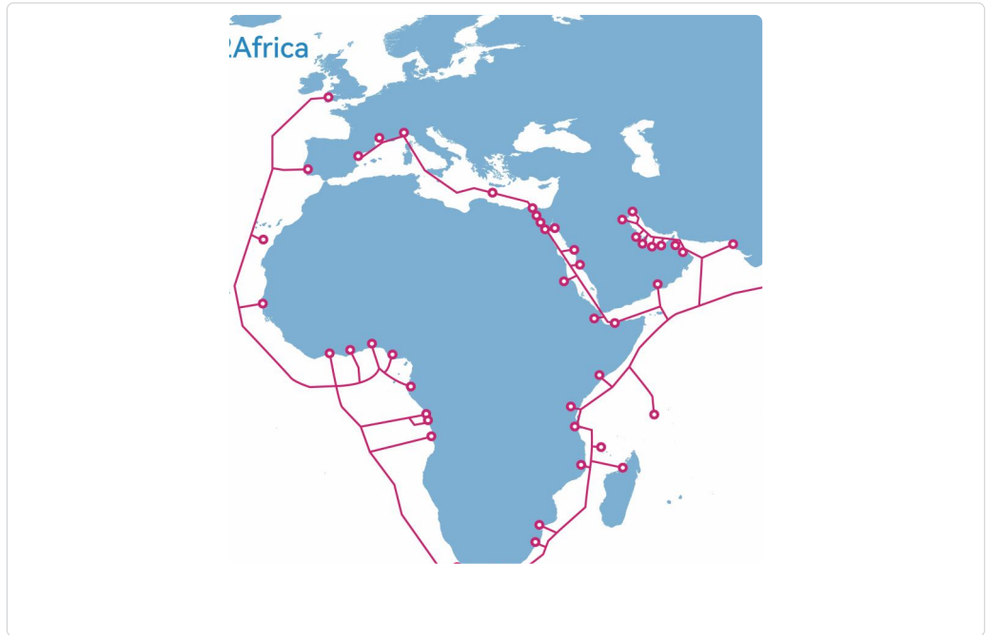
Countries and Regions Covered or Involved in the Implementation

33 countries and regions such as Angola, Congo (Brazzaville), Congo (DRC), Côte d'Ivoire, Djibouti, France, Egypt, Gabon

The 2Africa project was initiated in response to the rapid global digitalization trend. Its goal is to enhance Internet connectivity across the African continent and foster economic and social development through the deployment of submarine optical cable networks. This project is a major initiative of China Mobile in the field of international co-operation and technological innovation, aiming to tackle the challenges of low Internet penetration and underdeveloped network infrastructure in Africa.

Vigorously Advance the Development of Next-generation Information Infrastructure, Collaborate on Cross-border and Cross-regional Project Initiatives, and Enhance Spatial Information Systems

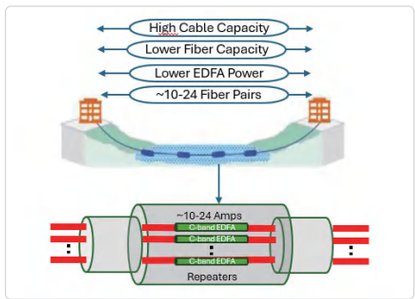
The 2Africa project is a collaboration between China Mobile and several international telecom operators, including Meta (formerly Facebook), Vodafone, Orange, Center3 (formerly STC) , Bayobab (formerly MTN), WIOCC, and Telecom Egypt. This cross-continental submarine optical cable project covers Africa, Europe and Asia, with a total length of more than 45,000 kilometres and a total of 46 landing sites. The project aims to deliver high-speed and stable Internet connections to 33 countries by deploying advanced submarine optical cable technology. As a key partner, China Mobile has invested in one pair of optical fibres in the Ring African backbone, covering 28 landing sites across 23 countries. This project will strengthen network connectivity between Africa and countries in Europe and Asia, improve information transmission efficiency, and further promote global digitalization.



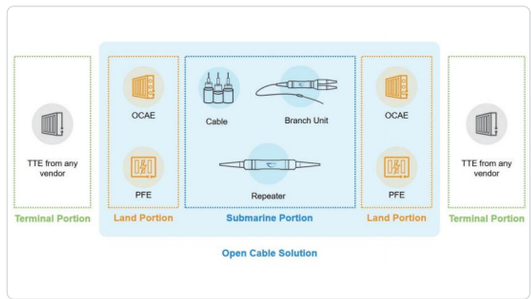
▲ Diagram of 2Africa cable route

The 2Africa Project Significantly Enhances Internet Connectivity and Coverage Between Africa, Europe, and the Middle East-South Asia Regions by Deploying a Transcontinental Submarine Cable Network Using Advanced SDM Technology and an Open System Design

The 2Africa submarine cable system adopts an open system design and Space Division Multiplexing (SDM) technology, allowing each investor to independently determine the location of the SLTE and the cable landing connection scheme based on their specific needs. Some segments of the 2Africa system deploy up to 16 pairs of optical fibers, with a main trunk design capacity of up to 180Tbps.The 2Africa cable will provide ample space for future network demand growth in Africa, addressing the challenges posed by emerging new applications and services on network infrastructure transmission capacity. Additionally, the 2Africa cable system uses Reconfigurable Optical Add-Drop Multiplexer (WSS-ROADM) technology with wavelength-selective switching. With WSS-ROADM, the system will robustly support flexible management of cable capacity, precisely allocating wavelengths to different paths, thereby achieving flexible, scalable, and efficient network operations.



▲ Diagram of SDM submarine cable technology



▲ Diagram of an open submarine cable

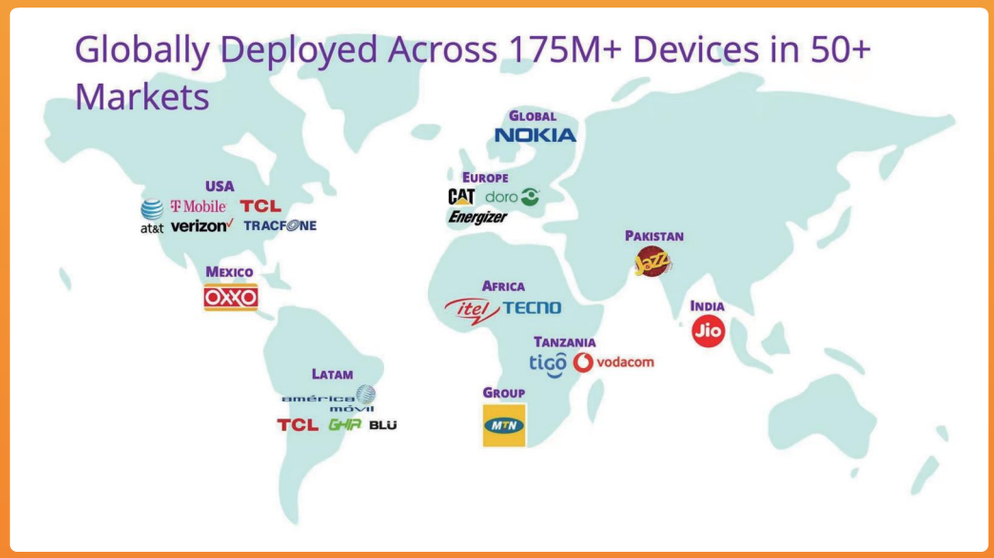
Advance the Development of Universal and Global Network Infrastructure to Deliver Improved Network Services to Impoverished or Underdeveloped Regions

The successful implementation of the 2Africa project will greatly enhance Internet access across the African continent, driving local economic growth and social progress. High-speed and stable Internet connections will lead to positive changes in sectors such as education, healthcare, and finance, helping to bridge the digital divide and improve the quality of life for residents. Moreover, the project will create numerous job opportunities and stimulate the growth of related industries. For China Mobile, the 2Africa project not only showcases its competitiveness and influence in the international market but also highlights its social responsibility as a leading global telecommunications operator. The project has injected new momentum into Africa's development and made a significant contribution to the global digitalization effort.

▲ CMI has organized a series of collaborative initiatives with local communities in Kenya, working together to promote community development and help residents achieve a better quality of life

Outstanding Case

KaiOS Makes the Internet Accessible through Light and Affordable Mobile Technology



▲ Over 175 million devices across more than 50 countries and regions worldwide run the KaiOS operating system

Applying institution

KaiOS Technologies Pte. Ltd.

Other participating organizations

Device manufacturers: TCL, Transsion, HMD, Waterworld, etc.
Mobile operators: Reliance Jio, Orange, Telma, Vodacom, AT&T, Verizon, Tracfone, etc.
Chipset vendors: Unisoc, Qualcomm
App providers: Google, Meta, Transsnet, etc.

Countries and Regions Covered or Involved in the Implementation

100 countries and regions such as Nigeria, Tanzania, Rwanda, Uganda, India, Bangladesh, Pakistan, Mexico, Brazil, the United States

Since 2016, KaiOS has been committed to accelerating digital inclusion by providing affordable smart feature phones powered by its innovative operating system (KaiOS). By removing the barriers to Internet access for low-income, less-educated, and underdeveloped regions, KaiOS has empowered 175 million people worldwide to enjoy the convenience brought by the Internet.

Affordable Innovation: Expanding Digital Access and Empowering Local Merchants Across Developing Regions

The global digital divide presents a significant challenge, especially in low- and middle-income regions, where approximately two thirds of the population remain offline, primarily due to the prohibitive costs associated with digital devices with Internet access. This digital barrier has exacerbated the inequalities in education, healthcare and economic development opportunities.
Recognizing the urgency of closing this divide, KaiOS has developed a mobile OS. Phones enabled by this OS provide Web browsing and email services, as well as a variety of apps, making digital access affordable and within reach for people in underdeveloped and economically disadvantaged areas. For example, the OS offers a complete certified payment acceptance solution to transform phones empowered by this OS into a business tool for micro and small merchants, moto and taxi drivers, couriers and delivery guys.

▲ KaiOS phones provide a business tool for micro and small merchants, moto and taxi drivers, couriers and delivery guys

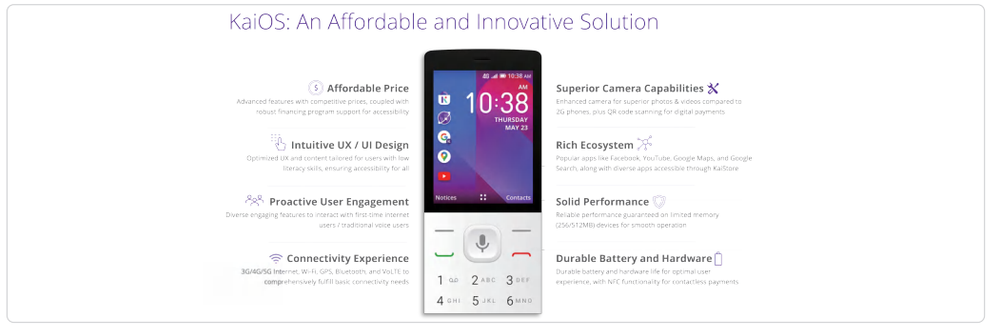
Design Innovations:A Revolutionary Web-Based OS

KaiOS stands out from its peers with its innovative Web-based architecture. With extremely low operating environment requirements, KaiOS can operate efficiently on devices with as little as 512MB of RAM for 4G connectivity, significantly reducing the production costs of Internet phones. This allows KaiOS-enabled phones to start as low as around $20-25, even lower than the most budget-friendly Android smartphones (which start at around $55), making them an affordable option.

KaiOS' strategic partnerships with chipset manufacturers, app developers, smartphone makers and operators enable it to offer phones with essential smartphone features.

- Wi-Fi, 3G/4G/5G , VoLTE, GPS, and other essential connections, ensuring that users can enjoy the convenience brought by the Internet.
- Long battery life, high durability, and user-friendly interface.
- Access to popular apps like Facebook, YouTube, Google Search, and Google Maps, allowing more people around the world to benefit from the digital age.

KaiOS was recognized with the 2021 Red Dot Award for its design excellence.



KaiOS empowers feature phones with Internet access and the world's most popular apps at affordable prices

Transformative Impact:Enriching the Lives of Low-Income Groups and Boosting Economies Worldwide with KaiOS Technology

KaiOS' comprehensive suite of services includes:

Development and Monetization

A platform for smart feature phones that supports app development to promote the sustained development of KaiOS app ecosystem. KaiOS provides developers with an opportunity to develop apps, bringing greater digital convenience to users. Through KaiOS app platform, users can access mainstream apps in health, education and agriculture, including "Kai Life," a preloaded app on KaiOS devices. Kai Life offers tips and information on topics such as digital skills, women's empowerment, and upskilling, helping more people in underdeveloped regions widen their knowledge and then bridging the digital divide.

Financial Inclusion

Provision of financial products in partnership with mobile network operators (MNOs), Fintech and app companies to reduce the cost barrier and make a KaiOS phone accessible at the price of a 2G device.

Digital Transformation

Digital payment acceptance, supplier connections, and access to credit for groups including street vendors, rickshaw pullers and farmers.

KaiOS has made a profound impact on over 175 million of lives, particularly in developing countries. In India, KaiOS collaborated with Reliance Jio and the local government to distribute KaiOS-enabled JioPhones to over 4 million women living below the poverty line, empowering them with digital tools to improve their lives. In Tanzania, KaiOS partnered with Justdiggit to provide farmers with mobile Internet access and education services, helping them regreen their lands and boost crop yields. In Nigeria, KaiOS worked with Roducate and the Lagos state government to distribute smart feature phones to school children during the pandemic lockdown, ensuring uninterrupted education during that critical period.

KaiOS' commitment to affordable innovations is driving a transformative shift towards greater digital equity, ensuring that more people can benefit from the digital age. By the end of 2025, KaiOS is expected to bring an additional 70 million people online and digitalize over 1 million merchants.

KaiOS is driving the digitalization of education and agriculture

Fondazione Burno Kessler: International Innovation Practices in the Field of AI

▲ Fondazione Burno Kessler (FBK), Italy

Applying institution

Fondazione Burno Kessler (FBK)

Countries and Regions Covered or Involved in the Implementation

Italy, China

Fondazione Bruno Kessler is a renowned Italian research institution specializing in the fields of technology, innovation, humanities, and social sciences. It is dedicated to international cooperation and advancing knowledge. Its mission is to foster progress in knowledge and to generate greater and more direct economic and social benefits through technological innovations.

Advanced AI Concepts and Solid Foundation for International Cooperation

The Bruno Kessler Artificial Intelligence Research Institute (hereinafter referred to as "the Institute") was founded in 2007, inheriting the legacy of the Istituto Trentino di Cultura established by Bruno Kessler in 1962. Its vision is to develop a new generation of AI technologies and applications that collaborates with and complements human beings, rather than replaces human jobs. The Institute currently hosts over 70 foreign researchers, hailing not only from major European countries but also from non-European nations such as the United States, China, India, Brazil, Argentina, Algeria, Iran, Pakistan, and Australia.

Headquartered in Italy, the Institute spans a total area of over 40,000 square meters, including 5,000 square meters dedicated to laboratories. It is comprised of two centers: one focusing on technology and innovation, and the other on humanities and social sciences. Together, these centers have established an ecosystem consisting of 12 research centers, 7 laboratories, and 2 libraries, all dedicated to nurturing joint laboratories and technology companies. To date, the Institute has over 620 researchers, developers, and support staff, more than 150 PhD students, over 200 visiting professors and doctoral candidates, and over 700 external experts.

▲ The institute's research team

A Multi-Disciplinary Path of Innovation Centered on "Integrated" AI

Since the 1980s, the Institute has collaborated with some of the first top experts in AI, building upon the pioneering AI experimentation work of the Istituto Trentino di Cultura. It focuses on integrated, comprehensive, and reliable AI research, gradually becoming a leader in national and European research. It has long been engaged in the study of sensors, photonics, optics, micromechanics, and electronic devices, placing itself at the forefront of biomedical research, space exploration, the digital industry, and environmental studies. It is now advancing into quantum applications.

Augmented Intelligence

The Institute enhances human capabilities through collaborative autonomous systems, using AI to improve decision-making, problem-solving, and the execution of complex tasks. Research in this area spans fundamental AI models, the complexity of human-computer interaction, new forms of collaborative AI, and AI ethics. Augmented intelligence plays a vital role in key sectors such as healthcare, the digital industry, education, the public sector, and the digital society.

Micro and Nano Systems

The Institute develops high-performance sensors for large-scale scientific experiments and technology transfer, catering to high-tech applications such as smart vehicles, radiomedicine, Industry 4.0, and quantum technologies.

Quantum Technology

The Institute is dedicated to research in fundamental quantum science, including quantum communication, quantum computing, quantum simulation, future sensors, and metrology. It is currently involved in a joint initiative called Q@TN in collaboration with the University of Trento and the National Research Council, actively participating in the European Quantum Flagship program and coordinating technological activities in the quantum field.

Cybersecurity

The Institute has developed secure solutions for digital identity management, legal compliance, and complex ecosystems. These solutions integrate various technologies such as cloud computing, edge computing, and the Internet of Things (IoT). They are applied across different fields, including e-health, public administration services, and digital finance.

Smart Networks

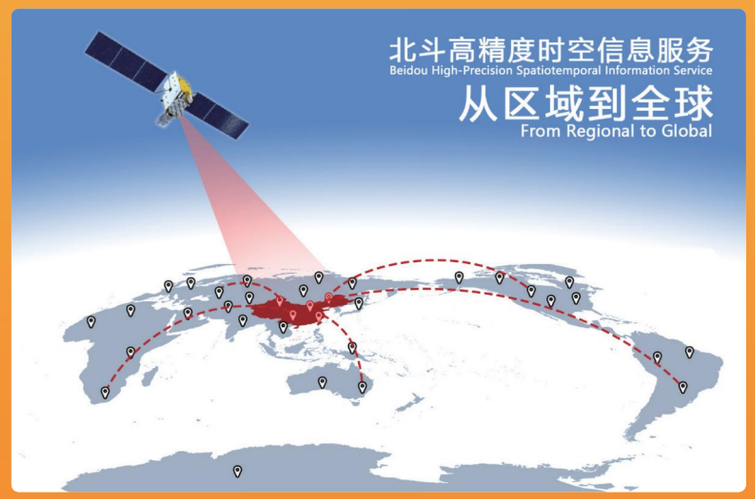
Research in smart networks focuses on the design, analysis, and management of intelligent networks, including the control and coordination of heterogeneous wireless access networks, multi-access edge computing, lightweight management and orchestration, and AI-enabled network visualization. By researching, designing, and implementing solutions, the Institute provides secure and decentralized IoT platforms for the proliferation of smart devices and applications. It is also involved in developing fog computing solutions, which are considered key drivers for innovative scenarios such as smart cities, precision agriculture, Industry 4.0, and 5G.

The research outcomes of the Institute are publicly released through the international publishing system, fostering the sharing of knowledge and achievements. This contributes powerful momentum to the flourishing development of the global AI research ecosystem.

▲ The institute's AI robotics project in the agrifood sector—AgrifoodTEF

▲ The institute has a well-established background in developing highly reliable and high-quality sensors, along with state-of-the-art laboratories

Beidou High-precision Space-Time Information Services: From Regional to Global



▲ Beidou high-precision space-time information services: from regional to global

Applying institution

Wuhan University

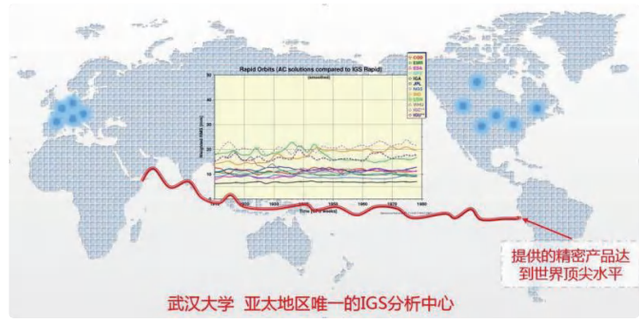
Countries and Regions Covered or Involved in the Implementation

10 countries and regions such as Australia, Canada, South Africa, and Thailand

As a temporal-spatial infrastructure of national significance, the BeiDou Navigation Satellite System (BDS) provides all-weather, all-time, and high-accuracy positioning, navigation, and timing services to global users. Wuhan University (WHU) is actively promoting the development of BeiDou high-precision augmentation services from regional to global coverage, contributing to the construction of a BeiDou space-time information network community with a shared future.

Global BeiDou Monitoring Station Construction and Space-Time Information Service

Wuhan University has built the BeiDou Experimental Tracking Stations (BETS) Network, which has achieved tracking and observation of Beidou satellites in a larger global range, significantly enhancing the performance of Beidou's international services. On this basis, the Analysis Center of the International GNSS Service (IGS) of Wuhan University was established to publish precise orbits, precise clock errors, precise ionosphere models, and other products of global navigation satellites (including GPS, GLONASS, Galileo, and Beidou) to global users in real time. The product reached world-class level in accuracy of 5 cm. These products are the foundation of Beidou's centimeter-level high-precision temporal-spatial information global services, greatly promoting Beidou's international application.



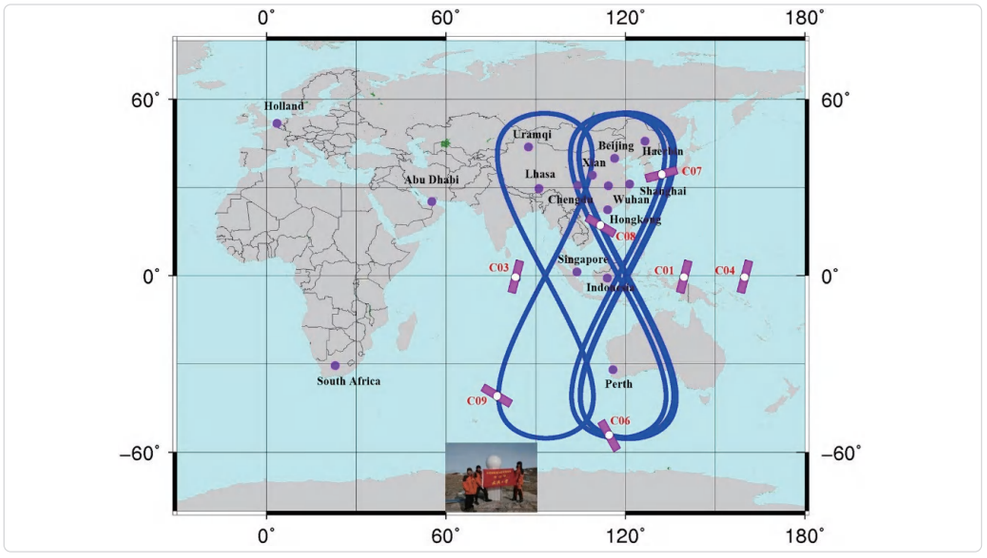
▲ Publication of satellite navigation augmentation information

BeiDou Ground-Based Augmentation System and Services: From Regional to Global

Wuhan University not only built the BeiDou Ground-Based Augmentation Network in China, but also actively extended the network to Southeast Asia, the Belt and Road countries, as well as the Arctic and Antarctic regions. Four BeiDou ground stations were established in the polar regions, enabling the BeiDou system to observe satellites in a wider range, which can further improve BeiDou space signal accuracy. More than 20 ground stations have been established in regions including Australia, Canada, South Africa, and Thailand, supporting the technical testing, monitoring, and assessment of the BDS, and providing professional, high-quality, and free data services for high-precision positioning, timing, and scientific research.

Wuhan University has developed a software system called Positioning And Navigation Data Analyst (PANDA) with independent intellectual property rights.

PANDA has been introduced and applied to scientific research and talent training by more than 20 internationally renowned universities and institutes such as GFZ, Nottingham University, Delft University of Technology, University of Calgary, RMIT University, Kyoto University.



▲ Establishment of global BeiDou experimental tracking stations (BETS) by Wuhan University

Promote the Building of a Community with a Shared Future for Beidou Space-Time Information Network

The high-precision BeiDou augmentation system is a crucial new infrastructure that aims to expand BeiDou's global reach, foster the innovative development of the digital economy, and promote common prosperity. The IGS analysis center and data center built by Wuhan University provide precise product services to global users, with more than 100 million service requests per day.This achievement has been hailed as a milestone by the International Association of Geodesy (IAG) and the IGS organization. BeiDou's high-precision augmentation system and services have been effectively utilized in Antarctic and Arctic scientific expeditions, Thailand's ground-based BeiDou augmentation system, and the prominent Jakarta-Bandung High-Speed Railway project of the Belt and Road Initiative, which have exerted an important influence in the fields of international geoscience research, disaster monitoring, intelligent driving, and smart agriculture. This progress is facilitating the development of high-precision BeiDou augmentation services from the regional to global level and contributing to the establishment of a BeiDou space-time information network community of shared future.

▲ Data center plaque of the international GNSS Monitoring and Assessment System (iGMAS)

▲ Data center and analysis center of the International GNSS Service (IGS)

German Research Center for Artificial Intelligence: Develop Reliable and Trustworthy AI Technologies and Applications

▲ German Research Center for Artificial Intelligence (DFKI)

Applying institution

German Research Center for Artificial Intelligence (DFKI)

Countries and Regions Covered or Involved in the Implementation

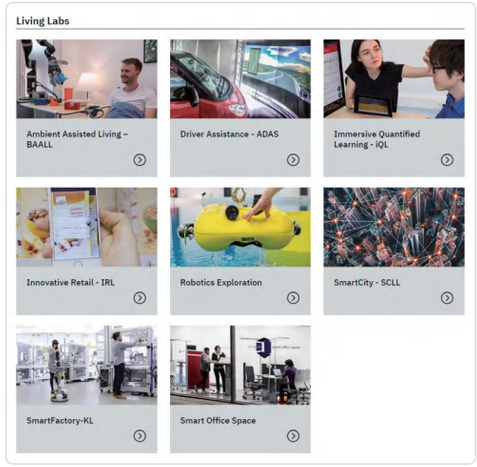
6 countries and regions such as China, Germany, Switzerland, the United Kingdom, France, and Japan.

The German Research Center for Artificial Intelligence (DFKI) collaborates closely with global academic institutions, industry partners, and government agencies to translate AI research outcomes into practical applications, thereby promoting sustainable social and economic development. It holds significant influence worldwide and has become a key driving force in the advancement of AI technology.

Building the World's Largest Non-Profit AI Research Center

DFKI is the largest non-profit AI research center in the world. It develops reliable and trustworthy AI technologies and applications through multinational and diverse collaborations, comprising 27 research departments, 10 competence centers, and 8 living labs.

DFKI continuously creates employment and entrepreneurial opportunities for young scientists in both academia and industry, encouraging and supporting its researchers to establish their own companies to incubate technologies developed within itself. To date, over 100 technology spin-offs have emerged from DFKI, creating more than 2,500 jobs.



▲ DFKI's application research areas

Innovative AI Research and Implementation Pathways: DFKI's Diverse Research Areas

Since 1988, DFKI has been committed to researching intelligent software technologies, covering the entire spectrum of AI research—ranging from data management and analysis to image recognition and understanding, language and text comprehension, virtual and augmented reality, human-computer interaction, robotics, and IT security. DFKI's research is closely aligned with practical societal needs, driving the integration and innovation of AI technologies and facilitating their real-world applications. For example, DFKI has developed technologies to optimize disease diagnosis and treatment, reducing the burden on healthcare professionals; researched autonomous robots capable of operating in harsh environments like disaster zones or deep-sea areas; and committed to seeking solutions that enhance efficiency and sustainability in agriculture, production, and energy sectors. DFKI focuses not only on the research of intelligent systems but also on the impact of ethics, security, social responsibility, and environmental protection on technology.

▲ DFKI's laboratories

▲ DFKI's mass innovation space

From Technological Innovation to Socio-economic Impact: DFKI's Practices and Contributions

DFKI's research and innovation practices have not only made a significant impact in academia and industry, but also emphasized the incubation and implementation of research into real-world applications, bringing substantial value to society and the economy. For example:

An AR-assisted surgical system. Clinical surgeries not only require the expertise of the doctor but also the high level of concentration to improve surgical precision. This research project aims to provide surgeons with an interactive tool to enhance the accuracy and success rate of surgeries. With the help of special glasses (HoloLens), surgery-related information and 3D anatomical models are displayed within the surgeon's real field of vision, assisting them in preoperative planning and making critical decisions, thereby improving the precision of complex surgeries. This technology has been successfully tested in clinical settings, particularly excelling in tumor removal surgeries.

Future Lab Agriculture (ZLA) Project – A new type of intelligent robot capable of working independently on farms. This robot is equipped with maps and environmental data from real farms, allowing it to perceive and understand its surroundings. It can autonomously navigate and perform seeding tasks on the farm, significantly improving seeding efficiency while protecting the environment.

▲ The chief surgeon uses the application for surgical planning before the operation

▲ Scientist Benjamin Kisliuk is researching the autonomy of robots in agriculture at DFKI

Disaster Risk Reduction Knowledge Service

▲ IKCEST-Disaster risk reduction knowledge service

Applying institution

Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of sciences

Other participating organizations

International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO , Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, National Science Library, Chinese Academy of Sciences

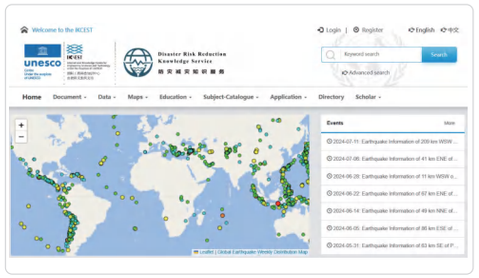
Countries and Regions Covered or Involved in the Implementation

184 countries and regions such as China, Pakistan, Mongolia, and Russia

Under the combined influence of global climate change and human activities, extreme disasters such as earthquakes, landslides, and floods have occurred frequently along the Belt and Road. Disaster risk reduction (DRR) has become a primary requirement for the survival and development of a community with a shared future in this region. Impelled by UNESCO, the IKCEST-Disaster Risk Reduction Knowledge Service (IKCEST-DRR) was launched to provide open knowledge services globally.

In Response to Major DRR Requirements, the IKCEST-DRR Was Launched to Provide Global and Belt and Road Public Service Products

The IKCEST-DRR, building on the International Knowledge Centre for Engineering Sciences and Technology (IKCEST) under the auspices of UNESCO, was developed by the Chinese Academy of Engineering. The project was launched in 2016 and the service was made available online in 2017. By the end of 2023, the platform had accumulated over 4.6 million data entries. The platform facilitates the knowledge discovery of interrelated disaster resources across various types, including data, literature, courseware, institutions, events, maps, experts, reports, and popular science materials. It hosts an extensive repository of DRR knowledge resources, featuring 15 specialized databases. These encompass global disaster metadata, earthquakes, droughts, floods, freezing disasters, heatwaves, fires, ecological disasters, urban disasters, disaster information network mining, disaster-prone areas and regional disasters along the Belt and Road, the China-Mongolia-Russia Economic Corridor disaster theme, the China-Pakistan Economic Corridor disaster theme, and the Bangladesh-China-India-Myanmar Economic Corridor disaster theme. Aligned with the UNESCO's global DRR network, the platform provides knowledge services in technology, data, and education for global DRR efforts.

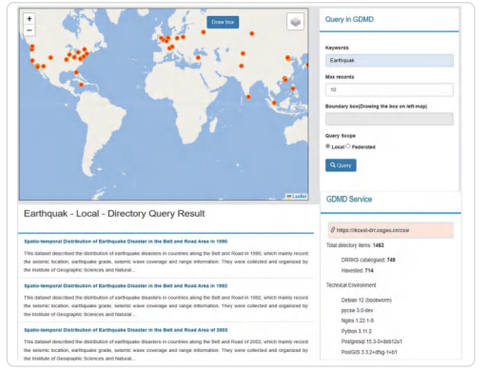


▲ IKCEST-DRR homepage (Global users can access 24-hour global earthquake disaster information and other types of disaster data in real-time via the link: https://ikcest-drr.osgeo.cn/)

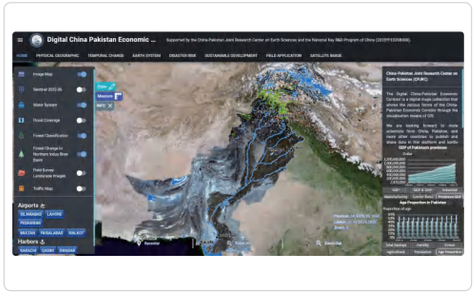
▲ IKCEST-DRR data resources (Global users can access various types of DRR knowledge resources online, including videos, courseware, maps, and literature)

Following the Principles of Open Science, the IKCEST-DRR Provides FAIR-based Multi-modal DRR Knowledge Services to Global Users

The IKCEST-DRR has addressed the challenge of multimodal disaster big data knowledge discovery, significantly enhancing capabilities in big data disaster analysis and knowledge extraction. Designed to meet the needs of users for multi-type DRR knowledge services, the platform has designed four types of online knowledge service application modes: information aggregation, map expression, knowledge discovery, and model application. The platform has established the first-ever Global Disaster Metadata Directory (GDMD), enabling unified display, search, access, mining, and analysis of disaster data. It has currently published over 1,400 global disaster data catalogs. Additionally, the platform has developed quick service channels for disaster knowledge discovery, emergency relief, and educational outreach, constructed a specialized application for the Belt and Road Economic Corridor, and established the Digital CPEC sub-platform from a fully digital perspective, which facilitates data sharing across various domains such as basic geography, land cover, natural resources, ecological environment, and natural disasters. This system has played a crucial role in supporting emergency disaster reduction efforts during the 2022 Pakistan's major flood disaster.



▲ GDMD interface (GDMD provides one-stop services for users to search and access global disaster data.)

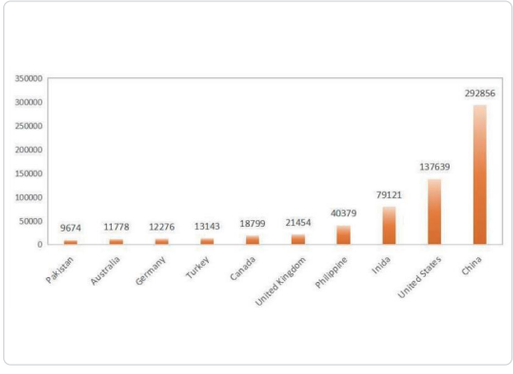


▲ Digital CPEC interface (Digital CPEC includes 7 categories of data products, including natural background, spatiotemporal corridor, Earth system, DRR, sustainable development, thematic applications, and remote sensing satellites)

It Has Become a UNESCO Global Demonstration Platform for Open Science in DRR, Serving 184 Countries and Regions Worldwide

The platform has received a total of 2.248 million visits and attracted 902,000 users (67.1% from international users), reaching users in 184 countries and regions around the world. It has become a UNESCO global demonstration platform for open science in DRR. IKCEST-DRR has organized 9 international training workshops on DRR knowledge service along the Belt and Road, training over 1,600 young talents in DRR from more than 40 countries and regions along the Belt and Road region. It has provided emergency disaster data-sharing services for international crises, such as floods in Pakistan, earthquakes in Turkey and Syria, and hurricanes in Libya. The platform has received multiple endorsements from the UNESCO Disaster Risk Reduction Unit, the China-Pakistan Joint Research Center on Earth Sciences, Integrated Research on Disaster Risk, the Institute for Sustainable Development of the National University of Mongolia, and Chinese enterprises involved in the Belt and Road Initiative. These achievements have delivered substantial social benefits and international impacts.

▲ A UNESCO global demonstration platform for open science in DRR (UNESCO open science demonstration platform website:https://www.unesco.org/en/open-science/knowledge-sharing)



▲ Users' global distribution map (Users are distributed across the globe, with the top 10 countries for overseas visits being the United States, India, Philippines, UK, Canada, Turkey, Germany, Australia, Pakistan and France)

IKCEST-DRR Endeavors to Develop a UNESCO-centered Global Knowledge Service Network for DRR, to Significantly Support the Achievement of the UN SDGs

IKCEST-DRR is a founding member of the Alliance of International Science Organizations on Disaster Risk Reduction (ANSO-DRR) and joined the Global Alliance of Disaster Research Institutes (GADRI). Cooperative research networks were established with the Russian Academy of Sciences, the Mongolian Academy of Sciences and the Pakistan Academy of Sciences. In alignment with the regional goals of the UN SDGs, IKCEST-DRR has made continued efforts in monitoring grassland degradation on the Mongolian Plateau, assessing agriculture meteorological disasters in the Heilongjiang River Basin, protecting forest ecology in the Indus River Basin, and providing rapid emergency services for cross-boundary major disasters. Recently, it was invited to share practical experience at the UNESCO Global Conference of Category 2 Centres in 2024.

▲ Presentation at the UNESCO global conference of Category 2 Centres by IKCEST-DRR

Mexico-China Center: Building an International Talent and Technology Innovation Accelerator Platform

▲ Multinational working team of Mexico-China Center

Applying institution

Mexico-China Center, The Monterrey Institute of Technology and Higher Education

MEXICO-CHINA CENTER 墨西哥中国中心

Countries and Regions Covered or Involved in the Implementation

Mexico, China

The Mexico-China Center is an innovation acceleration platform for talent and technology, established with the support of The Monterrey Institute of Technology and Higher Education in Mexico. It is the only innovation platform in China that collaborates with Mexican government and academic institutions.

Building a China-Mexico Technology Innovation Platform through International Government-Academia Collaboration

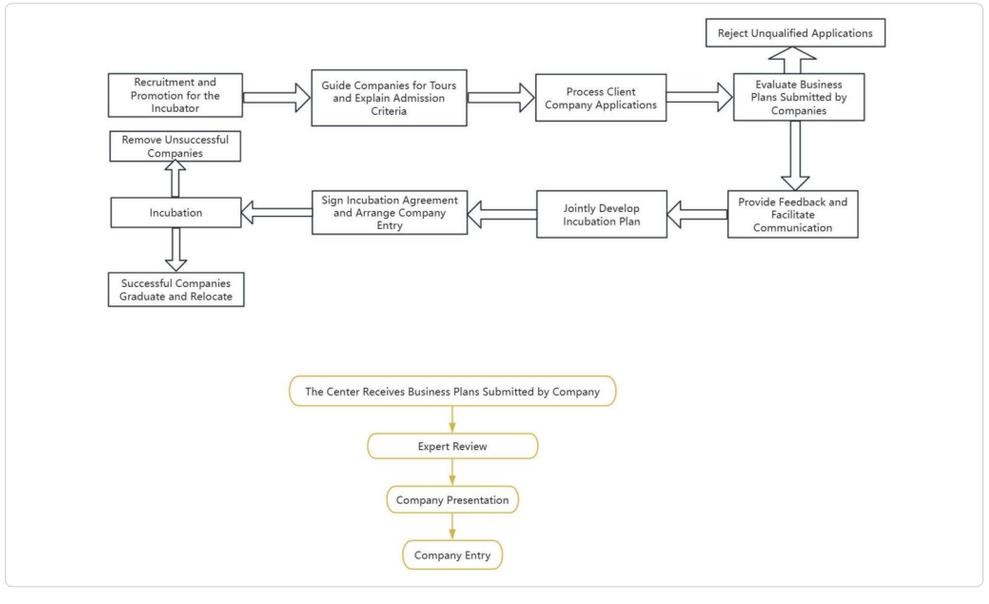
The Mexico-China Center and the China Innovation Center at The Monterrey Institute of Technology and Higher Education were established in May 2019. Operated by Zhejiang Moke Technology Development Co., Ltd., a wholly-owned subsidiary of ITTID Group LTD, the Center serves as an international sci-tech innovation incubation platform aimed at China, Mexico, and the global market. It provides resources and guidance to entrepreneurs and innovators committed to addressing the challenges faced by the world today. The Center's team has backgrounds in technology, business, finance, and education, offering comprehensive support to innovators, including investment, business planning, technical guidance, talent training, market expansion, policy application, and financial and tax services. The Center focuses on nurturing and incubating technology and business ventures between China and Mexico, assisting entrepreneurs from both countries and around the world in entering the Chinese market for industrialization.

At the same time, the center is committed to promoting multifaceted cooperation between China and Mexico, including trade, education, and cultural exchanges. It also helps Chinese entrepreneurs explore markets in Mexico and other Latin American and Caribbean countries.

Inauguration ceremony of the Mexico-China Center

Promoting Specialized Innovation Development with Support from Latin America's Leading Private Universities

The Mexico-China Center is supported by The Monterrey Institute of Technology and Higher Education, the largest and top-ranked private university in Latin America, founded in 1943 by a group of Mexican business leaders led by Eugenio Garza Sada. 56% of the university's graduates have formal international study experience, and 22% of students start their own businesses within three months of graduation. Companies controlled by the university's alumni contribute 25% of Mexico's GDP, and 27% of the presidents and CEOs of Mexico's 200 most important companies are graduates of the institution. The university maintains long-term close partnerships with world-renowned institutions such as MIT, Yale, and Harvard. Leveraging these international resources in technology, innovation, and entrepreneurship, the Mexico-China Center has established a comprehensive technology innovation support process and service system.



Mexico-China Center enterprise service process

Focusing Deeply on International Collaboration in Technological Innovation and Talent Exchange

The Center firmly believes that by promoting international cooperation and exchange, it can not only help businesses incubate and grow but also foster mutual understanding and respect between cultures, thereby better driving economic development and technological advancement in both China and Mexico. The Center operates under a model of "private capital investment, local policy support, and market-driven operations," functioning as a market-oriented platform. It supports Mexican professors in partnering with local entrepreneurs in China to co-found companies, jointly develop technologies, and incubate products.The center has applied for and launched four talent programs, including the "Thousand Talents Plan," with over 60 professor-led projects interested in expanding into China and nearly 10 projects already in progress.

"The Monterrey Institute of Technology and Higher Education is the top private university in Latin America, and Zhejiang, China, is a hub of innovation and entrepreneurship. We have long sought opportunities to collaborate here and to establish a world-class innovation center with China, enhancing talent and technological exchange," said Arturo Molina, Vice President of Technology Transfer at The Monterrey Institute of Technology and Higher Education. The center permanently showcases Monterrey's latest research outcomes, which aim to provide solutions to many of today's global challenges through the application of science and technology. Since its establishment, the Mexico-China Center has served as a bridge, helping Mexican professors find technological and business partners in China. It facilitates the industrialization of Mexican cutting-edge technologies and patents while rapidly incubating global "high-tech" resources. The center also aims to build a demonstration hub for international technological and cultural cooperation between China and Mexico as part of the Belt and Road Initiative.

▲ Mexico-China Center organizes exchange activities for Mexican experts in China

H3C Application Driven Network (AD-NET) Solution Is Accelerating Digital Transformation Worldwide

▲ H3C Application Driven Network (AD-NET) has been implemented across various industries worldwide

Applying institution

H3C Technologies Co., Ltd.

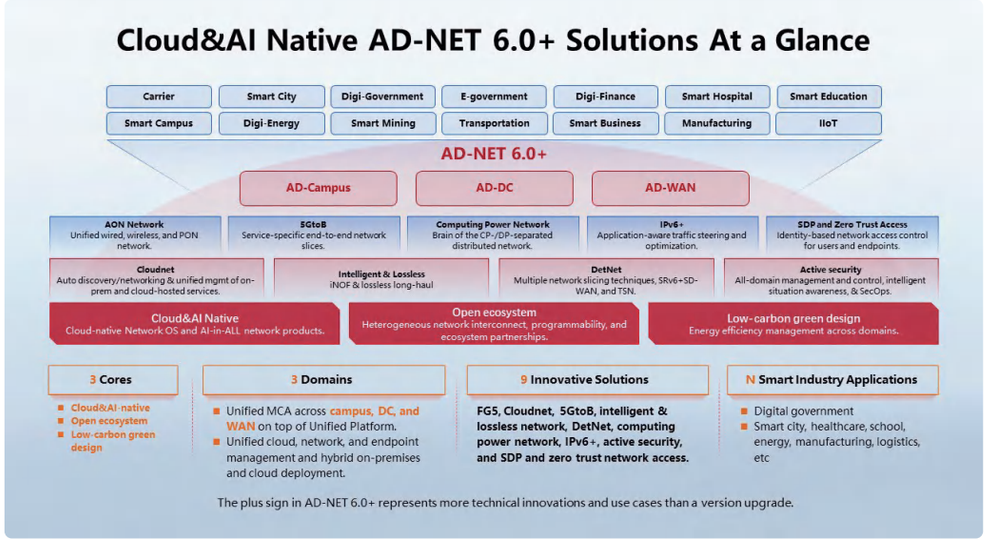
Countries and Regions Covered or Involved in the Implementation

9 countries and regions such as Nigeria, Turkey, Saudi Arabia, Kazakhstan, Japan, Malaysia, Laos, Cambodia, and Vietnam

Software-defined networking (SDN) have emerged as a critical infrastructure for the digital economy. In 2015, H3C officially defined the SDN solution as the Application Driven Network (AD-NET) solution.
Embracing the core principles of "Cloud-native, Open Ecology, and Green and Low-carbon,"H3C has significantly enhanced its intelligent connection strategy by launching the cloud-native AD-NET 6.0+. This upgrade encompasses nine pivotal innovations, including the all-optical network, intelligent lossless, deterministic network, computing network, IPv6+. These advancements cater to diverse digital application scenarios and expedite digital innovation across numerous industries worldwide.

Application-Driven, Intelligent, and Continuously Evolving Network Solutions

H3C envisions a future network that rapidly advances towards intelligence, determinism, ultra-large-scale capacity, high bandwidth, security, trust, and environmentally friendly, low-carbon attributes. This evolution is aimed at establishing a network platform capable of meeting the demands of future innovation. As a result, "cloud-native, open ecology, and green and low-carbon"have emerged as the three pivotal elements of AD-NET 6.0+. Through a comprehensive upgrade of concepts and technologies, H3C has implemented a three-pronged solution revolution: AD-Campus (application-driven campus), AD-DC (application-driven data center), and AD-WAN (application-driven wide area network). The campus network, incorporating IoE, user mobility, and intelligent O&M, contributes to enhanced quality, efficiency, and simplified management. The data center network, featuring ultra-wide lossless, seamless integration, and intelligent O&M, streamlines the production and management of computing power. Furthermore, the wide area network, with refined business segmentation, application-oriented control, and intelligent O&M, facilitates intelligent network upgrades for large and medium-sized government and enterprise.



▲ Cloud-native AD-NET 6.0+ application-driven network solution

Promoting Global Digital Innovation and Development to Achieve Common Prosperity

H3C products are widely used in almost 100 countries and regions. The company has established 17 representative offices worldwide, spare parts warehouses in 38 countries and regions, and its services cover 176 countries and regions. Furthermore, H3C has collaborated with partners in multiple scenarios, facilitating the pursuit of digital transformation in various countries and regions. These solutions are tailored to cater to a wide array of sectors including autonomous driving, industrial manufacturing, transportation, digital government, smart cities, and carriers.

Autonomous Driving

To support BYD in the implementation of its autonomous driving operations, H3C offers a comprehensive solution involving the SKYRAIL vehicle-ground wireless network. This network serves as a reliable and secure platform for vehicle-ground wireless communication, empowering SKYRAIL's autonomous driving and precise control capabilities. As a result, it ensures the overall safety and operational efficiency of the intelligent SKYRAIL.

▲ SKYRAIL autonomous driving

Industrial Manufacturing

H3C is collaborating with Goertek to establish a digital park in Nghe An, Vietnam, focusing on integrating automation and intelligence. It aims to provide intelligent park solutions that enable efficient deployment and intelligent O&M. The park will be supported by reliable network architecture and robust disaster recovery mechanisms to ensure the stable and reliable operation of intelligent production lines and key business.

▲ Goertek acoustic park in Nghe An, Vietnam

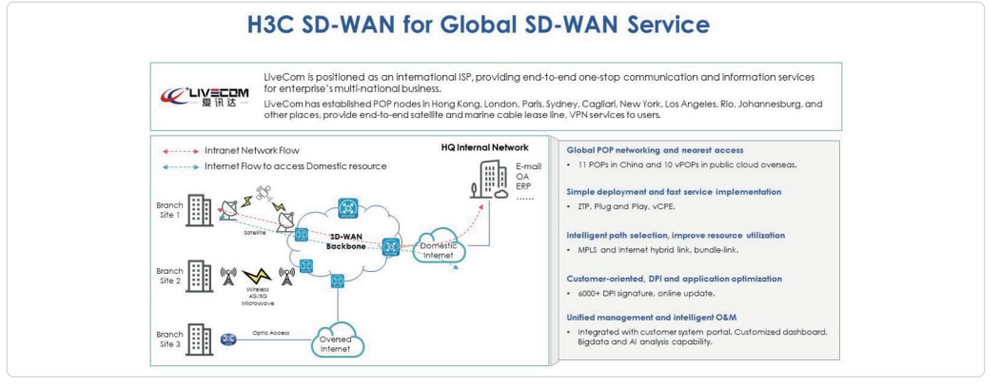
Intelligent Transportation

H3C has partnered with China Civil Engineering Construction Corporation to assist in the development of advanced digital infrastructure for Nigeria Airport, Cambodia's Siem Reap-Angkor International Airport, and Boten–Vientiane Railway. Through the comprehensive range of customizable network services, H3C aims to introduce new advancements in digital technology, enhancing operational efficiency and elevating customer satisfaction.

▲ Siem Reap-Angkor International Airport, Cambodia, and Boten–Vientiane Railway, Laos

Network Communication

H3C and LiveCom have collaboratively introduced a global SD-WAN network access service. Leveraging the global SD-WAN network established through global POP nodes, this service enables multinational enterprises to swiftly establish cross-border communications and reduce operational expenses. The SD-WAN network facilitates seamless interconnection between multiple branches of multinational enterprises and the cloud as well as data centers. It is distinguished by its plug-and-play functionality, extensive regional coverage, and intelligent management and control, thereby delivering a simplified, reliable, and intelligent one-stop cloud.



▲ H3C & LiveCom SD-WAN solution

Digital Government

H3C is assisting in the development of a digital government platform for government agencies in Malaysia and Turkey. The smart campus solution offered by H3C facilitates the integration and execution of digital innovation technologies and products, particularly in the areas of campus management, operations, and digital government platform construction. This solution leverages advanced AD-Campus 6.0 SDN technology to realize the fundamental value of digital government, enhancing overall quality and efficiency while lowering costs.

Smart City

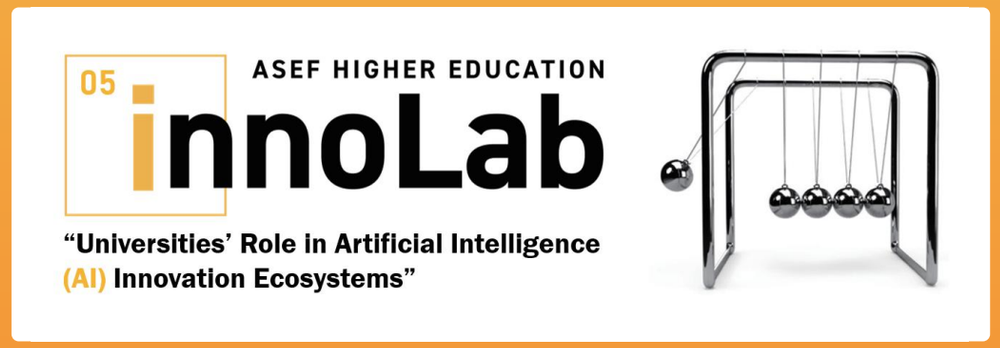
H3C offers AD-NET solutions tailored for the development of smart cities in Saudi Arabia. These solutions encompass five scenario-based digital services, i.e. synergy working, innovative education, smart manufacturing, efficient healthcare, and reliable public services. H3C is expanding its sales and services locally to meet the growing demand for an improved digital lifestyle.

Carrier

In deploying AD-NET solutions for a telecommunication provider's core network in Kazakhstan, H3C is committed to complying with local regulations and staying abreast of technological advancements. Through a focus on reliable digital products and solutions, H3C establishes a robust framework, leveraging AD-NET solutions and customized scenario-based approaches to support the development of ,"Digital Kazakhstan."

H3C AD-NET Solution Is Accelerating the Digital Transformation of Industries Around the World Guided by the ,"cloud-native,"strategy and founded on the technical concept of the application-driven network, H3C has successfully deployed automated, self-optimizing, and autonomous AD-NET solutions across various industries globally, thereby establishing a robust innovation platform for worldwide digitalization. Looking forward, H3C will remain committed to the principle of ,"Dedication, For A Smarter Future,"pursue a,"sustainable, innovative, and win-win,"development model, and help governments and industries worldwide seek a path to digital transformation that aligns with local realities.

ASEF Higher Education Innovation Laboratory (ASEFInnoLab)



▲ The concept poster of ASEFInnoLab5

Applying institution

International Research Institute of Global Cyberspace Governance of Fudan University

Other participating organizations

Asia-Europe Foundation

Countries and Regions Covered or Involved in the Implementation

45 countries and regions such as Australia, Bangladesh, Belgium, Brunei, Bulgaria, Croatia, Cyprus, Denmark, Finland, Hungary

Artificial intelligence (AI) has brought profound changes to today's international society, and countries and regions in the world are making efforts to continuously strengthen AI exchanges. Fudan University and the Asia-Europe Foundation have launched ASEFInnolab Series in 2021 to promote the sharing of AI development experience and governance models among Asian and European countries, while building a platform for AI academic exchanges, industrial integration, and policy exchanges.

Deepened Agenda, Openness and Inclusivity

ASEFInnoLab was held online for three sessions from 2021 to 2022. In 2023, ASEFInnoLab4 was held offline for the first time at Fudan University. Participants simultaneously engaged in the Shanghai Forum hosted by Fudan University and Choi Jong-hyun Academic Institute of Korea to share ASEFInnoLab's policy recommendations on AI governance and innovation. In 2024, ASEFInnoLab5 will continuously bring together Eurasian forces to strengthen the interconnection of universities in various countries and share useful experience in building an AI innovation ecosystem. From May 2 to June 27, the program was held weekly in the form of online lectures and workshops. The offline activities of this project was held from October 20 to 26.

For four years, ASEFInnoLab has been focusing on the innovative integration of "higher education and AI technologies." Through lectures, seminars and other forms, ASEFInnoLab conducts cutting-edge thinking on current hot topics such as ,"AI governance,"AI and education," "AI and sustainable development," "universities and AI innovation ecosystem"and sustains in-depth deliberations and produce significant results.

For four years, ASEFInnoLab has grown in internationalization. By 2024, ASEFInnoLab has attracted 507 researchers, academics and business managers from 45 countries in Asia and Europe. The number of participants has been increasing year after year, and the project coverage has been expanding in countries and regions.

▲ Photos of previous ASEFInnoLab participants

Three Major Innovation Highlights

In accordance with the mission of the Asia-Europe Foundation, ASEFInnoLab provides a platform for Asia-Europe dialogue and promotes mutual understanding and cooperation between the peoples of Asia and Europe. With a presence in 45 countries across two continents, ASEFInnoLab creates opportunities for higher education stakeholders from Asia and Europe to learn from each other, build capacity and work together to address common global challenges. At present, the number of Asian and European countries covered by the project is still growing.

ASEFInnoLab is committed to pooling the wisdom of multiple parties, listening to the concerns of different stakeholders, and urging concerted action in AI development and governance. The project invited representatives from different universities, research institutions and industries to carry out lectures and seminars, organized participants to visit outstanding AI enterprises, and promoted the transformation of achievements in universities and research fields in the industry field.

Build an Asia-Europe Artificial Intelligence (AE4AI) network to implement joint actions. ASEFInnoLab4, in the form of a joint statement, established the AE4AI Network. Scholars, university administrators, and business representatives from 45 countries in Asia and Europe jointly put forward principles and recommendations on AI governance, AI education, and AI for sustainable development by establishing a transnational initiative network, and launched corresponding action plans.

▲ InnoLab4 launched the AE4AI Network in 2023

▲ Highlights of the Innolab

Strong Reflection from the Society

Over the past four years, ASEFInnoLab project has been widely praised by international society. According to the ASEFInnoLab Project Participants Survey, 99% of respondents are willing to recommend such opportunities to their colleagues as a platform for knowledge exchange and peer-to-peer learning. In 2023, ASEFInnoLab launched the "Asia-Europe for Artificial Intelligence (AE4AI) network," and the relevant experience and concept were shared as an excellent case at the Shanghai Forum hosted by Fudan University and Cui Zhongxian Academic Institute of South Korea, and were praised by the participating experts.

Professor Shen Yi from Fudan University said in an interview with the International Finance News about the action network: AE4AI focuses on the practice of China and the EU in the field of AI governance and innovation, laying the foundation for promoting the sound development of related fields. In the future, AE4AI will continue to form rich results with positive social impact in terms of enhancing deep cooperation between universities and research institutions in the field of AI teaching and research, landmark projects, and the formation of long-term mechanisms.

▲ AE4AI was introduced and shared in the Shanghai Forum 2023

China Telecom CTGNet Network: Building a New Generation of Backbone IP International Network to Facilitate Global Connection

▲ Global multi-service layout of China Telecom CTGNet

Applying institution

China Telecom Corporation Limited

Countries and Regions Covered or Involved in the Implementation

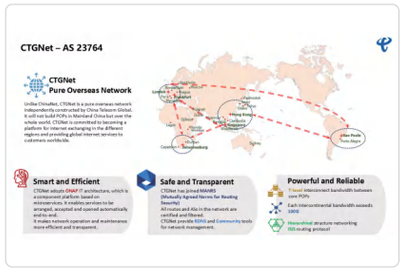
21 countries and regions such as Hong Kong (China), Singapore, Japan, Germany, Kenya, United Arab Emirates, Brazil

China Telecom Corporation Limited (hereinafter referred to as China Telecom) is actively building a new generation of international backbone IP network - CTGNet (AS23764), committed to providing global users with high-speed, ubiquitous, intelligent, agile, secure and reliable connectivity capabilities, continuously improving the global operation support system, and assisting China Telecom's cloud network integration development strategy. CTGNet not only meets the cross-border traffic transfer needs of global operators with high quality, but also helps enterprises expand their global business and create a better future of interconnectivity with its convenient, efficient, and cost-controllable network carrying capacity.

Deeply Enhancing Global Connectivity to Improve CTGNet's Global Reach

As global interconnection develops further, the demand for Chinese enterprises to "go global" and international enterprises to "bring in" is becoming increasingly urgent. China Telecom is dedicated to developing CTGNet into a new generation international carrier network, providing customized international internet access services for global users. Simultaneously, CTGNet offers high-speed, stable, and quality Chinese network solutions to clients worldwide. With a stable, fast, and innovative network infrastructure, CTGNet can meet the diverse needs of clients from various industries, offering excellent information network services.

CTGNet started construction in 2019 and began trial operation at three nodes in Hong Kong, Singapore, and Japan in early 2020. After four years of development and expansion, CTGNet has deployed 42 nodes in 21 countries and regions worldwide, covering important global markets such as Hong Kong, the special administrative regions (SAR) of the People's Republic of China, Singapore, Japan, Brazil, Germany, Kenya, and has 15 network operation partners. At present, the global service level of CTGNet has reached the standard of Tier1 operators to ensure the quality of Internet services and the security and credibility of operations.

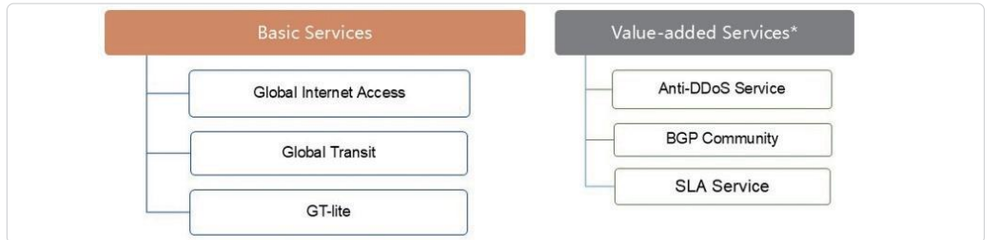


▲ China Telecom CTGNet (AS23764)

Leading with Technological Innovation to Build an Intelligent, Secure, and Stable Network

China Telecom has always upheld the principle of integrating demand and benefit, and constantly introduced new technologies and equipment to improve the intelligence and security of CTGNet. For example, CTGNet actively introduces new technologies such as SDN, SRv6 and a new generation of microservice architecture intelligent operation system to ensure high-speed, stable and secure network, and clients can enjoy high-quality network services wherever they are in the world.

In addition, CTGNet also offers a variety of customized network solutions to meet clients' needs. For example, for enterprise clients, CTGNet provides services such as dedicated private networks, cloud computing, and data centers to help companies improve work efficiency and reduce costs. For individual users, CTGNet provides high-speed Internet access, video conferencing, online games and other services, so that users can enjoy a more convenient and comfortable network experience. CTGNet also provides clients with customized Internet products such as Global Internet Access (GIA), Global Transit (GT), GT Lite, and various value-added services such as SLA, Community, Flow cleaning, Anti-DDoS etc., forming multi-level product matrix and value-added service capabilities to meet various pricing and application needs, aiding clients in achieving global connectivity and enjoying quality international internet connections.



▲ CTGNet product and value-added service matrix

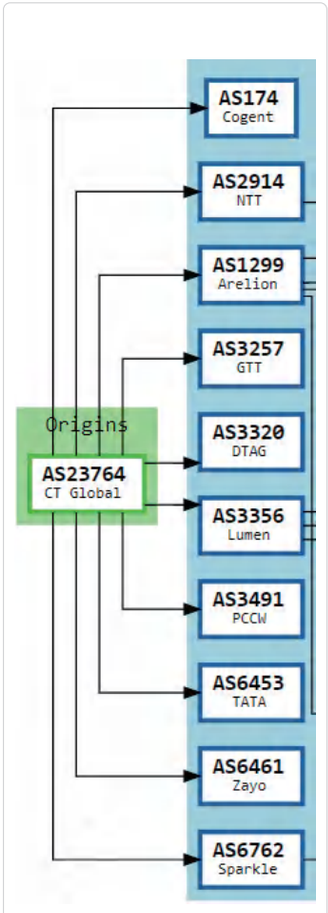
Comprehensively Building a New Generation Backbone IP Network to Provide High-Quality Network Services

In recent years, CTGNet has continuously expanded nodes and bandwidth resources globally, continuously improving network performance and service capabilities. In 2023, CTGNet increased its overseas equipment port capacity by 31.91T, reaching 58.15T, a year-on-year increase of 121.59%. Cross-regional backbone relay increased by 271G, reaching 394G, a year-on-year increase of 220.33%. Intra-regional relay increased by 805G, reaching 3399G, a year-on-year increase of 31.03%, fully meeting the network bandwidth needs of clients of various scales.

▲ CTGNet global node distribution

Rapid Development and Global Deployment to Aid Client Success

Up to now, CTGNet has served more than 110 clients from countries and regions along the Belt and Road, including Hong Kong, Thailand, Kenya, Malaysia, Singapore, covering about 4.5 billion people, including mainland China, and involved in government, finance, Internet and other key industries and fields. In recent years, China Telecom has continuously increased its investment in the construction of CTGNet and continued to expand its capacity. The number of Internet Peers in CTGNet has reached 573, with inter-network relay bandwidth increasing by 3501G, reaching 7064G, a year-on-year increase of 98.26%. The latest AS Rank in 2024 put CTGNet in the 80th place. Going forward, China Telecom will promote CTGNet to further serve the cross-border traffic transfer needs of global operators. In 2024, it plans to continuously expand in Brazil, Hong Kong, Europe, Singapore, the Middle East and Africa and other regions. Moreover, it will play a better role with partners in the area of traffic transfer between Asia Pacific, the Middle East and Africa, and Europe, and will also provide more convenient and efficient network carrying for the rapid expansion of SMEs in global business. China Telecom has always believed that with the ongoing improvement of the CTGNet network construction project, it will not only bring more economic benefits to clients, but also actively promote the connectivity of people around the world, helping to promote the construction of China's network power and the process of globalization.



▲ CTGNet is widely interconnected with Tier 1 operators

02

Online Cultural Exchanges and Mutual Learning

Building an Online Platform for Cultural Exchanges and mutual Learning

世界互联网大会
World Internet Conference

2024

Outstanding Case

Building an International Exchanges and Mutual Learning Platform for Arab Culture and Arts

▲ ACAN members are exploring in real time the diversity of the Arab culture at a webinar hosted by ACAN

Applying institution

Arab Culture and Arts Network (ACAN)

Other participating organizations

Tiro Association for Arts. (TAA)

Countries and Regions Covered or Involved in the Implementation

22 countries and regions such as Saudi Arabia ,Bahrain,Comoros, the United Arab Emirates, Algeria, Egypt, and Lebanon

The Arab Culture and Arts Network (ACAN) was established in 2020 to facilitate cultural exchanges across regions,bridge cultural gaps,boost art cooperation in the Arab region and beyond,and promote a better understanding of the Arab culture in the international community.

Building a Global Digital Bridge to Promote International Cultural Exchanges

Today, ACAN continues to thrive, providing a digital platform for cultural exchanges among artists, scholars and cultural institutions in 22 countries, including Algeria, Egypt, Jordan, and Saudi Arabia. Through a variety of online activities, such as virtual exhibitions, interactive seminars and forums, the platform creates a bridge for diversified communication to promote cultural and artistic exchanges, so that participants from different regions can gain a deeper understanding of and appreciate the Arab culture. In addition, ACAN continues to organize cultural events and academic dialogues, in a bid to preserve and spread the rich cultural heritage in the Arab region. While exposing the world to the Arab culture, ACAN is advancing global cultural exchanges and innovations by collaborating with a number of cultural organizations worldwide to promote innovative cultural content and cross-cultural communication.

Empowered by Technology Innovations to Promote Cultural Revival

In order to better promote global cultural exchanges and innovations, ACAN has built a comprehensive digital platform that incorporates a number of cutting-edge technologies to enable the following features:

- A user-friendly and easy-to-operate interface that is accessible by users of different ages and from different technical backgrounds. Meanwhile, the platform features an advanced network architecture and responsive design to deliver smooth access and search experiences, and ensure that users can quickly find virtual exhibitions, interactive activities and forums they are interested in.
- Online weekly seminars and forums empowered by innovative video conferencing tools and real-time translation services, allowing participants from different countries to be deeply involved in cultural exchanges, interact with each other instantly, and get feedback.
- Integration of state-of-the-art cloud infrastructure, AI and streaming media technologies to support online broadcasting. At the same time, the platform promotes artistic works and publishes information on grants for artists through multimedia means such as digital publishing tools on the cloud and the electronic monthly newspaper.
- Online education and real-time consulting services for participants based on an interactive online learning platform to enhance the capacity for cultural innovation in different regions and empower local communities to organize richer cultural events and celebrations.

▲ Participants are engaging in cultural exchange activities on the ACAN platform

Deepening Exchanges and Mutual Learning Among Civilizations to Empower Economic and Social Development

ACAN has produced a far-reaching impact in both social and economic realms. In terms of its social value, ACAN provides an online platform for artists, scholars and cultural enthusiasts around the world to interact with each other, share and appreciate Arab cultural heritage, building a bridge for exchanges and mutual learning among civilizations between Arab countries and the rest of the world. Economically, ACAN provides a global stage for Arab artists and cultural practitioners, creating an opportunity for them to showcase their works, increase their visibility, and open new frontiers in their career. Moreover, ACAN works to enhance the capacity for cultural innovation in different regions through online training programs, and partners with other organizations to promote cultural innovation, create emerging cultural festivals and boost creative economic growth.

The ACAN project won the World Summit for the Information Society (WSIS) Prizes. 360 out of 1,270 projects submitted from various countries around the world were nominated across 18 categories. Finally, the Arab Culture and Arts Network project from Lebanon won in the category of "cultural diversity and identity, linguistic diversity and local content," and was recognized as one of the best five projects in the world together with projects from Rwanda, Bangladesh, India, and Australia.


WSIS PRIZES CHAMPION
WORLD SUMMIT ON THE INFORMATION SOCIETY
CERTIFICATE OF RECOGNITION
The International Telecommunication Union is proud to award
Arab Culture and Arts Network
Tiro Association for Arts
Lebanon
Champion of WSIS Prizes 2021
Category 8 Cultural diversity and identity, linguistic diversity and local content
for its outstanding contribution towards strengthening the implementation of the World Summit on the Information Society (WSIS) Outcomes
Houlin Zhao
ITU Secretary-General

▲ Picture of the certificate of recognition

Outstanding Case

Global Oral History of the Internet Project

▲ Global Oral History of the Internet (OHI): A portrait of the creators and leaders of a new human civilisation

Applying institution

Zhejiang University

Other participating organizations

Wuzhen Institute for Digital Civilization, ChinaLabs

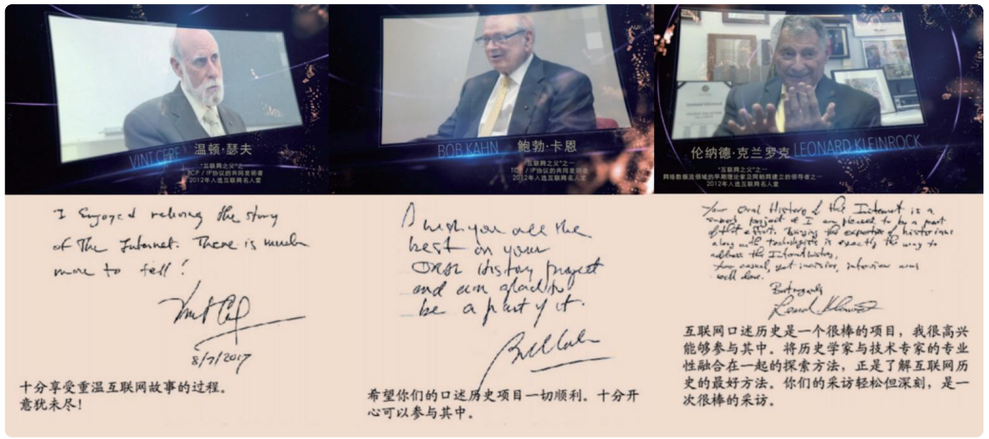
Countries and Regions Covered or Involved in the Implementation

50 countries and regions such as China, the United States, Canada, Brazil, South Africa, Kenya, the United Kingdom, and Germany

Launched in 2007, Global Oral History of the Internet (OHI) project is dedicated to recording the oral histories of key figures in the global Internet field, covering text, pictures, audio and video. The project presents a comprehensive panorama of Internet development, provides valuable historical materials for research on Internet development and governance, helps build China's own Internet research system, and provides knowledge support for China's future-oriented international communication strategies.

Oral History of the Internet Project in Global Perspective

Global Oral History of the Internet Project aims to present the world's Internet wave in the form of video and text through interviews with important figures in the Internet field. The interviewees cover a wide range, including not only the founders and early developers of Internet technology, but also important figures in Internet governance, policy-making, and social impact. So far, the project has interviewed more than 500 global Internet pioneers, including more than 260 key Internet figures, such as four fathers of the Internet, Vinton Cerf, Bob Kahn, and others. The project has recorded over 1,100 hours of video and compiled more than 7 million words of written documentation. As Nicholas Negroponte, founder of the MIT Media Lab, said, 'The work of Internet oral history is very meaningful. Because the creators of Internet history often don't realise now how great what they did was, and our society, too, doesn't realise now how great what these people did was.'



Messages from internet pioneers

▲ An oral interview with Larry Roberts, founding father of the internet

The project has taken to the international stage on several occasions to demonstrate its value, significance and progress to the world. The project held'Global Oral History of the Internet'workshop and'the 50th Anniversary of the Internet'workshop at the United Nations World Summit on the Information Society (WSIS) in 2018 and 2019 respectively. The project was presented at the Asia-Pacific Advanced Network Meeting (APAN). The project team organised a conference on 'Commemorating the 50th Anniversary of the Global Internet'at the 6th World Internet Conference (WIC) in Wuzhen, China; and a forum on the 50th anniversary of the Internet in Qianhai, Shenzhen, China. By presenting the project on the international stage, the project aims to raise global awareness, encourage broad participation, and use the Internet's historical experience to inspire future technological innovation and development.

▲ "Global Oral History of the Internet" (OHI) project held workshops at IGF, WSIS, EuroDig and other international conferences

Global Oral History of the Internet Project Just in Time

As time passes and many of the early pioneers of the Internet have reached an advanced age, and some have even passed away, the need to record their stories and experiences in a timely manner is imminent. This project documents the 55-year history of the global Internet through oral history, as a way to pass on the stories, wisdom, and spirit of the countless pioneers who developed the Internet. Larry Roberts, the father of the Internet, passed away on December 16, 2018. Global Oral History of the Internet Project conducted four interviews with him, and these recordings became the most comprehensive and complete video material left in the world. The first-hand historical information is not only of historical value, but also of academic value and guidance for national strategy. 'Old soldiers never die, they just fade away,' the spirit and original aspiration of the Internet pioneers should be remembered by future generations and continue to flourish in the development of the Internet.

▲ Key internet figures interviewees

Global Oral History of the Internet Project Provides an Invaluable Historical Resource and Reference for Preserving the Original Intention of the Internet and Promoting Global Digital Inclusion

For more than 50 years, Internet pioneers, including Larry Roberts, Bob Kahn, Leonard Kleinrock, Vint Cerf, Louis Pouzin, and Kilnam Chon, were all driven by their own efforts to promote interconnection, change the world, and make the wolrd a better place. This is the true original intention of the Internet. It is crucial for us to our understand the development of the Internet and the opportunities and challenges it faces today by thoroughly sorting out the history of the Internet in its proper context and reconceptualizing it. This is not only about the future of the Internet, but also directly about the future of digital civilisation and humanity.

By bringing together the voices of Internet pioneers from different countries and regions, this project provides valuable basic information for the study of Internet history, as well as references of long-term value for the academic community. In addition, the project attempts to break the traditional Western-centred narrative of Internet history, enabling Internet development experiences around the globe to be presented, and providing insights for future Internet innovation and policy making. Some of the results of the project were published in the form of a series of books and won the first prize of the Zhejiang Provincial Philosophy and Social Science Outstanding Achievement Award.

▲ Results of global oral history of the internet project

Outstanding Case

"A Taste of China"—Discover Stories of Chinese Cuisine, History, and Culture

▲ Illustration designed by Google Arts & Culture based on the Chinese dessert "Bingtang Xianglian"

Applying institution

Google Arts & Culture,
World Federation of Chinese Catering Industry(WFCCI)

Countries and Regions Covered or Involved in the Implementation

20 countries and regions such as The United States, the United Kingdom, Brazil, India,-Canada, France, Italy, and Mexico

WFCCI and Google Arts & Culture launched a Chinese gastronomy project for the global audience Chinese food culture, which has a profound history of over 5,000 years based on diverse ingredients and regional specialties, culture and folklore, has captured global attention. On Oct 11, 2023, in partnership with the World Federation of Chinese Catering Industry (WFCCI), Google Arts & Culture launched an online hub dedicated to Chinese gastronomy: "A Taste of China," taking the global audience on a unique journey to explore China's traditions and history through its extensive gastronomy. Chinese food culture, which has a profound history of over 5,000 years based on diverse ingredients and regional specialities, culture and folklore, has been catching attention on the global market.

"A Taste of China"project page header image

"A Taste of China" Brings Together 50 Stories and Over 800 Images Which are Expertly Curated Spanning Across Various Themes Including History, Culture and Iconic Dishes, Offering a Peek Into China's Vast Culinary Heritage

"A Taste of China"brings together 50 stories and over 800 images which are expertly curated spanning across various themes including history, culture and iconic dishes, offering a peek into China's vast culinary heritage. With food so tightly woven into its culture, the global audience can learn about China's traditions and history through its extensive gastronomy — from chopstick etiquette history to regional variations. For example, we highlighted how Chinese cultures intertwined agricultural preferences with patterns in the stars, guiding food consumption based on the 24 Solar Terms. The exhibit also delves into the intriguing world of food therapy, where specific ingredients are believed to have healing properties. In addition, the online stories present the quintessential utensil in a fun way, allowing the audience across the globe to learn about a well-established etiquette system that's been refined over thousands of years in China. And of course, what's a Chinese feast without tea? From its humble beginnings as a medicinal remedy and subsequently an offering divine, the theme page explores the profound meanings behind the art of tea in China's unique tea culture. With this Chinese gastronomy project, Google Arts & Culture continues to collaborate with cultural institutions in China to make Chinese culture even more accessible to people all around the world.

Sichuan hot pot pepper soup base

Google Arts & Culture Deployed Its Technologies and Tools to Support the Creation of This Unique Platform. As a Result, The Page Tells the Stories of Chinese Gastronomy in an Innovative Way

Chinese cuisine has a long history and a rich cultural heritage that people marvel at. Chinese gastronomy is also famous for its rich variety of cuisines, cooking styles and unique combination of food and medicine. WFCCI believes that cooking and meals are not only an important part of people's daily life, but also reflect the inheritance of a country's wisdom and culture.

▲ Excerpt from theme page of "A Taste of China"—discover stories of Chinese cuisine, history, and culture

Therefore, its partnership with Google Arts & Culture was set up to bring their rich content online, using Google technologies to tell the intricate stories of Chinese gastronomy and culture to a wider audience around the world. WFCCI is a government supported international organization headquartered in Beijing. Its mission is to make Chinese catering culture known around the world and promote the prosperity of Chinese catering. WFCCI consists of Chinese food service providers, caterers, education and training institutions and management and consultation centers. Throughout the collaboration, experts, chefs and curators all contributed to the content development, curation and design of the theme page. Google Arts & Culture also deployed its technologies and tools to support the creation of this unique platform. As a result, the page tells the stories of Chinese gastronomy in an innovative way. For example, users can learn about Chinese cooking techniques and recipes from famous chefs, and also participate in a quiz after reading stories.

"A Taste of China"Project Page Takes the Global Audience on a Unique Journey to Explore China's Traditions and History Through Its Extensive Gastronomy

WFCCI and Google Arts & Culture launched the Chinese Gastronomy project in Haikou at the 4th World Shiology Forum, a high-level international forum based on the concept of "Eat + Food"and aligned with the UN's Sustainable Development Goals. Both sides announced the launch of "A Taste of China"project and introduced how the platform helps preserve and promote Chinese culture to the world (Google Arts & Culture collaborates with over 3,000 cultural institutions from 80 countries and regions, allowing people around the world to explore arts and culture from anywhere, anytime.)

The project also received strong media attention: Over 20 key media in China covered the story. The Secretary General of WFCCI was also invited to interview with China Business Herald online to talk about the collaboration and how WFCCI is dedicated to promoting Chinese food and culture abroad.

According to the Secretary General Ms. Zhao, "This collaboration is a successful example of complementing each other's strengths and joining forces, creating a better platform for intuitive presentation. It broadens channels for telling the story of Chinese cuisine to the outside world, allowing more countries and people to understand the scientific, artistic, and cultural aspects of Chinese food."

Outstanding Case

World Education at a Glance:Developing an International and Comparative Research System Based on the GEI Platform

▲ Homepage of GEI platform

Applying institution

Center for Education Management Information (CEMI), Ministry of Education of the PRC

Other participating organizations

In cooperation with 100+ project teams from universities and institutions

Countries and Regions Covered or Involved in the Implementation

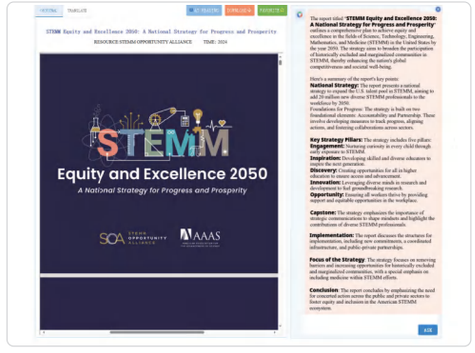
195 countries and regions such as Kyrgyzstan, Algeria, Ireland, Panama, Argentina, and Australia

Since 2021, China National Center for Education Management Information（CEMI）has been vigorously advancing ICT (Information and Communication Technology)-driven international and comparative education research. It has developed the Platform for Global Education Information (the GEI Platform), which supports a comprehensive, multi-level, and multi-dimensional global education research system, fostering global knowledge sharing, mutual learning, and communication.

GEI is Now the Largest Comprehensive Information Resource Library with Over 200 Databases on Global Education

Launched in 2023, the GEI platform features 13 columns and 51 themes, aggregating over 360,000 pieces of information and resources, amounting to 6.5 billion Chinese characters. This includes the latest news, strategic planning and policies, laws and regulations, statistical data, innovative case studies, think tanks, experts and scholars, and academic literature. It covers 195 countries and regions, 32 international organizations, featuring content in more than 20 languages such as Chinese, English, French, Russian, Spanish, Arabic, German, Portuguese, Japanese, Korean. The GEI platform also integrates with online translation tools like Baidu Translate and NiuTrans, and features an AI assistant named XIAOXIN, which employs advanced large language models like Qwen and Kimi to facilitate assistive reading and intelligent question answering (IQA).

The GEI platform delivers contents in more than 20 languages,including Chinese, English, French, Russian, Spanish, Arabic, German, Portuguese, Japanese



The GEI platform AI assistant XIAOXIN with reading & IQA services

Upholding the Principles of Extensive Consultation, Joint Contribution, and Shared Benefits, The GEI Platform Has Assembled an International and Comparative Research Team, Consisting of 100+ Research Clusters from Universities and Institutions, and Mobilizing 1,500+ Scholars at Home and Abroad

Over the past three years, with a focus on database development, CEMI has dedicated to building a GEI-centered global education research system, featuring key elements such as think tank reports, research clusters, and journal publications. CEMI has fully leveraged the unique strengths of universities and research institutes, assembling large-scale, high-level specialized research teams. These efforts have formed over 100 research clusters in areas of digital education, science education, vocational education, and engineering education, etc. These clusters conduct item-by-item research and tackle key issues by column, field, and topic. The clusters are dynamically updated and expanded as needed. More than 300 seminars, both online and offline, have been held by CEMI, involving over 1,500 Chinese and foreign experts and scholars. Utilizing emerging technologies such as big data and artificial intelligence, CEMI has integrated, categorized, and consolidated educational information from diverse fields and levels across multiple countries within GEI. This has enabled large-scale data convergence, structured storage, multi-level classification, and multi-dimensional presentation, and achieved a unified perspective that bridges the macroscopic and the microcosmic, the dynamic and the static, past and present, thought and action.

▲ Basic framework for Global Education Research System

Leveraging Big Data, We Have Pooled the Wisdom, Actions, and Experiences of Education from Various Countries, Empowering Educational Research and Fostering Global Educational Exchanges and Mutual Learning

At CEMI, by tracking latest trends and features in international education, we have monitored global educational developments, enhanced the awareness of global education, and deepened our research on international education governance. We have compiled over 300 research reports, totaling two million Chinese characters, spanning over 20 topics of common concern to the education sector worldwide, such as strategic planning, cultivation of top-notch and innovative talents, educational system reform, mental health education, STEM education, international education, engineering education, digital education, artificial intelligence. We continuously deliver research reports and consulting services, facilitating information exchange, cutting-edge discussions, complementary advantages, and shared benefits. Our efforts have enhanced international understanding and global cooperation, positively contributing to the joint construction of a global educational community.

Broadening The Global Scope of Publications, Enhancing Global Exchange and Dissemination, and Promoting Mutual Learning and Communication

Relying on the GEI Platform, CEMI has enhanced its international reach of academic publications such as the Journal of World Education, the Chinese Journal of ICT in Education and the Basic Education Review. These publications have collectively engaged in in-depth dialogues with over 300 notable figures, such as UNESCO leaders, university presidents, and educational experts from more than 20 countries—among them the United States, the United Kingdom, France, Russia, Germany, and Japan—as well as more than 10 international organizations like UNESCO, the European Union, and ASEAN. These conversations have helped build an community with a shared future for mankind in the digital realm and have fostered exchanges and mutual learning among different cultures. The journals have cumulatively published nearly 50,000 articles, serving over 100 million readers both in China and abroad.

▲ Excerpts from the cover figures of Journal of World Education

▲ The GEI platform has included biographies, representative works, and research documents of over a hundred influential figures in the history of education

BabyBus Has Made Remarkable Contributions to the Global Dissemination of Chinese Culture and Multicultural Exchanges

▲ BabyBus delivers fine culture and the values of "truth, goodness, And beauty"to the world through children's favorite IP characters and original, high-quality early childhood educational content

Applying institution

BabyBus Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

160 countries and regions such as China, Afghanistan, Algeria, Albania, Antigua and Barbuda, Argentina, Australia, Armenia, and Angola

BabyBus utilizes the Internet and digital technology to introduce Chinese culture to children around the world through online platforms and social media. This helps promote cultural exchanges and inheritance while offering global kids a chance to learn about Chinese culture.
With Chinese culture and values as the cornerstone, BabyBus products convey "truth, goodness, and beauty"to children worldwide. This helps cultivate children's moral values and aesthetic tastes and promote understanding and respect among different cultures.

BabyBus Promotes the Global Dissemination of Chinese Culture Through its Original Digital Content

BabyBus is a reliable companion for children worldwide, providing access to a wealth of knowledge through its educational content focusing on safety, art, and language.

A message from a parent in faraway Turkey deeply touched the BabyBus team. His child, using knowledge learned from BabyBus, helped their family safely avoid danger during a recent earthquake. Meanwhile, across the ocean in the United States, a mother shared her delight that our Baby Panda World has brought joy to her autistic child and encouraged him to speak.

These stories are not merely isolated marvels; they powerfully showcase BabyBus'international significance. By bridging language and cultural divides, BabyBus brings knowledge and fun to children around the world, supporting their development, no matter where they are. BabyBus has successfully proved that quality content can transcend borders and inspire children's potential. This is the essence of BabyBus's internationalization: to influence the world for the next 20 years!

▲ BabyBus's original content is published in over 160 countries and regions around the world

▲ Babybus's interactive content, featuring the IP characters Kiki and Miumiu, is loved by users

Innovative Forms of Cultural Disemination

BabyBus disseminates Chinese culture in a way that captivates children through original interactive apps, children's songs, cartoons, and classic Chinese stories. These contents are not only engaging but also educational, making cultural dissemination more vivid and effective.

▲ Impart safety knowledge through interesting stories and interactions

▲ Introduce fine Chinese traditional customs and culture to the world

BabyBus Makes Fine Chinese Culture Known to the World and Promotes the Values of "Truth, Goodness, and Beauty"

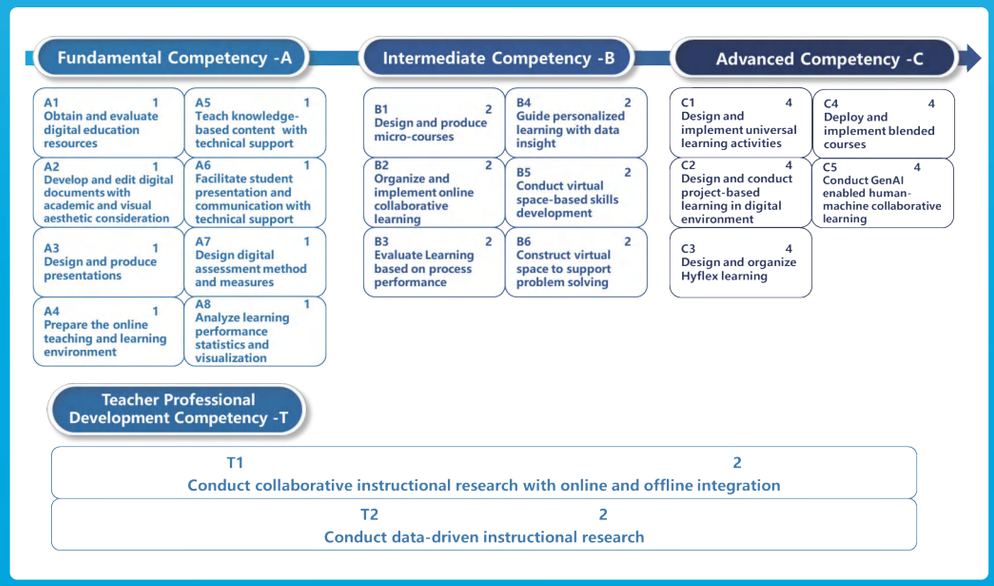
As BabyBus moves towards internationalization, it has showcased profound social value and substantial economic value. Its social value is reflected in its provision of early childhood education for children worldwide, bridging cultural and linguistic gaps, promoting widespread knowledge and fostering children's overall development. By offering diverse content covering safety, art, and language, BabyBus not only aids children in acquiring knowledge but also fosters their creativity and imagination, offering equal learning opportunities for children from various backgrounds.

In terms of economic value, BabyBus has attracted the attention of parents and children around the world with its high-quality content, establishing a stable user base and good brand reputation. BabyBus has spread its physical picture books and IP-related merchandise across Southeast Asia, Latin America, Africa, the Middle East, and other regions. This not only brings direct economic benefits but also creates business potential for continuous growth through positive word of mouth and brand influence. In addition, BabyBus has provided valuable experiences and insights for related industries, such as children's content creation and international collaboration for domestic brands, thereby driving innovation and development across the entire sector.

▲ Convey "truth, goodness, and beauty" to children around the world

▲ BabyBus has received recognition from authoritative official organizations

Research and Practice of Micro-certification Project for Improving Digital Teaching Competency of Higher Education Teachers in Developing Countries



▲ Reference framework of digital teaching micro-competency for higher education teachers

Applying institution

East China Normal University, International Centrefor Higher Education Innovation under the auspices of UNESCO

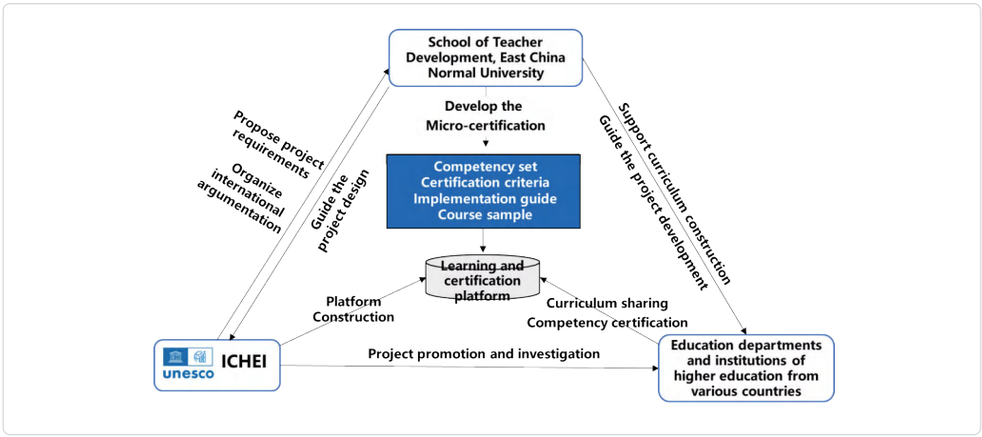
Countries and Regions Covered or Involved in the Implementation

7 countries and regions such as Indonesia, Uzbekistan, Mongolia, Nigeria, South Africa, Pakistan and Morocco

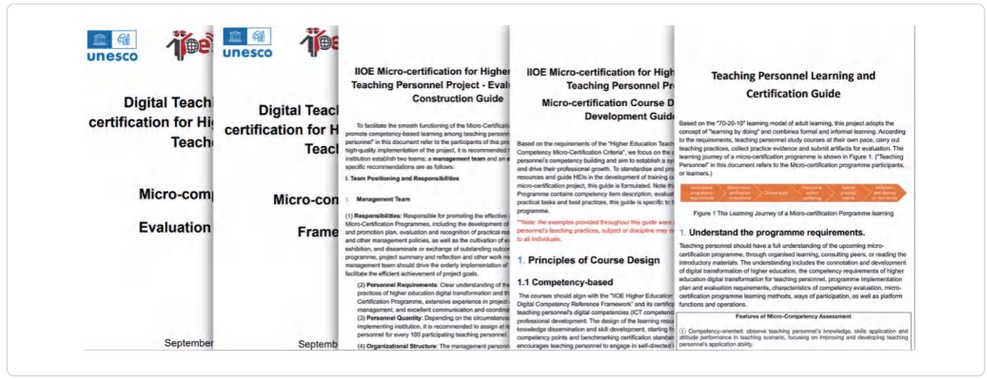
Global environmental changes and digital transformation have posed new demands on higher education, and the digital capabilities of educators urgently need to be enhanced. To this end, East China Normal University has reached a strategic cooperation with the International Centre for Higher Education Innovation (ICHEI) under the auspices of UNESCO to jointly promote the innovative development of international higher education in the digital field.

Collaborating with Educational Departments and Higher Education Institutions from Various Countries to Provide a Systematic Solution for the Implementation of the Micro-Certification Project

After thoroughly analyzing the digital teaching needs of teachers, ICHEI initiated this project, organizing East China Normal University to establish a close partnership network with developing countries in Asia and Africa. ICHEI is responsible for carrying out the international applicability verification of research results, building a learning platform, and organizing curriculum construction and sharing. Higher education institutions from various countries are responsible for the local design and implementation of the project and participate in the joint curriculum construction. East China Normal University provides robust intellectual support for the planning and implementation of projects, including developing a micro-competency system for teachers'digital teaching that includes the "Micro-competency Reference Framework"and "Competency Certification criteria;" systematically developing a reference guide for the implementation of the micro-certification project, focusing on the construction of key roles and environmental resources, a series of guides have been developed for teachers' learning and certification, team building, curriculum development, platform construction, as well as demonstration courses and cases; guiding partner units in building course resources based on the micro-competency system and the Guidelines for Curriculum Construction, from aspects such as curriculum construction ideas, content arrangement, activity design, and connection with micro-certification.



▲ Cooperation mechanism of project implementation subject



Reference guide for micro-competency system and project implementation

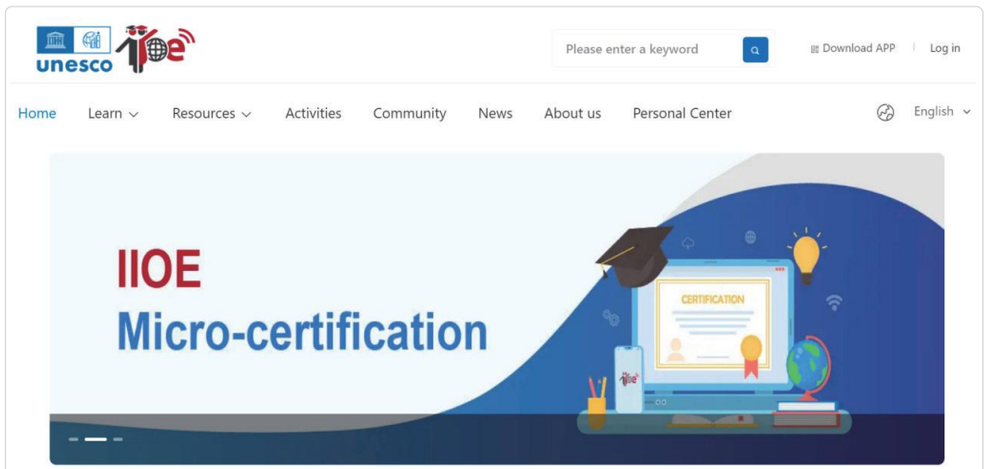
Innovating the Precise Assessment Model for Teachers to Support Capability-Based Learning

Firstly, based on teaching theory and in line with the new requirements of the digital transformation of higher education, a systematic construction of the micro-competency reference framework has been established to provide theoretical support for project implementation, supporting differentiated individual teacher development and organizational development.

Secondly, for each micro-competency, developing certification criteria that are evidence-based, assessable, easily collectible, and mutually verifiable, clarifying the goals of capability development, certification requirements, and criteria, promoting teachers' practice-based learning, application, reflection, and communication, achieving consistency in learning, application, and assessment.

Thirdly, focusing on key tasks in project implementation, a series of reference guides have been developed to provide systematic solutions and methodological support for higher education institutions to establish well-crafted training, assessment, certification, and planning processes during project implementation.

Implementation path of the micro-certification project



Support platform for the micro-certification project

Benefiting the Belt and Road Countries, and Significantly Bolstering Higher Education Teachers'Digital Teaching Competencies

By providing a systematic methodology for the enhancement of higher education teachers'digital teaching capabilities, it effectively contributes to the achievement of the United Nations SDG4: Quality Education.

First of all, currently, universities in seven countries have integrated the micro-credential system into their own teacher professional development strategies, significantly improving the professional quality and related skills of local teachers. Such universities as Ahmadu Bello University in Nigeria have modified the existing system to form localized certification requirements.

Secondly, empowering the high-quality construction of courses for the development of teachers in Asian and African universities, effectively bridging the gap in digital teaching capabilities. Relying on the Guidelines for Curriculum Construction and course examples, several universities in countries like Indonesia and South Africa are independently developing course resources.

Thirdly, triggering ongoing research on the construction of a professional development ecosystem for higher education teachers, providing support for transnational professional development. For example, UNESCO Bangkok has focused on policy research on micro-certification projects, exploring how micro-certification can be localized and recognized at the institutional and systemic levels.

Learning platform of Indonesian micro-certification project

ICHEI held a roundtable meeting during the UNESCO Digital Learning Week 2023 to discuss important issues of higher education digital transformation, including the construction of teachers' digital competency

The Palace Museum's Multilingual Website (PMMW)

Main visual for the launch of PMMW

Applying institution

The Palace Museum

Other participating organizations

Academy of Translation and Interpretation, China International Communications Group

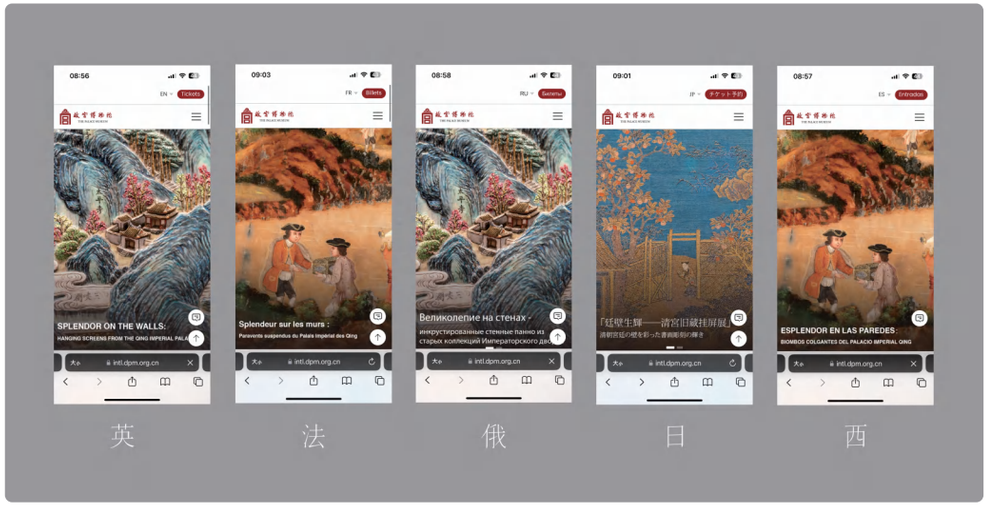
Countries and Regions Covered or Involved in the Implementation

20 countries and regions such as Australia, Canada, France, Germany, Japan, Italy, the United States, Malaysia, the Netherlands, and the Philippines

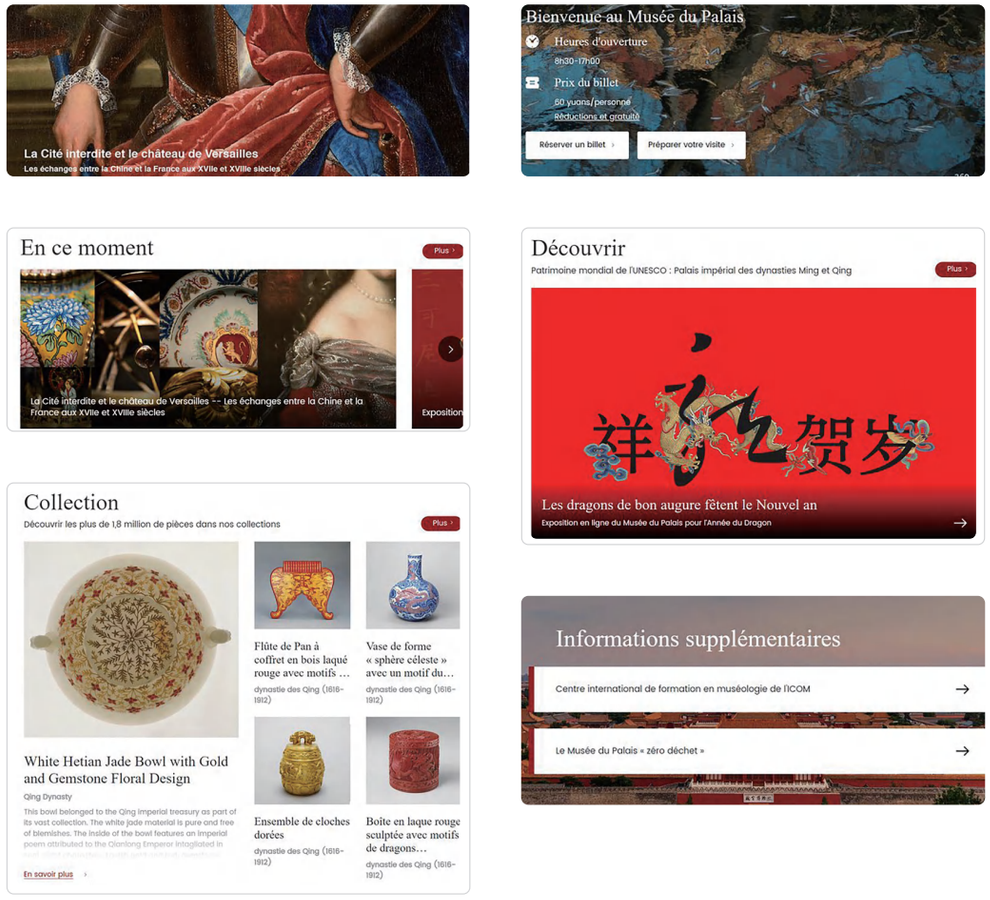
In 2023, the Palace Museum upgraded its English website into a multilingual platform. The new website features English, French, Russian, Japanese, and Spanish, aiming to overcome language barriers and provide convenient access to the Palace Museum culture and services for audiences worldwide, ultimately showcasing traditional Chinese culture on the global stage.

A Global Digital Platform for Sharing the Palace Museum's Rich Cultural Heritage

Nowadays, there is an increasing need and significance to utilize the internet and digital technology to effectively promote traditional culture internationally and facilitate global cultural exchanges. In July 2023, the Palace Museum officially unveiled its PMMW based on thorough research into the websites of major cultural institutions, including museums and art galleries worldwide. The website, available in English, French, Russian, Japanese, and Spanish, integrates complex cultural information based on straightforward user logic, making the content more focused, organized, and accessible to international users. It features four main sections: "Visit," "Explore," "Collection," and "What's on." These sections offer rich content and functionalities, including visitor services, information inquiries, virtual panoramic tours, virtual exhibition browsing and collection appreciation. Each language version of the website allows for independent editing and management, enabling tailored content planning to meet the specific needs of each audience. This approach enriches the content and fully highlights the diversity of China's rich cultural heritage. Additionally, the Palace Museum collaborates closely with the Academy of Translation and Interpretation of China International Communications Group (CICG), engaging 31 experts from eight countries to ensure the quality of translation in each language.



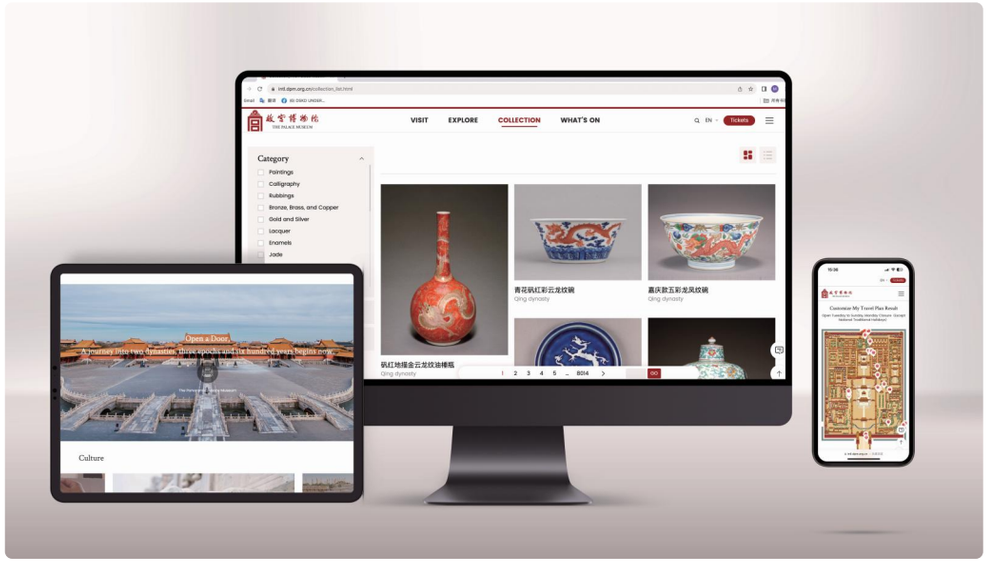
Bespoke multilingual website content development



▲ French homepage of the multilingual website for the special exhibition The Forbidden City and the Palace of Versailles

Technology Enables Cultures to Transcend Borders

By pre-embedding links and data interfaces, the PMMW is interconnected with the services of the Palace Museum's main website, such as ticket booking, collections, and ancient architecture databases. This interconnection enables easy access to the Palace Museum's digital resources for international users and lays the groundwork for future development of more customized features. The website includes a "Customize My Travel Plan"function, allowing visitors to plan their visit, select preferred exhibition halls, shops, and restaurants, and generate a personalized route map that can be saved to their device with one click on the mouse. Additionally, the website offers an immersive "Panoramic Palace Museum"project, providing a 360-degree virtual tour of all open areas of the Palace Museum. It ingeniously embeds two-dimensional images of ancient architecture into the panoramic experience. The website uses intelligent language recognition and adaptive layout technology to ensure compatibility with both PC and mobile devices, significantly enhancing the multilingual display and user experience. As its content and functions continue to be updated and iterated, PMMW will become a crucial gateway to the Palace Museum's digital twin platform. Additionally, multilingual translation, a collaborative effort between the translation and production teams, represents a pioneering practice in cultural relics translation and will help set standards for future foreign language translations in this area.



▲ PMMW supports multiple devices

▲ A special cultural feature page for 2024 Year of the Dragon

Build a Cultural Bridge That Benefits the World

As the epitome of China's rich cultural heritage, the Palace Museum strives to become a world-class museum, a model for preserving world cultural heritage, a pioneer in cultural tourism, and a vibrant hub for intercultural dialogue. PMMW has made it easier for global visitors to access information and services, expanding its audience and allowing non-Chinese speakers to enjoy the museum more conveniently. To date, PMMW has received over 850,000 visits. Among the international visitors, the top three sources are the United States, Russia, and Singapore, with a significant number of visitors from European countries represented by France. Compared to the previous English-only website, the new site has seen a substantial increase in visitor diversity, especially from non-English-speaking regions. For example, Russian visitors increased by 360 percent, with significant growth also observed in visitors from France and Japan, both exceeding 50 percent. This will undoubtedly enhance exchanges and mutual understanding among civilizations and showcase Chinese culture globally. In 2023, building upon its cultural content, PMMW introduced five-language "Palace Museum Zero Waste"sections to promote environmental protection and sustainability, further expanding its inclusivity and international reach.

▲ Analysis of visitor sources of the Palace Museum's multilingual websites

Cam Tech Week: A Digital Technology Development Event Based on an Innovation Hub

▲ Cam Tech Week

Applying institution

Cambridge Wireless

Countries and Regions Covered or Involved in the Implementation

United Kingdom, China

Cam Tech Week, launched in 2023, is a global technology convergence event aimed at bringing together world-leading experts, innovators, and investors to fuel growth across the tech ecosystem through collaboration and exchange.

Build an Ecosystem for Collaboration and Exchange in the Technology Sector

Cam Tech Week is supported and organized by Cambridge Wireless, which comprises over 1,000 companies, including network operators, device manufacturers, innovative startups, and universities. Cambridge Wireless aims to bridge academia and industry, promoting knowledge sharing and collaboration in fields such as network technology, data analytics, artificial intelligence, semiconductors, software applications, and satellite technology.

Cambridge, home to Europe's technology cluster, is renowned for its rich academic resources, outstanding research achievements, and vibrant innovation ecosystem. It has attracted global tech giants such as Apple, Amazon, Google, and Microsoft to establish their R&D centers here. Cam Tech Week leverages the city's wealth of innovation resources to create a hub for showcasing, exchanging, and collaborating on the latest knowledge and cutting-edge technologies. The event draws entrepreneurs, founders, business leaders, investors, government representatives, academics, and media, providing them with opportunities to share insights and explore future collaborations.

The 2024 Cam Tech Week, held successfully in September over five days, attracted nearly 5,000 attendees from over 20 countries, including the United States, Brazil, Chile, and several African nations. This year's theme, "Innovation, Investment, Development," featured events such as the Corporate Innovation Summit, Deep Tech Exchange Dinner, AI & Quantum+ Tech Forum, and the Semiconductor & Climate Tech Forum, offering a platform for participants to learn, engage, and collaborate.

▲ Cam Tech Week event site

Multiple Competitions Inspire Technological Talent to Innovate and Start Businesses

Cam Tech Week offers permanent awards that provide incentives and support for global tech talent in the field of digital technology, encouraging innovation and entrepreneurship:

Innovation Alley Award: Innovation Alley provides global tech innovators with an opportunity to showcase their creativity and impact. It features two awards: the "Startup Award" and the "People's Choice Award." Any non-exhibiting startup can apply for free. The evaluation criteria include originality, potential commercial, economic, or social impact, and launch plans. Winners will receive public recognition at the Innovation Alley Reception, on the Cam Tech Week website, and through other channels.

Scale-Up Business Plan Competition: This free competition is designed to help participating companies scale up their businesses. The evaluation criteria include revenue scale, funding scale, number of employees, tech innovation achievements, and business models. A panel of expert judges will review the submissions and select five companies to pitch their business plans in a closed-door meeting during Cam Tech Week, providing them with further investor support. The final two competitors will have the opportunity to present publicly during the event.

▲ Cam Tech Week Innovation Alley Award ceremony

▲ Scale-Up Business Plan Competition award ceremony

Innovation and Technology Commercialization Professional (ITCP): A Globally Impactful Example of Digital Education for Technology Commercialization

▲ Innovation and Technology Commercialization Professional (ITCP) program

Applying institution

Georgia Institute of Technology, International Technology Transfer Network (ITTN)

Countries and Regions Covered or Involved in the Implementation

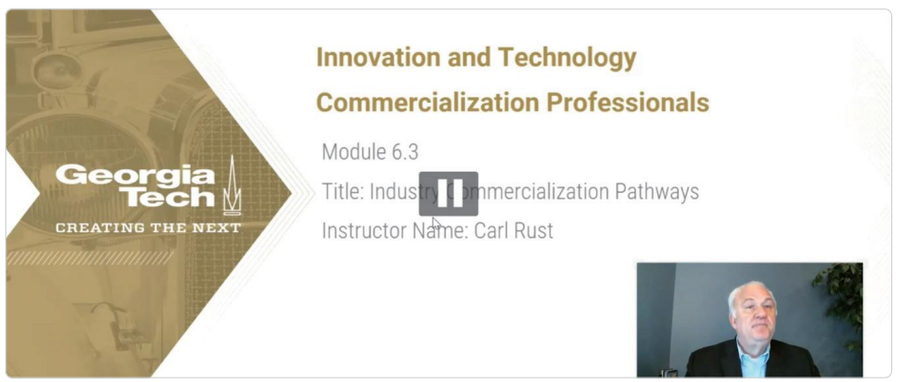
The United States, China

The Innovation and Technology Commercialization Professional (ITCP) Program is a talent training system established by the Georgia Institute of Technology (Georgia Tech) in collaboration with partners such as the International Technology Transfer Network (ITTN), based on the APEC's Handbook on Technology Commercialization.

Achievements in Technological Innovation Cooperation Originating from Multilateral Mechanisms

The project is dedicated to cultivating a group of professionals with broad visions who can transform technological achievements into real productivity through innovation and technology commercialization. To this end, the project has established a knowledge system and assessment system. It adopts a teaching method that integrates professional theory with vivid case studies, allowing participants to freely explore the field of technology transfer and fully experience the unique value of end-to-end services. Through this teaching model, participants not only engage deeply in strategic planning for the innovation ecosystem but also excel in key areas such as market analysis, professional judgment, and project management. This training process not only enhances participants' professional competence but also empowers them to lead their institutions to become significant forces in the fields of innovation and technology commercialization.

The ITCP program is based on the knowledge framework established by the APEC-Funding Project for 2017 under the heading of "Foster International Technology Transfer Professionals for the APEC STI Cooperation and Connectivity." The outcome document is the Handbook on Technology Commercialization Practices in APEC Economies. This handbook reflects the consensus of 21 APEC member economies, including the United States, Canada, Australia, Japan, the Republic of Korea, Russia, Malaysia, Thailand, Vietnam, Hong Kong of China, and Taiwan of China, and serves as an international knowledge system for technology transfer and a talent development framework. It also provides a reference for APEC member economies in formulating relevant policies and regulations concerning international technology transfer and technological innovation.



▲ Illustration of an ITCP course

Content Covers the Entire Service Process of Technology Commercialization

ITCP training content is comprehensive and in-depth, encompassing the entire process of technology commercialization. The curriculum includes multiple modules, such as an introduction to technology commercialization, key elements, traditional technology transfer practices, transitioning from innovation outcomes to technology licensing/startups, and market/societal engagement. Each module combines theoretical explanations with practical case studies to thoroughly analyze each aspect of technology transfer and commercialization. This approach helps participants gain a complete understanding of the entire service process involved in technology transfer, with the following specific characteristics:

Authoritative Instructor Team

The courses are taught by the Vice President of Georgia Tech and several authoritative instructors who possess both professional theoretical knowledge and practical teaching experience. They bring extensive industry experience and a strong academic background.

International Perspective

The course content keeps pace with the latest trends in international technology transfer and the commercialization of scientific and technological achievements, broadening participants' diverse innovation perspectives.

Integration of Theory and Practice

Through various methods such as theoretical lectures, quizzes, brainstorming sessions, and simulated exercises, participants not only master theoretical knowledge but also enhance their practical skills.

Certification

Participants who complete the training program and pass the examination will receive a certificate in "Innovation and Technology Commercialization Professionals" issued by Georgia Tech. This certification is linked to the national-level qualification certification for international technology transfer managers in China.

What You Will Learn

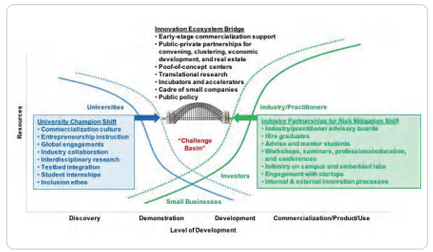
- Methods for creating more innovation and talent within an innovation ecosystem
- An approach to amplify the success of technology commercialization efforts
- A proven model for growing innovation ecosystems from nascence to maturity
- Strategies to foster increased cross-border commercialization collaborations

▲ ITCP Course Introduction

Based on the Innovation Ecosystem Constructed by Georgia Tech

Georgia Tech is a world-renowned public research university, often referred to alongside the Massachusetts Institute of Technology and California Institute of Technology as one of the top three technological universities in the United States. Established in 1885, Georgia Tech's founding was part of a plan to develop the Southern economy after the American Civil War. Innovation and technology commercialization have been integral to Georgia Tech since its inception, and it possesses strong capabilities in the commercialization of research results, as well as in promoting regional technological innovation and economic development.

The ITCP program, delivered through a digital teaching model, is a profound embodiment of the integration between talent development and the innovation ecosystem at Georgia Tech. Through world-leading scientific research and innovation, Georgia Tech continuously cultivates high-quality talent, exerting a broad and profound impact on students, schools, society, and economic development. As a world-class university, Georgia Tech ranks second among U.S. universities in terms of the return on investment in higher education, calculated based on costs, graduation rates, and post-graduate income, with a net investment return of US$824,000 over 20 years.



▲ Solutions provided by the ITCP course for the "Valley of Death" problem in technology transfer

JOJO Supports the Global Promotion of Children's Reading

▲ JOJO is an AI-driven digital content platform for children aged 3-12. Its diverse and interactive digital content formats lower the reading threshold, help foster children's interest in reading, and enable more children around the world to access high-quality reading resources, promoting the spread and advancement of children's reading

Applying institution

Chengdu Shusheng Technology Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

177 countries and regions such as China, the United States, Singapore and Japan

JOJO is an AI-driven digital content platform focused on providing engaging and effective content products for children worldwide. Centered around developmental milestones, it combines entertaining content and IPs to help kids explore and grow independently. The products include interactive digital content in areas such as reading, intellectual development, and aesthetic education, helping children build a comprehensive knowledge system.

Providing Chinese Learning Services to 177 Countries and Regions Worldwide

For 17 years, JOJO has served tens of millions of users through its Chinese version app "JOJO App"and international version "JOJOIN" covering 177 countries and regions and 469 cities in China. Using Chinese learning and reading as a bridge, it brings China's excellent historical culture and profound content to Chinese learners worldwide. It also localizes international books to promote bilateral cultural exchanges between China and the rest of the world.

JOJO owns over a thousand proprietary books covering such fields as history, culture, popular science, humanities, and children's literature. The original growth enlightenment picture book series, including Chicken JOJO's Growth Picture Books and Little Chicken Run, has been published in multiple languages, including English, Korean, and Thai, with a global circulation of over 20 million copies.

As the number of overseas users has grown, JOJO found that due to differences in Chinese exposure and cultural environment, content designed for local users is not fully suitable for children abroad. To address this, the R&D team has built on the JOJO App's engaging original content and scientific language grading system, making localized adjustments and redeveloping content. They have launched JOJOIN, a Chinese learning and reading product tailored for overseas children, to help them build a long-term interest in learning Chinese, improve their listening, speaking, reading, and writing skills, and share China's rich culture and stories with the world.

JOJO has also formed strategic partnerships with international education groups like Pearson, working together to provide Chinese children with professional, high-quality English reading content that offers a more global perspective. This helps Chinese children use English reading as a window to understand the world and learn about diverse cultures.

Based on its experience and massive data in the field of children's digital content, JOJO Research Institute focuses on children's cognitive development, child psychology and neuroscience, children's reading behavior, children's active learning ability, and the application of AI technology in children's content. It conducts cutting-edge research to promote the development of the global children's content industry. JOJO App was selected for the National Press and Publication Administration's Digital Publishing Boutique Selection Plan for its design concept, functional value, and innovative advantages, and has won multiple international awards, including the iF Design Award and the Gold Award of MUSE Creative and Design Awards.

▲ In April 2024, JOJO and Xinhua News Agency's Liaowang Institute jointly released research report on Chinese Children's reading ability at a seminar

▲ JOJO incorporates international classics such as Twenty Thousand Leagues Under the Sea and The Adventures of Sherlock Holmes into its graded reading products, providing users with reading resources that offer a global perspective and promote cultural exchanges

▲ JOJOIN, the international version of JOJOIN app, is a self-learning Chinese platform for global Children. It uses reading as a medium to teach engaging Chinese and bring outstanding Chinese culture to global Chinese learners

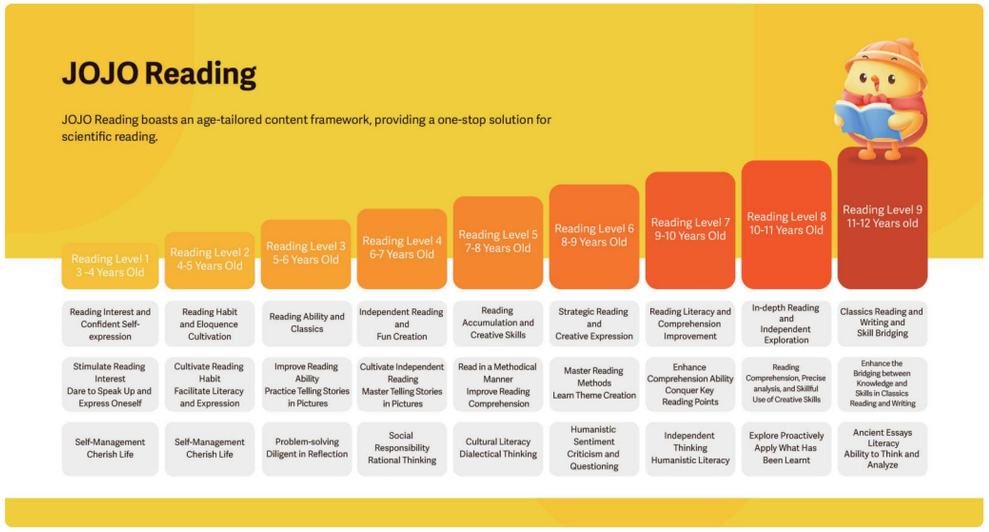
Innovating Children's Reading and Knowledge Acquisition Methods

JOJO is tailored for children aged 3-12. Based on the cognitive development, receptivity, and reading level of children of different ages, it provides scientifically graded reading plans with a spiral difficulty increase, solving the questions of what to read and how to read, offering a one-stop scientific reading solution.

JOJO transforms traditional one-way book outputs into interactive experiences, catering to the needs and stage-specific goals of children of different ages. It introduces incentive mechanisms in products to continuously provide positive reinforcement and spark reading interest.

Online interactive content uses NLP, CV and other technologies, combining animation, audio, video, and other diverse forms to connect children's visual, auditory, and tactile interactions, bringing learning content to life. Offline, through physical books, children's theater, and other forms, it provides interesting and effective products, creating a full-scene reading experience.

JOJO utilizes years of accumulated user behavioral big data and unique children's interest algorithms to produce content and continuously optimize and iterate from the perspective of children, creating a growth system suitable for global children's autonomous learning.



▲ JOJO's scientifically designed reading program offers 9 levels, tailored to Children aged 3-12 based on their individual reading abilities and cognitive development

▲ JOJO brings learning to life with immersive experiences that blend NLP, CV and interactive elements, seamlessly integrating visual, auditory, and tactile sensations

Promoting and Advancing Chinese Reading for Children Worldwide

JOJO has empowered 120 million users worldwide, facilitating over 200 billion words of reading in 2023.

JOJO's diverse interactive digital content forms can lower the threshold for reading, help children cultivate reading interest, break regional restrictions, allow more children to enjoy quality reading resources, and help parents solve the pain points of not having time to accompany or guide their children's reading. By producing carefully selected, high-quality, professional, and interesting digital content, JOJO helps children gain positive education and guidance. Through entertaining content presenting world culture, humanities, social sciences, and fables, it opens children's global perspective and reading interest.

At the age of 3, Yutong and her family relocated to Las Vegas, Nevada. Despite being in an environment with limited language exposure, Yutong's mother, Ms. Deng, placed great importance on developing Yutong's Chinese language skills. She hoped Yutong would fall in love with Chinese, enjoy reading, and learn about traditional Chinese culture. Using JOJO APP for Chinese reading and learning has become an essential part of Yutong's life. After several years of using JOJO APP, Yutong is quite fluent in Chinese expression, and very familiar with traditional cultural elements such as idiom stories, ancient poetry, the Three-Character Classic, and folklore.

JOJO actively fulfills its corporate social responsibility by investing 4 million yuan annually in its Reading Assistance Program to support economically disadvantaged users. Nuo Nuo from Guangxi began using JOJO at the age of 4 and has been a dedicated fan ever since, reading actively every day for three years. In 2023, Nuo Nuo's mother was unfortunately diagnosed with breast cancer, frequently requiring hospitalization and chemotherapy, which severely impacted the family's financial situation. When Nuo Nuo learned that her family could no longer afford to renew their JOJO subscription, she was heartbroken. Upon learning of Nuo Nuo's situation, JOJO provided fee reductions through the Reading Assistance Program, allowing Nuo Nuo to continue reading and learning with JOJO and gaining more knowledge and growth.

Additionally, JOJO continues to collaborate with governments, organizations, and media to promote global children's reading through various online and offline methods, including creating high-quality content, making charitable donations, and conducting reading promotion activities.

▲ JOJO actively fulfills its corporate social responsibility through extensive collaborations with governments, media, and organizations to promote and advance global children's reading. Pictured is the launch event of the "Children's Reading Power Program"initiated by JOJO and People's Daily Online

▲ JOJO's diverse interactive digital content lowers reading barriers, helps children develop a love for reading, and overcomes geographical barriers, allowing more children to access high-quality reading resources

"Dragon on Tour: Global Celebration of the Lunar New Year" Art Exhibition

▲ Art exhibition "Dragon on Tour: Global Celebration of the Lunar New Year"held at United Nations headquarters

Applying institution

Global Times Online

Other participating organizations

Permanent Mission of the People's Republic of China to the United Nations, UNSRC Chinese Book Club, Central Academy of Fine Arts, Honor Device Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

40 countries and regions such as China, the United States, the United Kingdom, and France

In 2023, the 78th session of the United Nations General Assembly unanimously adopted the resolution, officially designating the Lunar New Year as a UN floating holiday. To celebrate this milestone, the exhibition "Dragon on Tour: Global Celebration of the Lunar New Year" was held at UN Headquarters. Chinese dragon artworks by designers from 13 countries were showcased at UN Headquarters for the first time. The event drew participation from UN officials, diplomatic missions in China, and young artists around the world, and received a warm response, fostering the integration of diverse cultures.

Chemical Reaction Between Chinese Dragon and World Cultures

The opening ceremony of the "Dragon on Tour: Global Celebration of the Lunar New Year" themed exhibition was held on February 8, 2024. During the Lunar New Year Gala of the UNSRC Chinese Book Club. Mr. Zhang Jun, China's former Permanent Representative to the UN, personally endorsed the event and briefed on the cultural essence of the Chinese Dragon to over 300 UN staff members and journalists. This event saw participation from more than 240 universities and 40 countries and regions across four continents, including the United Arab Emirates, Malaysia, Singapore, Egypt, France, Greece, Italy, the United Kingdom, Mexico, Peru, etc. It provided a platform for young artists around the world, encouraging original art creations. Notably, this was the first time that China invited global designers to the UN to present how the Chinese Dragon can be integrated with world cultures.

▲ Selected works of the exhibition "Dragon on Tour: Global Celebration of the Lunar New Year"

Big Names Invited to Enjoy Cultural Feast

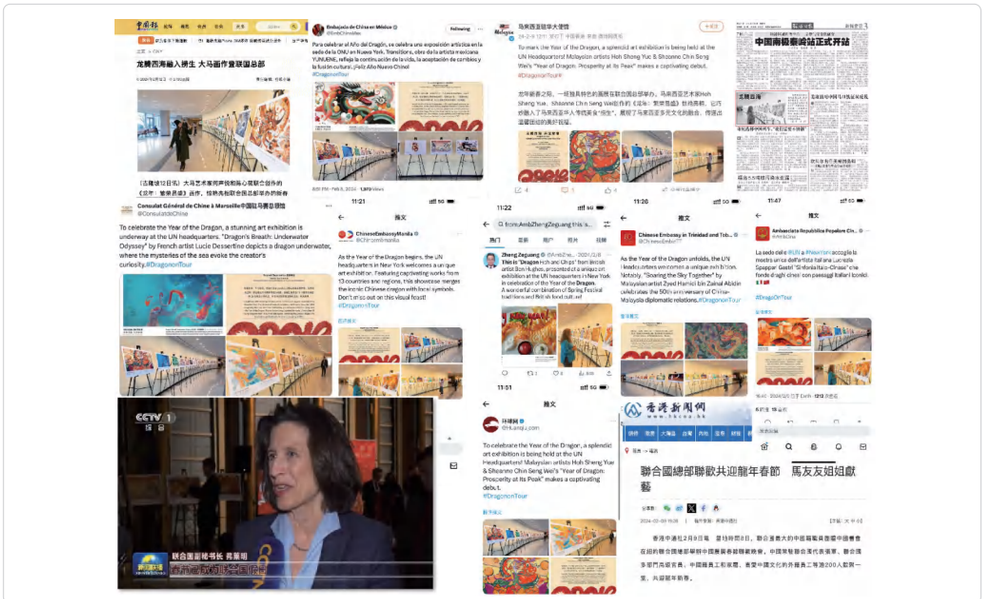
Mr. Zhang Jun, China's former Permanent Representative to the UN, along with UN officials including Mr. Li Junhua, Under-Secretary-General for Economic and Social Affairs; Movses Abelian, Under-Secretary-General for General Assembly and Conference Management; Melissa Fleming, Under-Secretary-General for Global Communications; and Mr. Xu Haoliang, Under-Secretary-General and Associate Administrator of the United Nations Development Programme, were invited to attend the event. Speaking highly of the creative integration of Chinese and global cultures depicted in the artworks, they hoped to draw inspiration from the Chinese dragon's positive image, promote UN values through passion, courage, and knowledge and drive global development and progress with the spirit of the Chinese dragon. Mr. Zhang described the exhibition as "topical, substantive, and culturally rich." Additionally, the event also invited prominent international art figures, such as renowned cross-media creators, honorary members of the Royal Society of Arts, and pioneering AR artists from Mexico. Their participation further vigorously promoted the event and expanded the horizons and depth of international art and cultural exchanges.

▲ UN senior officials attend the opening ceremony of "Dragon on Tour: Global Celebration of the Lunar New Year" exhibition

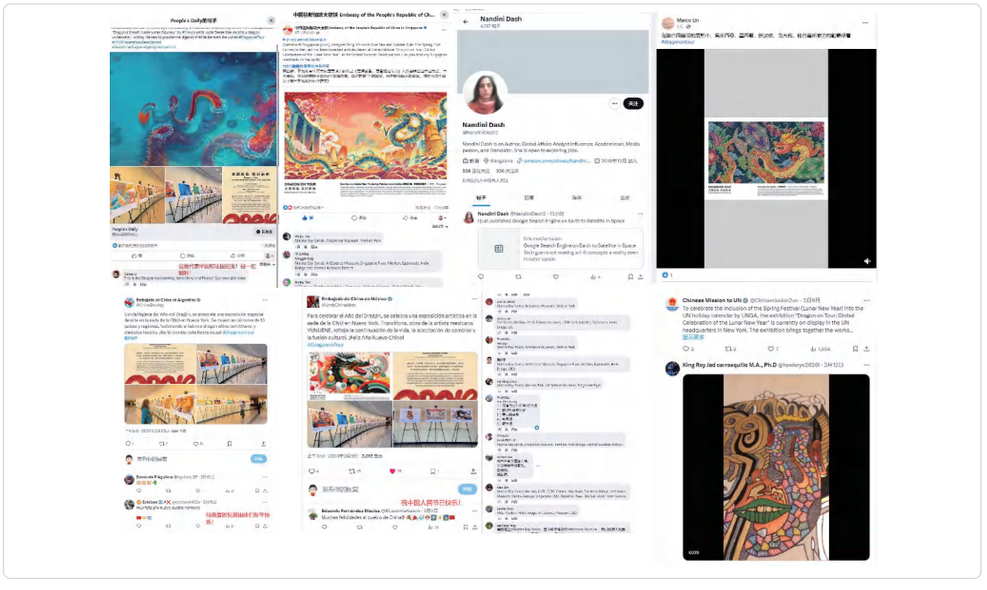
Mr. Zhang Jun, China's former permanent representative to the UN, and Melissa Flemming, under-secretary-general for global communications, visit the exhibition

Leveraging Diverse Resources to Achieve High-Impact Dissemination

This event, which drew participation from various sectors to amplify its impact, was not only covered by main stream media, but also became phenomenal on social media platforms. Over ten Chinese embassies and consulates posted relevant stories on social media platforms such as X, Instagram, Facebook, Weibo, and Douyin (TikTok application for China), including the Permanent Mission of China to the UN and the Chinese Embassy in the Philippines, as well as the Malaysian Embassy in China. Multiple media outlets, including People's Daily, CCTV News, Global Times, Hong Kong China News Agency, and Malaysia's China Press, released multiple reports on the event. The event garnered a total of over 100 million views. The exhibition also had a digital twin version in the virtual space, allowing people around the world to appreciate the creative artworks without leaving home. It drew wide participation from global netizens who expressed their hopes for a closer people-to-people bonds among nations. Through diverse communication channels, the event advanced cultural exchanges and mutual understanding across nations, contributing to the building of a community with a shared future in cyberspace.



Screenshots of global media coverage



Lunar New Year wishes from global netizens

"Youth Creations on Shared Prosperit"Contest

▲ "Youth Creations on Shared Prosperity" Contest

Applying institution

Contemporary World Magazine under the International Department of the CPC Central Committee

Other participating organizations

Centre for International Exchanges of the International Department of the CPC Central Committee, ChinaSo.com, Guangxi University

Countries and Regions Covered or Involved in the Implementation

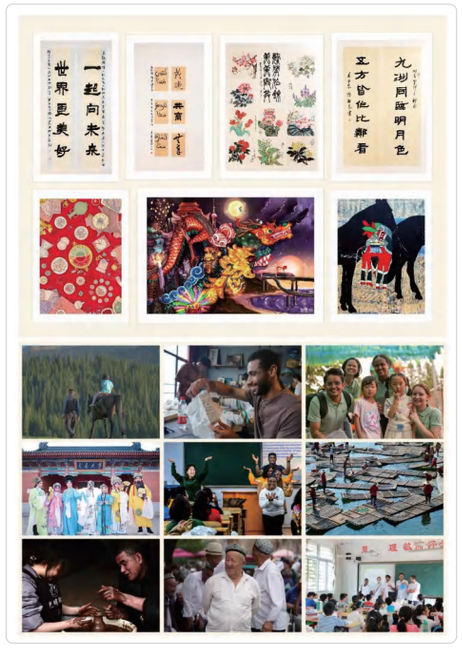
65 countries and regions such as Argentina, Egypt, Germany, Russia, Malaysia, United States, Nigeria and New Zealand

From April 2023 to May 2024, the Contemporary World Magazine under the International Department of the CPC Central Committee, in collaboration with the Centre for International Exchanges of the International Department of the CPC Central Committee, ChinaSo.com, and Guangxi University, held the "Youth Creations on Shared Prosperity"Contest. This initiative aimed to deepen people-to-people exchanges, promote mutual learning among civilizations, highlight the contemporary value and global significance of the Global Civilization Initiative, and create a platform for international exchanges for Generation Z.

Inclusiveness, Mutual Learning, and Harmonious Coexistence

On the 10th anniversary of the vision of building a community with a shared future for mankind and its practice, the "Youth Creations on Shared Prosperity"Contest collected essays, paintings, calligraphy works, carved seals, photos and the stories behind them from young people around the world, particularly Generation Z. The contest aimed to promote the Global Civilization Initiative, enhance mutual learning among civilizations, and strengthen people-to-people bonds. The event received 5,018 pieces of works from the young people among 65 countries, showcasing their deep understanding of a shared future for mankind, friendship, and the brilliance of mutual learning among civilizations.

The entries are presented in a flexible and varied manner. Some use written records to document the gratifying changes brought by the Belt and Road Initiative to the lives of people in participating countries. Others feature exquisite paintings that vividly depict the rapid development enabled by China's path to modernization. There are also colorful photos capturing the vibrant experience of traditional Chinese culture, showcasing the beauty of civilizational integration. Additionally, some entries combine native scripts with Chinese characters in magnificent works of calligraphy and seal carving.



▲ Some of award-winning works from "Youth Creations on Shared Prosperity" Contest

▲ The scene of the"Youth Creations on Shared Prosperity"Contest

The Vitality of Youth Enhances the Beauty of Mutual Learning Among Civilizations and Reinforces the Foundation of People-to-People Connections

To further establish an online cultural exchange and sharing platform, the organizers held a digital exhibition of the award-winning works from the "Youth Creations on Shared Prosperity"Contest. For instance, Iyoana from Kazakhstan created a digital painting titled Intersection on the Silk Road, which artistically depicts a scene of spices, food, and books. Another example is the series The Belt and Road for Beauty, co-created by Malaysian and Vietnamese students, which showcases the beautiful national flowers of Belt and Road Initiative countries in the style of Chinese paintings. These award-winning works have been rapidly disseminated internationally through online exhibitions and platforms, promoting the prosperity of internet culture, showcasing the beliefs advocated by Chinese culture that all peoples are one family, and highlighting the contemporary spirit of"harmonious coexistence"in a community with a shared future for mankind.

On May 7, 2024, a youth exchange activity themed "Harmony for Shared Prosperity"was held in Beijing by the Contemporary World Magazine under the International Department of the CPC Central Committee. The event included the exhibition of outstanding works from the"Youth Creations on Shared Prosperity"Contest, the awards ceremony, and a youth talent show. Liu Jianchao, Minister of the International Department of the CPC Central Committee, attended and addressed the event. Mr. Djauhari Oratmangun, Indonesian Ambassador to China, and Mr. Norman Bin Muhamad, Malaysian Ambassador to China, also delivered speeches. Nearly 200 people attended the event, including representatives from government departments, Chinese universities, and international students studying in China.

This event focuses on inspiring the initiative, enthusiasm, and creativity of young people worldwide to tell the story of jointly building a community with a shared future for mankind and the story of China. The large-scale, high-quality"static"exhibition of award-winning works complements the brilliant "dynamic" talent show on site. Chinese and foreign youth performed various programs, including a multilingual recitation of the poem Talk on Civilization Across Time and Space, an instrumental ensemble Four Seasons - Spring, and a martial arts show Wuyun (Lasting charm of Wushu), showcasing the vitality and charm of different cultures coexisting. The audience responded with laughter and applause throughout the event. Earlier, guests and young participants signed their names on the main backdrop, forming the four Chinese characters of the event's theme "Harmony for Shared Prosperity," alongside the beautiful vision of "Walking Together for Greater Success."

Photos of the youth exchange: Harmony for Shared Prosperity

Chinese and foreign guests signing their names on the theme board

Youth Shines Amid Mutual Learning Between Civilizations

In the new communication landscape shaped by technological revolution and media evolution, Generation Z, with their distinctive personalities and broad interests, places a high value on mental experiences, embraces diverse values, and possesses strong capacity for self-expression. They are a crucial part of building a community with a shared future in cyberspace. The"Youth Creations on Shared Prosperity"Contest and the Youth Exchange: Harmony for Shared Prosperity are innovative and beneficial attempts to promote the Global Civilization Initiative. These activities deepen Generation Z's understanding and recognition of the initiative, expand the circle of those involved in building a community with a shared future for mankind, and provide an important platform for Generation Z to showcase their talents and creativity, gather their passions and dreams, and enhance communication and understanding.

The event was covered by Chinese official media such as People's Daily and Xinhua News Agency. Nearly 1,000 media outlets and portals, including the Associated Press and Yahoo Finance, also forwarded the news. The participating young people around the world expressed their commitment to upholding the diversity of world civilizations, acting as bridges to promote the shared prosperity and integration of different civilizations, and contributing their youthful energy to the development of world civilizations and the co-building of a community with a shared future for mankind.

▲ Nearly 1,000 international media outlets covered the event. The young participants took photos and tweeted about it, sparking a wave of spontaneous publicity

▲ Group photo

"Nihao! China" Lantern Festival 24-Hour Live Global Broadcast

▲ Poster of "Nihao! China"Lantern Festival 24-Hour Live Global Broadcast

Applying institution

China Daily Website

Other participating organizations

Department of Culture and Tourism of Heilongjiang Province, Department of Culture and Tourism of Jiangsu Province, Department of Culture and Tourism of Sichuan Province, Harbin Municipal Bureau of Culture, Radio, Television and Tourism, Nanjing Municipal Bureau of Culture and Tourism, Zigong Municipal Bureau of Culture, Radio, Television and Tourism

Countries and Regions Covered or Involved in the Implementation

50 countries and regions such as The United States, France, Hungary, Italy, the United Kingdom, Germany, Australia, and Singapore

The Lantern Festival is one of the most important traditional festivals in China, symbolizing beauty, wholeness, prosperity and romance. It contains cultural values that can resonate with people all over the world. In February 2024, the China Daily Website organized the "Nihao! China"Lantern Festival 24-Hour Live Global Broadcast, using Chinese festive lanterns as a medium to spread the beauty of traditional Chinese culture and tell stories of Chinese culture vividly to showcase a real, three-dimensional and comprehensive China.

Cities in the World Connected Online to Share Magnificent Scenes of Lanterns

In recent years, "Chinese Lantern Festival"has lit up many cities, connected with many local cultures and is widely loved by audiences around the globe. In this 24-hour live global broadcast, foreign hosts and guests from the United Kingdom, the United States, Australia, France, Hungary and Italy embarked on a captivating journey through radiant displays of lanterns in six cities from both China and abroad: Harbin Ice and Snow World, Zigong Lantern Festival, Qinhuai Lantern Festival, Yuyuan Garden Lantern Festival in Paris, France, Year of the Dragon Lantern Festival in Hungary and International Lantern Festival"Lanternia"in Italy. From cultural and tourism perspectives and using a more creative and internationalized media language and communication methods, the live broadcast led global netizens to cross the boundaries of time and space to experience spectacles of light and shadow that integrated tradition and modernity. Audiences had the opportunity to immerse themselves in colorful and festive activities, such as lantern shows, games and performances. On-site and impromptu interviews were conducted during the live broadcast to showcase a vibrant and lively China and display universal longing for a better future.

▲ Live broadcast scenes at three international venues

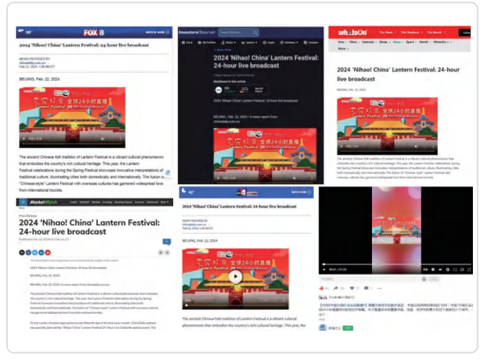
▲ Live broadcast scenes at three venues in China

Working Together to Stimulate"New Vitality"in International Communication

This event showcases remarkable creativity by engaging with a diverse range of individuals and media outlets, creating a comprehensive network for communication. The event hosted a global online lantern festival through live streaming, discussions, interactions, reposted reports, and short videos.

The inclusion of foreign guests, renowned hosts, and media figures not only enriched the event's content but also provided a broader international perspective and enhanced opportunities for cultural exchanges. The event was broadcast on 33 international media platforms, including the China Daily Website (Chinadaily.com.cn), the English version of ChinaCulture.org, as well as popular social media platforms like Weibo, Douyin (TikTok application for China), Facebook and YouTube. Interactive topics such as "One Lantern, One World" and "Nihao! China"Lantern Festival were launched on social media platforms to encourage a global audience participation through diverse live broadcasts and interactive methods.

Throughout the event promotion, support from local cultural and tourism authorities, alongside cultural enterprises, was instrumental. The collaboration between official accounts and public participation facilitated the widespread dissemination of the event. Over 380 international media websites and more than 20 Chinese overseas institutions covered the event, significantly amplifying its international impact and fostering deeper cultural exchanges between China and the global community.

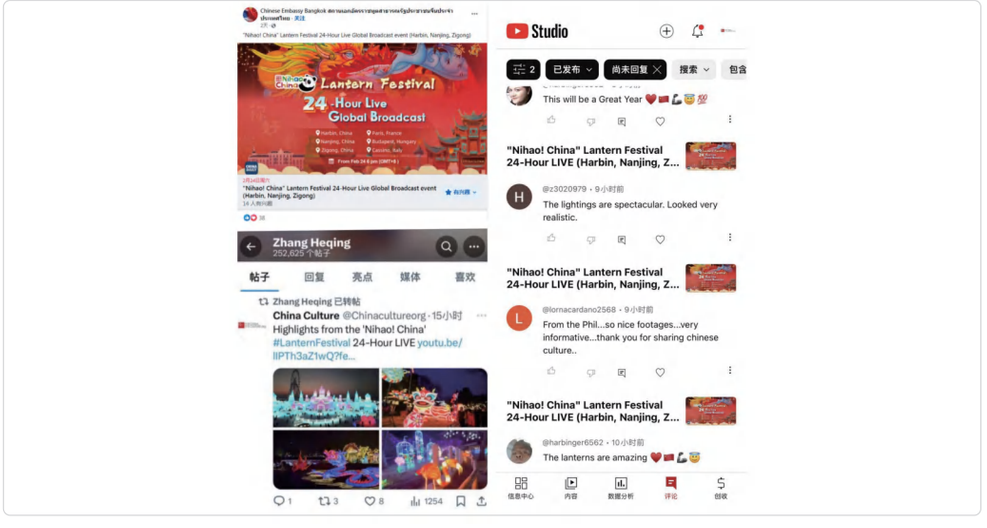


▲ International media websites covered and reposted the event

▲ The Event was broadcast on China Daily's multimedia platforms

Promoting Cultural Exchanges and Mutual Appreciation of Civilizations

Real-time viewership of the live broadcast and readership of topics related to the topics "Nihao! China"Lantern Festival and"One Lantern, One World" exceeded 57 million on the internet as a whole, and real-time interaction volume both at home and abroad exceeded 5.5 million, covering a global audience of more than 170 million. The event utilized the Lantern Festival as a cultural identity to promote the innovative development of urban cultural tourism through Harbin Ice and Snow World, Qinhuai Lantern Festival and Zigong Lantern Festival. Furthermore, combined with the display of Chinese lanterns in France, Italy and Hungary, the broadcast showcased the new vitality stimulated across the globe as Chinese culture goes abroad. The event was both local and global and witnessed the communication and exchanges of Chinese and Western cultures. It built bridges of understanding and respect among different cultures and promoted communication and exchanges between China and the rest of the world. Netizens from France, Hungary, Bulgaria, Italy, the United States, Argentina, Thailand, Pakistan, Tajikistan, Iraq and other parts of the world sent their Lantern Festival wishes during the live broadcast. Many likes and messages were left, including "China's ancient Lantern Festival folk traditions reflect the country's rich cultural heritage," "Peace and Prosperity," "It's so beautiful. It's really a great visual feast!"and"Wonderful atmosphere! Wish I could visit China."



▲ The live event has generated a strong response on international social media, receiving praise from foreign embassies, diplomats, and netizens around the world

"Sanxingdui × Games" Cross-boundary Integrated Innovation Platform

▲ "Sanxingdui × Games"

Applying institution

Sichuan International Communication Center

Other participating organizations

Shanghai miHoYo Phantom Iron Technology Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

27 countries and regions such as China, Japan, South Korea, the United States, the United Kingdom, and the Philippines

To enhance Sanxingdui's global influence as well as the creative expression and the innovative communication of Chinese culture, Sichuan International Communication Center (SICC) has integrated Sanxingdui into popular games. This initiative aims to create content ecology, explore innovative routes for international cyberspace cooperation of "Sanxingdui × Games," and develop an innovative communication approach targeting global Generation Z.

Strengthening Global Cyberspace Cooperation and Establishing a New Content Ecology Platform Featuring "Chinese Culture × Games"

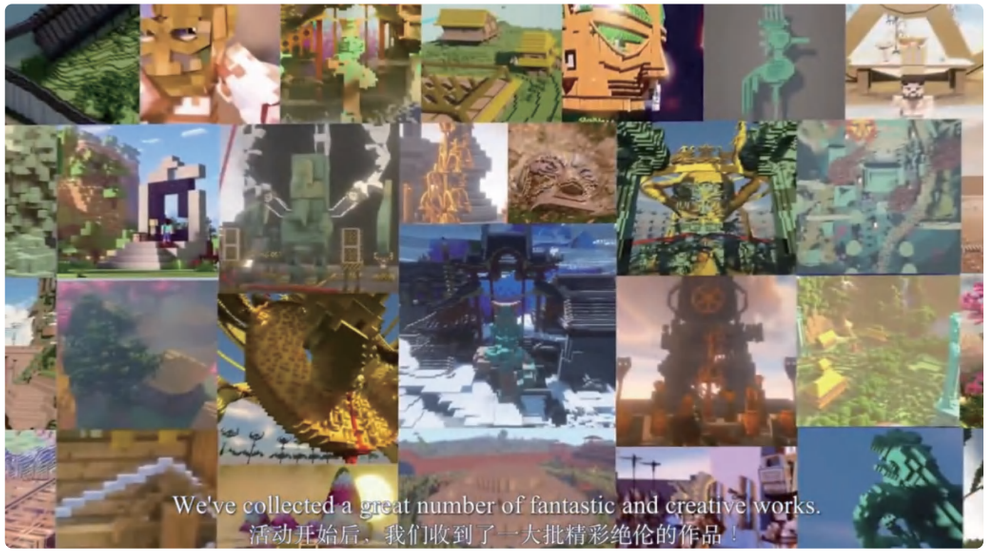
In early 2023, SICC held the "Let's Pixelate It! Sanxingdui Player Activity" youth exhibition and screening collection activity focusing on Sanxingdui and targeting global Generation Z. Global "Minecraft"fans formed 20 teams to create pixel art scenes themed around Sanxingdui. On December 8, 2023, SICC launched the "Genshin Impact ×Sanxingdui"event in collaboration with the renowned mobile game "Genshin Impact." By injecting Sanxingdui elements into the game, it transcends traditional gaming boundaries. This collaboration reaches 50 million monthly active users across over 27 countries and regions, allowing over 70% of the world's "Genshin Impact" players to access Sanxingdui-related props. Making use of the game's influence, it showcases Sanxingdui's history, culture, and charm to global audiences through narration. SICC aims to continuously attract more games and Chinese cultural IPs for global collaborations through a platform built on this successful model.

▲ "The Let's Pixelate It! Sanxingdui Player Activity"

Collaboration between Sanxingdui and Genshin Impact incorporates game characters in animation scenes about Sanxingdui

Expanding the Communication Carrier of Cyber-space and Creating a New Model for the Global Exchanges of Chinese Culture

This case utilizes innovative ideas to capture global hotspots and affect global Generation Z. The combination of traditional culture and games taps into the potential of game lovers and sets up a new model of "games + content ecology." On social media platforms such as Reddit, Discord, and YouTube community, it utilizes the triple circle of influence: "individuals + KOLs + organizations" to effectively interact with Generation Z. Additionally, ecological innovation is evident in the simultaneous advancement of online and offline realms, driven by PGC and UGC. Through topic and event marketing, global internet users are encouraged to create works, contributing to a global, youthful, and highly interactive Chinese narrative. Simultaneous advancement examples include the Sanxingdui Q&A released in cooperation with the Consulate-General of the People's Republic of China in Osaka, the flash mob by Filipino performance artists, and popular event dissemination led by famous internet celebrities. To adapt to global Generation Z's online communities and discourse systems, SICC has created successful samples of Sanxingdui's global dissemination through model innovation, expanding the channels of Chinese cultural transmission. After integrating game resources, we are inviting more games to join the platform, offering mature samples and channels for raising the global profile of Chinese culture and the games.



Entries integrating Sanxingdui with popular games

Sangxingdui Q&A released in cooperation with the Chinese consul general in Osaka

Building a Platform to Integrate Resources and Utilizing Innovation to Foster the Exchanges and Mutual Learning among Civilizations

The Sanxingdui international communication ecology platform targeting Generation Z continues to invite various game IPs, aiming at introducing traditional Chinese culture represented by Sanxingdui to the world through integrating Chinese culture with each game's specific content needs and making use of international cyberspace cooperation. In the above two cases, the content's global traffic exceeded 300 million, network exposure exceeded 1 billion, and the number of global live-streaming views reached over 15 million.Mr. Xue Jian, the Chinese Consul General in Osaka, Japan, invited Japanese internet users to interact for cooperative cultural and creative products, and the Chinese Consul General in Pakistan and other public figures liked and shared the post on X (Twitter), further boosting Sanxingdui's global popularity. Many internet users have voluntarily become ambassadors for Chinese culture, creating thousands of UGC works which have received over 10.73 million online views and over 670,000 interactions. These works inspired by Sanxingdui, Genshin Impact, and Zhongli are cultivating the exchanges and mutual learning between Chinese culture and global civilizations in diverse forms.

▲ Mr. Xue Jian, the Chinese consul general in Osaka, Japan, invited Japanese internet users to interact for cooperative cultural and creative products

▲ Plenty of global internet users have shown their huge interest in the collaboration between Genshin Impact and Sanxingdui

Digital Central Axis: Innovative Practices in the Digitization of Beijing Central Axis Cultural Heritage

▲ "Digital Central Axis" effectively supporting the world heritage nomination and conservation of Beijing Central Axis

Applying institution

Beijing Municipal Cultural Heritage Bureau,Tencent Technology (Beijing) Co. Ltd.,Capital Normal University,Beijing Institute of Surveying and Mapping ,Beijing WM Culture & Technology Co., Ltd. ,Geo-Compass Information Technology Co., Ltd.,Jing Rui Wen (Beijing) Culture Technology Co., Ltd.,China Mobile Communications Group Beijing Co., Ltd.,Wormhole Innovation,BlueFocus Communication Group, Beijing Municipal Conservation Office for the Cultural Property of the Bell and Drum Towers

Countries and Regions Covered or Involved in the Implementation

34 countries and regions such as China, Australia, Canada, New Zealand, France, Germany, Japan, and the United States

Beijing Central Axis is a World Cultural Heritage site, serving as a critical medium for the world to understand and appreciate China's history and culture. Beijing Municipal Cultural Heritage Bureau has developed the "Digital Central Axis"matrix using virtual engines and other internet technologies. This innovative approach has achieved groundbreaking results in the digitization of complex heritage sites, effectively supporting the World Heritage nomination and conservation of Beijing Central Axis.

Practicing Concept of World Heritage Conservation and Strengthening International Exchanges

Beijing Municipal Cultural Heritage Bureau, in collaboration with Tencent, launched the "Digital Central Axis"initiative, working with teams such as Beijing Institute of Surveying and Mapping. Using virtual engines, artificial intelligence-generated content (AIGC), and other internet technologies, we introduced a series of events like "Digital Watchmen" and "Magical Night on the Central Axis" to enhance international exchanges and cultural promotion, making Beijing Central Axis more appealing on the global stage.

Among them, the "Digital Watchmen" initiative leverages digital internet advantages, aligns with global public trends, and actively practices the concept of World Heritage conservation and the 5Cs strategic objectives. It has trained 24,918 volunteers, completed 53,822 inspection records, and submitted 110,248 inspection images. The Competition for the Transmission and Promotion of Beijing Central Axis has attracted over 400,000 participants from more than 30 countries and regions, becoming a "golden calling card"for cultural exchanges and mutual learning.

Additionally, Beijing Municipal Cultural Heritage Bureau, in collaboration with multiple partners, developed the "Beijing Swift" digital IP, which was featured by international editions of media outlets like People's Daily, reaching 160 million overseas fans and showcasing a credible, amiable and admirable image of China to the world. The bilingual official website for Beijing Central Axis has become a key platform for communication, with over 260,000 visits to date.

▲ The "Magical Night on the Central Axis" immersive VR experience project featuring virtual wonder of "Thousands of Dragons Spouting Water"

Strengthening Cultural Heritage Capacity Building with Focus on Digital Model Innovation

Through the "Digital Central Axis"series, Beijing Central Axis is pioneering new approaches to cultural heritage conservation by innovating various models.

First, we have introduced the "digitalization + sustainability"development model. By using IoT sensors to collect heritage monitoring data, we are advancing the concept of the Internet of Everything and Cloud Integration for heritage conservation and management. We have pioneered a"Sustainable Development"monitoring module.

Second, we have fostered the "public engagement + professional expertise"integration model. We have established China's first mechanism for public participation in cultural heritage conservation and a volunteer system for cultural heritage conservation. Through the "Cloud Central Axis" mini-program, we have created a new paradigm for heritage conservation through an innovative "online + offline"mechanism for cultural heritage popularization and inspection.

Third, we have developed the"resources sharing + public benefit"operational model. We have established the Beijing Central Axis Digital Resource Library and the Specialized Fund for Central Axis Digitalization to promote the efficient circulation and revitalization of digital assets, establishing a virtuous cycle from resources sharing to public benefit. Immersive digital experience products such as "Microcosm," "Time and Space Capsule," and "Magical Night on the Central Axis"have been launched or exhibited, and are expected to create a new wave of digital experiences.

"Cloud Central Axis" mini-program page display

"Digital Central Axis – Microcosm"digital asset screenshot

Cultivating New Business Forms of Cultural Heritage and Exploring New Pathways for New Quality Productive Forces in the Cultural Heritage and Museum Sector

The implementation of the "Digital Central Axis"series has generated several key outcomes:

First, it promotes sustainable urban development. Guided by the World Heritage nomination and conservation of Beijing Central Axis, we are advancing the overall conservation and revitalization of the old city of Beijing, which includes restoring the historical appearance of the old city, improving the community living environment, revitalizing historical and cultural resources, activating tourism and new forms of cultural and creative industries, and enhancing citizens'sense of gain from culture.

Second, it ignites new urban dynamics. Heritage sites such as Beijing Bell and Drum Towers provide rich cultural experiences for local residents and stakeholders through activities like intangible cultural heritage fairs, season-themed festivals, and the New Year's bell-ringing ceremony during traditional festivals, key dates, and events like International Museum Day. These activities enrich the intellectual and cultural lives of residents and create a strong cultural atmosphere.

Third, it creates new pathways for new quality productive forces. By leveraging VR exhibitions and other revitalization initiatives, we explore converting cultural heritage resources into cultural digital assets and processing them into cultural consumer products. This enriches the cultural consumption market, effectively cultivates new forms of metaverse cultural tourism, and promotes innovative development in the cultural industry.

▲ Developing a spatial data foundation to recreate majestic Central Axis by using real-world 3D technology

Kid Witness News

▲ Kid Witness News

Applying institution

Panasonic Holdings Corporation

Countries and Regions Covered or Involved in the Implementation

9 countries and regions such as China, Japan, Philippines, Vietnam, Cambodia, Malaysia, the United States, Brazil, and Indonesia

At Panasonic, we work each day to enrich people's lives and help move society forward. Through the Kid Witness News (KWN) program, Panasonic continues to help cultivate children's social awareness. The concept for these activities is "The World Through Their Eyes." The program seeks to sharpen the EYES through which Kid Journalists view their society.

Inspire the Creativity of Children Wordlwide Through Video Production

KWN is a global video education program supported by Panasonic, with the aim of boosting creativity and communication skills and fostering teamwork through video production by children at the elementary, junior high, and senior high school levels.
The program was launched by Panasonic in the United States in 1989 and is now expanding globally. Support is provided for activities to schools wishing to participate, and children take the lead in producing films based on the theme of the Sustainable Development Goals (SDGs).
A total of 180,000 students and instructors have participated globally, producing over 10,000 works.

▲ "KWN" website

Provide Opportunities and Platforms for Sharing Activities on a Global Scale

Children all over the world give a message to the world though their video production. Their videos and activities are shown on the website, as well as via Facebook and YouTube. KWN communicates various activities in addition to video productions, including global summits and workshops (voluntary participation).This gives participants the opportunities to share their activities globally.

After the best productions are selected in each country, a global contest is held. Awards are given at the Global Summit. Students and children from schools around the world selected for their outstanding work engage in cross-country exchanges. This event is held once a year through a live online session.

For the 2023 event, over 3,000 children from 200 teams from nine countries around the world, including Brazil, China, Cambodia, Indonesia, Japan, the United States, and Vietnam, took part in the video production project. (India and the Philippines participated as observers.)

The 2023 Global Summit was held as "KWN Day," 100 minutes of which was streamed to a studio in Tokyo and the world via the Internet as a"place to deepen exchanges by learning about different cultures"and"a place to deepen people's awareness of global social issues." An action plan for the SDGs in 2024 will be presented by each country and an exchange of opinions will take place. These plans will then be compiled and a joint declaration will be adopted. The aim is for participating members to positively translate these plans into action as leaders in their own countries.

▲ KWN Global Summit 2023

Contributing Educational Support and Growth for Children Around the World

KWN cultivates talent for the future, with a focus on developing children's skills. Children can expect to develop capabilities such as social awareness, teamwork and role sharing, communication skills, and future-planning skills by producing videos independently.

KWN broadens children's international perspective and actively supports exchanges between participating schools. In addition to meeting up at the Global Summit, Internet-based exchange programs are also available. Interacting with peers around the world helps children come into contact with diverse values and expands their horizons.

▲ Children from various countries are engaging in communication and interaction with each other

China Online Theater: Building a Network Reaching to the World with Multilingual Audiovisual China Content

China Online Theater

Applying institution

International Cooperation Department, China's National Radio and Television Administration

国家广播电视总局
National Radio and Television Administration

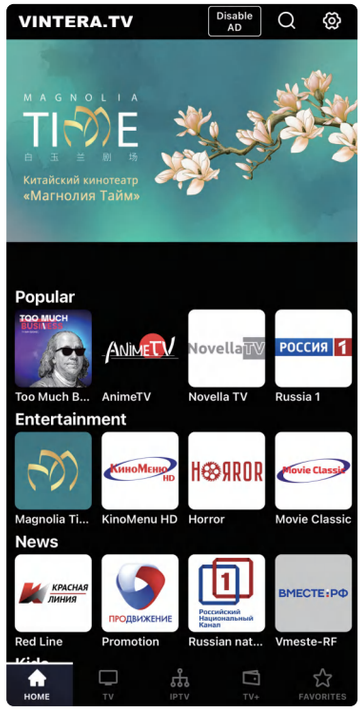
Countries and Regions Covered or Involved in the Implementation

100 countries and regions such as Russia, Thailand, Vietnam, and the Middle East

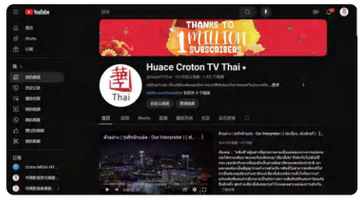
Adapting to the development of international communication in audiovisual new media, China's National Radio and Television Administration (NRTA) carried out the work of China Online Theater on new media platforms at home and abroad, and on the basis of China TV Theater. It's yet another bid to tell stories of China, and of friendship with other countries, and to promote the common values of humanity.

Coordinating the Planning of International Cooperation to Gradually Evolve a Global Multilingual Communication Platform of New Media

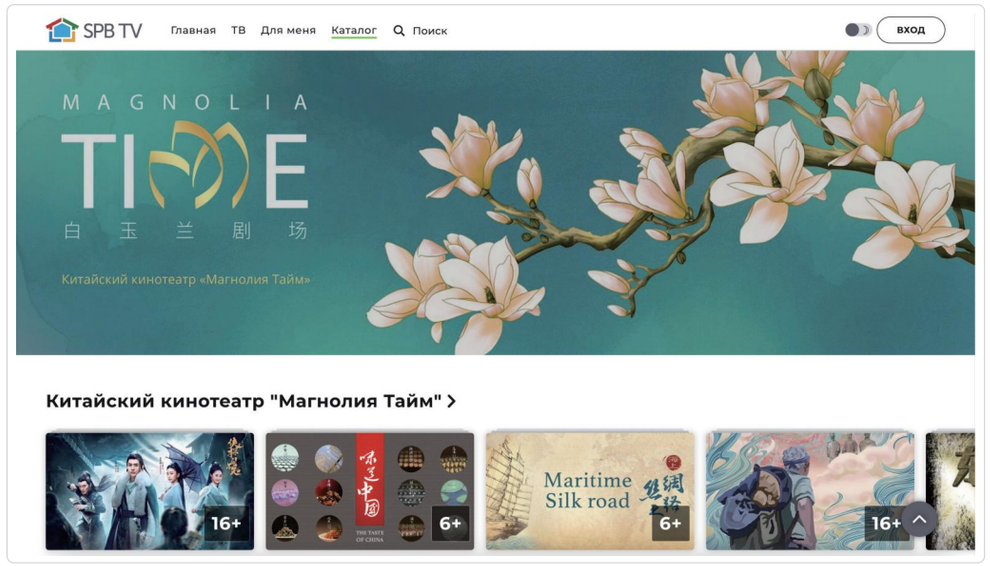
Coordinated by NRTA, China Online Theater is entrusted to different entities for implementation. By cooperating with foreign audiovisual new media platforms, it streams localized translated versions of selected Chinese audiovisual content in fixed columns, and in designated sections of online platforms. To date, over 30 China Online Theaters have been established, covering more than ten languages including English, Russian, Arabic, and Spanish, and reaching over a hundred countries and regions. For example, "China TV Theater Section"on the SHAHID online platform of the Middle East Broadcasting Center (MBC), "Magnolia Time"on the dual platforms of Russia's SPB TV and Vintera TV, and "Panda Theater" on the Russian OKKO video platform and the BeelineTV mobile phone application. In addition, Huace Film & TV Group built the global video channel "Huace Branded Channel," Jiangsu Broadcasting Corporation and Television and PCCW of Hong Kong created "now jelli." These two channels have realized regular streaming and become important components of China Online Theater.



Homepage of Russian Vintera TV mobile app "Magnolia Time"



Huace Film & TV Group's Thai version of "Hua Theater"on YouTube



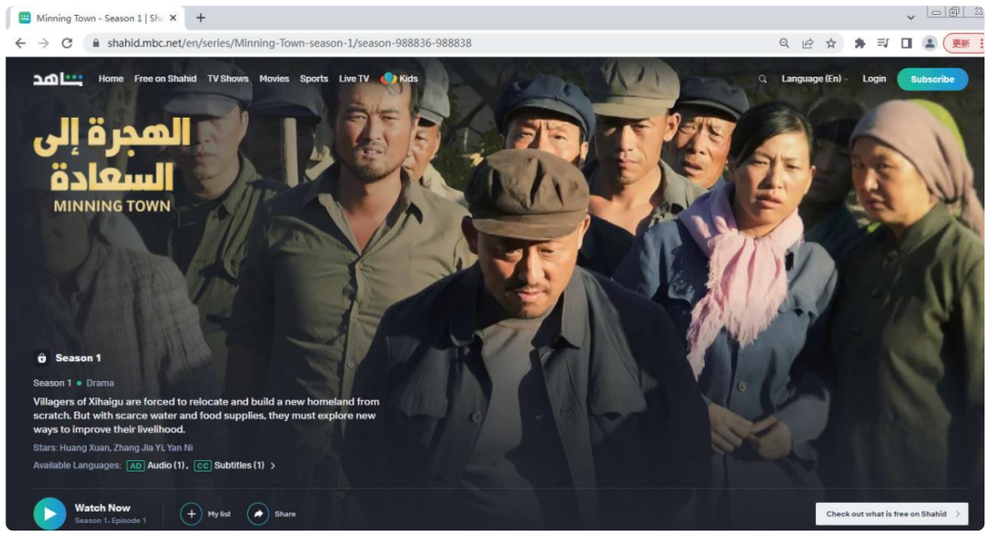
Homepage of Russian SPB TV platform "Magnolia Time"

Effectively Matching Content Supply with Demand and Exploring a New Pattern of Sustainable Development with the Participation of Multiple Kinds of Media Entities

NRTA gathers the strength of enterprises, promotes innovation in cooperation and communication, encourages and supports the participation and efforts of multiple kinds of entities such as television stations, new media platforms, and film and television production companies, continuously promotes the supply of high-quality content, and explores more sustainable commercial paths for the development of China Online Theater. NRTA and the National Health Commission of the People's Republic of China jointly planned and directed the creation of Welcome to Milele to commemorate the 60th anniversary of China dispatching its first medical aid team abroad.The TV drama was jointly produced by Perfect World Pictures, Chunyu Film and Television Culture Co., Ltd., Migu Video, Youku Video, etc.

The Swahili-dubbed version was broadcasted on channels such as ST Swahili on StarTimes Tanzanian language channel and Azam TV network platform in Africa. At the same time, by establishing language-specific pools for audio-video content translated from Chinese language originals, NRTA has been trying to match the demand for content from China with supply of high-quality product. Great efforts have been made to delve into the fine cultural traditions, and seek resonance between Chinese and foreign emotions and values. Some productions were selected such as Three-Body, Minning Town and To the Wonder. NRTA deployed the availability of the copyrights, and translation and dubbing of these productions. They have all achieved acclaims from the overseas audience.

Swahili-dubbed version of Welcome to Milele



The SHAHID platform of the Middle East Broadcasting Center broadcasts the Arabic Version of Minning Town

China Online Theater Has Become an Important Bridge for Exchange, Cooperation and Mutual Learning in the Field of Radio and Television and Audiovisual Media Between China and the Rest of the World

China Online Theater such as "Magnolia Time"and "Panda Theater"accurately targets overseas audiences and market demands. By planning activities such as Chinese Audiovisual Content Exhibition Month, the "Magnolia Time"Forum, and the Chinese Programs Dubbing Contest, China Online Theater aims to present in a diversified style an image of China that is trustworthy, lovable and respectable. In 2023, MSC Cruises, the world's largest family cruise company, collaborated with the Chinese Association for Radio, Film and TV Exchanges to launch the "Chinese Theater on Cruise." This project was also listed as an achievement of the special forum on people-to-people connectivity at the Third Belt and Road Forum for International Cooperation. After years of development, China Online Theater has become an integral part of the international communication of Chinese radio, television, and online audiovisual content. With a rich array of content and activities, it strengthens people-to-people bonds by bringing the Chinese culture closer to audience in more than 100 countries and regions. It has also contributed to mutual learning and exchanges among civilizations as well as in-depth cooperation between audiovisual entities. As a head of an audiovisual institution pointed out, China Online Theater has become a key to breaking down cultural barriers and enhancing friendship.

▲ The forum on new opportunities for Sino-Russian audiovisual cooperation was held in Moscow, Russia on May 29, 2024

Fostering Digital Competency, Building Re-employment Capacity, and Enhancing Well-being for Younger Older Adults in the Digital Economy

▲ Training programs of improving digital competency of older adults in the era of digitalization

Applying institution

The Open University of China

Countries and Regions Covered or Involved in the Implementation

21 countries and regions such as Australia, Brunei, Canada, Chile, China, Indonesia, Japan, South Korea, and Mexico

The "aging population" has been increasing worldwide and younger older adults have become an integral part of potential human resources in APEC economies. Conversely, older adult education (OAE) has gradually moved to online since the COVID-19 pandemic. Due to a lack of digital competency, oftentimes younger older adults could neither enjoy a virtual life nor up-skill or re-skill for re-employment during required quarantine period. To address these issues, the Open University of China (OUC) proposes a project to build digital capacity, increase re-employment and enhance well-being for younger older adults within APEC economies.

Fostering Digital Competency, Building Re-employment Capacity, and Enhancing Well-being for Younger Older Adults in the Digital Economy

With the growth of the aging population, the role of younger older adults in human resources has been put on the agenda. Desk investigation, literature review, interview and case studies have been adopted to understand the status quo of the digital literacy and skills of younger older adults in APEC member economies. Their demands in this regard have been identified and the Background Paper has been developed. The Paper found that there is a particularly prominent need to improve the digital literacy and skills of younger older adults in the region so as to make them adaptable to the digital age. To fulfill this commitment, the OUC project team has designed and developed three online micro credential courses. On the one hand, these three courses are used to improve people's awareness of younger older adults'digital literacy and skills needs, and on the other hand, these courses can facilitate younger older adults to build their digital capacity in order to reduce the Digital Gap in the digital society. An international seminar was hosted to share the Background Paper, the three online courses and practices on OAE. Policymakers, experts, researchers and practitioners from governmental agencies, higher education institutions, and training organizations of APEC member economies had attended the seminar and shared their practices and insights.

▲ APEC workshop on digital competency of younger older adults

APEC
Asia-Pacific Economic Cooperation
Secretariat

27 October 2022

Madam Fan Xianrui
The Open University of China
China
Email: fanxr@ouchn.edu.cn.

Mr Wang Yi
Department of International Cooperation and Exchanges
Ministry of Education
China
Email: guojichu@moe.edu.cn

Dear Madam Fan and Mr Wang

Approval of Project Proposal
HRD 05 2022A - Fostering Digital Competency, Building Re-employment Capacity, and Enhancing Well-being for Younger Older Adults in the Digital Economy

Thank you for your submission of the above Project Proposal for consideration by the APEC Budget and Management Committee (BMC).

This letter confirms the approval of your Project Proposal to the value of **US$140,531**.

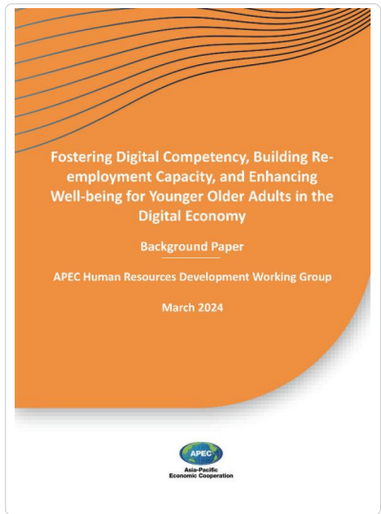
▲ Letter of approval for fostering digital competency, building re-employment capacity, and enhancing well-being for younger older adults in the digital economy

How Younger Older Adults in the Digital Age Can Become Effective Human Resources

Currently , there is no universally applicable programs to enhance the digital literacy and skills of younger older adults. To effectively address this, the OUC applied for a funding project from the APEC Secretariat and won approval with the aim of gaining support from APEC economies and conducting international comparative research. Based on the Background Paper, the project team designed three micro credential courses, namely Get online skills in today's digitalization; Online course design & development for older adults; How to motivate older online learners. The learning outcomes of the three micro credential courses are to raise awareness among policymakers of the importance and urgency of enhancing the digital literacy and skills of younger older adults; enable researchers and scholars from more economies to understand how to develop and design online micro certificate courses; enhance digital literacy and skills of younger older adults so that they can become effective human resources in the digital age. The project covers, on macro level, policy makers, education implementers on meso level, and younger older adults on micro level, effectively integrating current social hot issues such as OAE, digital economy, and human resource reuse, and reflecting its characteristics of the times and innovative features.

Breakthrough in International Collaborative Research Projects in the Field of OAE in China

The project Fostering Digital Competency, Building Re-employment Capacity, and Enhancing Well-being for Younger Older Adults in the Digital Economy initiated by the OUC was approved by the APEC Secretariat, the project overseer invited researchers and academics from first-class universities in China, such as Peking University, Renmin University, Nankai University, Beijing Foreign Studies University, Beijing Language University to conduct joint research, i.e., organized research. A volume called Older Adult Education in the Era of Digitalization—Status Quo of Younger Older Adults'Digital Literacy and Skills in APEC Member Economies has been published. This volume provides an international perspective and reference for studying the adaptability issues of younger older adults in the digital era. The project team has published the English version of the Background Paper of the project on APEC website with the endorsement of all member economies. The project contributed to the "Chinese wisdom"of actively addressing population aging in the Asia Pacific region. The project has exerted a positive impact in the field of OAE in the Asia Pacific region.



▲ Background paper of the project

▲ Older Adult Education in the Era of Digitalization—status quo of younger older adults'digital literacy and skills in APEC member economies

CSCEC: The Multilingual Documentary Series "Renew Rebuild Revive: Urban Symphonies"and Cross-Cultural Exchange Activities

▲ Poster for the multilingual documentary series "Renew Rebuild Revive: Urban Symphonies"

Applying institution

China State Construction Engineering Corporation,Global Times Online

Countries and Regions Covered or Involved in the Implementation

11 countries and regions such as Egypt, Singapore, Saudi Arabia

2023 marks the 10th anniversary of the Belt and Road Initiative. China State Construction Engineering Corporation (CSCEC) and Huanqiu.com jointly launched the multilingual documentary series "Renew Rebuild Revive: Urban Symphonies" and cross-cultural activities. In line with the 17 Sustainable Development Goals by the United Nations, with internet dissemination as the main driving force, the series delves into real stories of urban renewal in ten cities of different countries. It promotes development dialogue between cities and explores how the path of urban modernization can be common to all.

Cross-Cultural Discussions on "Shared Patways"Extend the Reach and Popularity in Cyberspace

The documentary series and cross-cultural exchange activities collaborate with local governments, agencies and stakeholders from Belt and Road partner countries. Fifteen CSCECers from different countries use diverse cultures as an entry point, sharing their personal experiences to lead the world in witnessing local urban development and cultural heritage stories.

In terms of international communication, the documentary, primarily released through CSCEC, Huanqiu.com and other media on platforms such as YouTube, TikTok, Facebook, X.com, and Instagram, received an enthusiastic response, with a total of 77 million combined online and offline views. Among them, the Iraq episode garnered 1.2 million views on a single TikTok post, and the Congo (Brazzaville) episode exceeded 4 million views on a single Facebook post.

Leveraging the advantages of the Internet, the documentary and related activities have engaged 450 global media outlets, including Jeune Afrique in Côte d'Ivoire, Aakistantoday in Pakistan, and Télé Congo in the Republic of the Congo, for coordinated dissemination. These resulted in multilingual and multi-channel coverage in Chinese, English, French, Russian, Arabic, Spanish, and Portuguese.

▲ Poster for the documentary's projects and key characters

Jointly Answering the Vision of a Happy Living Environment, Promoting Cultural Exchange and Mutual Learning Through Diverse Collaboration

By having locals tell their own stories and using local culture to resonate with the world, CSCEC stays committed to this approach. Addressing the same question to discuss urban development, the documentary introduces an innovative unified question: "To cities, what does the happy living environment mean?" Each episode is based on the unique development needs of different cities, presenting authentic stories that illustrate how happiness evolves in each one.

The documentary highlights the common concerns of local employees and residents about the challenges of their urban development. It showcases stories of progress, such as Congo (Brazzaville)'s No.1 National Highway, which connects 65% of the country's population, and Jeddah's affordable housing project, which helps address housing needs of low-income groups. At the same time, the documentary respects the historical and cultural backgrounds of various countries and cities. Through these stories, we see Egypt's blue lotus patterns, spanning millennia, blooming from the old city to the new capital; the carved curved facades of Kuwait University, blending Arabic script with traditional architectural elements; and the form of Iraq's ancient city of Ur being re-imagined at Nasiriyah International Airport. These vivid examples demonstrate that respecting history in urban renewal is essential to the prosperity and preservation of diverse cultures in each nation.

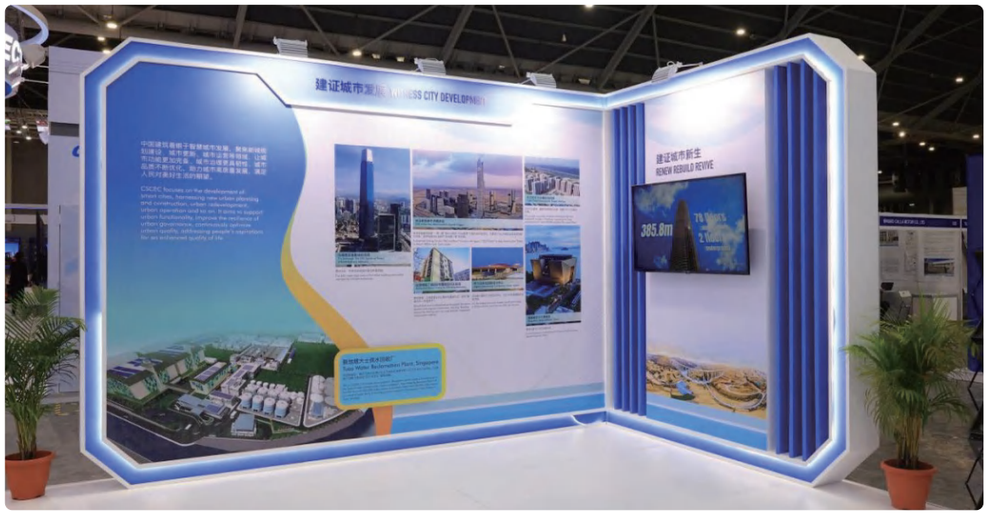
▲ Behind-the-scenes photo of the Pakistan episode

▲ Video screenshot of the Congo (Brazzaville) episode

Online Interaction Fosters Empathy and Discussion, Connecting the Hearts and Minds of People All over the World

The documentary, along with online interactive posters, "Tour with CSCEC"ASMR videos, and other creative multimedia products with #RenewRebuildRevive hashtag, sparked cross-border discussions among netizens on global social media platforms. A Vietnamese netizen left a lengthy comment after the Côte d'Ivoire episode, reflecting on whether the experience of bridge construction aiding urban development could be replicated in their own country. After watching the Kuwait episode showcasing a new campus built with cutting-edge technology, a Nigerian viewer commented, "Technology is being presented in its best form." An Iraqi netizen, upon seeing the modernized appearance of Iraq after reconstruction, remarked, "All the best to CSCEC and all respect to its engineers. The true side of the city must be shown."

The documentary quickly generated trending discussions through internet dissemination. Offline, it actively promoted urban development dialogues through screenings. It was featured at seven international events, including the China-Egypt Building Construction Sustainable Development Forum, and the 2024 Conference on International Industrial Cooperation (Singapore). After watching the documentary, Khaled Abbas, Chairman of Administrative Capital for Urban Development in Egypt, stated: "Thanks to CSCEC for promoting the latest technologies and concepts for Egypt's construction industry during the construction of the project."



▲ The 2024 Conference on International Industrial Cooperation (Singapore) screened the documentary

▲ Photo of the Temburong Bridge in Brunei

03

Innovative Development of the Digital Economy

Promoting Innovative Development of the Digital Economy for Common Prosperity

世界互联网大会
World Internet Conference

2024

Outstanding Case

Maternal and Child Health Empowerment Program—Red Umbrella Plan

Applying institution

Tencent Sustainable Social Value Inclusive Health Lab

Other participating organizations

National Center for Women and Children's Health of China, March of Dimes Birth Defects Foundation of China, China's National Management Office of Neonatal Screening Project for CHD, Cancer Foundation of China

Countries and Regions Covered or Involved in the Implementation

14 countries and regions such as China, Nepal, Thailand, Venezuela, Uzbekistan, the Philippines, Cambodia, Laos, and Malaysia

Good health and well-being are integral components of the United Nations Sustainable Development Goals. Globally, there is a disparity in the health status of women and children in low-resource health areas compared to developed countries and regions. To seek equitable medical resource distribution, the Red Umbrella Initiative focuses on birth defects and malignant tumors, which carry a heavy disease burden. It explores a comprehensive prevention and control model based on digital capabilities that can be replicated and promoted worldwide, fostering inclusive health development in low-resource health areas.

Leveraging Global Resources to Create Solutions and Jointly Addressing Global Health Challenges

Under the guidance of the mission and vision of "Tech for Social Good," Tencent SSV Innovation Lab for Inclusive Health has established a robust co-creation mechanism with multiple partners, including relevant departments, professional institutions, renowned experts, and non-profit organizations. By building digital tools and introducing intelligent diagnostic assistance tools, the project has promoted the digital development of health public service systems in low-resource health areas. Furthermore, the project has conducted professional skill training for hundreds of maternal and child health workers from over 10 countries through various international platforms such as ASEAN, Central Asia-Shanghai Cooperation Organization, including but not limited to training classes for rural women in developing countries on "two cancers"(cervical and breast cancer) screening, China-ASEAN cancer prevention and control training classes, China-ASEAN training classes on preventing mother-to-child transmission of HIV, syphilis, and hepatitis B, international training classes on prevention and control of cervical and breast cancer for Central Asian and Shanghai Cooperation Organization member countries, training classes for rural women in developing countries on "two cancers"screening, and China-ASEAN maternal and child health promotion training classes.

▲ China-ASEAN cancer prevention and control training program

Digital Intelligence Platform Achieves Full-process Management Loop, Online Training Platform

The project relies on digital and intelligent capabilities to promote the integration and efficiency of resources, enhance the capacity of primary health services, and explore new paths to address issues in low-resource health areas.

1. The use of digital tools promotes the standardization and simplification of work processes, addressing issues such as low levels of work standardization, high volumes of repetitive manual work, and numerous process interruptions, effectively preventing the occurrence of patient loss to follow-up. Rapid entry of various information through mobile phone photography, real-time generation and automatic circulation of process data, liberates medical staff from a large amount of paperwork. In addition, quality control parties can view various reports in real-time, monitor project progress and outcomes; traceable case establishment allows women of appropriate age to check their screening history at home, avoiding the issue of repeated screening after queuing on-site, greatly improving the efficiency of each medical visit. The phenomenon of screening without treatment is controlled: all 4,000 diagnosed children with congenital heart disease are included in a follow-up management system for continuous tracking. Additionally, doctors can recall patients using an outbound tool.

2. The creation of an online training system addresses issues such as high costs and the limited coverage of offline training. The construction of the system effectively improves the comprehensive capabilities of primary care physicians, releases human resources, improves the quality of health services, and reduces the risk of misdiagnosis and missed diagnoses. Utilizing scattered time over a week for online learning can increase the diagnostic accuracy rate of trained doctors by 23%. The system's engaging nature and personalized learning paths enhance participant satisfaction, with a recommendation willingness rate of 94%.

Congenital heart disease screening management system

A WHO-recognized online physician training platform

The Project Has Achieved Extensive Benefits and Its Potential for Global Promotion Is Becoming Increasingly Evident

So far, the project has benefited 330,000 newborns and 300,000 women in China. In pilot areas, the initial screening for congenital heart disease in newborns has achieved full coverage, and more than 10 counties have met the goal of "70% cervical cancer screening rate for women of appropriate age" ahead of schedule. Moreover, the project has increased the referral rate for congenital heart disease children from about 30% to 81%, significantly reducing repeated screenings for the two cancers. Furthermore, the communication time for recalling patients with positive screenings for the two cancers has been reduced from 30 minutes to 3 minutes, the screening coverage rate has increased from 15% to 60%, the average communication time between doctors and patients has been reduced from 30 minutes to 3 minutes, and the follow-up rate in some areas has reached 100%, comprehensively improving the efficiency and quality of screening.

It is expected that the promotion over three years will directly benefit over one million women, reduce the screening costs by 35%, detect thousands of precancerous/cancerous lesions early, achieve early intervention and treatment, and save hundreds of patients at risk of death. In light of this, the project has been recognized by governments in various parts of China and the idea of replicating the model has been proposed.

The project team is negotiating with institutions from Nepal, Myanmar, Belgium, Egypt, Chile, and other countries. It is planned to form a replicable and scalable model globally by 2025, with at least one international pilot site.

▲ Doctors are conducting congenital heart disease screenings for newborns in the maternity ward

Outstanding Case

IBM Enterprise Digital and Intelligent Transformation Solutions—Accelerating Manufacturing Enterprises onto the Fast Track of Sustainable Growth Through Cost Reduction, Efficiency Enhancement, Quality Improvement, and Revenue Increase

▲ IBM enterprise digital and intelligent transformation solutions

Applying institution

IBM(China) Company Limited

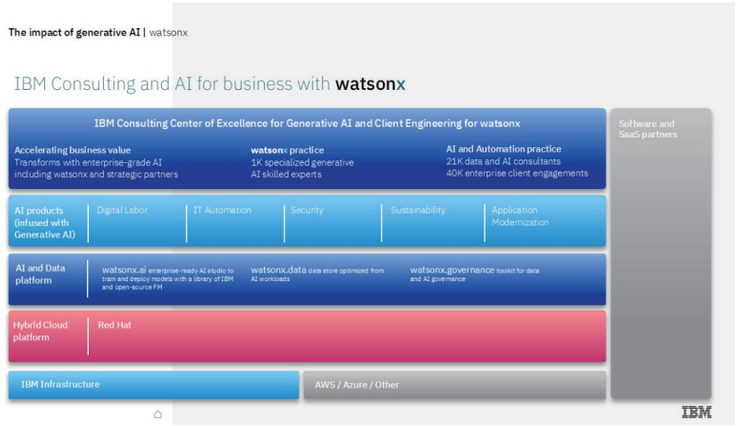
Countries and Regions Covered or Involved in the Implementation

36 countries and regions such as China, the United States, Australia, Brazil, Germany, Indonesia, and Argentina

Digital transformation is a common challenge faced by enterprises globally. The enterprise-scale digital and intelligent transformation solution based on hybrid cloud and AI technology, co-created by IBM Technology and Consulting aims to help businesses optimize resources, enhance efficiency, and reduce costs through technical innovation, promoting compliant operations and fostering high-quality sustainable development.

IBM Hybrid Cloud and AI Platform Provides Enterprises with a Secure and Flexible Foundation to Optimize Global Resources and Intelligent Operations

IBM hybrid cloud and AI platform has opened up an innovative operational model for global enterprises, optimizing the allocation of global resources and achieving the intelligentization of business processes, propelling companies into a new era of efficiency and intelligence. IBM focuses on hybrid cloud and AI technologies that are leading corporate transformation. Leveraging Red Hat OpenShift, clients can build and flexibly deploy workloads, while IBM AI technology aids in the intelligentization of corporate technology infrastructure and business processes. For instance, IBM enterprise AI enhances the error detection rate in factory quality inspections without the need for coding. Multinational manufacturing companies use IBM AI algorithms for intelligent resource scheduling, significantly reducing costs. AI analytical tools monitor production in real-time, predict equipment failures, reduce downtime, ensure continuity in production, and improve efficiency. IBM digital and intelligence solutions enable companies to respond quickly to market changes and adjust strategies flexibly, gaining an advantage in competition. For manufacturing enterprises seeking global development, they can also leverage IBM global technology and ecosystem to overcome global challenges and achieve leapfrog development.

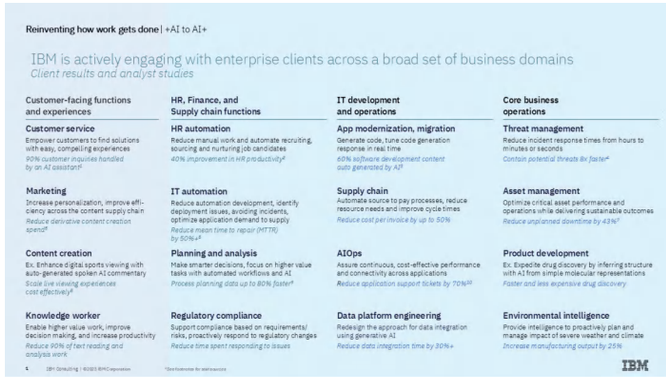


▲ Architecture of IBM hybrid cloud and AI platform

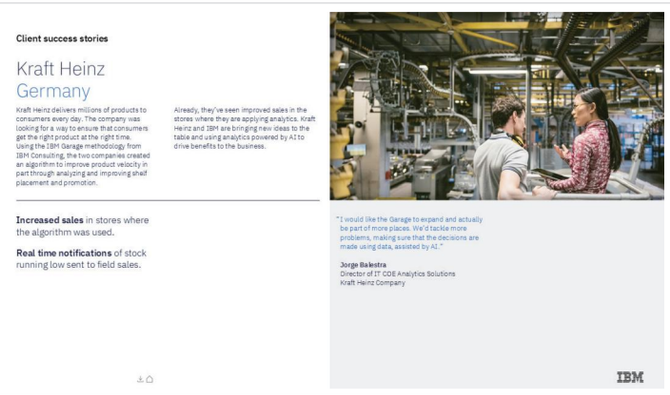
▲ IBM Enterprise Digital and Intelligent Transformation Solutions assist Riyadh Airline in achieving core business transformation and therefore accelerating the realization of Saudi Arabia' s Vision 2030

IBM Acompanies Enterprises with an End-to-end Services to Satisfy their Diverse Needs in Digitial Transformation Towards Continuous Business Innovation and Compliant Growth

With IBM's century-old global business networks and technical innovation, and extensive industry experience and technical expertises in serving enterprise clients in over 170 countries worldwide, IBM Consulting provides enerprises with a highly customized services model to offer comprehensive enterprise-scale services, particularly for traditional manufacturing, ranging from strategic business consulting to hybrid cloud and AI transformation based on IBM hybrid cloud and AI platforms. IBM hybrid cloud AI solution focuses on innovation through flexibility and customization, generating business insights through real-time data analysis to meet specific enterprise needs. For example, retail businesses can redesign all client touchpoints through digital intelligence to achieve AI- and automation-powered "Digital First" boundaryless client service, thereby increasing sales. IBM ensures continuous technical support and training to help businesses make the most of these innovative tools for automated and intelligent business processes, refining products and services, and increasing market competitiveness. Furthermore, IBM assists in constructing a global partner ecosystem, integrating global resources to establish a global value chain and operational model, ensuring secure and compliant management, and delivering agile and efficient enterprise solutions.



▲ IBM provides comprehensive digital transformation services to global enterprises

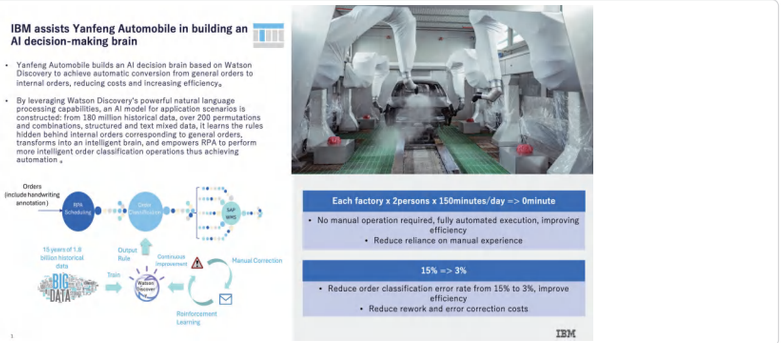


▲ IBM assists Germany's Kraft Heinz Company in driving business revenue growth through AI-powered analytics

IBM Is Committed to Balance both Economic Benefits and Social Value in Actively Promoting Industrial Digital Transformation and Sustainable Development

IBM Enterprise Digital and Intelligent Transformation Solutions leverage hybrid cloud and AI technologies and services to reduce costs and increase efficiency for global businesses, enhance client experiences, and strengthen competitiveness.

They accelerate industry digital transformation, foster job creation, adapt to market changes, and achieve sustainable development. In China, IBM provides CP4I, CP4BA, and ELM solutions to Yanfeng Automotive to automate order operation, data transmission, data extraction, and AI-enabled capacity planning; in collaboration with X-POWER, IBM builds an intelligent Q&A based knowledge system for MIKOPTIK based on the IBM® watsonx™ AI and data platform to improve post-sales and training efficiency. In Turkey, IBM Maximo Application Suite assists İsdemir with efficient asset management, optimizing maintenance and enhancing decision-making quality, and improving their competitive advantages. In Canada, IBM Envizi helps Celestica simplify processes and establish ESG reporting mechanisms. Meanwhile, IBM assists a top 500 Chinese home appliance enterprise in integrating and optimizing its global operation network distributed across more than 200 countries, enhancing the efficiency of multi-category operations and client experiences, and therefore acclerating globalization strategy for more enterprises with IBM Cloud.



▲ IBM Assisted Yanfeng Automotive in enhancing R&D efficiency and accelerating experience-driven digital transformation

▲ IBM empowers Lloyds Banking Group to realize its "Best Bank for Clients" vision through digital intelligence solutions

Outstanding Case

Ant Group Builds Globally Leading Risk Management Technology to Support Development of High-Quality Cross Border SME

▲ Ant Group's risk management paves a secure and efficient way for global digital payment services for SME exporters

Applying institution

Ant Group Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

30 countries and regions such as Thailand, Vietnam, Malaysia, The United Arab Emirates, Turkey and Brazil

In cross border trade, SME often face financial service challenges such as complex FX transactions and settlements alongside with stringent compliance requirements. Due to constraints in traditional risk management solutions, SME often are excluded from financial services or experience cash flow disruption.

Ant Group Supports Sustainable Growth of Cross Border SME

Ant Group has unveiled a cutting-edge cross-border trade payment platform, designed to provide SMEs with compliant, convenient, and reliable digital payment and financial services. Leveraging advanced technologies such as multi-agents system and knowledge graph, the platform develops robust risk management solutions that automatically verify merchant authenticity and accurately assess transaction risks. This enables SMEs to efficiently streamline the onboarding process while enjoying a trustworthy, reliable, and convenient transaction environment. Notably, the platform enhances cross-border payment efficiency by tenfold, reduces average operational costs by over 50%, and maintains a fraud risk rate of less than 0.01%.

Ant Group's AI Agent-based risk management platform strives to pioneering world-leading security technology

Ant Group's AI Agent-based Risk Management Platform integrates extensive trade, legal, and risk case knowledge to generate a risk knowledge graph. This capability facilitates automated compliance reviews tailored to diverse regional regulations, allowing for the swift identification of risks related to money laundering, prohibited goods, fraud, and other compliance issues. For instance, when a merchant submits a request for foreign exchange settlement, the platform intelligently analyzes the order information alongside the applicable conversion requirements of the relevant country, automatically routing this through the knowledge graph. Upon identifying any risk, it promptly highlights key risk factors to the reviewer, thereby streamlining a decision-making process that involves multiple rounds of human-machine interaction. Ultimately, the system autonomously determines risk outcomes and advises merchants on necessary documentation adjustments, thereby accelerating foreign exchange settlement. Through cutting-edge artificial intelligence technologies, Ant Group's AI Agent-based Risk Management Platform is at the forefront of global security technology.

▲ AI-driven risk management platform boost competitiveness of SME

By Delving Deeply into AI Agent-Based Risk Management, Ant Group Collaborates with Ecosystem Partners to Co-Create a Prosperous Future

Ant Group has consistently been committed to developing risk management technology, with a mission to support small and micro enterprises. Ant Group's cross-border trade payment platform has reached a milestone, serving over 1 million merchants worldwide and facilitating transactions valued at more than $300 billion across over 200 countries and regions. As the digital economy continues to evolve, Ant Group remains committed to partnering with ecosystem allies to empower small and micro enterprises to achieve sustainable and stable growth in global economic cooperation through innovative technology, ultimately creating a prosperous and inclusive future for all.

APEC SME Digital Economy Development Conference

▲ The annual APEC SME Digital Economy Development Conference

Applying institution

APEC SME Center for IT Promotion, Internet Society of China

Countries and Regions Covered or Involved in the Implementation

10 countries and regions such as Australia, Chile, China, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and the United States

By embracing the spirit of the 25th APEC Economic Leaders'Meeting, this project aims to enhance the digital capabilities and market competitiveness of micro-, small, and medium-sized enterprises (MSMEs) across the Asia-Pacific region through the Internet and digital technologies. Furthermore, it seeks to deeply integrate these enterprises into the real economy and support them in navigating the complexities of digital transformation, thereby fostering their sustainable development.

Consultation and Contribution to the Asia-Pacific SME Digital Economy Cooperation Community with a Shared Future

Co-hosted by the APEC SME Center for IT Promotion and the Internet Society of China, the APEC SME Digital Economy Development Conference (hereafter referred to as the Conference) has been successfully held for three sessions. The Conference has attracted representatives from APEC economies, including Australia, Chile, China, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and the United States, as well as leaderships from SME governing bodies, digital economy sectors and enterprises. Leveraging the mechanism of APEC SME Working Group's working and Union of the Chambers of APEC's cooperation, the Conference actively gathers input on SME digital economy projects. Based on this input, it has created a platform that offers a rich array of activities, such as pre-conference partner negotiations, expert panels, on-site signings, and project kick-offs. These activities are all designed to foster effective dialogue and cooperation, thus elevating partner development. Furthermore, the Conference has established a platform for exchange and cooperation in SMEs' digital transformation, continuously enhancing the digital service ecosystem across the Asia-Pacific region and boosting the digital advancement among SMEs.

▲ Panelists from home and abroad engaged in discussions about advancing the digital industry for SMEs in the Asia-Pacific region

Leading Key Projects to Promote Collaborative Development of SMEs in the Digital Economy

The Conference has successfully launched several key events, including the launch ceremony of the Three-Year Action Plan for Digital Capability Enhancement among Asia-Pacific SMEs and the signing ceremony for the Asia-Pacific SME Digital Economic Ecosystem Partners. These events have laid a solid foundation for promoting the industrial digitization and digital industrialization of SMEs. Over the years, the Conference has become a critical platform for advancing digital economic development among SMEs in the Asia-Pacific region. So far, more than 20 collaborative projects have been finalized through this platform, featuring key undertakings like the joint development of the Asia-Pacific SME digital economy service project by countries including the USA, South Korea, Singapore, Malaysia, and China; the digital finance project by YiqiCloud and MYbank; the liquor industry blockchain project by Luzhou Laojiao and the Institute for Internet Industry of Tsinghua University; the Specialized and Sophisticated Talent Cultivation Programme by the Leading Enterprise Institute and the Sichuan SME Promotion Center; and the YiqiRong digital finance public service platform for SMEs.

▲ Launch ceremony of the three-year action plan for digital capability enhancement among Asia-Pacific SMEs

▲ Signing ceremony for the Asia-Pacific SME digital economic ecosystem partners

Strengthen International Communication to Jointly Promote Further Development of the Digital Economy Ecosystem

The Conference brings together policymakers, industry experts, and entrepreneurs from across the Asia-Pacific region, focusing on the emerging trends, directions, and forces shaping the region's digital economy. It establishes a collaborative platform that integrates policy analysis, regional resource pooling, and best practice sharing, thereby fostering an "open, shared, and cooperative"ecosystem for international exchanges. This platform supports the multi-dimensional growth of the digital economy. Furthermore, through initiatives like the Three-year Action Plan for Digital Capability Enhancement among Asia-Pacific SMEs and the creation of a digital economy ecosystem, the Conference actively equips SMEs in the region with strategies and pathways for digital transformation. It facilitates the integration of SMEs with cutting-edge information technologies, enhances their digital and innovative capabilities, and supports coordinated development. This not only boosts their confidence and accelerates their transformation but also strengthens their competitiveness.

▲ Event: Arranging ausiness visit to the digital transformation demonstration parks and enterprises

From "Global Trade" to "Global Payment" Building a Digital Payment Channel for Global Trade

▲ Choose YiwuPay for Cross-border payment

Applying institution

Kuaijietong Payment Services Co., Ltd.

Other participating organizations

Bank of China, Industrial and Commercial Bank of China, Industrial and Commercial Bank of China Abu Dhabi Branch

Countries and Regions Covered or Involved in the Implementation

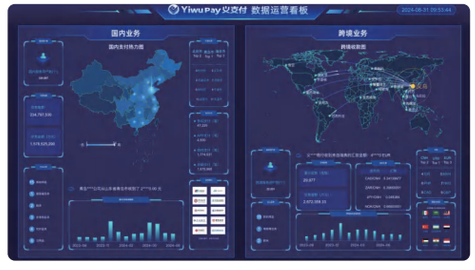
158 countries and regions such as China, Afghanistan, Algeria, Albania, Argentina, Australia, and Armenia

Since 2012, Yiwu has made solid progress in its development as the "World's Capital of Small Commodities," embracing the strategy of "buying globally and selling globally." The Yiwu International Trade City has grown into a globally recognized wholesale market, making cross-border payments essential for businesses in the city to receive payments from around the world.

Based in Yiwu, Connecting the World

Yiwu's foreign trade merchants have frequently encountered difficulties with payments in past transactions. As global trade trends shift toward fragmentation, smaller orders, and more diverse sources, challenges like delayed payments and difficulties in collection have become more common. Yiwu traders must navigate a more complex trade environment, where receiving payments can take a month or longer due to shipping company terms, banking procedures, or currency exchange rate considerations. This makes the security of funds a top concern. To better empower Yiwu's 75,000 merchants and 2.1 million Small and Medium Enterprises, Kuaijietong Payment Services Co., Ltd. successfully launched the Yiwu Pay brand in February 2023. As of the end of August 2024, Yiwu Pay has developed mobile and PC-based systems for cross-border RMB services and established partnerships with hundreds of banks worldwide, including the Bank of China, the Industrial and Commercial Bank of China, and ICBC Abu Dhabi Branch. Over 20,000 cross-border accounts have been opened, with total cross-border transactions exceeding USD 3.632 billion. Yiwu Pay now operates in 158 countries and regions, supports more than 25 currencies, and has maintained a record of zero risk-related disputes across all transactions.

▲ Yiwu Pay brand launch event



▲ Yiwu Pay's data operation dashboard

A New Benchmark for Professional Markets, a New Infrastructure for Digital Payment

In September 2022, Yiwu Pay obtained its cross-border RMB business qualification and launched new cross-border RMB services. This enables merchants to quickly open global asset accounts and accept multi-currency payments. In December of the same year, Yiwu E-TER Network Technology Co., Ltd. received cross-border RMB payments from a Saudi Arabian client via Yiwu Pay, marking the successful completion of Yiwu's first cross-border RMB payment transaction with Saudi Arabia. This milestone was recognized by the Ministry of Foreign Affairs of the People's Republic of China and the People's Bank of China, drawing more attention to Yiwu Pay.

Deeply rooted in the world's largest small commodity distribution center, Yiwu Pay closely aligns with the local foreign trade sector. It integrates resources, follows an independent and innovative technological development approach, and enhances transaction authenticity verification through measures like "on-site inspections and management surveys." By continuously building a robust anti-money laundering and anti-fraud risk control system, it sets multiple lines of defense, closely monitors transaction risks in real-time, and improves the payment system in terms of information security and transaction processing. This ensures the efficiency, stability, and security of cross-border transaction funds, providing a solid financial infrastructure for merchants.

▲ Yiwu Pay's business scenarios

▲ Yiwu Pay's risk monitoring

Secure Collection with Zero Worries and Highly Efficient Payment

Huiyicheng Display Screens Co., Ltd., a long-established exporter of LED displays in Yiwu, exports its products worldwide. About six years ago, as their first Iraqi customer walked into their shop, their business with Iraq grew, but the company faced challenges due to mixed payments in USD and RMB from Iraqi clients. Non-compliant payment methods occasionally caused risk incidents, becoming a major headache. At this point, Yiwu Pay came into the picture. The company representative stated: "We chose Yiwu Pay not only for its convenient and secure cross-border payment services but also for its professional and efficient team that tailored solutions to our diverse needs. Whether our customers want to pay in USD or RMB, I can handle it through Yiwu Pay. To date, I've received over 2 million through Yiwu Pay."

Through its digital capabilities and product innovation, Yiwu Pay continues to focus on addressing customer needs and pain points. It provides Yiwu's merchants with more compliant, secure, and efficient cross-border payment solutions, gaining widespread recognition in the market. In the future, Yiwu Pay will continue to tackle payment bottlenecks and challenges to achieve targeted breakthroughs, ensuring smooth and worry-free payments for foreign trade merchants.

▲ Customers consulting about Yiwu Pay

▲ Yiwu Pay exhibition site

Large Language Models for Southeast Asian Languages: SeaLLMs Helps Achieve Inclusive Development for Underrepresented Communities in Digital World

▲ Southeast Asia's Large Language Model (SeaLLMs) is widely used to establish a large language model ecosystem for low-resource languages speakers

Applying institution

Alibaba Damo Academy (Hangzhou) Technology Co., Ltd.

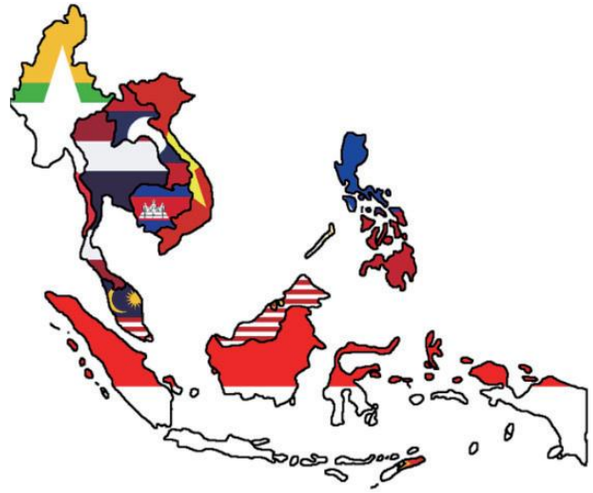
Countries and Regions Covered or Involved in the Implementation

9 countries and regions such as Singapore, Indonesia, Malaysia, Cambodia, Laos, Philippines, Thailand, Myanmar and Vietnam

The SeaLLMs project addresses a critical need in the field of language technology by developing specialized models for Southeast Asian languages. These languages have traditionally lacked robust AI technological support, resulting in a significant performance gap in existing large language models (LLMs). By focusing on these underrepresented languages, the project sets the stage for more inclusive technological advancements and aims to bridge the digital divide in the region. This initiative will empower local communities, promote linguistic diversity, and foster innovation tailored to Southeast Asia's unique cultural and linguistic landscapes.

Addressing Linguistic Inequities in Southeast Asia Region

SeaLLMs, a suite of language models tailored for Southeast Asian languages, represents a pioneering effort led by Alibaba DAMO Academy in collaboration with its international partners, filling the gap of language technology support in the region. Through extensive pre-training and specialized tuning, these models not only exhibit proficiency in English but also a deep understanding of the intricacies of languages like Thai, Khmer, Lao, and Burmese, significantly outperforming existing solutions. This cross-border partnership exemplifies the project's commitment to respecting and reflecting local linguistic and cultural nuances, ensuring that the models are both technologically advanced and culturally sensitive. By providing advanced AI technologies tailored to the needs of Southeast Asian languages, SeaLLMs reduces the barriers faced by these communities in accessing cutting-edge technologies, empowering them to leverage AI for various applications while preserving the region's rich linguistic heritage. Moreover, the project plays a crucial role in mitigating the risks of cultural homogenization caused by the over-reliance of AI technologies on Western or English-centric design. By creating models that respect and reflect local linguistic and cultural nuances, SeaLLMs contributes to a more diverse and inclusive global AI landscape.



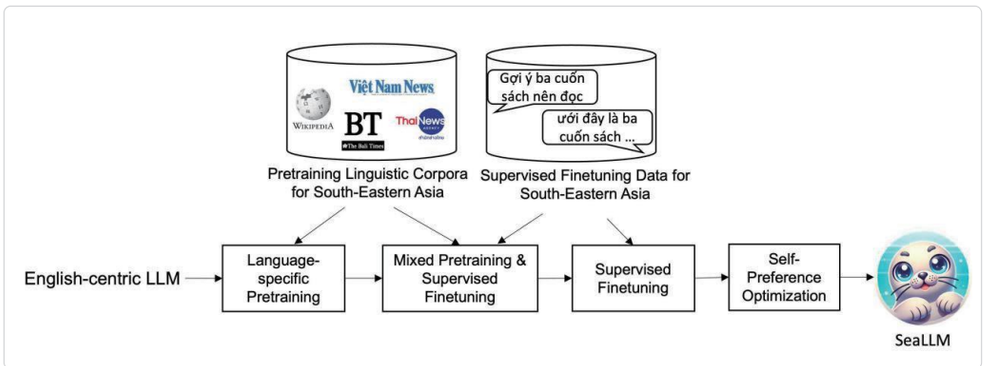
▲ There are many languages in Southeast Asia. Compared with mainstream languages such as English, the integration and application of AI technology faces significant lags and deficiencies.The launch of SeaLLMs effectively lowers the barriers to access cutting-edge technologies for Southeast Asian communities, empowering them to use AI technology for diverse applications while preserving the region's rich linguistic heritage

Innovative Approaches for Language Enhancement

The development of SeaLLMs incorporates several innovative methodologies in their design and implementation. These models build upon English-centered LLMs, strategically leveraging their foundational language processing and comprehension capabilities as a solid foundation rather than strating from scratch. This approach facilitates the efficient utilization of established technologies, allowing the focus to be directed towards enhancing these models specifically for Southeast Asian languages.

The development process involves continued pre-training on a large-scale corpus of Southeast Asian languages, a crucial step in capturing the nuances and intricacies of these languages. This pre-training phase is supplemented by fine-tuning with carefully constructed instruction tuning datasets, designed to provide the models with a diverse range of linguistic and contextual information. Consequently, SeaLLMs acquires a profound understanding of these languages, significantly enhancing their ability to follow instructions and respond accurately to queries in those languages.

The novelty of the project lies not only in its focus on Southeast Asian languages but also in its cost-effective tokenization of non-Latin scripts. This innovative tokenization process enables the models to efficiently handle complex scripts, maintaining high performance without sacrificing quality. This highlights the complexity and innovation of the SeaLLMs development process, showcasing a sophisticated blend of advanced machine learning techniques and cultural adaptability that sets these models apart in the field of natural language processing.



▲ The development of SeaLLMs integrates various innovative technologies, draws on English-centered large language models, and conducts more in-depth pre-training of the model in Southeast Asian language corpora and fine-tuning of instruction preferences, significantly enhancing the model's ability to understand and generate Southeast Asian languages

Socio-Economic Impact and AI for Good for SEA

The SeaLLMs project significantly impacts socio-economic development, driving inclusive progress throughout Southeast Asia. By offering advanced AI capabilities for underrepresented languages, SeaLLMs bridges the digital divide, enabling equitable participation in the global digital economy. This initiative aligns with several Sustainable Development Goals (SDGs), including fostering innovation, reducing inequalities, and promoting global partnerships.

SeaLLMs enhances digital infrastructure, catalyzing growth in AI and language technology industries. This development not only exemplifies the transformative potential of targeted technological innovations in addressing global challenges but also underscores the importance of inclusive technological growth. By prioritizing underrepresented languages, the project ensures that AI advancements are accessible to a broader demographic, fostering digital literacy and inclusion.

The collaborative nature of the SeaLLMs project is central to its success. It brings together diverse stakeholders, from local communities to international partners, ensuring that the benefits of AI are widely shared. This cooperative approach not only strengthens global partnerships but also demonstrates how AI can be leveraged for the greater good. By driving both social and economic progress, SeaLLMs illustrates the profound impact of inclusive and innovative technological solutions in creating a more equitable and connected world.

▲ SeaLLMs' understanding of the subtle cultural differences between Southeast Asian languages has promoted multi-party cooperation and communication, effectively reducing the barriers for Southeast Asian communities to access cutting-edge technologies and empowering local communities to use AI technologies for diverse applications

SeaLLMs Was Selected into the United Nations AI for Good Case Collection, and Was Further Selected by the UN as the Most Influential Innovation Award

At the AI for Good Global Summit held by the United Nations in 2024, SeaLLMs was selected as one of the first batch of "Innovation to Expand Impact: AI for Good Case Studies." We were further awarded the Best Innovate for Impact Award.

WINNER

AI for Good Global Summit

This certificate is awarded to

Alibaba Damo (Hangzhou) Technology Co., Ltd.

China

Innovate for Impact
Use Case

Your hard work, dedication, and achievement is well recognized. Thank you sincerely from the **AI for Good** team at the **International Telecommunication Union (ITU)**

Seizo Onoe

Director of ITU Telecommunication Standardization Bureau

30, May, 2024
Geneva,Switzerland

AI for Good Global Summit

ITU

▲ SeaLLMs was named the most influential innovation award at the United Nations AI for Good Global Summit in 2024

5G Empowers Macau University of Science and Technology for Innovative Applications of Planetary Magnetic Field Research

▲ The 'Macau Science Satellite-1' has been successfully launched this is the first space science satellite jointly developed by the Chinese mainland and Macau, as well as Macau's first scientific and experimental satellite which consists of two satellites: Satellite A and Satellite B

Applying institution

Companhia de Telecomunicações de Macau, S.A.R.L.

CTM 澳門電訊

Other participating organizations

Macau University of Science and Technology, China United Network Communications Corporation Limited Shenzhen Branch

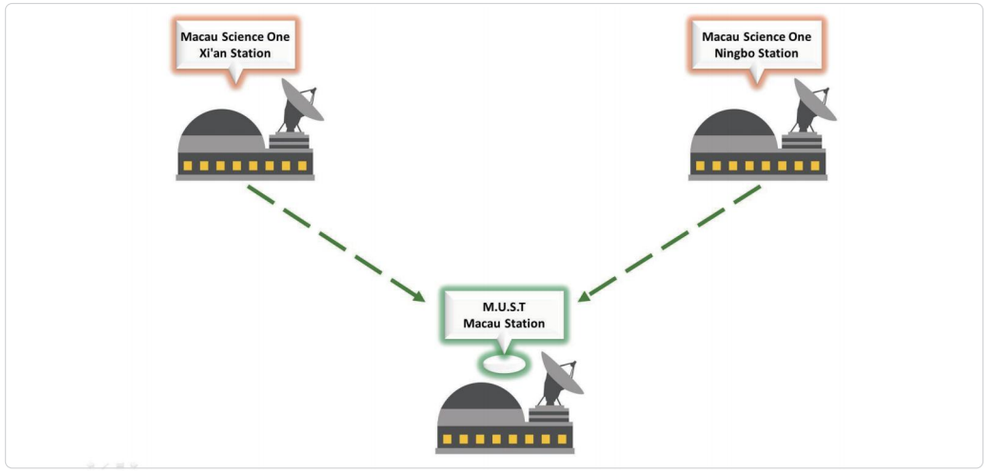
Countries and Regions Covered or Involved in the Implementation

20A countries and regions such as The United Kingdom, the United States, France, Germany, Denmark, and Canada

CTM provides a cross-region 5G private network for The State Key Laboratory of Lunar and Planetary Science (SKLPlanets) at the M.U.S.T., ensuring seamless connectivity, secure data access and command through the 5G private network for three ground stations (Macau, Xi' an, and Ningbo), thus ensuring the operation of the'Macau Science Satellite-1' satellite successfully.

5G Transcends Spatial and Temporal Boundaries, Accelerating Scientific Research and Innovation

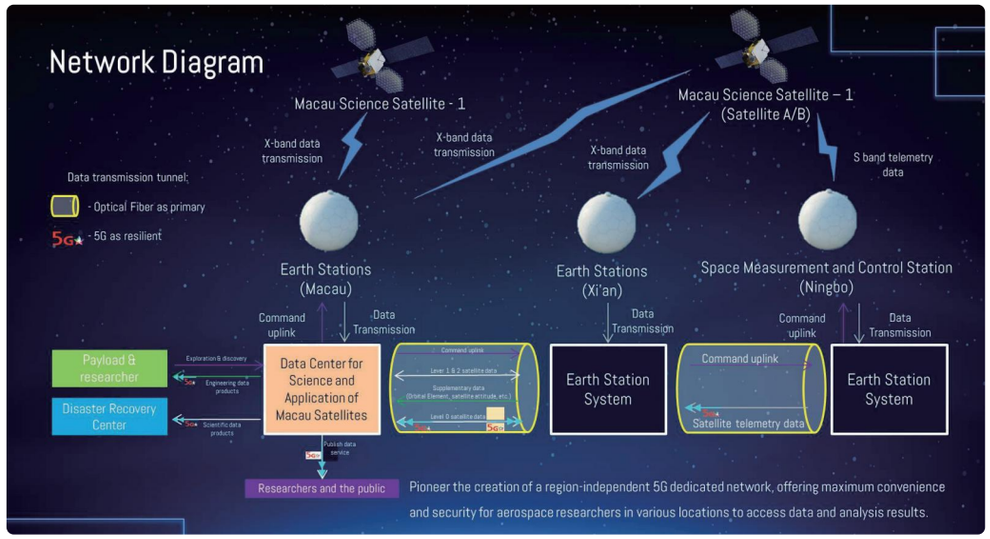
CTM and M.U.S.T. have collaborated to launch the '5G Empowers Macau University of Science and Technology for Innovative Applications of Planetary Magnetic Field Research' project, breaking through the limitations of cross-region network data transmission between multiple ground stations in Macau and the Chinese Mainland. This project has established a cross-border 5G private network, enabling the'Macau Science Satellite-1' low-orbit satellite in operation to achieve timely and secure data transmission between ground stations and the data center. The project team can access the control center located in Macau securely and efficiently from anywhere and issue satellite commands online. This project not only promotes global research collaboration but also allows researchers from 18 countries to easily access and share processed data through the public network of the data center in Macau. Consequently, this enhances interdisciplinary fields'research such as astronomy and earth sciences (deep earth, deep sea, and deep space), making Macau a pioneer in international planetary magnetic field research.



▲ Cross-region 5G private network breaks through the limitations of cross-region network data transmission between multiple stations of Macau and the Chinese mainland

The World's 1st Cross-regional 5G Private Network for Aerospace Science Research Application Case

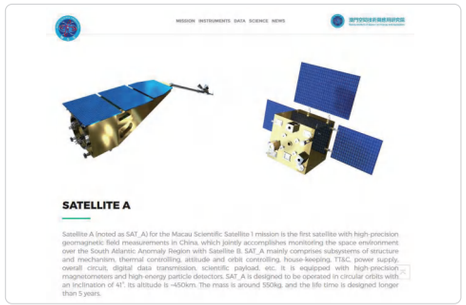
In order to overcome the challenges of cross-region research data transmission faced by M.U.S.T., CTM provides a seamless, secure, and efficient cross-regional 5G private networking for support. This solution not only ensures the convenience of cross-border mobility, but also employs tunnel encryption and authentication mechanisms. These measures protect the confidentiality and integrity of data transmission between end devices and the platform, ensuring that researchers can seamlessly and securely access both internal and external networks. Researchers can access data on mobile devices without worrying about the risks of data leakage or tampering, thus maximizing the internal resources utilization. In addition, a high-performance computing center with extensive storage, allowing researchers to conduct data modeling, mining, and analysis swiftly, thereby enhancing research in interdisciplinary fields such as astronomy and earth sciences (deep earth, deep sea, deep space).



▲ The data transmission process between the 'Macau Science Satellite-1'and the stations

Building a Global Technology Innovation Platform - Insights from the Success of the'Macau Science Satellite-1'Satellite

The success of the 'Macau Science Satellite -1' satellite not only marks the realization of the worl's first innovative model that combines cross-border 5G private networks with scientific research but also opens a new era. The application of 5G private network technology overcomes the geographical limitations, enabling cross-border transmission of large amount of data for planetary magnetic field research. At the Mobile World Congress (MWC) in Barcelona in February 2024, CTM has authorized Huawei to showcase this project as a benchmark case for 5G applications. Despite of having influence on the development of the digital economy, this project also demonstrates the collaborative achievements of the global cyberspace community, helping Macau to become a global technology innovation platform for aerospace. Nowadays, researchers from 18 countries, including the United Kingdom, the United States, France, Germany, Denmark, and Canada, can easily access processed data through the public network of the data center in Macau, creating a better future for humanity.



▲ The official website of the 'Macau Science Satellite-1'Satellite is open to the world, providing the latest information and effect display for global scholars and astronomy enthusiasts

▲ The project was showcased as a benchmark case for 5G applications at MWC in Barcelona

CTM 5G Cross-region Private Network: A Global Focus on Scientific Research and Innovation

This project has not only received high recognition in China but has also received acclaim internationally. At the 2024 Annual Conference organized by the International Association for the Portuguese-Speaking Communications (AICEP), the AICEP Awards Ceremony, and the 31st Portuguese Communication Forum, this project was awarded with the ‘Innovation Development.' This award not only highlights the potential of CTM's 5G cross-regional private network solution, but also brings out more diversified intelligent application scenarios for various industries in Macau. In addition to enhancing Macau's smart technology, it further stabilizes its key role as a trade platform between China and Portuguese-speaking countries.

By giving full play to the synergistic effect of the platform, this project also contributes to continuously developing Macau into a smart city.

This project was awarded the 'Innovation Development'by AICEP

5G Helps the Intelligent Construction of Noyong Darago Open-pit Mining Area

5G helps the intelligent construction of Noyong Darago open-pit mining area

Applying institution

China Unicom Intelligent Mine Corps（Shanxi）

Other participating organizations

China Unicom Global Limited, China Unicom Digital Technology Co., Ltd., Inner Mongolia Ducheng Mining Co.Ltd., Beijing TAGE IDriver Technology Co., Ltd., Inner Mongolia North Hauler Joint Stock Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

China, Russia, South Africa, Laos

In the world, more than 95 percent of energy, more than 80 percent of industrial raw materials and more than 70 percent of agricultural means of production come from mineral resources which are an important material basis for human civilization and progress. With the rapid development of 5G, artificial intelligence (AI) and other new-generation information technologies, various countries have accelerated the innovation and application of intelligence in the mining field.

5G "Going Global" to Boost the Transformation and Development of the Global Mining Industry

Noyong Darago Open-pit Mining Area is rich in mineral resources, concentrated ore bodies, and its comprehensive geological reserves of silver, lead and zinc have reached a very large scale. Through field investigation, it is found that the network equipment is difficult to run stably under the extremely cold condition in this mine area. So there are pain points: personnel safety cannot be guaranteed, the existing detection points are limited, and risks cannot be comprehensively judged. In response to the above problems, China Unicom Intelligent Mine Corps（Shanxi）gives full play to the unique advantages of "one Unicom, integration capability aggregation, integration operation service," in collaboration with China Unicom Global Limited, China Unicom Digital Technology Co., Ltd., and Inner Mongolia Ducheng Mining Co., Ltd., Beijing TAGE IDriver Technology Co., Ltd., Inner Mongolia North Hauler Joint Stock Co., Ltd. With the help of 5G network, intelligent early warning of slope monitoring and remote control of mining cards can be realized to help cut staff, improve efficiency and improve safety in mining areas.

▲ Deployment diagram of Phase I of 5G base station in mining area

▲ Deployment diagram of phase II of 5G base atation in mining qrea

5G Enables the Double Innovation Application of Intelligent Disaster Warning of High and Steep Slopes and Unmanned Mining Card Technology in Open-Pit Mining Areas

The project mainly helps the intelligent upgrading of Noyong Darago Open-pit Mining Area through three means. First, the customized 5G communication equipment is adopted to meet the frequency bands required in the mining area, and it is specially designed to ensure normal and stable operation in the extreme outdoor environments from -60 ° C to 70 ° C. The delay is as low as 1ms, which fully meets the special requirements of unmanned driving and application scenarios. Second, the disaster risk intelligent identification and disaster warning system of high and steep slopes was built in this mining area. The mine end system realized local real scene mapping through large-scale data tile superposition, simulation processing and slice processing. The disaster risk intelligent identification and disaster warning system of high and steep slopes integrates the data of 33 monitoring equipment in 9 categories, such as surface displacement, internal displacement, rainfall, osmotic pressure, internal stress and video. Then the multi-source information fusion early warning model of slope is constructed to realize the closed-loop management of the whole process of monitoring, early warning, disposal and re-monitoring of high and steep slopes of open-pit mine under daily and emergency conditions. The third is to realize the automatic driving of vehicles based on 5G+ unmanned mining cards, and realize the automatic identification, autonomous learning, intelligent planning of the operation site and route trajectory, as well as the remote one-to-many monitoring and takeover ability.

Disaster risk intelligent identification and disaster warning system of high and steep slopes

Intelligent Open-pit Mine Sets a New Benchmark

The project is based on 5G network to realize intelligent monitoring in the production process of open-pit mine. The intelligent identification and early warning system of high and steep slopes disaster risk ensures that the risk identification accuracy is not less than 85%, and the advance prediction time of major disasters is not less than 48h. After the certification test, the system will become a must-build project for open-pit mining area, tailings ponds and other application scenarios, which solves the problems of single traditional slope monitoring means and lack of intelligent analysis, and meets the actual needs of the industry for multi-terminal monitoring, comprehensive analysis and early warning of slopes in daily and landslide situations. Using the characteristics of 5G such as large bandwidth and low delay, the remote control of the mining card and the cooperation between the mining card and other engineering vehicles can be realized. In addition, the work efficiency of the existing transportation equipment in the open-pit mine is increased by 20%, the driver of the mining card is reduced by 30%, and the labor cost is reduced by 28%. Especially in harsh environmental conditions, labor costs can be reduced and the working environment of employees can be improved, the incidence of safety accidents can be reduced by 21%, which is an innovative application benchmark for the intelligent construction of the global open-pit mining area.

Benchmark demonstration leads the intelligent and high-quality development of the global open-pit mining area

Hikvision STAR Program for Social Good - Biodiversity Montoring and Conservation

▲ Supporting anti-poaching efforts for rhinos – Kariega Game Reserve, South Africa

Applying institution

Hangzhou Hikvision Digital Technology Co., Ltd.

Other participating organizations

Africam.com, World Wide Fund For Nature, Kariega Game Reserve etc

Countries and Regions Covered or Involved in the Implementation

7 countries and regions such as China, South Africa, Kenya, Zimbabwe, Italy, Indonesia, and the United Kingdom

What changes can we expect in the world when technology meets public welfare? Hikvision firmly believes that technology infused with goodwill can unleash tremendous energy, becoming an inexhaustible driving force for addressing social issues and promoting sustainable development.

The Project's Global Reach: Progress in Biodiversity Conservation

Launched in 2020, the Hikvision STAR Program for Social Good actively collaborates with global philanthropic organizations, research institutions, and other nonprofit organizations. By leveraging AIoT technology and products, the program aims to tackle a range of social challenges and currently spans multiple countries and regions worldwide, with ongoing progress in biodiversity monitoring and conservation.For instance, in Sumatra Island, Indonesia, Hikvision has partnered with World Wildlife Fund Indonesia Office to deploy its intelligent IoT technology to a 38,665-hectare forest area (ABT area) in Jambi. Through video perception equipment, conservation workers gain more efficient and real-time insights into the local environment.Additionally, the video equipment combined with artificial intelligence technology allows for wildlife movement monitoring, especially for endangered species that may pass through the area. In February 2023, the sighting of the critically endangered Sumatran elephant was successfully captured by video, demonstrating that the conservation worker's efforts are expected to sustain the existence and survival of this endemic species on the island of Sumatra.

▲ Sumatran elephant

From Indonesia to Italy and Africa, Positive Changes Are Happening Everywhere

From Indonesia to Italy and Africa, from Sumatran elephants to sea turtles, rhinos, and penguins, Hikvision's technology-driven philanthropy continues to make strides in biodiversity monitoring and conservation. Leveraging technology, knowledge, and expertise, Hikvision assists individuals and organizations in need, fostering the continuity and prosperity of global species, and creating a better world for all.

To support the work of Lampedusa Turtle Rescue, Hikvision contributed a video system to monitor injured turtles in 'convalescence' tanks 24x7. Continuous video helped volunteers to gauge turtles'recovery based on their ability to respond to stimuli. These videos allowed research institutions to carry out their analysis, gaining a deeper understanding of the turtles'characteristics and reducing the risks facing sea turtles.

Helping sea turtles return to the beach

In Africa, Hikvision has partnered with Africam.com to set up wildlife monitoring and protection sites in several reserves and national parks in Kenya and South Africa. These sites enable wildlife protection and anti-poaching organizations to quickly assess on-site conditions and carry out rescue operations. Additionally, Africam.com broadcasts 24-hour live stream through Hikvision's high-definition and stable video equipment, allowing more people to witness the authentic African wilderness and rallying greater support for the protection of rare and endangered species and ecosystems.

Protecting the African wilderness

The changes brought about by the combination of technology and philanthropy are sprouting hope across the globe. According to a representative of the Hikvision STAR Program for Social Good, Hikvision will continuously harness technology to connect with more partners in the future, striving to create a better future for humanity.

Protecting African penguins

Application Demonstration of Cross-border Data Transmission Based on Self-driving Vehicles

▲ Cross-border data transmission of self-driving vehicles

Applying institution

China Unicom Global Limited

Countries and Regions Covered or Involved in the Implementation

5 countries and regions such as Hong Kong (China), Singapore ,Thailand

The rapid development of intelligent connected vehicles has brought about the generation and exchange of a large amount of data, which involves cross-border data transmission. However, on a global scale, cross-border data processing has become particularly complex because it involves data privacy, security, and laws and regulations between different countries. It is urgent to find more efficient and secure cross-border data transmission mechanisms and methods.

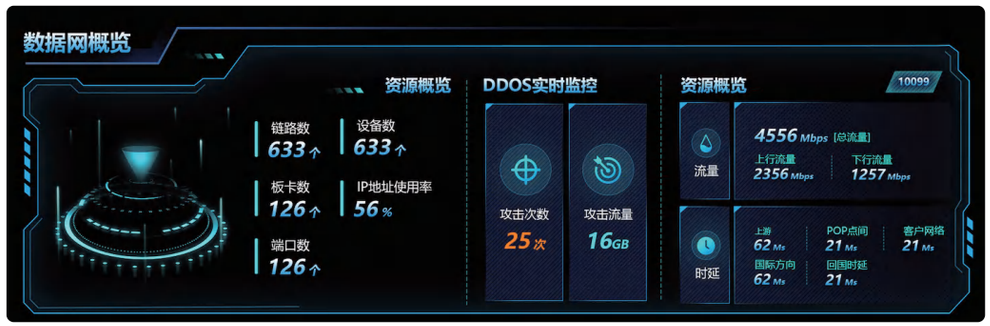
Cross-Border Data Application Center of Intelligent Driving

In the application of cross-border data scenarios of intelligent driving, taking advantage of global integration operations, taking Hong Kong as the business data center, China Unicom (Hong Kong) and China Unicom (Thailand) as the main subject, and combined with the laws and regulations of various countries and regions, China Unicom builds a cross-border security data center, and combines cross-border business data to be stored in Hong Kong to build cross-border data security protection, continuous cross-border data risk monitoring and capacity testing and management capabilities. The global deployment of cloud-based data center realizes practical cloud security operations such as centralized control, continuous detection, threat analysis by deploying a cloud security management platform and a cloud security operation center. For sensitive operations and sensitive data that trigger cross-border data security, rapid notification and display of security situation information are formed according to their threat degree, event type, and disposal situation.

▲ Overview of real-time data exchange between platforms in cross-border data applications

Process Distributed Data Effectively Through Federated Learning Techniques While Protecting the Data Privacy of All Parties Involved

By using federal learning technology, this project solved the problems of data privacy and compliance when sharing data in different countries and regions, avoided the cross-border transmission of original data, reduced the risk of data leakage, and promoted the sharing of global technology and knowledge, optimized the performance of self-driving cars in complex traffic environments. In addition, by building an intelligent driving data exit risk monitoring platform, the data exit situation can be effectively monitored, and the survival of sensitive data and sensitive API can be identified in real time. Based on the continuous monitoring mechanism of intelligent driving data exit scenario changes, the compliance judgment baseline is generated according to the evaluation results to judge whether there is a deviation between the actual exit area and the baseline after evaluation. The massive security data will be presented from the perspective of business and users to see the cross-border security situation, which will help decision makers and cross-border data users to quickly grasp the overall situation.



▲ Security monitoring of the cross-border data application in intelligent transportation system

The Further Development of Federal Learning Technology Will Promote the Innovation of Intelligent Transportation Systems and Provide Strong Technical Support for the Construction of Smart Cities

China Unicom adheres to innovation-driven development, strengthens cooperation in frontier areas, and promotes the development of big data, cloud computing, smart city and smart transportation, thus connecting them into the digital Silk Road in the 21st century. China Unicom has actively participated in the construction of a digital society. Through the coverage of more than 880 data centers and 330 geographical regions around the world, it has realized the capability evolution from "cloud-network integration"to "computing-network integration." China Unicom focuses on smart cities and intelligent driving, sharing the capabilities of complex and sensitive urban data traffic management systems in updating the computing models in different cities, and effectively handling the calculation of distributed data on the premise of protecting the data privacy of all parties involved, so as to optimize the traffic flow control, reduce congestion, without having to worry about personal data leakage or legal risks.

Kilimall E-commerce One Million Entrepreneurs Project: Supporting the Innovative Development of Africa's Digital Economy

▲ In collaboration with the USAID-backed, eTrade Alliance, the Kenyan government, and other partners, it has become the official platform in Kenya for e-commerce entrepreneurship and talent development

Applying institution

Changsha Feituo Information and Technology Co., Ltd.

Kilimall

Other participating organizations

USAID-backed, eTrade Alliance, The African Talent Company (TATC)

USAID | eTrade Alliance | brightermonday

Countries and Regions Covered or Involved in the Implementation

18 countries and regions such as Kenya, Uganda, Tanzania, South Sudan, Malawi, Ghana, Ethiopia, and Nigeria

Africa, with its large population base accounting for 18% of the global total and a young labor force with an average age of 19, is experiencing GDP growth that surpasses the global average. With a smartphone penetration rate of 50%, Africa offers fertile ground for the development of e-commerce and lays a foundation for digital transformation. Entrepreneurs have become the vanguard of reform in Africa, and the Kilimall E-commerce One Million Entrepreneurs Project is injecting new vitality into this region, where there is an urgent need to improve employment rates.

Kilimall E-commerce Million Entrepreneurs Project: A Driving Force for Innovation in Africa's Digital Economy

As a leading e-commerce platform favored by African consumers, Kilimall has been deeply rooted in the African market for over a decade. In 2023, it launched the Africa E-commerce One Million Entrepreneurs Project, aimed at building a one-stop e-commerce platform that seamlessly integrates global supply chain resources and introduces cutting-edge technologies and services. This initiative paves the way for entrepreneurial success for African youth and small business owners. Within just one year, the project created over 30,000 jobs in Kenya and trained tens of thousands of e-commerce professionals across more than 20 African countries, emerging as a powerful engine for driving innovation and growth in Africa's digital economy.

African entrepreneurs and Kilimall: Advancing together!

Omni-channel Empowerment to Accelerate the Digital Transformation of African Products

The project provides comprehensive e-commerce entrepreneurial support across online and offline channels, facilitating the digital transformation and upgrading of traditional industries in Africa. Kenyan entrepreneur Hoswell Macharia joined the project in 2023 and opened a store specializing in televisions on the Kilimall platform. In just one year, he garnered an annual revenue of over $600,000. With the participation of more entrepreneurs, Kilimall has not only become the preferred platform for African entrepreneurs but has also received official recognition from local governments, helping more than 5,000 small and medium-sized enterprises (SMEs) and entrepreneurs achieve leapfrog development, driving the digital transformation of African products.

Presenting awards to outstanding entrepreneurs

Visiting outstanding entrepreneurs and providing ongoing support

Free Training: Laying a Solid Foundation for Buidling an E-commerce Talent Ecosystem

In 2023, Kilimall launched the KILI E-commerce Public Training Program across more than 20 African countries. The program offers comprehensive courses covering core topics such as e-commerce market trend analysis, consumer behavior research, insights into popular product categories, effective marketing strategies, and refined store operations. This initiative provides valuable knowledge and skills to African youth and SMEs owners. Mavhuna Alice Paidamoyo from Zimbabwe, one of the beneficiaries, successfully transitioned into entrepreneurship through the training. By leveraging Kilimall’ s supply chain strengths, she has introduced more high-quality products into the local market, benefiting thousands of people.

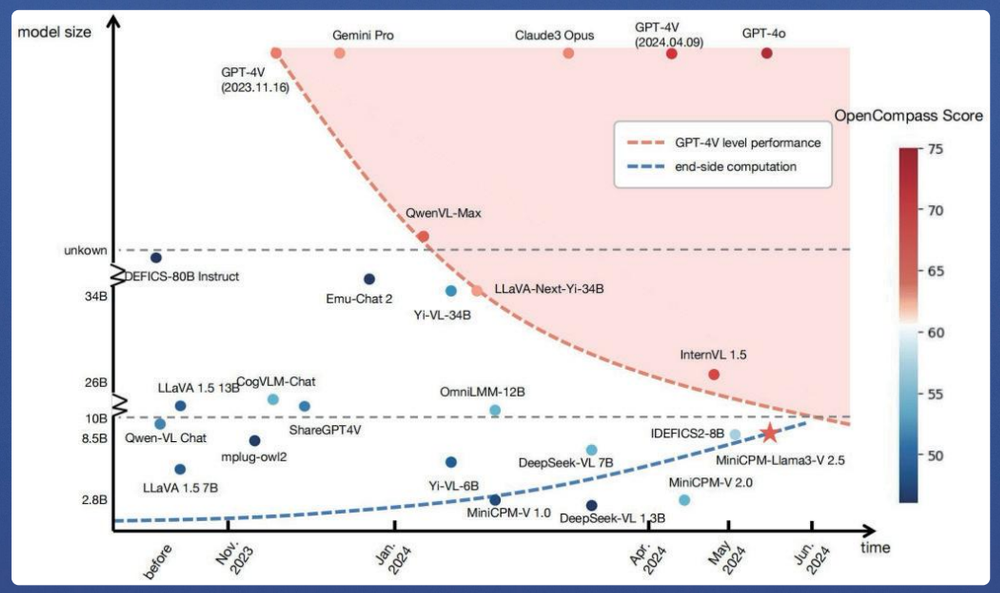
▲ Providing training and issuing certificates to outstanding African youth

Empowering One Million Entrepreneurs to Shape a New Blueprint for Africa's Digital Economy

Looking ahead, the Kilimall E-commerce One Million Entrepreneurs Project will continuously make significant strides. By 2044, it aims to empower over one million entrepreneurs and provide convenient and efficient e-commerce services to more than one billion African consumers, with the goal of achieving full coverage across all countries and regions in Africa. This project not only offers practical solutions to the shopping challenges faced by African people but also provides a new pathway to alleviate unemployment and promote comprehensive economic and social development across the African continent. Kilimall is actively shaping a new chapter in Africa's digital economy, helping to deliver a more prosperous future for the continent.

▲ Alice from Zimbabwe completed training and successfully launched her own business

MiniCPM-V
An Open-source Multimodal Large Language Model for Open Collaboration in Cyberspace



▲ The "Moore's Law"of multimodal large language models. MiniCPM-V series models leverage minimal parameters to achieve maximum performance

Applying institution

Tsinghua University, Beijing ModelBest Intelligent Technology Co., Ltd., National University of Singapore

Countries and Regions Covered or Involved in the Implementation

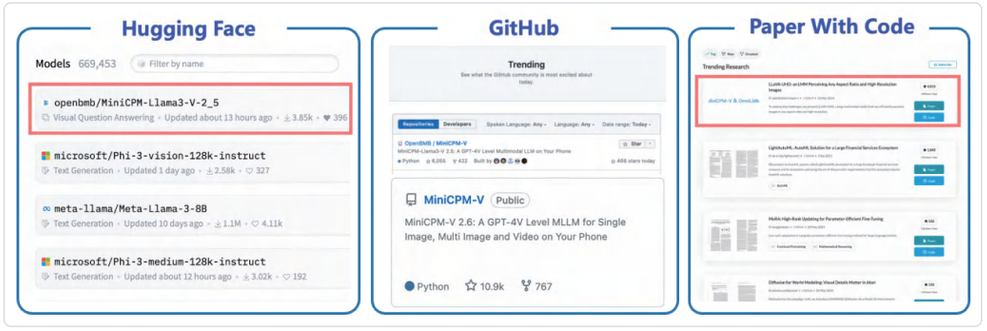
88 countries and regions such as the United States, the United Kingdom, France, Italy, Russia, Canada, and Japan

As a crucial pathway toward achieving Artificial General Intelligence (AGI), multimodal large language models demonstrate enormous potential for intelligence leaps. They not only represent the frontier of academic exploration but also serve as a catalyst for building a global community with a shared future for humanity and promoting global cooperation. Edge-side multimodal large language models are of great significance in enhancing their accessibility.

International Collaborative R&D to Develop MiniCPM-V, an Open-Source, High-Performance Multimodal Large Language Model

Combining the cutting-edge technological advantages of Tsinghua University and the National University of Singapore with ModelBest's engineering expertise, the three organizations jointly developed the multimodal large language model MiniCPM-V (with the latest version 2.5 released in May 2024). This model enables deep understanding of both text and visual modality information, which is open-sourced for cyberspace applications. In the OpenCompass, a leaderboard for multimodal large language model, released by the Shanghai Artificial Intelligence Laboratory (which includes 11 benchmarks widely adopted by international research institutions and open-source communities), MiniCPM-V outperforms leading multimodal models such as OpenAI's GPT-4V (released at the end of 2023) and Google's Gemini Pro, achieving an internationally advanced level.

After the release of the MiniCPM-Llama3-V 2.5 model, it garnered significant attention on international open-source platforms. Among the more than 700,000 models made public by HuggingFace, it ranked first in the Trending List on Hugging Face for a week (with the TOP3 including Meta Llama3 and Microsoft's Phi-3-Vision models during the same period) and also topped the Trending Lists on GitHub and Papers With Code.



▲ MiniCPM-V tops the trending lists on multiple international open-source platforms, including Hugging Face, GitHub, and Papers With Code

Proprietary Technology Featuring Lightweight, High Performance and Multimodal, Drives the Practical Application of Multimodal Large Language Models

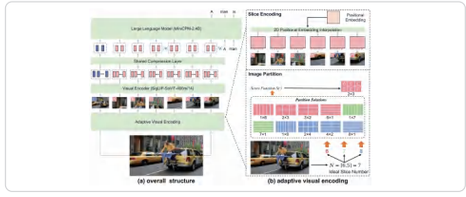
Previous multimodal large language models suffered from limitations such as low and fixed resolution, weak text recognition capabilities, high content hallucination rates, and low inference efficiency. MiniCPM-V introduces multiple pioneering innovations to address these issues effectively, achieving breakthroughs in the large model domain.

Supports multi-size high-resolution image encoding. For the first time in multimodal large language models, MiniCPM-V introduces the adaptive encoding technology for multi-size high-resolution images, allowing lossless encoding and feature extraction of images with up to 1.8 million pixels at any aspect ratio.

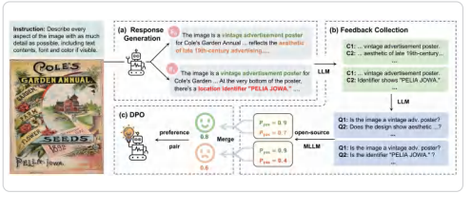
Outstanding text recognition capability. Directed by data augmentation for image text recognition, MiniCPM-V achieves the best performance on the OCRBench dataset widely adopted by the open-source community.

Low hallucination rate. MiniCPM-V reduces the model's hallucination rate with the proprietary alignment technology, achieving the best performance on the Object HalBench dataset which is adopted by the open-source community and Apple's model series. And its hallucination rate is lower than GPT-4V.

Efficient model deployment and inference. System optimization technologies such as CPU, NPU, and compiler optimizations enable efficient deployment and inference of MiniCPM-V on edge devices, including Android and HarmonyOS phones.



▲ Architecture of MiniCPM-V series models



▲ Alignment training of MiniCPM-V series models

Enhancing International Influence of Chinese Large Language Models and Promoting Their Popularization

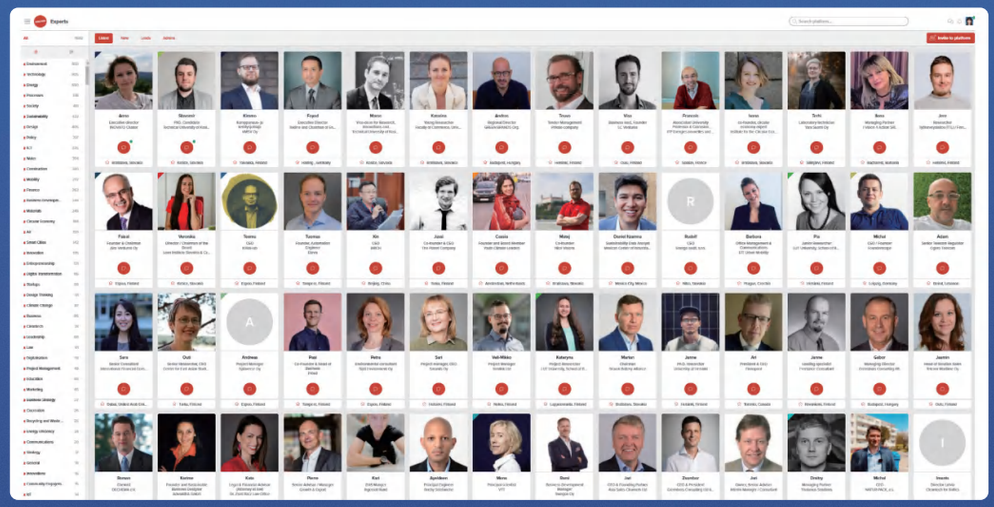
The MiniCPM-V series has attracted attention in the international AI field toward Chinese models. The Director of the Stanford Artificial Intelligence Laboratory hailed the MiniCPM-V project as "Good open-source work"that "helps advance science." The co-lead of multimodal research at Google DeepMind called more attention to great Chinese models like MiniCPM-V. The MIT Technology Review stated," This is seen as proof of the rapidly improving capabilities of homegrown LLMs by the Chinese AI community."

Related reports have topped the trending lists on major social media platforms such as Sina Weibo (China's largest social media platform) and Baidu News and have been covered by major domestic and international media outlets, including Reference News, Xinhua News Agency, and Global Times, sparking widespread discussion. Total social media platform reads exceeded 300 million, and public account articles were read over 1 million times.

The MiniCPM-V series have been downloaded over 2 million times on international open-source platforms and have garnered over 12 ,000 stars on GitHub. The model's end-side availability significantly lowers the usage threshold, allowing use on personal computers and mobile phones, benefiting a wider audience and promoting energy efficiency and emissions reduction. The model supports over 30 languages, covering most countries involved in China's Belt and Road Initiative, fostering cross-language cultural exchanges. MiniCPM-V's deep visual language understanding capability plays a crucial role in bridging the digital gap and assisting disadvantaged groups, such as the visually impaired.

▲ The director of the Stanford Artificial Intelligence Laboratory hailed the MiniCPM-V project as "Good open-source work "that" helps Advance Science"

Finland's "Solved" An International Digital Platform for Clean Technology Innovation



▲ Solved@China global expert talent pool

Applying institution

Solved@China

Countries and Regions Covered or Involved in the Implementation

Finland, China, and other nations and regions

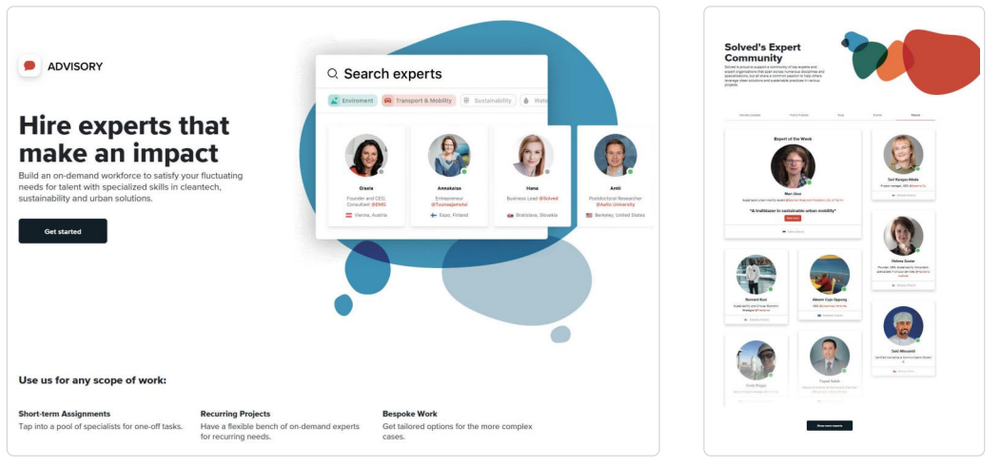
Founded in 2013 and headquartered in Finland, Solved is an international think tank platform offering interactive online services to provide clients with consulting solutions for addressing climate change, implementing energy-saving and emission reduction initiatives, and tackling complex global environmental and energy challenges. In 2022, Beijing Hi-Tech International Business Incubator Co., Ltd. partnered with Solved to establish a subsidiary platform accessible to China.

Attracting Talent and Building an Interactive International Think Tank Platform

Solved has registered over 25,000 experts from more than 120 countries, specializing in areas such as carbon neutrality, sustainable development, and smart cities. On the platform, users can search the vast pool of experts based on their specific needs and hire influential industry experts on demand, forming customized teams to meet project requirements. The platform offers a wide range of professionals, including technical experts, professors, engineers, project managers, designers, and lawyers. Solved can also recommend suitable expert candidates for users, and once both parties express intent to collaborate, the platform enables online contract signing. Additionally, it provides a specialized virtual workspace to facilitate communication between internal teams and contracted experts, offering document sharing and other services for seamless project management. As a third-party payment channel, Solved reduces risks associated with project collaboration, offering robust support and security for platform projects.

Moreover, users can create dedicated work or social platforms (white-label platforms) on Solved, helping themselves build and manage both internal and external expert talent pools. This allows them to quickly connect with and organize expert resources within their organization, external networks, and globally based on specific needs. These platforms also help users gather stakeholders and partners, track relevant innovation activities, and facilitate communication and collaboration.

To date, the international platform Solved has completed over 1,800 projects and established more than 200 white-label platforms.



▲ Solved's global expert database

Think Tanks Empowers to Drive Sustainable Development Across Global Industries

As an online interactive think tank for technical exchange and innovation, Solved is dedicated to promoting global innovation cooperation by providing users with intelligent, sustainable, and efficient solutions. Covering areas such as smart cities, green buildings, scientific carbon reduction, and renewable energy, it drives sustainable development across various industries worldwide.

Smart Cities

Solved provided a smart transportation implementation plan for the city of Tartu in Estonia. The solution leverages GIS technology from Environmental Systems Research Institute, Inc. (ESRI), an American environmental systems research company, to integrate traffic counter data into mobile devices used by both residents and government officials. Through a user-friendly interface, the data is visualized to make it easily understandable, offering drivers route suggestions and enabling government officials to monitor real-time traffic conditions. This approach helps alleviate traffic congestion and enhances traffic management capabilities.

▲ Road conditions in Tartu, Estonia

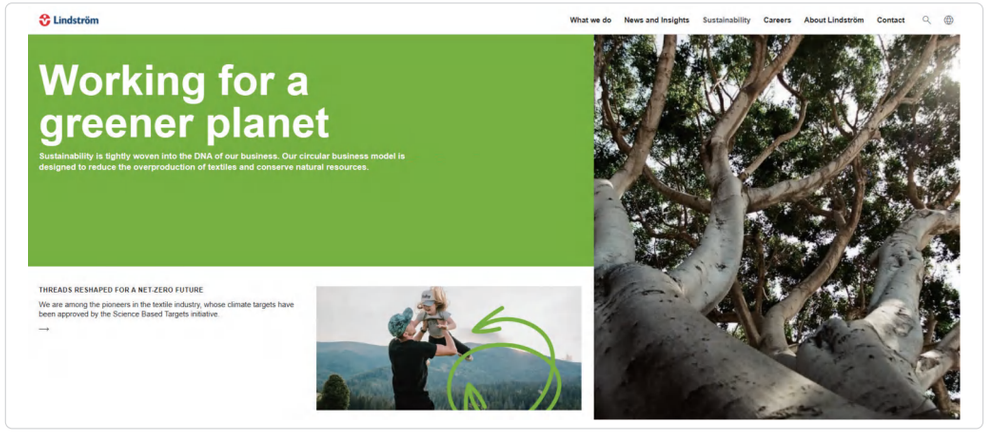
Green Buildings

Solved provided a green residential construction plan for YIT, a leading construction company with over a century of history. Through its expert network, Solved quickly mobilized specialists in relevant fields to conduct a technical evaluation of YIT's original green residential construction plan. They researched and proposed new solutions along with related business models, such as new applications of the sharing economy, aimed at minimizing unnecessary energy consumption in residential areas and meeting green building standards.

Sustainable living environment by YIT

Carbon Reduction

Solved assisted Finland's circular economy company, Lindstrom, in joining the Science-Based Targets initiative (SBTi). Due to lack of experts and resources, Lindstrom was unable to calculate and establish its emission reduction targets and baseline. Solved matched experienced experts within a week to meet Lindstrom's demands, swiftly resolving the problem and helping Lindstrom join SBTi.



Sustainable green development has become Lindstrom's core corporate ideology

Renewable Energy

Solved helped the San Diego County Water Authority review a large number of bid documents for the design and construction of new renewable energy generation and storage facilities at the Twin Oaks Valley Water Treatment Plant. The San Diego County Water Authority issued a tender for the project and received numerous proposals requiring evaluation. Solved quickly mobilized a top team of experts covering renewable energy technology, finance, and business operations. Within two weeks, they evaluated project proposals and reviewed all stages, including planning, design, construction, permitting, operations, and maintenance, maximizing cost-efficiency in the installation and operation of the renewable energy facility.

Twin Oaks Valley Water Treatment Plant

Schneider Multi-Park Collaborative 5G Private Network Application Project

▲ Schneider sets a benchmark, providing reference for 5G private network projects of foreign-funded enterprises

Applying institution

Schneider Electric (Beijing) Low-Voltage Electrical Appliance Co., Ltd., Schneider Electric (Beijing) Medium-Voltage Electrical Appliance Co., Ltd., China United Network Communications Group Co., Ltd. Beijing Branch

Countries and Regions Covered or Involved in the Implementation

China, French and other nations and regions

Founded in 1836 and headquartered in France, Schneider Electric is a provider of electricity distribution, automation management and produces installation components for energy management. As a Fortune Global 500 expert in energy management and automation, it is a leader in smart factories worldwide. Currently, Schneider Electric faces three major challenges: inconsistent network standards, the difficulty of managing dispersed factory locations, and the lack of promotion for innovative applications. To address these issues, it plans to establish 26 smart factories across nine provinces and cities in China, aiming to achieve unified network standards, centralized management, and consistent implementation of applications.

China Unicom and Schneider Electric Collaborate to Build and Operate the World's First 5G Exclusive Private Network Project for Multiple Parks

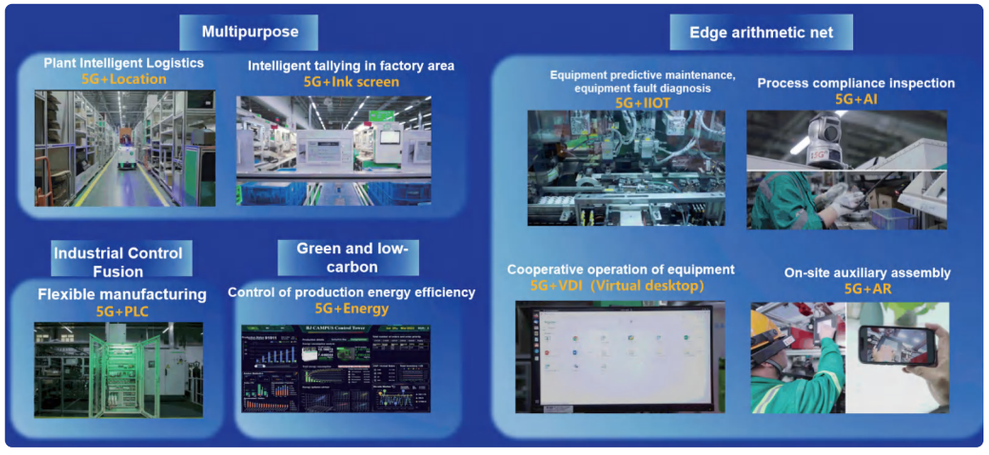
In March 2023, Schneider Electric and China Unicom reached a strategic cooperation agreement, under which the two parties will engage in in-depth collaboration in areas such as joint development of industrial products and solutions, fully connected factories and the industrial internet, green intelligent manufacturing, carbon neutrality, data center infrastructure and energy savings, and basic communication services. The Schneider Electric private network project, jointly built and operated by China Unicom and Schneider Electric, is the world's first 5G exclusive private network project for multiple parks. It employs a group-wide unified management intensive architecture, enabling innovative applications within the factories, such as high-precision 5G positioning, IIOT (Industrial Internet of Things), and PLC (Programmable Logic Controllers). The private networks have already been deployed in several factories across China.

The successful implementation of this project has spurred interest from a range of international companies such as FANUC CORPORATION and Siemens in exploring 5G-enabled factories, attracting widespread global attention. This contributes to enhancing the international influence of 5G factories and facilitating the broader replication and promotion of 5G applications.

▲ Schneider Electric and China Unicom form strategic partnership

5G Application Intensive Innovation Sets Sail for Empowering Green Intelligent Manufacturing

At the Schneider Electric factory in Beijing, four key 5G application themes are primarily covered: multi-network usage, edge computing, industrial control integration, and green low-carbon operations, spanning across nine typical application scenarios in the factory. In the area of intelligent logistics within the plant, 5G enables real-time positioning of AGV (Automated Guided Vehicles), improving logistics efficiency and reducing storage costs. In the area of intelligent sorting, the deep integration of 5G and NB networks has been achieved. 5G + PLC enables flexible manufacturing, while the integration of 5G with production efficiency control achieves Schneider Electric's goals of green, reliable, and efficient energy management. On the 5G MEC (Multi-access Edge Computing) edge cloud, predictive maintenance and diagnostics of equipment, process compliance monitoring, collaborative equipment operations, and on-site assisted assembly have been implemented.



▲ Innovative applications within Schneider Electric factory

Schneider Project Builds 5G Fully Connected Factory Ecosystem, Setting a Benchmark and Supporting Agile Innovation for Enterprises

This project, through the construction of a 5G network and its applications, has achieved significant economic benefits for Schneider Electric's factories. For example, the 5G + positioning integration scenario improved logistics efficiency by 20%; the 5G + PLC scenario increased production capacity by 20%, yielding a direct economic benefit of 1.2 million RMB per year for a single production line; and the 5G + e-ink screen scenario reduced material costs by 500,000 RMB annually. Additionally, the 5G + IIOT scenario increased average annual production capacity by 2%; the 5G + AI scenario boosted production efficiency by 10%; the 5G + VDI scenario reduced annual hardware costs by 50%; and the 5G + AR scenario improved equipment maintenance efficiency by 30%. Moreover, the project leveraged China Unicom's integrated capabilities in aggregation, five-in-one innovation, and leadership in the national security industry chain, achieving major breakthroughs in the industrial internet sector. Schneider Electric's creation of a 5G fully connected factory ecosystem, with multi-campus 5G private networks and operational models, transformed the 5G private network from a pilot project into a commercial product, setting a benchmark and supporting agile innovation for enterprises. The successful implementation of the project has garnered widespread attention from the global 5G innovation community, contributing to the deep integration of 5G with industrial application scenarios and facilitating the explosive growth of future 5G industrial internet projects.

▲ China Unicom empowers global 5G private networks

Digitally Empowering the "Yiwu-Xinjiang-Europe" Railway Express, Weaving the"Belt and Road" Golden Ribbon

▲ The first China-Europe freight train 'Yiwu-Xinjiang-Europe' departed on November 18, 2014

Applying institution

Yiwu International Land Port Group Co., Ltd

Countries and Regions Covered or Involved in the Implementation

24 countries and regions such as Germany, Kyrgyzstan, Russia, Tajikistan, Ukraine, Uzbekistan, and Spain

By constructing digital systems such as the digital freight train information system, digital customs clearance services system, we accelerate the establishment of an efficient and interconnected domestic and international transportation service network for the "Yiwu-Xinjiang-Europe" China-Europe Railway Express, and promote the China-Europe Railway Express to achieve higher quality, better efficiency, and greater safety, serving the integration of global economy and trade.

The Belt and Road Initiative Opens up Logistics Channels of Countries Along the Route

The International Land Port Group, in collaboration with countries along the Belt and Road Initiative, has launched and operated 20 point-to-point international freight direct routes of the "Yiwu-Xinjiang-Europe" China-Europe Railway Express under the joint coordination of the seven-nation joint transportation working group (including China, Belarus, Germany, Kazakhstan, Mongolia, Poland, and Russia). These routes cover over 50 countries and more than 160 cities across the Eurasian continent. Since 2014, more than 7,700 trains have been operated, transporting 630,000 TEUs (twenty-foot equivalent units). Over 70 departure or arrival events have been held in cities such as London, Madrid, Riga, and Prague, drawing significant attention from the international trade and economic sectors. The initiative has successfully established both the "physical connectivity" of logistics channels and the"institutional connectivity"of trade, business, and cultural exchanges among countries along the Belt and Road.

On March 1st, the "Yiwu-Xinjiang-Europe"China-Europe Railway Express (Yiwu-Paris) transported Chinese paintings and ceramic crafts by the renowned Chinese artist and professor at Shanghai Academy of Fine Arts, Mr. Chen Jialing, as part of the series of activities celebrating the 60th anniversary of the establishment of diplomatic ties between China and France. The exhibition "Chen Jialing: A Life by the River"was held at the Cordeliers Convent in the Latin Quarter of Paris to promote cultural exchanges between the two countries.

On June 15th, the X8188 "Yiwu-Xinjiang-Europe" China-Europe Railway Express (Yiwu-Duisburg), loaded with 110 standard containers of daily necessities, automotive parts, household appliances, electronic products, and other goods, departed from Yiwuxi Railway Station. It traversed China, Kazakhstan, Russia, Belarus, Poland, Germany, and other countries, covering a total distance of 11,505 kilometers, and arrived in Duisburg, Germany. The entire journey took only 13 days, shortened from the original 19 days, continuously improving the timeliness of operations.

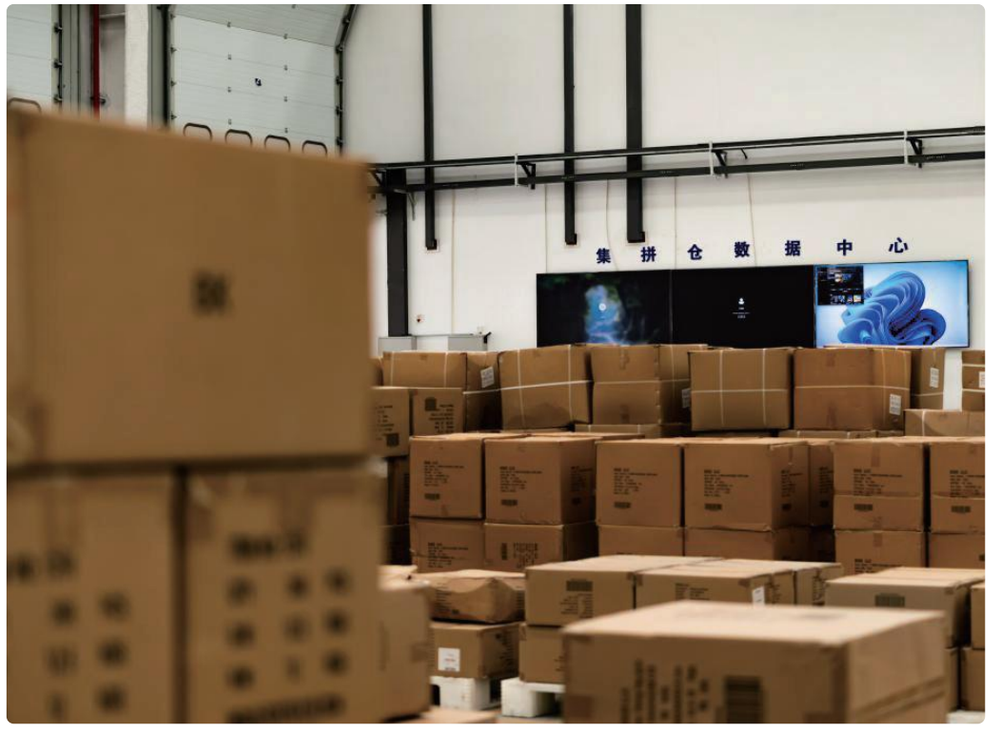
▲ Inaugural trip of the first fully scheduled China-Europe Railway Express (Yiwu to Duisburg) from the Yangtze River Delta

Digital Empowerment for Better and Faster China-Europe Railway Express

After departing the Yiwuxi Railway Station, the initial departure point of the "Yiwu-Xinjiang-Europe"China-Europe Railway Express, completing various procedures such as train formation, reloading, customs declaration, inspections, and border crossing will require, on average, more than 50 drivers in relay to drive, including three reloading operations, taking 9 to 18 days. Utilizing the "Yiwu-Xinjiang-Europe" Digital Service Online System and smart terminal operation system, integrated with the trade "single window"platform, it enables one-stop services for inspection, customs clearance, identity verification, and business processing. These systems have continuously improved the efficiency of loading and unloading operations, reduced cargo dwell times, and enhanced the transportation efficiency of the trains. Customers can track container status, location, and estimated arrival time in real-time, providing convenience, timeliness, and safety assurances for train operations and supporting the economic efficiency of trade.

Through the smart terminal management system, containers are now loaded and unloaded in an orderly manner, reducing the time from half an hour to two minutes, significantly improving operational efficiency.

At the Khorgos railway port, relying on the "digital port's"advantages of data interconnection and seamless connectivity, "joint inspections and one-time release"are implemented for inbound and outbound freight trains. Previously, it took nearly two hours to enter the information of a single intermodal waybill. With the opening of the digital port, now it only takes entering the batch number to extract all the information, and the entire process of the train can be completed in less than an hour, reducing detention time, improving the transportation efficiency of the freight trains, and bringing economic benefits of trade.



▲ Export goods are waiting for inspection at the data center of the consolidation warehouse at Yiwu Railway Port

Stable and Smooth, China-Europe Railway Express Vitalizes Economy and Trade

"We've been using the 'Yiwu-Xinjiang-Europe' freight trains for transporting goods since 2016. It's cheaper and safer. Nowadays, the freight train service is becoming more stable, passing through more countries, and there are more customers choosing to transport goods through the trains,"said the representative of Yiwu Ruimai Import and Export Co., Ltd. Stable and efficient train operations have instilled confidence in cross-border trade for an increasing number of global customers.

Relying on stable and smooth logistics channels, Yiwu conducts trade with 233 countries and regions. Customs data shows that Yiwu's import and export value exceeded 560 billion yuan in 2023, with a growth rate of over 15%. From January to August 2024, the total import and export value reached 440 billion yuan, a year-on-year increase of 17.2%.

Building a bridge for cross-border cooperation. On May 8th, at the tenth-anniversary achievement exhibition and departure ceremony of the China-Europe Railway Express (Yiwu-Madrid), a total of 18 cooperation projects between Zhejiang and Spain were announced, with a combined value totaling 307 million US dollars.

▲ A commemorative freight train to celebrate the establishment of diplomatic relations between China and Spain departs from Yiwu, Zhejiang

Empowering Digital Transformation in Africa Through the Computer Network Integration

China Unicom empowers traditional African industries with digital technologies

Applying institution

China Unicom Global Limited

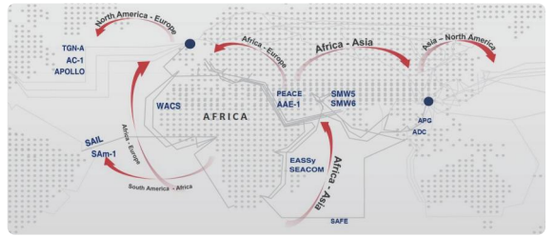
Countries and Regions Covered or Involved in the Implementation

8 countries and regions such as Egypt, South Africa, Cameroon, and Brazil

China Unicom has more than 60 submarine cables in the world, 16 of which have participated in the construction of submarine and land cables, more than 340 POP cables, and achieved sea and land connections in more than 70 countries and regions. Among them, China Unicom's deployed resources in Africa reached nearly one-third of the total deployment, including submarine cable systems accounting for more than 25%, capacity accounting for more than 32%, and product PoP nodes accounting for more than 8%. Through these resources, Africa can achieve its global connectivity and close connection with Asia, the Americas and Europe.

Further Build a New Africa-America Corridor and Fully Contribute to South-South Cooperation

As the first maritime channel connecting Africa and South America, SAIL submarine cable, which was put into operation in 2020, further builds a new channel with high reliability, low delay and large capacity between Africa and the Americas, comprehensively contributing to South-South cooperation.



The new Africa-America corridor will fully contribute to the South-South cooperation

To Europe, Latin America and the Middle East into the 50ms Delay Circle

While further improving accessibility, China Unicom pays more attention to the quality and client perception of regional network connectivity in Africa. It has built a low-delay fast track connecting all continents in Africa, to Europe, Latin America and the Middle East into 50ms delay circle [as low as 59ms, to Latin America as low as 56ms, to the Middle East to 56ms], to Asia Pacific into 100ms delay ring, up to 99ms. To better service Digital Silk Road construction, China Unicom has built the largest global intelligent cloud data center in Hong Kong, the only submarine cable landing station, serving as both the Infrastructure Hub for the Belt and Road Initiative, and International Financial Customer Service Center, Global Center of Cloud Services, International Security Operation and Service Center, and Green and Advanced Intelligent Computing Center.

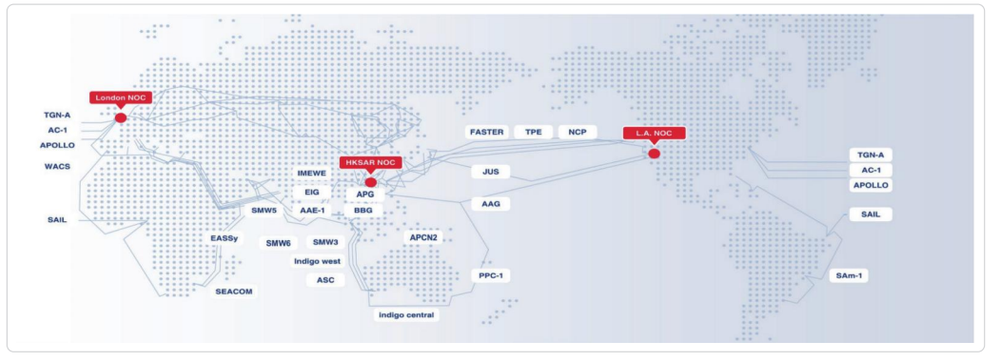
China Unicom Global Intelligent·Cloud data center

China Unicom Is Actively Responding to Accelerating Its Transformation from a Traditional Operator to a Leading Digital Technology Enterprise

Relying on the strong basic capability of large connectivity, global deployment of submarine and land cables and strong 5G network coverage capability, 440 million Internet of Things terminal connections, China Unicom will further accelerate all-round cooperation with global operators to provide more powerful access and accessibility capabilities.

Through the coverage of more than 880 data centers and 330 geographical regions worldwide, China Unicom has realized the capability evolution from "cloud network integration" to "computing network integration." In the future, China Unicom will build a multi-cloud interconnection platform based on the data center to provide a base of cloud-based application services for global clients.

As China Unicom improves its digital transformation capabilities, it has been actively involved in the capacity building to meet the needs of all walks of life. By empowering the transformation and upgrading of traditional industries, it has built benchmark projects such as smart medical care, smart mines, smart warehousing, and smart industrial parks exclusive to Africa, and its business footprint has spread all over the African continent, making it an international digital value creator trsuted by Chinese and African clients.



China Unicom's global network connectivity enables capacity building for the digital needs of all industries in Africa

Taiping General Insurance Co., Ltd. Marine Insurance Digitization Project

Taiping General Insurance Co., Ltd. marine insurance digitization project

Applying institution

Taiping General Insurance Co., Ltd.

中国太平 CHINA TAIPING | 太平财产保险有限公司 TAIPING GENERAL INSURANCE CO.,LTD.

Other participating organizations

Taiping Financial Technology Service (Shanghai) Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

50 countries and regions such as The United States, the United Kingdom, Japan, New Zealand, Germany, and Canada

Taiping General Insurance Co., Ltd. has built a digital intelligence application platform for marine insurance, promoted digital transformation, driven the innovative development of the digital economy in traditional marine insurance and enhanced the efficiency of various operation service scenarios of marine insurance. It has provided a wealth of risk early warning and loss reduction services for diversified clients such as production enterprises, international economic and trade partners in the logistics field in the global industrial chain and supply chain during the transportation process, enhancing their capability in disaster prevention and loss reduction.

The Digitization and Intelligent of Marine Insurance Moves Forward Towards "New"

Through digital innovation and development, Taiping General Insurance Co., Ltd. has introduced shipping big data and built a digital intelligence application platform for marine insurance, aiming to reduce the loss risks faced by enterprise clients such as economic and trade logistics due to natural disasters and other emergencies. The intelligent marine insurance platform provides professional risk reduction services for traditional marine insurance clients by improving the timely monitoring of potential risks of goods in global transportation, it, enriching the content of risk early warning and enhancing the timeliness of risk early warning. For example, the platform can monitor risks in real time for ships entering the Red Sea areas. Before underwriting the ship, combined with shipping big data, it will trigger system risk warning and realize hard control. If the ship still sails into the risk control area after being underwritten, the platform can trigger warning emails to different users, suggesting that clients adjust their routes to ensure safety.

Build an Internationally Leading Intelligent Management Platform for Marine Insurance Business, and Lead the Innovative Management of Marine Insurance Underwriting

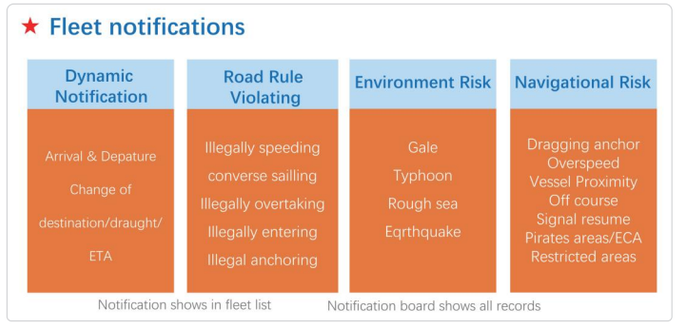
1.Construct intelligent ship cards, including massive domestic and foreign trade ship archives and files which realize regular automatic updates and increase the input time by about 30 minutes per policy.

2. Using shipping big data, it provides dynamic monitoring and early warning in aspects such as meteorological disasters, high-risk areas, abnormal navigation data, and accident public opinions before, during, and after underwriting. From 2023 to 2024, nearly 10,000 early warnings were sent in aspects such as typhoons, strong winds, high waves, approaching earthquake zones, abnormal driving and crossing navigation areas.

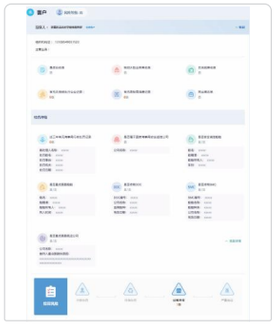
3. Create a cumulative risk engine for the same ship, and get the cumulative risk coverage and underwriting details of marine insurance under the specific rules of the same means of transport and the details of hull insurance coverage of the same ship in real time, so as to realize the functions of automatic monitoring and timely warning beyond the preset threshold, with a cumulative calculation of hundreds of thousands of times.

4. Establish risk rating models, based on the accumulation and application of big data, create multi-dimensional, three-dimensional, visualized, and specialized risk quantification assessment models and realize real-time perception of the risk situation of marine insurance underwriting business by salesman, and establish tens of thousands of reports.

5.Integrate ship intelligent risk query service, tracking risks of various types of ocean-going, coastal inland ships and imported and exported goods insured, and realizing route risk query and accident trajectory backtracing.



▲ Example of risk early warning content



▲ Risk assessment report

The Digitization of Marine Insurance Achieves Intelligent Risk Management for Global Ship and Cargo Insurance

In terms of social benefits, the implementation effect of this case is significant, greatly enriching the content of risk early warning and increasing the frequency of risk warning to ensure the effectiveness of early warning.

The meteorological disaster warning function has issued more than 10000 warnings during typhoons including Typhoon Talim, Super Typhoon Doksuri, Severe Typhoon Damrey, and Severe Typhoon Haikui in 2023, reminding our insured global clients to take prevention measures and safety precautions. Nearly 10000 warnings have been issued for strong winds, big waves, speeding, approaching earthquake zones, abnormal driving such as signal loss, crossing navigation zones to timely track client situations, strengthen risk monitoring and warning, and fully play the role of insurance accident prevention and risk resolution.

In terms of economic benefits, it significantly improves the efficiency of issuing insurance policies and reduces the cost of manual input. After the launch of the intelligent ship card, more than 90000 insurance policies have been issued, and more than 9500 ship files have been created through intelligent ship card, saving at least 30 minutes per ship to create files. After evaluation, conservative minimum can save management costs about 1.5 million yuan per year.

The project has played a "significant" role in setting a exemplary effect within the industry in implementing the digital transformation strategy. It has been awarded a prestigious honor by an authoritative organization:

- Innovation Achievement Award for Digital Inclusive Finance by the Ministry of Industry and Information Technology in 2024
- Outstanding Case Award for "Data Governance and Data Platform" by Guangdong-Hong Kong-Macao Cooperation Promotion Association
- The Most Socially Beneficial Award for Innovative Applications of Financial Technology at the Third "Jin Xintong" Awards

(This translation is for reference only. In case of any discrepancy, the Chinese version shall prevail)

▲ Project's awarded honors

DiDi Promotes Advanced Digital Mobility Solutions and Continuously Provides Quality Services to Global Users

▲ Ads for DiDi on streets of Cairo, Egypt in 2024

Applying institution

DIDI

Other participating organizations

99, Sergio Arboleda University,Dahruj, IturanMob

Countries and Regions Covered or Involved in the Implementation

15 countries and regions such as China, Brazil, Argentina, Colombia, Chile, Mexico, and Australia

DiDi was one of the earliest tech companies to expand from China into the international market. Relying on its solid foundation of advanced intelligent mobility solutions developed over many years, DiDi provides superior quality and safe mobility services designed for all, earning recognition worldwide.

After Six Years of Steady Development, Didi Now Provides Diverse Services in 15 Countries

In early 2018, DiDi acquired 99, now the second largest ride-sharing app in Brazil. From Brazil, DiDi has since expanded into other countries including Mexico, Chile, and Colombia, scaling up its overseas operations at an accelerated pace. Today, DiDi provides services in 15 countries around the world, including 10 countries in Latin America, 4 countries in the Asia Pacific, and Egypt in Africa. DiDi's main services include ridesharing, food delivery, payments, and inclusive finance.

▲ BYD's Brazilian subsidiary and the Brazilian car rental company Dahruj joined the Brazil Sustainable Mobility Alliance in July 2022, providing electric vehicles to 99's drivers through leasing and other means

Didi Fulfills Its Social Responsibilities by Promoting Digital Payment Systems and Green Transformation

In Brazil, DiDi is staying ahead of the digital economy curve in ridesharing and digital payments by leveraging its abundant experience in application technology and operations amassed in China. For example, in response to Brazil's unique crime challenges, DiDi developed and launched a special Geofence System to limit trip requests to designated areas. This and other safety governance strategies helped reduce the accident rate on the platform by 93% in under two years. Meanwhile, to help prevent the high rate of robberies targeting drivers due to cash transactions in Brazil, DiDi teamed up with local financial institutions to offer drivers digital wallet services, accelerating the adoption of online payment methods and significantly reducing robberies.

DiDi is also deeply committed to promoting the use of electric vehicles for ridesharing and other environmental measures in Brazil to facilitate green transformation of local energy and transportation industries. In April 2022, 99, Brazil's leading ride-hailing app and a subsidiary of DiDi, took the lead in establishing the Brazil Sustainable Mobility Alliance to promote new energy vehicles in Brazil. Currently, the Alliance has 19 member companies covering automobile manufacturing, car rental, energy, and finance industries. It plans to increase the adoption rate of new energy vehicles from about 2% to 10% and build 10,000 new public charging stations in Brazil by 2025.
DiDi launched "DiDi Mujer," known as DiDi Woman, in selected Latin American markets. As the function is enabled, female drivers can choose to pick up only female riders, which plays a pivotal role in ensuring the safety of female users on the platform. This function was selected as the best practice for the United Nations Sustainable Development Goals and won the Best Inclusion Award in the 2023 APEC PPSTI Price for Science & Technology Innovation (APSTI).

DiDi has also introduced its measures for protecting and supporting drivers to international markets, including establishing local Driver Centers and Driver Service Stations and providing safety training and support services to drivers, helping drivers improve their skills and overcome challenges.

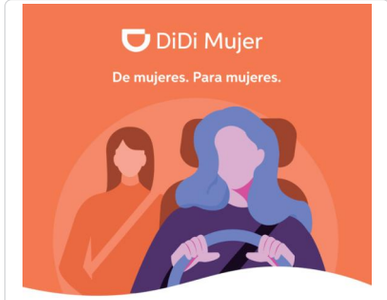
▲ Representatives of the Brazil Sustainable Mobility Alliance celebrate the alliance's second anniversary

▲ In October 2023, Stephen Zhu (Center), Senior Vice President and Head of International Business at Didi, participated in the signing ceremony of the "Belt and Road CEO Conference" with representatives from the Brazilian company Ituranmob (First from Left) and BYD's Brazilian subsidiary (First from Right)

DIDI Created More Job and Actively Participated in Local Social Welfare Activities

As of April 2024, DiDi's international business has partnered with over 3.6 million annual active drivers and couriers. DiDi has also implemented significant localization strategies including recruitment of local employees, underscoring one of DiDi's successful achievements in internationalization. To date, DiDi's international business has recruited over 1,100 local employees, accounting for more than 90% of total international employees.

Moreover, DiDi actively participates in social welfare activities around the world to bring warmth and wellbeing to local communities. For example, in Brazil, DiDi cooperates with a local blood donation organization to provide ride coupons to blood donation volunteers, helping increase blood stocks in more than 80 institutions. In Colombia, DiDi has donated to Sergio Arboleda University to grant scholarships to platform users and their children in the areas of innovation and economic technology. In Argentina, DiDi has established a female driver school to increase the representation of female drivers on the platform by promoting cooperation and mutual assistance among women.



▲ A promotional image for DiDi Mujer

▲ On November 21, 2023, DiDi Argentina held a Women's Driver Academy event in Buenos Aires, inviting experts to provide training on vehicle maintenance for women drivers on the DiDi platform, along with live demonstrations

Research on Remote Digital Intelligence Medical Technology and Application Under Sino-French Cooperation

▲ Sino-French cooperation in the research and development of intelligent auxiliary diagnosis and treatment equipment for brain diseases

Applying institution

Suzhou Institute of Biomedical Engineering and Technology,
Chinese Academy of Sciences

Other participating organizations

University of Picardy-Jules Verne

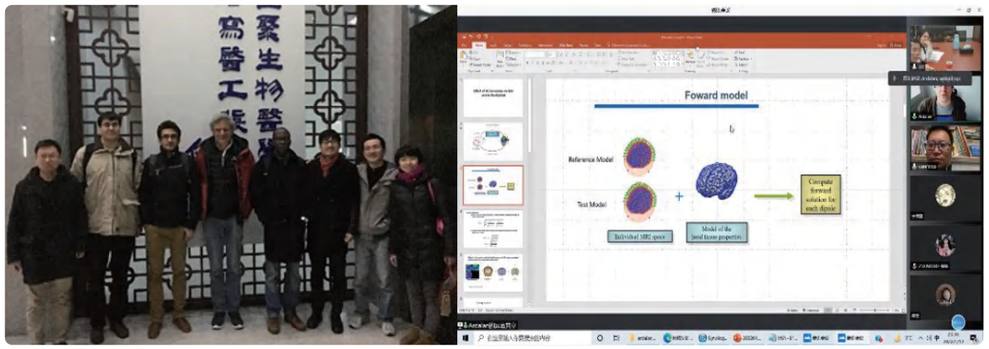
Countries and Regions Covered or Involved in the Implementation

China, France

How to improve early prevention, diagnosis and treatment of brain diseases is a global challenge. In the long-standing collaboration between the Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences and the School of Medicine in University of Picardy Jules Verne in France, a number of researches on novel digital medical technologies for brain diseases have been developed focusing on non-invasive brain devices and intelligent cloud-based chronic disease management.

Chinese and French Scientists Work Together to Explore New Technologies for Intelligent Diagnosis and Treatment of Brain Diseases

Since 2014, scientific research teams from China and France have established a long-term scientific and technological exchanges relationship through the China-France Hubert Curien Partnership Program-Cai Yuanpei Project. Both sides have maintained long-term cooperation in the fields of neuroimaging analysis and brain disease mechanism research, jointly undertaking multiple scientific and technological projects, including the National Natural Science Foundation and the Jiangsu Province Science and Technology Project. The international cooperation has accelerated the research on the localization of epilepsy focus, and has identified key bottleneck technologies that restrict precise epilepsy focus localization, filling the gaps in precise localization products for electroencephalogram (EEG) signals, and better serving epilepsy patients worldwide. On the basis of the brain function analysis and EEG source imaging, further research has been conducted on the influence of brain lesions in patients with brain tumor and stroke on EEG source localization, providing a new perspective and method for the diagnosis and treatment of related diseases.

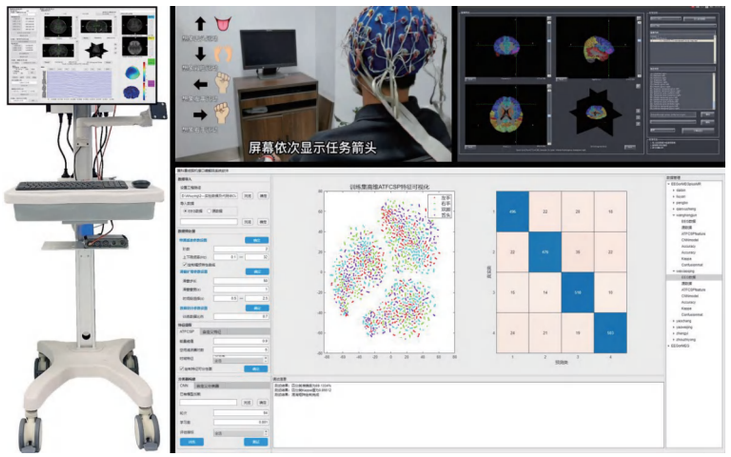


Chinese and French research teams are jointly carrying out technological research and development

Non-invasive High Spatio-Temporal Resolution Brain-Computer Interface CODEC Technology

The technical innovation of the team mainly lies in the high spatio-temporal resolution brain-computer interface technology that integrates brain electromagnetic signals with magnetic resonance imaging, achieving technological innovation and breakthroughs in three key steps: signal acquisition, spatio-temporal resolution and CODEC.

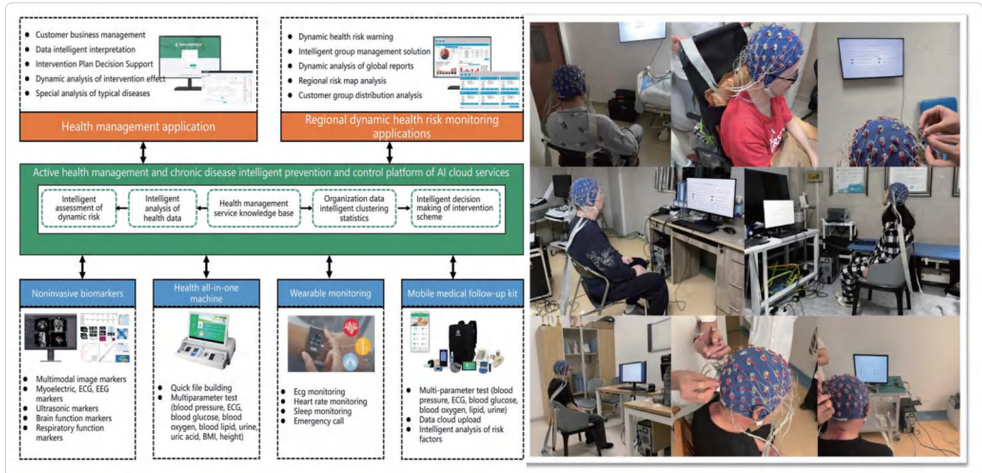
The related technologies can cover the diagnosis, treatment and rehabilitation of brain diseases, including stroke, epilepsy, cerebral palsy, and tinnitus. Taking stroke as an example, it is possible for patients to recover part of their nerve functions through rehabilitation training for stroke. In rehabilitation training, doctors used to be unable to read the patient's thoughts, and could not determine whether the patient had the correct nerve stimulation during the training. Fortunately, thanks to brain-computer interface technology, doctors can evaluate and monitor brain activity signals of patients in real time now. In addition, with the help of these technologies, brain-computer interface can be used to detect degenerative diseases such as Parkinson disease and Alzheimer's. Through multi-modal fusion and accurate brain modeling, doctors can analyze details such as the volume and surface area of the brain, to understand the trend of disease development as early as possible.



▲ High spatio-temporal resolution source imaging of heterogeneous fusion brain-computer interface signals and brain structural magnetic resonance

Intelligent Remote Digital Medical Technology Promotes the Medical-Nursing-Integrated Elderly Health Management

The Chinese team has actively promoted the industrialization of relevant technologies, and has established an active health management and chronic disease intelligent prevention and control platform based on AI+ cloud services, which can realize real-time synchronization of chronic disease files and rapid detection and analysis of chronic disease prevention and control related indicators in such scenarios as hospitals, communities, and homes. The system has covered more than 1.5 million residents, and a total of more than 100 units. Through screening, it has eventually established files and daily vital sign monitoring and health management for more than 200,000 chronic disease patients, which have been included in the smart health care system. Currently more than 10,000 residents have been long-term tracked and collected vital signs data such as blood pressure, blood sugar, and EEG through this system.



▲ Active health management and chronic disease intelligent prevention and control platform and EEG data collection based on AI+ cloud services

04

Cybersecurity Maintenance

Maintaining Cybersecurity to Promote Orderly Development

世界互联网大会
World Internet Conference

2024

Outstanding Case

Pioneering Technology, Linking the World: Big Data and AI's New Role in Scam Prevention

▲ Integration of technology and data to help China's anti-fraud Work

Applying institution

China Unicom Global Limited

Other participating organizations

City University of Hong Kong

Countries and Regions Covered or Involved in the Implementation

75 countries and regions such as China, Hong Kong (China), Australia, Brazil, Belarus, and Bangladesh

Global telecom network fraud is increasingly serious. Criminals use emerging technologies to commit fraud, resulting in significant economic losses. Based on big data and AI technology, China Unicom Global Limited and the City University of Hong Kong accurately manage the gray and black industry chain to help fight against fraud crimes globally.

Build a Database of Fraud Cases Based on Social Public Opinion

The global problem of gray and black production is beyond the ability of the traditional defense means, and we must use cutting-edge technologies to take the initiative in this battle. China Unicom is a large-scale international telecom operator with more than 1 billion connections, the City University of Hong Kong is the world's top international university. Both sides gather advanced resources and technologies around the world to deeply analyze the fraud trends and patterns, decode the secret behind the gray and black industry, and export paths to regulate telecom fraud to global partners. China Unicom and the Hong Kong University of Science and Technology build a global fraud case database to gain insight into the operation mode of gray and black production and give early warning. We use the sharp eyes of artificial intelligence to understand the psychology of victims and develop preventive measures. This year, the platform detected a series of abnormal online activities and identified them as related to multiple scams. The system quickly alerted and prevented many potential scams in time.

Telecom network fraud defense and analysis platform

Key Role of Cross-Border Cooperation and Data Analysis

Since 2023, China Unicom has significantly improved the efficiency of gray and black production management. 1.5 billion + public service messages and 3700 + anti-fraud publicity activities were conducted to enhance the national anti-fraud awareness. 30 million + early warning reminders were issued to accurately intercept illegal arrows. Centralized governance platform like eagle eyes leaves gray and black illegal operations nowhere to hide; and uses AI technologies check disposal mechanism to ensure that frauds are identified accurately and the public do not suffer losses; and the rate of cases reduced to 41%. We have never stopped and continued to move forward on the journey of gray and black industry management. In the future, we will deepen research with international academic institutions, promote cross-border data sharing and technological innovation, effectively ensure global cybersecurity, and jointly build a global community with a shared future.

Moreover, China Unicom Global Limited actively shares the latest research results of China Unicom in the field of anti-fraud with major communication operators around the world, actively participates in international academic exchange activities, and provides cutting-edge insights and strategies for global anti-fraud work. These efforts have built a robust anti-fraud firewall to protect global citizens from telecom network fraud.

Protect global citizens from telecom network fraud

Significant Improvement in Social Impact and Economic Benefits

Innovative anti-fraud methods have significantly improved social and economic benefits. China Unicom Global Limited constructs victim portraits based on the demographics, behavioral characteristics and psychological characteristics of victims, and formulates targeted publicity and intervention strategies accordingly. These means not only effectively reduce the frequency and scope of cross-border telecom network fraud, but also significantly improve the fraud professional level of anti-fraud professionals, strengthen the awareness of key groups, and optimizes the risk control efficiency of China Unicom Global Limited. This move will eventually form a synergistic effect of social anti-fraud and reduce the damage of fraud to the society. Through efficient international cooperation and experience sharing, the project has successfully built a more secure and reliable network environment, setting a new benchmark for global anti-fraud efforts.

▲ Strengthen the social defense line: multi-dimensional strategy to enhance the social benefits of anti-telecom fraud

Outstanding Case

Working Together with Law Enforcement Agencies to Combat Crime, Maintaining Cyberspace Security

▲ Certificate of appointment of Hong Kong Police Force Cyber Security Action Task Force

Applying institution

Kaspersky

Other participating organizations

INTERPOL, AFRIPOL, Hong Kong Police Force, Singapore Police Force

Countries and Regions Covered or Involved in the Implementation

10 countries and regions such as Russia, Singapore, the Netherlands, Hong Kong (China), Indonesia, Africa, Brazil, and South Sudan

With the rapid development of network technology, incidents of cybercrime have been rising globally, causing huge losses to society. According to industry organizations, losses from all forms of cybercrime amounted to US$3 trillion in 2015, and could reach US$10.5 trillion annually by 2025. In this context, it is imperative to crack down on cybercrimes.

Combating Cybercrimes Is the Unshrinking Responsibility of Cybersecurity Leaders

Cybercrimes come in multiple forms, such as malware attacks, phishing, distributed DOS attacks, ransomware, all of which harm the interests of network users. In 2023, Kaspersky's detection systems detected an average of 411,000 samples of malware per day.

As a leading provider of cybersecurity solutions, Kaspersky is committed to providing comprehensive and effective cybersecurity protection to global users with its innovative technologies and services. Given the complex and covert nature of cybercrimes, they cannot be tackled through technical means alone. Kaspersky therefore actively cooperates with law enforcement agencies around the world to build a cybersecurity line of defense.

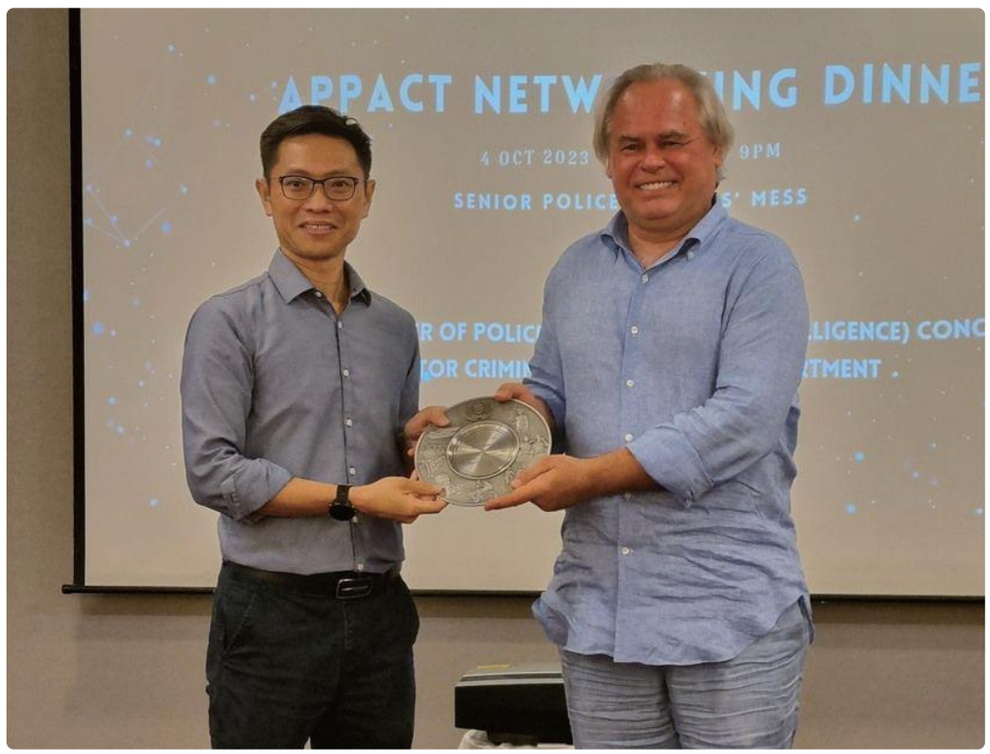
Kaspersky's capabilities and concepts have been recognized by law enforcement agencies in many countries and regions around the world. Since 2014, Kaspersky has signed long-standing Memorandum of Understanding (MoU) with INTERPOL and European Union Agency for Law Enforcement Cooperation (EUROPOL), whom Kaspersky assists in investigations and countermeasures to disrupt cybercriminals. Within Asia-Pacific, Kaspersky has been given awards for being part of the Singapore Police Force's (SPF) Alliance of Public PrivAte Cybercrime sTakeholders (APPACT), and was recently appointed as a member of the Hong Kong Police Force Cyber Security Action Task Force.

▲ Signing ceremony between INTERPOL and Kaspersky

Providing Resources Based on Leading-Edge Technology and Leveraging Our Strengths

In its cooperation with law enforcement agencies, Kaspersky can leverage its strengths and provide valuable resources, including sending senior malware analysts to share the latest research findings and threat intelligence data on the latest cybercrimes. These analysts can also conduct a range of training courses for law enforcement agencies to share expertise in malware analysis, digital forensics, and financial threat research. Kaspersky has also collaborated with law enforcement agencies to develop decryption tools to help ransomware victims get back encrypted data without having to pay a ransom.

In the 10 years since its cooperation with the first law enforcement agency in 2014, Kaspersky has been highly acclaimed for its resources, efforts to improve the professional capabilities of law enforcement agencies, and achievement of tangible outcomes in combatting cybercrimes.



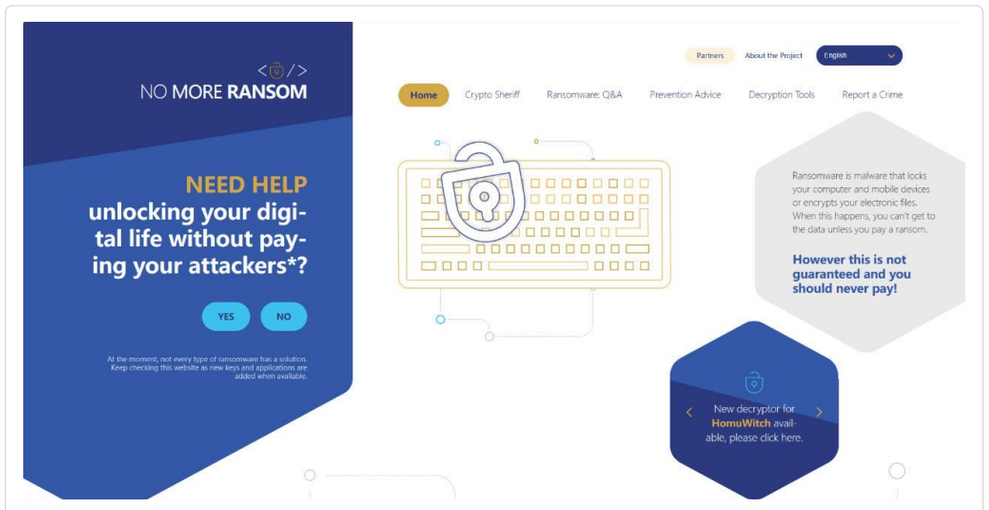
▲ The Singapore Police Force presented Kaspersky with a medal in recognition of its contribution to building a cyber-resilient world

Significant Results in Combating Cybercrimes by Collaborating with Law Enforcement Agencies

By the end of 2023, the "No More Ransom"Initiative, which Kaspersky co-founded with EUROPOL, the Netherlands Police and other partners, had generated more than 360,000 downloads of Kaspersky's decryption tools over a seven-year period, helping nearly 2 million victims decrypt their devices and save them from ransomware.

In September 2023, during INTERPOL's second operation to combat the surge in cybercrimes in Africa, Kaspersky provided threat intelligence data that enabled investigators to identify compromised infrastructure and arrest suspected cybercrime threat actors across the African region. The operation resulted in the arrest of 14 perpetrators and the identification of related network infrastructure that resulted in economic losses of more than US$40 million.

The list goes on. Kaspersky is also constantly expanding cooperation with more regional law enforcement agencies to achieve more with partners in combating cybercrimes!



▲ Official website of "NO MORE RANSOM"

AI Technology Advances APT Defense to a New Level, Jointly Addressing Global Cybersecurity Challenges

▲ Based on big Data, knowledge graph and AI, China Mobile has developed comprehensive capabilities to defense APT

Applying institution

China Mobile Communications Group Co., Ltd., China Mobile (Hangzhou) Information Technology Co., Ltd., NSFOCUS Technologies Group Co., Ltd.

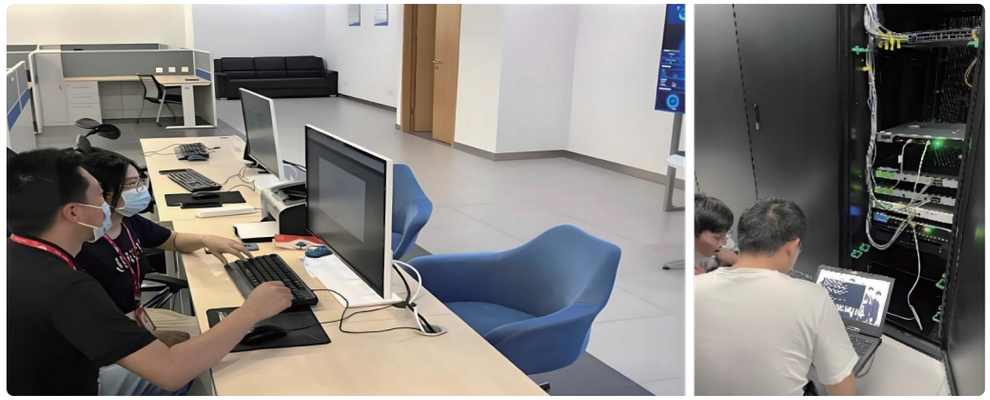
Countries and Regions Covered or Involved in the Implementation

9 countries and regions such as China, the United Kingdom, Japan, Singapore, Brazil, the United Arab Emirates, Pakistan, and Indonesia

As cyberattacks evolve into increasingly sophisticated threats, traditional defenses struggle to keep up with the growing complexity of cybersecurity challenges. This is especially critical for advanced persistent threats (APT), which threaten key industries and fundamental facilities such as energy, finance, and national defense, endangering global public interests.

Resisting Highly Stealth APT Attacks and Building a Robust Security Defense

China Mobile has developed an APT defense system to strengthen critical infrastructure and public cybersecurity based on cloud-network integration and intelligent collaboration. It provides high-value intelligence and integrated security service to 150 clients across nine countries and regions, including Singapore, Brazil, the UAE, Pakistan, and Indonesia. Through ongoing collaboration, global partners have significantly improved their ability to detect and defend against APT attacks. This effort promotes global cyberspace security and contributes to a more secure network ecosystem.



China Mobile security experts are analyzing and tracing highly stealth APT incidents

Intelligent Technology Enables Comprehensive and Efficient Detection and Response to APT Attacks

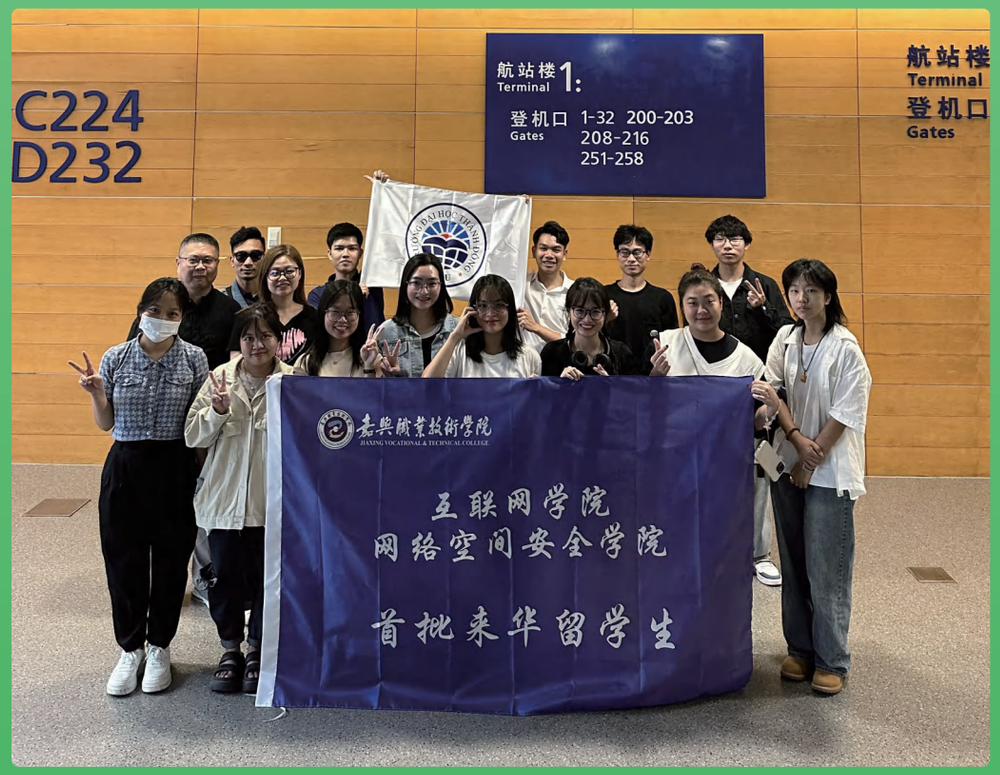
China Mobile has demonstrated remarkable innovation in cybersecurity by integrating big data analysis and AI-driven intelligence. The company has developed an advanced intelligent APT defense system through advanced machine learning techniques, consolidating and analyzing extensive security data. This system enables precise tracking and analyzing of APT attack patterns, facilitating efficient detection of APT and ensuring rapid response to minimize potential damage. Furthermore, its continuous learning and self-evolution capabilities ensure adaptability to evolving cybersecurity threats, providing users with enduring and reliable protection.

AI-driven APT defense framework for telecom infrastructure network

Collaborative Efforts and Mutual Benefits to Advance the Sound and Stable Development of Global Cyberspace Security

China Mobile implements a sharing and collaboration pattern in international cybersecurity cooperation. It establishes an efficient, open, and secure network environment, realizing a synergistic effect. It has developed regular cooperation mechanisms with more than 150 organizations across nine countries and regions, enabling real-time sharing of reliable threat intelligence. Through close collaboration with global partners, the community has jointly identified hundreds of significant cybersecurity incidents involving prominent universities and the Fortune 500 companies, preventing the theft of critical information and mitigating risks related to public interests. The international collaboration improves partners' innovation abilities and acts as a demonstration in the global industry, accelerating progress in global cyberspace security governance.

Luban Workshop Empowers Global Cybersecurity Talents and Leads "Belt and Road" Cybersecurity Education



▲ Welcoming the first batch of international students

Applying institution

Jiaxing Vocational and Technical College (JXVTC)

Other participating organizations

KEESON Technology Co., Ltd. , Vietnam Factory, KEESON Technology USA California Branch, KEESON Technology Europe Lithuania Branch, Thanh Dong University, Vietnam

Countries and Regions Covered or Involved in the Implementation

10 countries and regions such as The United States, Vietnam, and Lithuania

As an exemplary model of international technical and educational cooperation, the LuBan Workshop cultivates highly skilled talents in the field of global cybersecurity through innovative educational models. Under the framework of advancing the Belt and Road Initiative, it leverages the image of Lu Ban (the legendary Chinese carpenter and inventor who is worshipped as a god of craftsmanship and ingenuity) to establish the China-Vietnam Luban Workshop (Silk Road University) in Vietnam. This initiative engages in various forms of international cooperation, including joint educational programs, academic seminars, and skills training, thereby empowering global cybersecurity professionals and piloting Belt and Road cybersecurity education.

"Belt and Road" Luban Workshop - Building a Community with a Shared Future in Cybersecurity Through International Integration of Industry and Education

In recent years, JXVTC has acutely identified international needs from the perspective of a community with a shared future in cybersecurity, and has actively responded to the Belt and Road Initiative (BRI) to better serve Jiaxing enterprises going global in their strategic layout along the BRI countries. JXVTC has jointly explored international industry-education integration projects with KEESON, a company that has gone global. It conducted research on the demand for cooperative education programs combining "Chinese Language + Vocational Education" at Vietnamese institutions. Together with KEESON and Thanh Dong University in Vietnam, they established the"China-Vietnam Industrial Internet College"and launched the"China-Vietnam Luban Workshop." Through this international cooperation model involving collaboration between schools and enterprises, JXVTC organized 32 sessions of global cyber security technology skill training for foreign employees at KEESON's overseas branches, including its factory in Vietnam, its branch in California, USA, and its branch in Lithuania, Europe, reaching a total of 4,000 participants. Additionally, pilot skill training was conducted at Thanh Dong University in Vietnam, successfully enrolling 10 international students and providing training opportunities for 1,200 students from countries along the BRI.

▲ JXVTC and KEESON have cooperated to establish the "China-Vietnam Industrial Internet College"

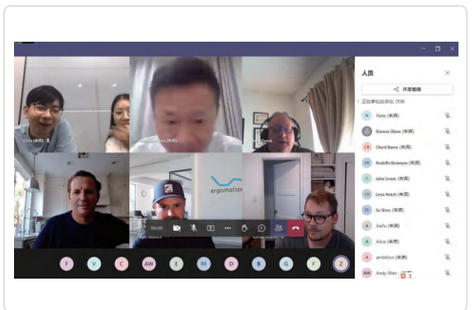
JXVTC Teachers "Go Global" to Empower High-Quality Development of "Going Out" Enterprises

Since 2022, JXVTC has sent multiple full-time teachers to Vietnam on multiple occasions to strengthen its international industrial and vocational education integration with companies such as KEESON, Webox (ZhiLai Sci and Tech Co.,Ltd.), Kaihom Sewing Machine (one-stop supply chain), and Botai Furniture that have gone overseas. By conducting on-site investigations and surveys, JXVTC has accurately matched the training and international vocational education cooperation needs of these "gone out" enterprises, and established the"China-Vietnam Industrial Internet Overseas Factory (Vietnam) Training Center." Based on the actual needs of Vietnamese production and technical personnel, JXVTC has provided 8 training sessions on smart manufacturing, industrial internet, and cybersecurity to over 500 local employees of KEESON (Binh Duong) Co., Ltd. and other companies, and has trained local enterprise production technicians with practical skills tailored to their needs, thus helping "gone out"enterprises cultivate more high-adaptability and high-skilled technical and vocational talents. In addition, JXVTC has conducted cooperation and exchanges with multiple institutions such as Thanh Dong University, Vietnam, Binh Duong University, Binh Duong Agriculture and Forestry High School, Thu Dau Mot University, and Binh Duong Agriculture and Forestry High School, to promote its policy on recruiting international students, and seek opportunities for cooperation and exchanges in cultivating international cybersecurity talents.

▲ Teachers from JXVTC are training employees at Keeson in Vietnam

Leader in Cybersecurity International Training, Building a New Highland of Global Cybersecurity Safeguard Social Services

Through the Luban Workshop, JXVTC has built high-quality training resources, and school-enterprise cooperation has developed 19 cybersecurity training textbooks such as Intranet Penetration, Code Audit, and Brute Force Cracking. A total of 10 online and offline international cybersecurity technical skills training sessions were conducted in KEESON's Vietnam factory, California branch in the United States, European Lithuania branch, and other locations, with 32 sessions and 4,000 trainees. Working with educational institutions along the Belt and Road countries such as Vietnam, Myanmar, and Cambodia, JXVTC has tailored cybersecurity training courses for students from these countries. The courses cover a wide range of professional theoretical knowledge and practical skill drills in the field of cybersecurity, training 1,200 students from countries along the BRI and injecting new strength into the cybersecurity protection capabilities of these countries, thus building a new highland for global network security and social services.



▲ Online cybersecurity skills training

▲ Group photo at the graduation ceremony of global training at the China-Vietnam Industrial Internet College, Thanh Dong University, Vietnam

Students Come to Study in China, Establishing a Golden Brand of "Invitation" and "Studying in JXVTC"

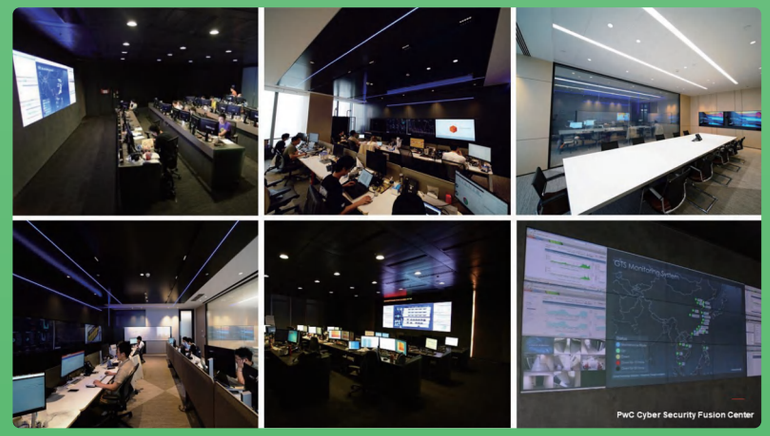
Relying on the advantages of industrial internet major group construction, integrating high-quality teaching resources, gathering high-caliber teachers, and introducing German high-quality teaching resources, JXVTC recruited 10 Vietnamese students from Thanh Dong University, Vietnam. We have established scholarships for international students, promoting the official implementation of the "2+2'Chinese + Industrial Internet'Vocational Skills"international cooperation teaching project. Students complete basic courses in Vietnam in the first two years, and then transfer to JXVTC's Cyberspace Security College for professional courses and practical teaching in the next two years. We provide boutique computer science courses and Chinese language refresher courses for international students, offering opportunities for cybersecurity combat drills and special task guarantee activities, and organizing practical activities for Vietnamese students to visit enterprises. In the process of "invitation," we promote mutual understanding and cultural exchanges, enhance the international influence of China's fine traditional culture, and form a golden brand of "Studying in JXVTC."

▲ Conduct business cooperation and exchanges with leaders and relevant professional heads from Thanh Dong University, Vietnam

▲ Carrying out practical activities for Vietnamese students to visit enterprises—a visit to Jiaxing Innovation and Entrepreneurship Science and Technology Park

▲ Opening ceremony of the industrial internet Chinese language course for international students

Global Cyber Security Fusion Center—Breaking Down Barriers to Threat Intelligence Sharing



▲ PwC has established security operation centers worldwide, providing round-the-clock cyber security operations, threat intelligence, and incident response support

Applying institution

PricewaterhouseCoopers Business Consulting (Shanghai) Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

19 countries and regions such as China, New Zealand, India, Indonesia, Japan, the United States, Malaysia, and the Philippines

Since 2018, PwC has been empowering businesses to build reliable, secure and resilient networks, ensuring ongoing cyber security protection. Through the establishment of a globally shared security operations model that integrates multiple security operation centers around the world, we enable real-time sharing of cyber threat intelligence. This fosters a secure community for enterprises and effectively addresses the growing complexity and frequency of cyber threats.

A Consistent Global Network with Localized Delivery Capabilities

PwC has established security operation centers in many countries/regions around the world, including China (Shanghai, Hong Kong and Macau), New Zealand, India, Indonesia, Japan, United States, Malaysia, Philippines, Singapore, Vietnam, United Kingdom, the United Arab Emirates, Australia, Brazil, Italy, Korea, Switzerland, with more than 14,500 cybersecurity professionals worldwide.

PwC provides round-the-clock cyber threat monitoring and threat operations management to various industries and leverage its global experience to help clients improve their security threat response capabilities in the global security landscape. With a consistent delivery framework and a close global intelligence-sharing network, PwC is able to provide global threat detection services on a continuous and large-scale scale. Its public-private partnerships in global cybersecurity also provide a solid foundation for ensuring a secure future for businesses.

PwC Cyber Security Fusion Center - provides managed security services to global clients

A Reusable, Modular Approach to Meet Security Needs of Global Clients

PwC is a global network of firms coming together to solve complex business issues. PwC Cyber Security Fusion Center, staffed by over 14,500 professionals worldwide, leverages a globally collaborative approach to deliver world-class security services. By fostering a culture of information sharing and adopting a follow-the-sun model, we provide 24/7 coverage to our clients in over 151 countries and more than 2,000 companies around the world,

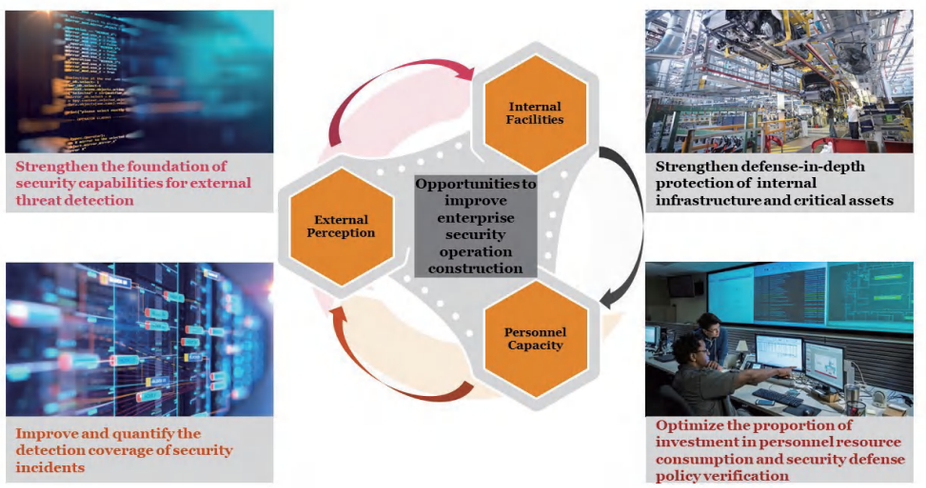
including 80% of the Fortune 500. Our modular approach, backed by years of experience and advanced analytics, ensures consistent, high-quality service delivery. PwC is committed to helping organizations make informed decisions about their cybersecurity risks and building a trusted ecosystem for innovation.

Pwc provides clients with a globally consistent solution for security information sharing

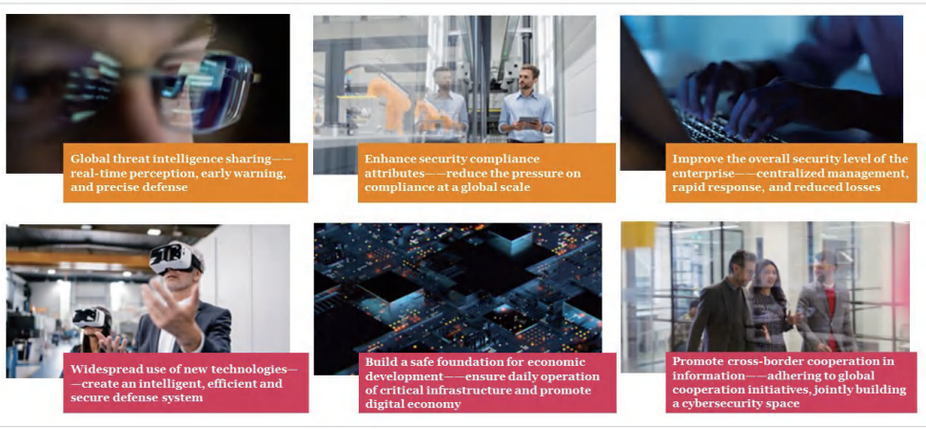
Leveraging Global Cyber Threat Intelligence to Safeguard Cyber Space

PwC's innovative global managed security services provide significant convenience for numerous multinational companies. It empowers them to establish essential cyber security monitoring and defense capabilities swiftly, efficiently, and cost-effectively. Understanding the challenges businesses face in security operations, PwC breaks the silos of isolated threat intelligence from around the world with real-time data insights to identify and mitigate risks in the digital world. PwC monitors cyber-attacks and fraudulent activities in real time to enable businesses to establish buffer zones, minimizing adverse effects on their operations and assets caused by threats and risks. PwC have experiences working with companies across various industries and provide high confidence threat intelligence to deliver efficient and cost-effective security defenses to clients around the world. PwC offered managed security services for a world-renowned international health and beauty retailer in Asia and Europe, helping clients optimize and improve the efficiency and quality of security operations based on threat intelligence in the regions involved.

PwC also provides multi-platform cyber security monitoring services for a world-leading supply chain, investment, big data and new energy company by integrating security operation best practices and deliver it consistently across all their branches globally. In addition, PwC also provides regional and in-country targeted threat intelligence services for a luxury car brand service company to help clients improve the maturity of their cyber security operations in Asia and the world, and improve the ability of security defense in depth.



▲ PwC Cyber Security Fusion Center provides end-to-end security operations services, from design and implementation to continuous improvement, enabling enterprises to identify areas for improvement in their security operations and better address security challenges



▲ PwC Cyber Security Fusion Center safeguards businesses, society, and economic development by addressing six key areas, working collaboratively to build a stable and peaceful cyberspace

Global Smart Security Signing System

▲ Global Smart Security Signing System

Applying institution

Lenovo (Beijing) Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

China, the United States, Japan, and Brazil

Lenovo is one of the world's largest manufacturers of personal computers and servers, as well as a major smartphone manufacturer, providing internet-related services to 1 billion users in 180 countries and regions worldwide.

In today's rapidly evolving information technology landscape, network security has become a global focus. To meet the high expectations of global users for efficient, secure, and reliable network services, Lenovo successfully developed the Global Smart Security Signing System (GSSSS). This innovative system, based on its inclusive design philosophy, not only provides robust technical support for Lenovo's upstream and downstream suppliers and independent software vendors (ISVs), but also offers unprecedented security assurance to a wide range of users. It reflects Lenovo's steadfast commitment and active contribution to advancing global network security.

Since its launch in 2023, GSSSS has provided security protection for 11 partners, over 200 software and firmware products, and more than 10 million internet devices. It achieves secure storage and management of encryption keys in the cloud through hardware security modules deployed in the cloud, leveraging the flexibility of cloud computing to meet enterprise security compliance requirements.

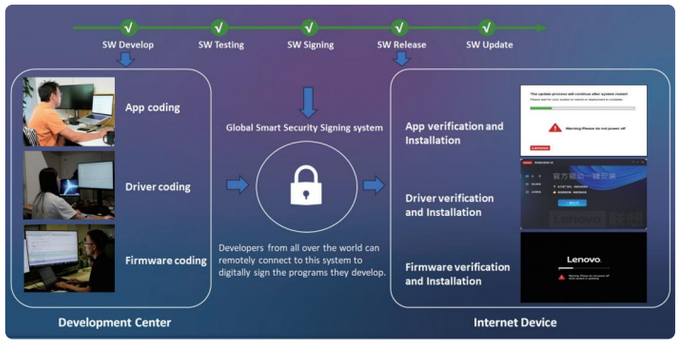
Global Deployment and Application to Enhance Security Trustworthiness

GSSSS is deployed and implemented within the framework of the Cybersecurity Law of the People's Republic of China, fully complying with national legal requirements. The core dedicated signature servers achieve dual-machine hot backup, and data access is secured through layered and hierarchical permissions management. Leveraging a virtual private network, this system ensures global availability and has been practically applied in the Chinese mainland, the United States and other countries and regions. It not only facilitates collaboration between Lenovo's internal developers and external partners but also significantly enhances the security trustworthiness of cooperative development.

In the Chinese mainland market, GSSSS has been widely adopted, ensuring the security compliance of software development and deployment. It enhances the overall security of user systems and contributes positively to China's cybersecurity efforts. In Taiwan, GSSSS has also been successfully deployed and utilized. As one of the important centers of electronic information technology in Asia, Taiwan hosts several original design manufacturers (ODMs) with strong requirements for device security. The introduction of this system strengthens the security of Lenovo products and provides Taiwanese developers with a more secure and reliable signing service, supporting the sound development of the local information industry.

In the United States market, GSSSS has gained popularity due to its efficiency and security features. It provides robust digital signature protection for device firmware, drivers, and software, effectively reducing security risks. Additionally, it offers convenient remote signing services, improving work efficiency and user experience.

In the future, software and hardware developers from countries such as Brazil and Germany will deploy this system to provide secure and reliable signing services for their products.

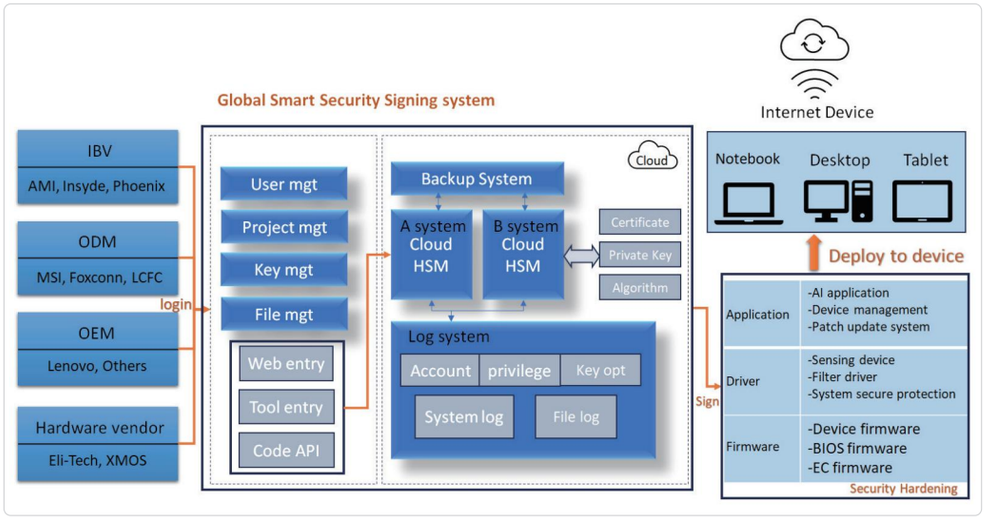


Use cases for digital signatures of device firmware, drivers, and software

Modular Design with Multi-Layered Protection

GSSSS's design innovation is primarily reflected in its unique remote signing technology and comprehensive protection mechanisms. The system achieves strict control and security protection for digital signatures by deploying highly reliable dedicated servers and physical dual backups. The dedicated signing machine utilizes high-performance hardware architecture and advanced encryption algorithms to ensure fast and accurate signature processes. Moreover, the physical dual backup provides additional security assurance, preventing signature failures due to single point of failure. In terms of implementation, GSSSS adopts a modular design approach, breaking down the signing service into multiple independent modules connected and interacted through standard API interfaces. This flexibility allows customization and development based on user requirements. Additionally, the system offers rich configuration options and parameter settings to meet signature needs in various scenarios.

Regarding security, GSSSS employs multi-layered protective measures. In addition to the dedicated signing machine and physical dual backup, it utilizes technologies such as firewalls, intrusion detection, and dynamic balancing to ensure the security of the signature process. Furthermore, the system features auditing and log recording capabilities, enabling real-time monitoring of abnormal signature activities and timely detection and handling of security incidents.



▲ Architecture diagram of Lenovo's Global Smart Security Signing System

Reducing Security Risks and Enhancing Corporate Reputation

GSSSS has demonstrated outstanding application performance, not only enhancing the security of user systems but also providing significant social and economic value to enterprises.

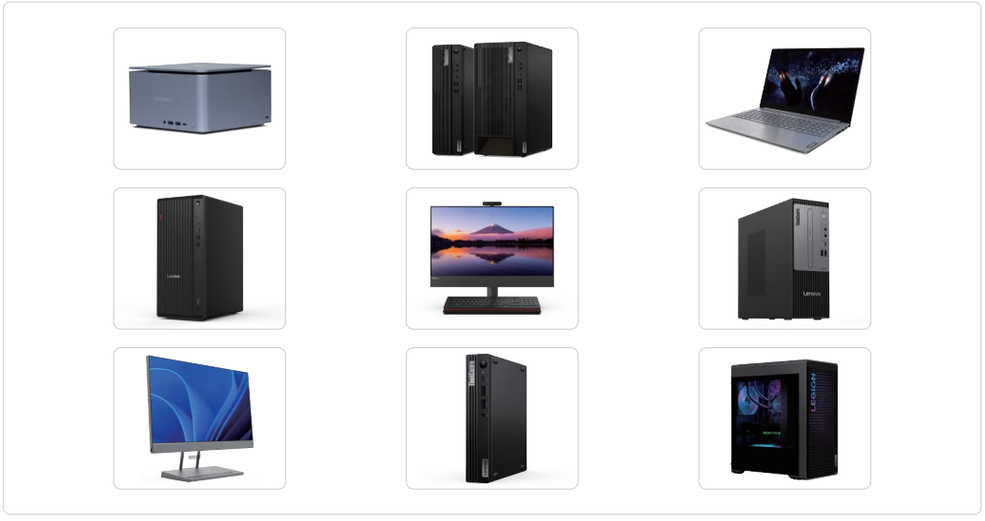
Firstly, GSSSS significantly strengthens enterprise information security by offering global digital signature protection, thereby reducing economic losses resulting from security incidents.

Secondly, its implementation promotes compliance in software development and deployment, elevating corporate reputation and market competitiveness.

Additionally, GSSSS facilitates convenient remote signing services for upstream and downstream partners, reducing operational costs and improving efficiency.

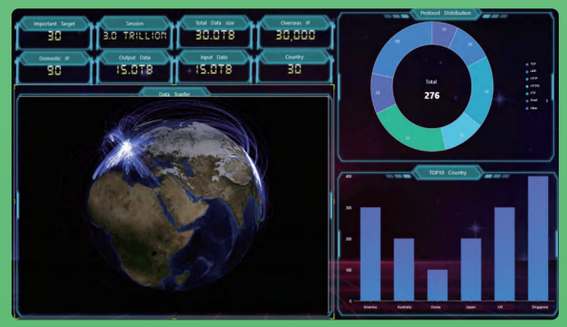
From a broader perspective, GSSSS provides excellent network device security safeguards for internet users. It ensures high tamper resistance in firmware for internet devices and significantly enhances protection at the software level, making it challenging for malicious attackers to breach.

Importantly, GSSSS provides traceable assurance for applications, drivers, and firmware, greatly enhancing user trust in network device and data security. Through this system, we collectively build a safer and more reliable internet environment, allowing all users to enjoy the convenience and peace of mind brought by network security.



▲ The Global Smart Security Signature System covers multiple internet devices

Guarding Data Security Construction of Cross-border Data Flow Compliance Service System



▲ A large-scale cross-border data flow compliance service system that facilitates the orderly flow of global data

Applying institution

Harbin Institute of Technology

Other participating organizations

Shufeng Technology Co., Ltd.

Countries and Regions Covered or Involved in the Implementation

20 countries and regions such as Russia, the United States, Japan, the United Kingdom, Germany, France, Italy, Canada, India, and Thailand

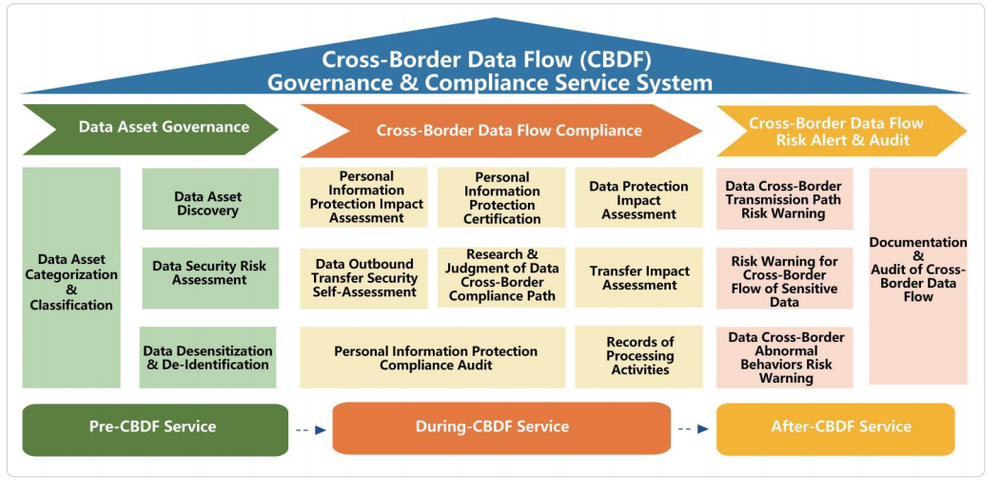
With the promulgation of laws and regulations such as the General Data Protection Regulation (GDPR) and the Data Security Law of the People's Republic of China, explicit requirements have been put forward for the global flow of international enterprise data. How to ensure cross-border data compliance for global enterprises is of great significance for promoting orderly data flow and unleashing data value.

Guarding Data Security and Promoting Orderly Cross-Border Flow of Global Data

Although governments of various countries are committed to promoting the secure and orderly flow of data, due to the lack of corresponding data security governance work by enterprises and the loss of the bottom-line awareness of data security, there is a disorderly cross-border data flow hidden behind cross-border data business, which will inevitably bring huge harms to many aspects such as personal privacy, economic development, political stability, and national security.In recent years, countries have imposed high fines on cross-border data flows that violate data security obligations. For example, the Personal Information Protection Commission of South Korea imposed a fine of 1.978 billion Korean won (approximately 1.43 million US dollars) on Alibaba.com Singapore E-commerce Private Limited for violating South Korea's Personal Information Protection Act by transferring user personal information across borders. In 2023, Facebook's parent company Meta was fined a record breaking 1.2 billion euros for violating GDPR by transferring a large amount of personal data of EU users to the United States but failing to adequately protect the security of this data.Therefore, in line with the principle of coordinated development and security, this case project has established a cross-border data flow compliance service system to enhance enterprises'data compliance governance capabilities in the field of data export, allowing enterprises to develop global data flow business with peace of mind and promote global economic development.

Data Compliance Services Achieve Multi-industry Coverage, Multi-type Detection, And Risk Warning

This case project proposes and constructs a compliance service system for cross-border data flow, a pioneer in compliance governance and risk discovery throughout the entire process of global data flow. We have built a compliance knowledge base, covering a knowledge base for data risk management solutions, an industry data governance knowledge graph, an industry sensitive information identification rule base, and an industry data knowledge base. Breakthroughs have been made in data risk discovery technology for multiple industries, data risk quantification and desensitization technology for risk utility balance, and dynamic risk mining and early warning technology for global data flow, effectively enhancing the compliance and security of global data flow.



▲ Technical path of Cross-Border Data Flow Compliance Service System

Significant Social Benefits and Widespread Industry Applications

For enterprises with global data mobility needs, this case project has developed a compliance service system for global data mobility. The project achievements served 72 international enterprises, including Audi, Bayer, American Express, Walmart, A. O. Smith, BSH, Alibaba.com, Tencent, JD.com, Meituan.com, Kuaishou.com, MasterCard, DataOcean AI, Focus Technology, and covered 107 cross-border data business scenarios in 20 industries. Taking Audi and Bayer as examples, this system empowers the safe and efficient flow of data across borders globally.

Audi is facing international data security challenges of bidirectional data flow and multi-party supervision: Firstly, through preliminary sorting and link monitoring, the flow of data entering and leaving the country is accurately defined; subsequently, based on relevant regulations in China and Europe, implements and enforces a data classification and grading system, strategies, and processes, and completes a comprehensive data export security assessment for all scenarios.

Bayer faces international data security challenges in the cross-border flow of medical data: On the one hand, it carefully designs and implements a notification and consent mechanism for cross-border personal information flow to ensure the adequacy and voluntariness of informed consent; on the other hand, strengthens internal management and adopts measures such as encryption technology to ensure data transmission security.

▲ The project provides services to over 20 industries worldwide

05

Global Governance in Cyberspace

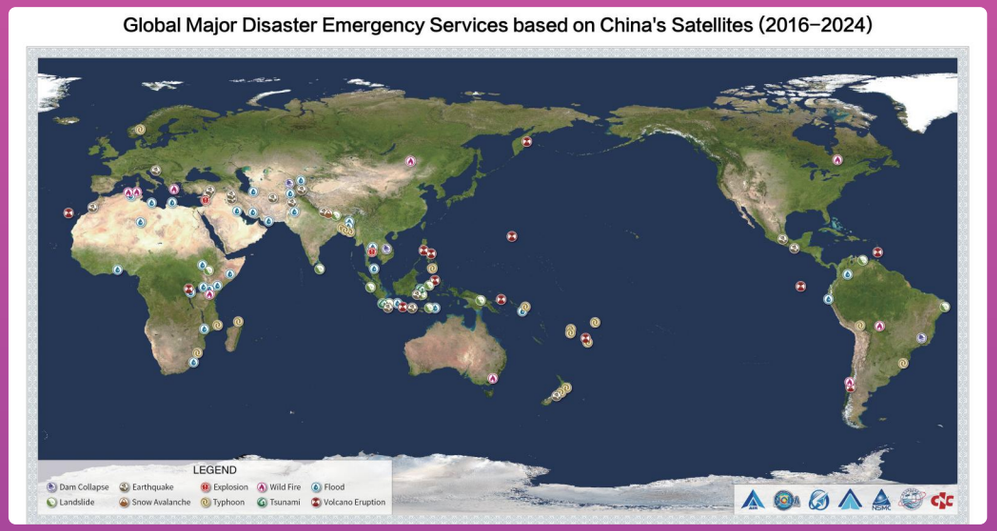
Building a System of Global Governance in Cyberspace to Promote Equity and Justice

世界互联网大会
World Internet Conference

2024

Outstanding Case

Global Collaborative Network for Space-based Disaster Risk Reduction and Emergency Response to Bridge the Digital Divide



▲ Global major disaster emergency services based on China's satellites (2016-2024)

Applying institution

Aerospace Information Research Institute (AIR), Chinese Academy of Sciences (CAS)

Other participating organizations

National Earth Observation Data Center (NODA), Chang Guang Satellite Technology Co., Ltd. (CGSTL), Spacety Co. ,Ltd. (Changsha), National Satellite Meteorological Centre (NSMC), National Satellite Ocean Application Service (NSOAS), Computer Network Information Center of the Chinese Academy of Sciences (CNIC)

Countries and Regions Covered or Involved in the Implementation

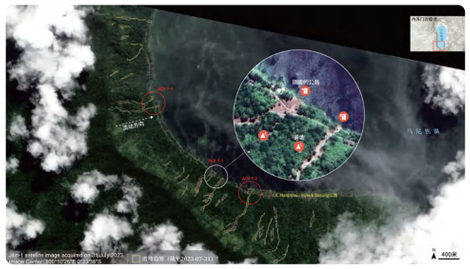
54 countries and regions such as Brazil, Bangladesh, New Zealand, Tonga, Indonesia, Laos, Pakistan

Disaster prevention, reduction, and relief are crucial aspects of human survival and development. The Aerospace Information Research Institute (AIR) under the Chinese Academy of Sciences (CAS) and National Earth Observation Data Center (NODA), in collaboration with Chinese satellite agencies and international organizations, are taking concerted efforts to bridge the digital divide in disaster risk reduction and emergency response.

Equality and Win-Win: Creating a New Model of Global Science and Technology Disaster Reduction Cooperation

In response to the widespread expectation globally, particularly among developing countries, for equal access to and utilization of space-based disaster data, the AIR and NODA integrated China's high-resolution satellite data resources, including optical, radar, and hyperspectral sensors, along with emergency observation capabilities. In collaboration with the UNESCAP, UNITAR, GEO, and CODATA, we established a framework for sharing responsibility, solution, infrastructure, data, and result, effectively enhancing global disaster reduction data governance capabilities and service levels. This has made substantial contributions to the implementation of the UN 2030 Sustainable Development Goals.

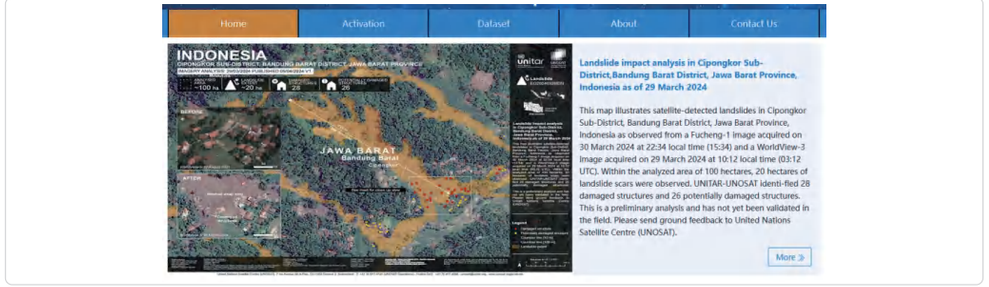
Satellite-derived impact assessment report of Nepal snow avalanche disaster in November 2021



Satellite-derived impact assessment report of Indonisia landslide disaster in July 2023

Fast and Efficient: Forging a New Ecosystem for Circulation of Data Elements

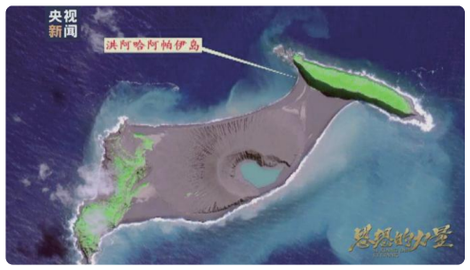
AIR and NODA fully consider consider the ownership of remote sensing satellites in disaster-affected countries, as well as the strength of space technology disaster reduction application capabilities. They have developed technical methods and models such as rapid collection of multimodal emergency data, intelligent extraction of disaster loss information, and knowledge-driven online disaster data processing, forming a major disaster emergency information service technology platform. While ensuring the interests of data resource contributors, They have promoted the effective flow of data, data perception, and analysis technology in disaster emergency response, forming a benign and sustainable development pattern of data disaster reduction and prevention.



Global data platform for disaster risk reduction and emergency response

China's Practice of Sharing Disaster Reduction Capabilities, Promoting, and Practicing the Common Values of All Mankind

Facing increasingly complicated, severe, and extreme global natural disasters, AIR and NODA have actively participated in global humanitarian assistance. They have provided emergency observation, rapid mapping, technical advice, education, training, and other public services for over 100 disaster reduction operations carried out by the United Nations and other international organizations in 54 countries. They have made solid achievements in coordinating resources, establishing cooperation mechanisms, and promoting practical cooperation. This demonstrates China's determination and ability to contribute to the UN 2030 Sustainable Development Goals, such as significantly reducing deaths, numbers affected, and direct disaster economic losses, as well as formulating and implementing comprehensive risk management programs for disasters. These efforts have been positively evaluated by the international community.



Tonga volcanic eruption disaster reduction action selected as a typical case supporting the construction of a community with a shared future for mankind

Brazil dam collapse disaster response action selected in the GEO 2016-2019 impact report

Outstanding Case

South School on Internet Governance (SSIG) — Promoting a New Chapter in Internet Governance for Developing Countries

▲ Group photo of the 16th SSIG in 2024

Applying institution

South School on Internet Governance (SSIG)

Other participating organizations

Huawei, University of Mendoza, CCAT LAT Centro de Capacitación en Alta Tecnología para América Latina y el Caribe (CCAT LAT)

Countries and Regions Covered or Involved in the Implementation

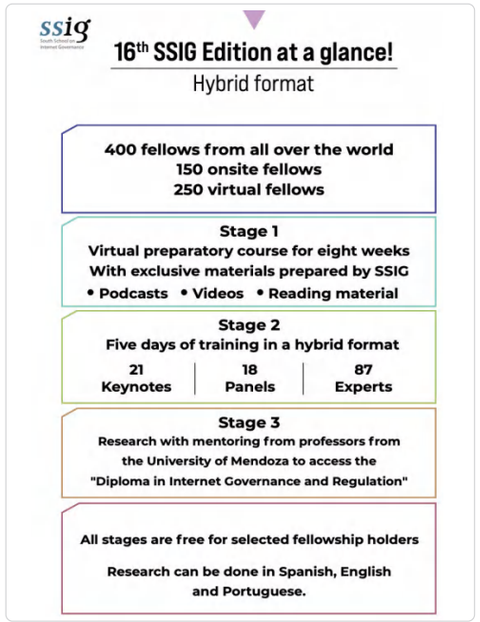
26 countries and regions such as Brazil, Colombia, Ecuador, Bolivia, Nicaragua, Guatemala, and Argentina

The South School on Internet Governance (SSIG) is an international training program dedicated to cultivating the next generation of internet governance leaders in Latin America, the Caribbean, and other regions. Its aim is to address the increasingly complex issues of internet governance and enhance these regions' participation and influence in global internet governance.

Building a Globally Influential Internet Governance Training Academy

SSIG offers a hybrid teaching model that combines online and offline learning. The online pre-training phase, typically conducted a few months before the start of the program, aims to prepare participants. The in-person sessions are the core part of the program, usually lasting for a week, and are held in various Latin American cities. These sessions provide participants with the opportunity to interact face-to-face with experts in global internet governance, government representatives, NGOs, business leaders, and academics, gaining comprehensive knowledge.

The SSIG curriculum and activities are updated annually to address the dynamic needs and challenges specific to the Latin American and Caribbean regions. The courses cover a wide range of multidisciplinary fields related to the internet, including 5G, wireless technology, artificial intelligence, big data, cloud computing, critical internet resources (IP addresses, DNS, and root servers), cybersecurity and cybercrime, data mining, the digital divide and its impact on the future of the internet, digital transformation, AI ethics, fintech, blockchain, and cryptocurrency. All courses are offered in English, Spanish, and Portuguese, helping participants from different cultures and languages better understand how to tackle internet governance issues and participate in global internet governance discussions in cross-national and cross-cultural contexts. Participants who complete the coursework receive a diploma in "Internet Governance and Regulation."



▲ Promotional poster for the 16th SSIG event in 2024

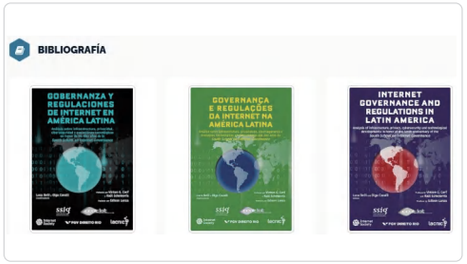
▲ The 16th SSIG was held in Buenos Aires, Argentina, in 2024, with ITU Secretary-General Doreen Bogdan Martin attending the event

Supporting Developing Countries in Advancing Internet Governance

SSIG offers free training, accommodation, and other services to participants, providing invaluable learning and exchange opportunities to those who cannot afford high-quality education. The program reaches a wide range of participants, including youth, the elderly, women, indigenous peoples, nomadic communities, people with disabilities, the unemployed, the poor, migrants, refugees, and farmers.

Since 2009, SSIG has trained over 8,000 participants from more than 30 countries. The SSIG curriculum not only provides training on technical and policy aspects but also emphasizes the global and open nature of the internet. It aims to cultivate participants' global perspectives and cross-cultural communication skills. Some graduates have gone on to participate in creating inclusive and open internet governance policies in their respective countries or fields, continuously promoting the development of internet governance. SSIG was awarded the 2024 WSIS (World Summit on the Information Society) Prize in recognition of its outstanding contributions to enhancing internet governance capacities in developing countries.

SSIG has not only trained a large number of experts and leaders with knowledge of internet governance but has also driven innovation and development in this field in Latin America through the publication of books and research reports. Looking ahead, SSIG plans to further expand its influence, attract more participants from diverse backgrounds, and continue to promote the sound development of global internet governance.



▲ SSIG has published the book Internet Governance and Regulations in Latin America, available in Spanish, Portuguese, and English

▲ ITU Secretary-General Doreen Bogdan Martin presents the 2024 WSIS Prize to SSIG in Geneva

▲ WSIS award certificate

The World Broadband Association (WBBA)

▲ Broadband Development Congress Barcelona 2024

Applying institution

China Telecom Corporation Limited

Other participating organizations

Huawei, Swisscom, Nokia, Omdia

Countries and Regions Covered or Involved in the Implementation

35 countries and regions such as China, Germany, the United States, Switzerland, the United Kingdom, Singapore, Spain, Brazil, New Zealand

Capitalizing on the wave of global digitalization, cloud and broadband networks have become the key driving force for economic growth and social progress. In this context, the World Broadband Association (WBBA) was officially launched by China Telecom, aiming to promote the development of global cloud and broadband industry and contribute to building the digital world.

Creating a New International Exchange and Cooperation Platform for Cloud and Broadband Industry

WBBA is the world's first international association for the development of cloud and broadband industry. It was granted an organization number by the Swiss Federal Government in November 2022. The first board of directors, nomination committee, and oversight committee have been established. The association is fully operational with its well-functioning organizational structure.

WBBA has built a "1+2+N" global congress system, holding the annual broadband development congress in Paris, the broadband development congress in Shanghai and Barcelona, and regional summits in the Middle East and Africa, attracting numerous well-known enterprises and institutions worldwide, including the International Telecommunication Union (ITU) and the Global System for Mobile Communications Association (GSMA), where participants share experiences and best practices in cloud and broadband development, discuss the global trends of technological innovation, and effectively enhance industrial exchanges and cooperation. WBBA has actively developed its membership, with a total of 110 members currently, covering 35 countries across five continents, including 19 countries along the Belt and Road Initiative, and 33 well-known operators such as Swisscom and Deutsche Telekom. Its members have a wide range of industry and geographical representation. Moreover, WBBA has actively cooperated with influential organizations and signed MoUs with GSMA, ETSI, and CCSA; and will jointly release the 2030 Global Broadband Development Initiative with the above institutions.

▲ Signing ceremony between WBBA and GSMA

▲ WBBA global membership distribution

WBBA's Innovative Practice - Leading High-Quality Development of the Cloud and Broadband Industry

In order to lead the high-quality development of the global cloud and broadband industry, WBBA has carried out extensive industry research, formulated and released the WBBA Broadband and Cloud Development Index, which includes the world's first index that analyzed the comprehensive infrastructure capabilities of cloud and broadband in 21 countries, shared China's development practices, and enhanced the global influence of cloud-network convergence development experience and the cohesion of cloud and broadband industry. In October 2024, WBBA will release its 2024 Broadband and Cloud Development Index, expanding the research coverage to 61 countries, and further sharing the latest global industry insights and prospects with all sectors of society. WBBA has also released 10 white papers including Gigacity: Unleashing the Power of Connectivity and Innovation and Broadband Investment Guidebook, providing valuable advice for global investment, construction, and technological development of cloud and broadband infrastructure.

The Broadband Excellence Awards, presented by WBBA, has officially opened for public application globally to collect achievements in application scenarios, technological innovation, and industrial cooperation in cloud and broadband industry. Through evaluating benchmark cases, WBBA aims to lead the development of cloud and broadband industry, and achieve industrial consensus.

▲ Broadband and cloud development index

WBBA's Inclusive Value: Bridging the Digital Divide and Maximizing the Global Potential of Cloud and Broadband

WBBA has always been committed to uniting the global cloud and broadband industry chain, promoting the construction and development of cloud and network information infrastructure, and improving social, environmental, and economic outcomes through the extensive connection of cloud and broadband.

At present, nearly 2.6 billion people worldwide still have no access to the Internet, and the broadband network infrastructure in some countries needs to be strengthened. To address the challenges of global cloud and broadband industry, WBBA has actively promoted broadband infrastructure construction by driving investment, connecting supply and demand sides. In addition, it has actively responded to and implemented the Partner2Connect Digital Coalition launched by ITU by taking the following measures:

1. Within the framework of WBBA, China Comservice helped Middle East and African operators build optical backbone networks, effectively increasing the sense of fulfillment and happiness among local people.
2. Through the international platform of WBBA, China Telecom established close partnership with telecom operators in Gambia, Kenya, and Angola, as well as many other African operators. The multilateral exchanges and visits organized by WBBA effectively shared China Telecom's development experience, helping African operators promote broadband infrastructure construction and development strategies.

Through international cooperation and partnerships, WBBA actively bridges the digital divide and promotes the global cloud and broadband development.

▲ Li Zhengmao, chairman of the WBBA board, visited the International Telecommunication Union (ITU)

▲ General Assembly of the WBBA in Barcelona

Artificial Intelligence Safety, Trust, and Responsibility (AI STR) Program

▲ WDTA launches the Artificial Intelligence Safety, Trust, and Responsibility (AI STR) program at the United Nations Palais des Nations

Applying institution

World Digital Technology Academy

Other participating organizations

Ant Group, Google, Microsoft, Amazon, NVIDIA, Meta, iFLYTEK, Baidu Security, Tencent, University of California, Berkeley, University of Chicago, Hong Kong University of Science and Technology

Countries and Regions Covered or Involved in the Implementation

20 countries and regions such as China, the United States, the United Kingdom, Canada, Israel, Ghana

The rapid global proliferation of artificial intelligence (AI) technology has made the safe, trustworthy, and responsible application of AI a shared global concern. The Artificial Intelligence Safety, Trust, and Responsibility (AI STR) Program, initiated by the World Digital Technology Academy (WDTA), aims to promote the safe application of AI technology worldwide and to build a secure and shared digital world.

Global Collaboration and Standard Publication Driving New AI Developments

As a key component of the AI STR Program, WDTA hosted the 27th Session of the UN Commission on Science and Technology for Development (UN CSTD) Side Event: Shaping the Future of AI at the Palais des Nations in Geneva on April 16, 2024. The AI Side Event brought together ministers and policymakers, leading research institutions, and international organization leaders from over 50 countries. Speakers included representatives from UN CSTD, the U.S. Department of Commerce, Google, the Center for Security and Emerging Technologies (CSET) at Georgetown University, OpenAI, and the African Union. The conference underscored the urgency and importance of international cooperation and unity in addressing the significant opportunities and challenges in the global AI landscape.

At the event, WDTA released two significant international standards: the "Generative AI Application Security Testing and Validation Standard" and the"Large Language Model Security Testing Method." The standards were developed by an expert team from various organizations, including CSA Greater China Region, Ant Group, Google, Microsoft, Amazon, NVIDIA, OPPO, iFLYTEK, Baidu, Tencent, University of California, Berkeley, University of Chicago, and Hong Kong University of Science and Technology, reflecting extensive industry collaboration and collective expertise.

▲ WDTA hosts the 27th UN CSTD AI Side Event

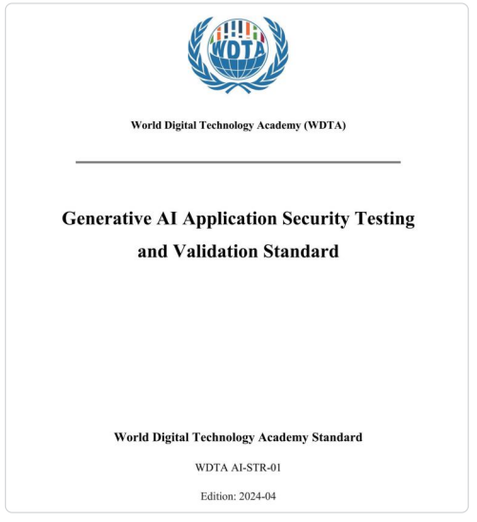
▲ WDTA releases the first batch of international AI standards at the United Nations Palais des Nations

International Standards Leading a New Height in AI Security Testing

In the fields of generative AI applications and large model security, countries have long faced issues such as inconsistent standards and a lack of systematic testing processes, which have hindered the global promotion of AI technology. The AI STR Program addresses these challenges through international cooperation and innovation.

WDTA has pioneered the development of the "Generative AI Application Security Testing and Validation Standard," which provides a comprehensive testing process to ensure that every component of an AI system undergoes rigorous security validation. This initiative overcomes the dilemma of varying national standards for AI application security. Additionally, the "Large Language Model Security Testing Method"offers a unified framework for evaluating the security of large language models, including risk classification and specific testing methods, overcoming cross-border collaboration barriers caused by the absence of unified standards.

By making these standards and tools available, the AI STR Program has facilitated widespread adoption by global developers and regulatory bodies, achieving efficient cross-border cooperation and global consistency in AI security governance. Based on the AI STR series of standards, WDTA has introduced the AI STR Certification, providing strong assurances for the safety, reliability, and compliance of AI technologies and applications worldwide.


World Digital Technology Academy (WDTA)

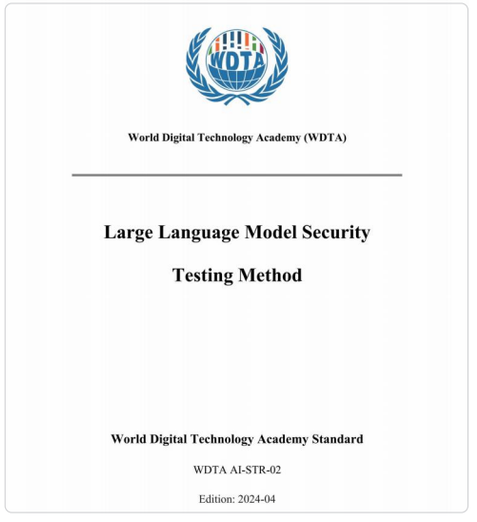
Generative AI Application Security Testing and Validation Standard

World Digital Technology Academy Standard

WDTA AI-STR-01

Edition: 2024-04

▲ WDTA's generative AI application security testing and validation standard


World Digital Technology Academy (WDTA)

Large Language Model Security Testing Method

World Digital Technology Academy Standard

WDTA AI-STR-02

Edition: 2024-04

▲ WDTA's large language model security testing method

The AI STR Program Has Advanced the Standardization of Global AI Security Governance, Laying a Solid Foundation for the Sustainable Development of the Industry

The AI STR Program has significantly enhanced the security and reliability of global AI technologies and fostered the sound development of related industries. Providing unified standards and tools enables global developers to more efficiently identify and address potential risks in AI technology. This substantially reduces security risks associated with AI applications and increases global user trust in AI technologies.

Furthermore, the implementation of the AI STR Program has facilitated technical exchange and cooperation on a global scale, stimulating innovation and allowing companies in different countries to compete and collaborate under a common technical standard. This has further driven the integration and upgrading of the global AI industry chain.

Through these comprehensive efforts, the AI STR Program has successfully built a safer, fairer, and more sustainable global digital future, establishing a solid foundation for all humanity to share the benefits of AI technologyies.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